

Cobwebb Document Management

User Guide

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1 Introduction to Cobwebb Document Management

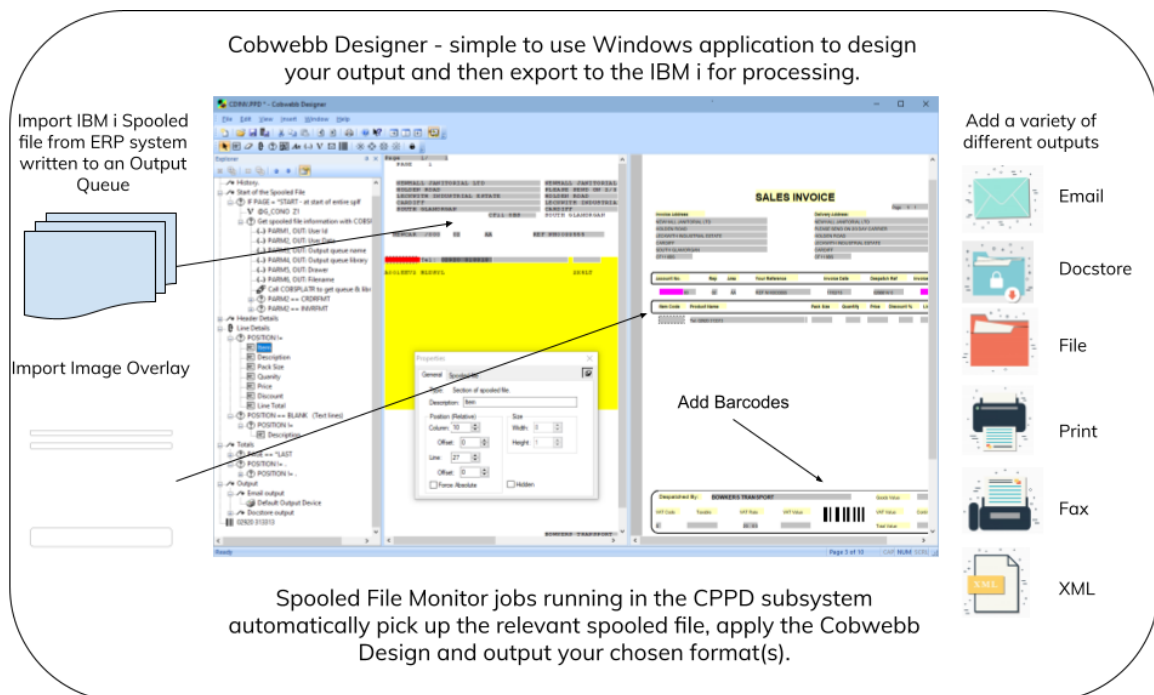
Cobwebb Document Management is a IBM i product, with a PC Client/Server front end the [Cobwebb Designer](#), which allows IBM i spooled files to be reformatted and printed on any LAN attached printer using [Cobwebb Print](#), faxed using [Cobwebb Fax](#), emailed using [Cobwebb Email](#), filed using [Cobwebb File](#), archived using [Cobwebb Docstore](#) or turned into an XML data stream using [Cobwebb XML](#) without changing the original print program; you can even add barcodes with [Cobwebb Barcode](#).

Documents such as Purchase Orders, Invoices, Statements etc. are often required to reflect the company image by including a company logo. In addition some of the details on the standard print file may not be required and extra data may need to be added. Such modifications require the original print program to be changed and this can be expensive and time consuming. Cobwebb Document Management eliminates this problem.

Cobwebb Document Management allows the same document to be printed using Host Print Transform (HPT), Advanced Function Printing (AFP), Plain Text (SCS), Fax, Email and File, even though the printers may treat features such as the 'No Print Border' differently. Using Host Print Transform (or AFP) allows your IBM i documents to be printed, using the appropriate forms overlay and fonts, on plain A4 paper. Cobwebb Document Management supports plain text (SCS) printing so that it is possible to rearrange the spooled output and print to continuous stationery on a IBM i line printer. It also allows you to choose (and change) the IBM i printer format which suits you best (SCS, HPT or AFP), or to specify Fax, Email, File or Docstore as the output.

For the technically minded Cobwebb Document Management replaces the need for the IBM 'AFP Utilities' and works with text spooled files. If overlays, fonts or other AFP resources are required, Cobwebb Document Management adds them from within its own files.

The process is automated through the Cobwebb Spooled File Monitor (SPLMON) which monitors any IBM i output queue and applies the specified changes, outputting the result to the chosen output device be it a Laser printer, Fax Modem, SMTP Mail Server, Cobwebb Docstore, File System etc..



[Cobwebb Server](#)

There are a number of different modules to the **Cobwebb Server** software and you need to decide which to install. [PPD security](#) determines which models are installed on your system. The modules are as follows:-

[Cobwebb Print](#)

Is at the heart of Cobwebb Document Management and is the IBM i print function. Print output generated on the IBM i can be directed to network printers. The difficulties of designing and matching a print file with a form outline are well known, Cobwebb Document Management brings a new approach to IBM i print design and distribution.

[Cobwebb Fax](#)

Comes complete with IBM i editor, spooled file monitor, comprehensive message queuing and archiving system and optional PC Windows fax support. It also includes fax hardware configuration. Cobwebb Fax supports the Ascom Fax Modem and IBM's Facsimile Support/400.

[Cobwebb Email](#)

Is a fundamental part of an efficient and cost-effective e-document strategy, providing automated spooled file selection, reformatting and distribution by email. Cobwebb Email has the ability to create and send PDF, XML or ASCII text as an attachment.

[Cobwebb Barcode](#)

Is a fully integrated module of the Cobwebb suite of business documentation software, allows simple and automatic creation of barcodes for printing labels, as well as for documentation such as despatch notes and invoices.

[Cobwebb XML](#)

Enables IBM i spool files to be converted to XML and sent as an email by an SMTP server enabling the receivers' computer to print and import the data into an XML enabled application. No additional IBM i software is required. As part of the **Cobwebb XML** module there is a **Cobwebb XML to Spool file** function which will allow you to take incoming XML and print selected information to a spool file which may then be fed into a standard Cobwebb Design.

[Cobwebb File](#)

Enables users to automatically turn their IBM i spooled files into either .TXT or .PDF files using the full reformatting power of Cobwebb Document Management. This means that you can archive your faxes, emails, prints to a PC or Server for ease of access and reference. An automatic program may be called to enable selected data from the output to be included as keys to the PDF data stream for automatic retrieval by your archive package.

[Cobwebb Docstore](#)

Is a simple, effective and affordable method of eliminating the costs and time delays associated with traditional paper filing. As companies evolve from printed documents to an electronic document-processing environment, the natural next step is "Electronic Document Storage".

[Cobwebb Designer](#)

Provides a familiar Windows front end which allows you to specify text to be rearranged, data to be tested for specified conditions, variable item lines to be processed correctly, images and overlays to be included, extra data to be selected from the database, output specified, plus many other functions. This set of instructions is stored in the IBM i and used to process the selected spooled file. It is an integral part of Cobwebb Document Management and provides an easy to use 'drag and drop' interface through a 'double window' display enabling the text from the original IBM i spooled file to be moved into position on the redesigned form.

1.1 Cobwebb Server

The **Cobwebb Server** software includes all of the functions required to process your documents on the IBM i. The automatic processing of your IBM i spool files is handled by the jobs running in the CPPD Subsystem. The Cobwebb Server software includes the following:

- [Users & Operators](#)
- [The CPPD Subsystem](#)
- [PPD Description](#)
- [Printing Messages](#)
- [Processing Spool Files](#)
- [Cobwebb PPD Statistics](#)
- [Cobwebb/400 compatibility](#)

The Cobwebb Document Management Server software functionality is split into two main menus:

[Cobwebb Main menu](#)

[Cobwebb Fax & Email menu](#)

From version 6.2.68 of the Cobwebb Server software we have provided a [Cobwebb Tools](#) menu which contains various **Spooled File** tools, together with the new [Cobwebb Job Scheduler](#). There is an additional option to switch your interactive Cobwebb environment into [TEST mode](#) to aid with testing your designs. This will override the output **Status** to be **Held** for Print, Fax and Email destinations only. This **TEST** mode also has a **TRACE** option which may be enabled to add extra information to the JOBLOG to help identify any issues you may have such as the Parameter values on the Input and Output of Exit programs.

1.1.1 Users & Operators

Any IBM i user may be a Cobwebb Fax 'user' without special setup procedure; a Cobwebb User is created the first time the [Cobwebb Editor](#) is used.

If the Cobwebb Editor is used, or if the PC Windows software is used a [Cobwebb User Profile](#) is required. It is worth studying the Cobwebb Fax [User Profile Defaults](#) in the Cobwebb Fax System parameters before allowing users to use the system for the first time, so that your chosen defaults are applied from the beginning, see [System Parameters](#) for more details.

The format of the cover page and logo should be chosen and the appropriate cover page member created, see [System Maintenance](#) for details.

Cobwebb Fax 'operators' are listed in the **System Parameters** and are authorised to view other users' faxes provided the fax is not private. Users can be grouped together by using the same 'Manager' in the Cobwebb User Profile, see [Work with User Profiles](#).

Users require no special authorities to access Cobwebb Fax functions and facilities. If necessary, user access may be restricted by revoking public authority to Cobwebb Fax commands and granting specific user authorities.

1.1.2 The CPPD Subsystem

The Cobwebb Server subsystem (**CPPD**) runs all the configured automated jobs required for your **Cobwebb Document Management** environment to run successfully.

Starting / Ending the subsystem will start/stop all subsystem processes, do not use *IMMED when ending the subsystem as any process running (see [Notes](#) below) may not complete correctly and also damage to objects can occur e.g. email or faxes in transmission will be terminated. Use **STRSBS CPPD** or **ENDSBS CPPD** manually or include them within your own routines.

Depending on your Cobwebb Document Management environment you will see some of the following jobs running in Subsystem CPPD when you type **WRKSBSJOB CPPD**:-

Notes:

1. If you have **Cobwebb Fax** then you will see a **Job Name** for each **Fax Description** that is *Online* in the [Work with Communication Lines](#).
2. If you have entries in [Work with Folder Monitor](#) then you will see a **Job Name** for each **Program Name** that is *Online*.
3. If you have entries in [Work with Job Launcher](#) then you will see a **Job Name** for each **Program Name** that is *Online*.
4. If you have entries in [With with Spool File Monitor](#) using a different **Data Queue** from SPLMON then you will see a **Job Name** for each **Data Queue** that is *Online*.

Job Name	Description
CDQAPI	Monitors the COBWEBB data queue and processes any entries.
CHHTTPD	Hosts the Cobwebb Web Service .
CNFAPI	Handles Email Confirmation. Only runs if the Email Confirmation API entry has been selected. See the topic How Email Confirmation Works .
CNVHFU	If you do not wish to store your logos or form overlays in the Ascom fax modem then this job will be used to convert any image used in a fax and send it to the modem.
DOCSTORED	This is used by the Cobwebb Docstore module and is mainly responsible for deleting retired documents.
EMLAPI	Places emails on the Cobwebb Queue . Only runs if Enable Email Queue has been selected.
EMLSND	Sends emails from the Cobwebb Queue to the SMTP Mail Server. Only runs if Enable Email Queue has been selected. You may have more than one of these if you have Email configured to run more than one Email Job - see PPD Security . Note: This used to be STREML.
FAXMON	This job runs if you have selected to run the Spooled file fax monitor. This has been superseded by the Spool File Monitor.
JOBSCD	Monitors the Cobwebb Job Schedule entries. (<i>From version 6.2.68 of the Server software only.</i>)

JOBSCDSTS	Monitors the status of jobs initiated by the Cobwebb Job Scheduler . (From version 6.2.70 of the Server software only.) Only runs if the Job Scheduler Job Monitor entry has been set to Y .
LINMON	Monitors the fax line(s) and dynamically re-starts them if they are not responding.
MAILMON	Monitors the SMTP mail server for confirmation messages. Only runs if POP3 Mail Monitor has been selected. See the topic How Email Confirmation Works .
PCAPI	Monitors the sending of faxes from a Windows application using the Cobwebb Fax printer driver.
PCSRVI	Handles the TCP/IP export from the Cobwebb Designer .
SFFMON	If you have installed Cobwebb Fax without Cobwebb Document Management then this job will monitor your spooled files for faxing.
SNDAPI	Handles the placing of fax messages on the Cobwebb Queue .
SPLMON	Processes all the 'online' Spool File Monitor jobs that have been set-up.
STREML*	<i>Superseded by EMLSND</i> - Sends emails from the Cobwebb Queue to the SMTP Mail Server. Only runs if Enable Email Queue has been selected.
STRFAX*	<i>Superseded by jobs with the Fax Description as the Job Name</i> . Sends faxes from the Cobwebb Queue when using Facsimile Support.
STRSBSUSR	Runs a user specific job in the CPPD subsystem. Only appears if a STRSBSUSR program exists.

1.1.2.1 Adding a bespoke Autostart job to CPPD Subsystem

Cobwebb Server Software Version 6.2.70 or above

You may configure a job to run in the CPPD subsystem via the [Work with Job Launcher](#) which allows you to call a program at a frequency defined by the polling interval for the job. This can be useful if you wish to run the same job say every hour and you don't want to have to add the code to delay the job and check for the subsystem end. This is all done behind the scenes. All you need to do is to [create a program](#) with a single error parameter. Any other parameters can be defined via the [Maintaining Job Launcher Parameters](#).

Cobwebb Server Software Version 6.2.68 or above

Use the [Work with Cobwebb Job Scheduler](#) to schedule jobs to be run in a similar way to the IBM Work with Job Schedule Entries. The benefit of configuring jobs via the Cobwebb Job Scheduler is that all of the job details are held in the CPPD library which means that, if you need to change your server, restoring a backup of the CPPD library will also contain all your **Cobwebb Job Scheduler** entries. **Note:** These jobs will not necessarily run in the CPPD subsystem but the job that checks for entries **JOBSCD**, and the job that checks they have finished **JOBSCDSTS** do.

For Older Versions of the Cobwebb Server Software

If your version is prior to the above then there is still a way of running a bespoke job in the CPPD Subsystem. All you need to do is to create a program called **STRSBSUSR** and place it in the **CPPD**

library. You will find a Sample CLP program source for **STRSBSUSR** in the file **QUSRTOOL** in library **CPPD**.

Please copy the source from QUSRTOOL in CPPD to your own source library, such as COBEXIT, in order that this is not lost when a Cobwebb Document Management Server upgrade is performed.

```
SBMJOB      CMD(CALL PGM(FLRMON) PARM('/test/flrmon' +
              '/test/flrmon/failed' 'PRTXTFC' +
              'COBEXIT' '1')) JOBD(CPPD/STRSBSUSR) +
              PRTDEV(*JOB) USER(*JOB) INLLIBL(COBEXIT +
              CPPD QGPL QTEMP)
```

All you will need to do is to replace the **CMD** entry to call a program of your choice. In the above example it is calling the [FLRMON the Cobwebb Folder Monitor](#).

Please remember to add any relevant library lists to the **INLLIBL** entry which must also include CPPD, QGPL & QTEMP.

Do not change the **Job Description** as this ensures that the job will run in the **CPPD** subsystem with the correct User Profile CPPDMM.

Compile the program into the **CPPD** library. The program must be owned by the **CPPD Object Owner** [CPPDOBJOWN].

Note: This compiled program will be preserved during any Cobwebb Document Management Server upgrade process.

1.1.3 PPD Description

The PPD Process

The spooled file created by the user's application is not changed and remains exactly as it was, unless the option to delete is taken within the Cobwebb Spooled File Monitor.

Cobwebb Document Management makes a copy of the spooled file and uses the [PPD instructions](#) in the PPD file to create the revised print page with a separate copy of the page for each printer/fax, as required.

Each spooled file is made up of pages and lines within each page. The text on any line can be blanked out, moved or copied to any other line on the same page. Additional lines can be inserted and unwanted lines can be deleted. Data cannot be moved from one page to another.

Text can be inserted; in particular Cobwebb [Text Enhancement characters](#) and Graphics overlay and logo names can be inserted in the text. Overlays and logos can be inserted conditionally. Thus a logo can be inserted depending on a 'Department Code'.

The spooled file can be split up into different files for output to different Output Devices depending on specified 'conditions'. Thus Purchase Orders over a specified value are printed while the others can be faxed. The same page can be output to more than one Output Device.

[Font Groups](#)

Up to 10 Fonts can be specified in a Font Group. The Font Group is specified in the Output device. The fonts are included in the spooled file using #F0 - #F9 Text Enhancement codes. Normally only one or two fonts are required.

Around 100 fonts are supplied with the IBM i in the IBM i font library QFNTCPL, a range of 10, 12, 15 character per inch fixed pitch fonts are available in normal, bold and italic. If want to use variable pitch fonts, such as Times New Roman or Helvetica (very similar to Arial) you will need to

order 'Advanced Function Printing Fonts for OS/400' (Product Identifier 5769-FNT for Version 4, Feature Code #2150).

Graphics

The Graphics file contains the overlays/logos which are used by the PRTPPD command. The Width and Height of the Graphics image (measured in pixels) is extracted automatically from the image, when importing the PC XPD file.

The Number of Lines in the Graphics header controls whether the Graphics are a logo by indicating the number of lines to leave before printing the first line of text. If the number of lines is zero or blank the graphics are an overlay.

Graphics can only be created for the Graphics file using the Cobwebb PPD Printer Driver. The create Graphics member option requests the PC file name which has been used in the Printer Driver. The Graphics file is inserted using the form #Gnnnnnnnn, where nnnnnnnn is the Graphics file member name.

Barcodes

The Barcode file specifies the Barcode name, type and print position of each Barcode. The Barcode letter specifies the Barcode and is referenced in the COPY/MOVE instruction.

If the Barcode Position is specified in the file the Barcode is placed in that position on the printed document, if the position is zero the Barcode is placed in the Copy/Move 'To' position.

The Type of Barcode is specified in the Barcode File and can be chosen from the list of available codes. Note that the EAN 13 code depends on the first 2 characters of the code to determine it's exact format, so be sure to test with current Barcodes for your test data.

Output Devices

Output devices can be defined as **Print** (*SCS, *HPT, *AFP), **Fax** (*FAX), **Email** (*EML), **File** (*FIL) or **Display** (*DSP). Each device has a unique name and can be used in any PPD file. More than one device can be specified making it possible to output a page to several devices. Output can be conditional so that it can be distributed according to tests within the spooled file data.

Printer Resources

The Printer Resource file specifies the resources to be used with AFP printing, i.e. overlays to be downloaded to the printer, printer drawer selection and duplex printing options. Specifying overlays as printer resources dramatically speeds up printing, as the overlays are held in the printer and not downloaded with each page.

Up to 10 different resource profiles can be specified and called in during the printing of the spooled file.

PPD Users

PPD Users need only be defined if you wish to direct your printed output to a particular printer depending upon the owner of the document to be printed. To enable this facility you need to specify *USR in the Output queue entry on your Output Device. If a user has not been set up then the print will be directed to the default device specified in the Printer Device name of your Output Device.

Cobwebb Directories

The [Fax](#) and [Email](#) directories can be used to hold any fax numbers or email addresses that are required to direct your output. The "Directory" entry could be a Customer/Supplier number that would normally be printed on your spooled file which can then be used to lookup the directory for the correct destination. There is also a [General](#) directory which can be a useful place to store a list of libraries, or Printer Names that you wish to be used in your PPD.

1.1.3.1 Text Enhancement Codes

¶A0 - ¶A1 Turn 'Align characters to grid' Off and On (used to position variable pitch characters to a specific grid position).

¶CAn-n Insert Barcode A. n-n is the number to be Barcoded (the length is specified in the Barcode File).

¶EFF0000 Where FF0000 is the colour.

¶F0 - ¶F9 Fonts 0 - 9

¶Gnnnnnnn Insert Graphic where nnnnnn is the graphic name.
n

¶Pnnnnnnn PPD Name where nnnnnn is the PPD name.
n

¶R0 - ¶R9 Specifies the active Printer Resource. Using Printer Resources significantly improves printing speed when printing overlays using AFP.

¶U0 - ¶U1 Turn 'Underline' Off and On

¶X0003000 First 4 characters are the Line offset second four the column offset
3

The Text Enhancement codes work in conjunction with the Graphics, Font, Barcode and Printer Resource files. (See [PPD file maintenance](#) menu).

1.1.4 Printing Messages

Messages containing any type of graphics may only be printed on a laser printer.

Messages may be printed from the Cobwebb queue using option 6 at any time, or they can be printed automatically when a messages is sent as a 'confirmation' that the message has been sent.

Printing from the queue

If the [Option 6](#) (Print) is taken from the queue the message will be printed on the printer associated with the signed on IBM i User.

Printing 'Sent/Received' messages automatically.

If the [Auto Print Option](#) in the **System Parameters** is set to print outgoing messages and a print queue and library have been specified in the [Auto Print Queue](#) for the user, then once the message has been sent a copy will be printed to this print queue (with the Userid of the user who created the message), unless the print queue is:

***USER** in which case the message will be printed on the default output queue specified in the User Id of the user who created it.

***NONE** in which case a copy will not be printed to ANY print queue.

Blank, if the user's print queue and library are blank, or if there is no Cobwebb User profile, the message will be printed to the output queue specified in the Cobwebb Fax print file PPRFPRT, the default output queue is *JOB which will use the output queue in the job description CPPD (default QPRINT in library CPPD).

System and User parameter setup

If you are using Cobwebb Fax to Send a Fax, or using the Work with queue option, the way Cobwebb Fax operates can be adjusted to suit the requirements of each user. Features, which can be configured, include cover pages, logos, printing, display formats etc.

The default configuration for all users is held in the [System Parameters](#). Individual users can have different settings as specified in the [Work with User Profiles](#) for each user.

Note: When installing Cobwebb Fax for the first time it is important to check that the default Cobwebb Fax system parameters are as required, otherwise it may be necessary to update all the user profiles later. A Cobwebb user profile is automatically created with the default parameters the first time a new user sends a fax, using Cobwebb Fax to prepare the fax.

1.1.5 Processing Spool Files

Since Cobwebb Document Management is a native IBM i product the selection and processing of IBM i spooled files could not be easier.

You can either use the Cobwebb [Spool File Monitor](#) to automatically select spooled files as they are produced, or you can use the [CRTPPD](#) or [RUNPPD](#) commands within a [CL program](#).

The Cobwebb Spooled File Monitor and the CRTPPD /RUNPPD IBM i commands use the same principle for selecting spooled files.

Automatic via the Spool File Monitor

The **Cobwebb Spooled File Monitor** enables any *SCS spooled file to be automatically selected from any output queue and processed by Cobwebb Document Management. This process is activated by a spooled file being 'Released' in an output queue. Cobwebb Document Management detects this and compares the spooled file details with the list in the Cobwebb Spooled File Monitor maintenance. If the spooled file is selected the specified PPD file is used to create the redesigned print, fax or email. (Please refer to the section on "Work with Spool file monitor).

Note : For the Spooled File Monitor process to work, the subsystem CPPD must be running with the Spooled File Monitor program SPLMON 'Active'. The spooled file(s) to be selected must be 'online'. If an output queue is to be monitored which was not already being monitored when the subsystem CPPD was started, stop and start the subsystem CPPD so that the new output queue will be monitored.

There is a separate Spooled file Fax monitor program (SFFMON) which can be used with Cobwebb Fax to send faxes if Cobwebb Document Management is not installed.

Manual via a CL program

The [CRTPPD](#) or [RUNPPD](#) commands can be included in a CL program or run in a job scheduler. If you have a program which produces a print file, which is to be redesigned, using Cobwebb

Document Management the CRTPPD or RUNPPD command is inserted immediately after the print program, to pick up the output and convert it simply by specifying the spooled file name.

1.1.6 Cobwebb PPD Statistics

Overview

Cobwebb PPD Statistics allows you to collect statistics detailing the amount of output processed by the Cobwebb Document Management system. This will enable customers to view, by PPD name, the amount of spooled files printed or files / email attachments created by running a Cobwebb PPD file. **Note:** This functionality is only available from Cobwebb Server version 6.2.41.

When the Cobwebb Server software is installed the **Collect PPD Statistics** is *disabled* by default. To **enable** please refer to [Collect PPD Statistics](#) for details.

What is logged?

The following are details are logged when **PPD Statistics** are collected.

Statistics Type	Description
*PPD	Exports [uploads] of your PPD files from your PC or from the IFS
*SPOOL	SCS & AFP Spooled File output
*PDF	PDF & PDF/A File or Email output
*TIF	TIFF File or Email output
*TXT	Text File or Email output
*PS	Postscript File or Email output
*ADV	Advanced Reformatting Utility output
*xxx	Where xxx is any other file extension that may be output to File or Email attachment.

Note: The system does not at present log Fax output.

How does it work?

Each time a PPD file is uploaded to the Server or a PPD file is run the information is collected. The information collected differs depending upon the **Statistics / Output Type**:

- For **Spooled** output the number of pages **In** and the number of pages **Out** are collected.
- For **File** or **Email** output the number of pages **In** is collected and then this value is also used for the number of pages **Out**.
- For each **Statistics / Output Type**, a timestamp is recorded for the **First Time Used** and then a **Last Time Used** each time the entry is updated.

How do you access the information?

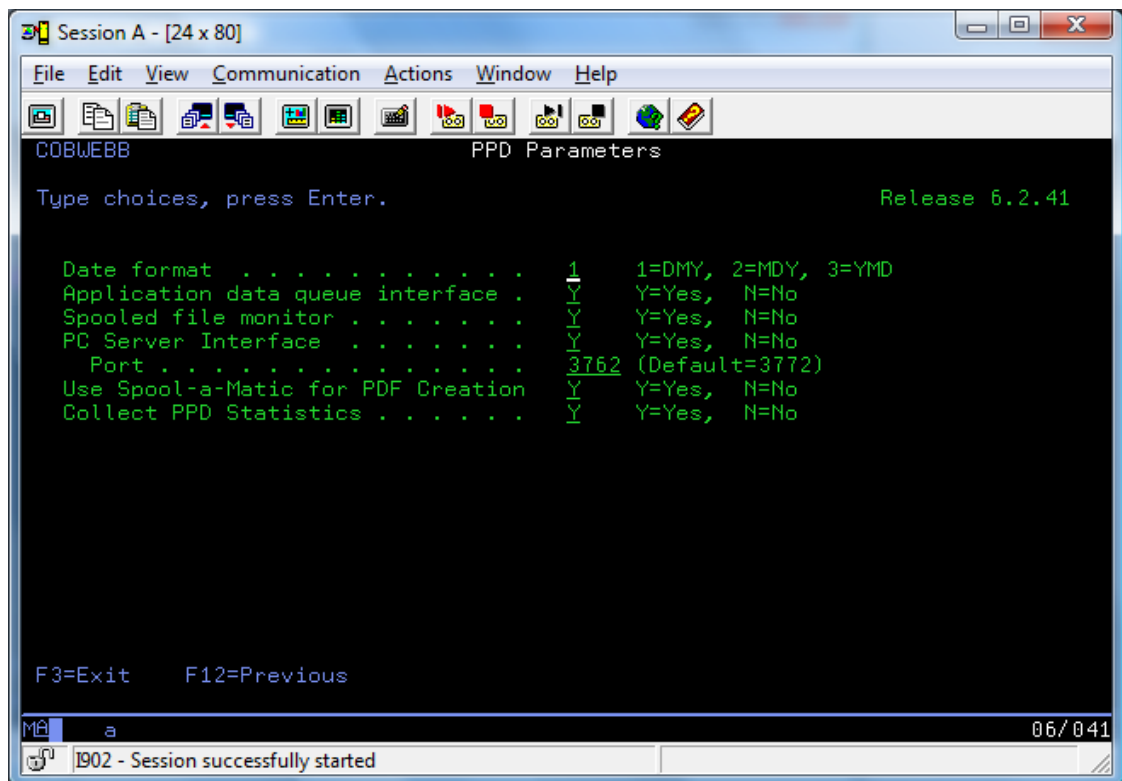
Cobwebb have added a new menu option, **11. Work with PPD Statistics**, to the [PPD File Maintenance](#) menu which calls the command **WRKPPDSTAT**. A new option **8=PPD Statistics** has also been added to the [Work with PPD](#) and [Work with Spool File Monitor](#) menu options.

1.1.6.1 Collect PPD Statistics

When the Cobwebb Server software is installed the **Collect PPD Statistics** is switched off by default.

To enable the collection of PPD Statistics you will need to do the following:

- From a command line enter **ADDLIBLE CPPD** - [to add the CPPD library to the library list]
- Then enter **GO CPPD** - [to display the CPPD menu]
- Select **Option 5 - Work with PPD parameters**



- Change the entry **Collect PPD Statistics** to a **Y** if you wish to start collecting statistics or **N** to switch it off.
- The **CPPD Subsystem** will need to be *Stopped* and *Restarted* if this parameter is changed.

1.1.7 Cobwebb/400 Compatibility

The Cobwebb Document Management printing process uses IBM i AFP features as described above, this process is the same as used in the Cobwebb Fax system so the process of preparing the fax and the printed document are the same.

The Cobwebb/400 fax system on the other hand uses the Ascom Fax Gateway (AFG) or Hasler Fax Unit (HFU) to create the fax. The fonts and text instructions are interpreted in the fax modem. To print the fax on the IBM i requires that the features of the fax modem are reproduced in printed

document. This is done by using an appropriate CPPD font group. The font group 'HFU' contains normal, bold and reverse image fonts at 10 chs per inch, plus a 5 ch per inch font.

The AFG uses only three fonts 10, 12 and 17 cpi, these fonts can be emboldened, reversed, italicised and underlined. AFP can only underline, the other features are simulated by choosing the appropriate font, if one exists.

In font group 'HFU' Font 0 is bold 10 cpi, Font 1 is normal 10 cpi, Font 2 is Reverse 10 cpi, and Font 3 is 5 cpi (to simulate the HFU double width characters).

If you need to simulate other fonts e.g. 12 cpi, make up your own font group as follows: -

Font 0 = Bold, Font 1 = normal and Font 3 = large (if required), the only reverse image font in the standard Server font library QFNTCPL is for 10 cpi.

In order to retain compatibility with existing 10 cpi documents, created for faxing using the Ascom Fax Modem, the following conversion table is provided: -

The following text enhancement features are simulated using the appropriate Server font...

AFG Text Enhancement feature	AFG Code	CPPD Conversion
Font 0 - 12 cpi	F0	None
Font 1 - 10 cpi	F1	F1
Font 2 - 17 cpi	F2	None
Bold off	B0	B0=F1
Bold on	B1	B1=F0
Italic off	I0	None
Italic on	I1	None
Inverse off	V0	V0=F1
Inverse on	V1	V1=F2
Normal width	W1	W1=F1
Double width	W2	W2=F3

The following text enhancement features are AFP functions:

AFG Text Enhancement feature	AFG Code	CPPD Conversion
Underline off	U0	U0
Underline on	U1	U1
Underline on (word)	U2	U2
Margin 0-9 (in 10ths of an inch)		M0-M9

1.2 Cobwebb Print

Using the IBM i as a print server has many advantages, not least that the control of printing remains within the IBM i, which provides a secure and reliable environment for ensuring all documents are printed. Print files can be easily redirected to any printer attached to the IBM i.

Until the introduction of the IBM i's AFP (Advanced Function Printing) was the most efficient way of printing documents, which included fancy fonts and form overlays. AFP required additional software (PSF/400) in the IBM i and special AFP capable printers to print the documents.

With the introduction of the IBM i's HPT (Host Print Transform) can replace AFP for network printing in all but the high volume, or specialist printing applications. Host Print Transform is included as part of the IBM i Operating System and allows documents to be printed on any Laser Printer (PCL compatible) connected to the IBM i via the network.

The printer is configured on the IBM i with an IP address and connected to the network using an interface such as HP Jet Direct. Note: HP printer interfaces work with the IBM i (HP wrote the interface). Of the other manufacturers only the Intel NetportExpress(TM) Print Servers with Version: 5.31 of the software are known to work with the IBM i.

Cobwebb Print allows the same document to be printed using HPT, AFP and Fax/Email, even though the printers may treat features such as the 'No Print Border' differently.

Using Host Print Transform (or AFP) allows your IBM i documents to be printed, using the appropriate forms overlay and fonts, on plain A4 paper.

Cobwebb Print supports plain text (SCS) printing so that it is possible to rearrange the spooled output and print to continuous stationery on an IBM i line printer.

Cobwebb Print allows you to choose (and change) the IBM i printer format which suits you best (SCS, HPT or AFP), or to specify FAX or EML (email) as the output.

For the technically minded **Cobwebb Print** replaces the need for the IBM 'AFP Utilities' and works with text spooled files. If overlays, fonts or other AFP resources are required, **Cobwebb Print** adds them from within it's own files.

Colour Printing with Cobwebb Print

Cobwebb Print is capable of producing colour output if you are printing to a:

- **PDF Direct** capable printer, using the **PDF Datastream** option in your [Print Output Device](#), and have SPLAMATIC, V2R3M0 or higher, installed and [configured for PDF Direct](#) printing.
- **HPT printer** and have IBM V7R1 or V7R2 with the latest PTFs
- **AFP FS45 capable printer** - requires IBM Print Services Facility (PSF)

Note: When designing your PPD you will need to make sure that you set the correct **Image Format** for the type of output you require.

Colour JPEG JPEG uses [Lossy Compression](#) which is good for Photos, Shading, Drawings etc. This format can be selected if you wish to use a **Colour** image for either PDF Email or PDF File output. **Note** This is the format that must be used when using **PDF Datastream** for colour images.

Colour TIFF(LZW) TIFF(LZW) uses [Lossless Compression](#) which is good for Lines, Blocks etc. This format can be selected if you wish to use a **Colour** image for PDF Email or PDF File output. **Note:** This format is not compatible with PDF Datastream for colour images. Requires SPLAMATIC V2R3M0 or higher.

Printing Strategy

To get the best results from **Cobwebb Print**, consideration should be given to the printing environment. Factors such as:

What printers are currently installed *SCS, *AFP or Network Printers? How are the printers attached to the IBM i? What level of IBM i operating system are you using?

Some of the important questions are: -

- Do you want to print on pre-printed stationery?
- If you want to print on plain paper do you want to print overlays and fancy fonts?
- Is the printer dedicated to one type of printout, or is it a general-purpose printer?
- Is printing speed important?
- Are you printing one document at a time or does the spooled file contain many documents?
- Do you need to distribute the printouts to several printers?
- Is your printer directly attached to the IBM i or via a network?
- Do you want to print in colour?

1.3 Cobwebb Fax

Requirements

The fax option is integrated within Cobwebb Document Management, however for ease of use it is presented on a separate menu, referred to as **Cobwebb Fax**.

Cobwebb Fax supports the **Ascom Fax Gateway** without the need for IBM Facsimile Support/400. If you are using the Ascom Fax Gateway (Cobwebb Modem) then there is no other software required.

Alternatively **IBM Facsimile Support/400** can be used with the following IBM hardware: -

- IBM 7852 Model 400 Data/FAX modem (for low volume faxing)
- IBM Fax Adapter Card (#2664) SPD Card
- IBM Integrated Analogue Modem (#2761) PCI Card
- IBM Integrated ISDN Modem (#2750) 2 wire version for USA, PCI Card (Fax to be announced)
- IBM Integrated ISDN Modem (#2751) 4 wire version for Europe PCI Card (Fax to be announced)

Note: The Integrated Modems require country certification/homologation.

The choice of hardware depends upon cost and convenience of installation. The load on the IBM i when converting the output for fax is not significant for the later RISC processors, however care must be taken when configuring an older RISC (V4R2). In this case the Ascom Fax Gateway can be configured to provide a solution which requires minimal IBM i resource (restricted functionality applies).

Facsimile Support/400 configuration is included in Cobwebb Fax; if you have created a fax description you should delete it (DLTFAXD), and create a new configuration using Cobwebb Fax. Make sure that the Version of Facsimile Support/400 you have installed is the same as the release of IBM i.

Overview

The **Cobwebb Fax** module faithfully reproduces the printed document and sends it as a fax. Cobwebb Fax is able to extract the fax number from the spooled file, or look it up in a file. Faxing

and printing can therefore be made completely automatic without changing the user's application. Cobwebb Fax automatically handles retrying failed faxes in the most efficient manner. An audit trail is maintained of all fax activity. Any fax can be copied, resent and printed.

Sending faxes directly from the IBM i using the Ascom Fax Modem, or IBM's Facsimile Support/400 ensures complete IBM i reliability for automated faxing.

Note: It may be necessary to purchase additional IBM i font libraries if the fonts you wish to use for fax are not available as standard.

Creating a Fax with an overlay and using specified fonts is the same as creating a document to be printed on a printer.

Cobwebb Fax supports all the features which are required in a well laid out fax. Please see the [Standard Fax Format](#) topic.

Once the fax has been created a 'queuing' mechanism is provided so that it is easy to determine what has happened to the fax, i.e. has it been sent, if not for example, because the number is engaged, should it be retried until free.

Cobwebb Fax is accessed through the [Cobwebb Fax & Email menu](#), the files it uses for overlays, fonts etc are the same as those for printing. In addition Cobwebb Fax provides a full queuing function which shows when a fax has been sent and controls the retrying of faxes if the fax fails to be sent first time.

A [Fax directory](#) is provided for fax numbers as well as a log to maintain a record of all sent faxes.

Faxes can be sent using the Cobwebb Spooled file monitor. Fax preparation can start with any IBM i Spooled file. Cobwebb Fax can be used to reformat the output and FAX specified as the output.

On defining the output as *FAX, the parameters are displayed for finding the information defining the start of a new fax (in a multi fax print file), and also for scanning the text for the fax number (or reference to look up a fax number).

1.3.1 Standard Fax Format

Cobwebb Fax supports all the features which are required in a well laid out fax, i.e.:

- A heading line at the top of the fax showing a reference number, date/time TSI (Transmitting Subscriber Identity), number to which the fax is being sent and a Page Count.
- A [fax cover page](#) including a company logo showing the company name and header details including the name of the sender 'From', the company name to which the fax is being sent 'To', the name of the recipient 'Attn' and some reference information 'Ref'. The cover page is selectable by user so that the users working from different locations can use different logos.
- The text. This includes various text 'Enhancement' features, such as the choice of Type Styles (Fonts), the possibility to include graphics and overlays and Landscape as well as Portrait mode.
- A footer line with a page number showing 'continued' to the next page, and a page count on the last page of the fax.

The header line and footer lines of each page of a fax is generated by Cobwebb Fax and consist of:

The Heading line:

The Cobwebb Fax reference number

Date and time
Company name/fax number
The number the fax is being sent to
The Page number

The Footer line:

On the last line of each page will be 'Continued Page nn' or
on the last page 'Last Page: Total Pages nn'

The first and last lines will be printed over any image; the only reason they will not appear on the receiving fax machine is if the paper size is incorrect.

Example

The format of an outgoing fax with cover page may look like this:

S00001 01 OCT 1995 10:30 Cobwebb Comms Ltd To: 01732 822804 Page 1

To : Smith Manufacturing Ltd

Attn: John Smith

From: A N Other

Ref : Cobwebb Fax installation

Message Details : This is the text of the fax, or if prepared on the PC the text will follow as an image.

Last Page: Total Pages 1

1.3.2 The Fax Cover Page

A Cover Page may be specified for the System, and for any user. The cover page can include the logo (stored in the Cobwebb Fax graphics file) and address details:

When preparing a fax using the Cobwebb Editor, or when sending a fax from a spooled file or the API, address details are normally required i.e. From/To/Attn/Ref; these details can be included anywhere on the cover page and can overlay the logo, if required. See [Work with Cover pages](#).

Technical Note: Prior to sending, the fax text is stored in the Cobwebb Fax text documents file. A separate member is utilised for each fax. The text record is the same as that produced by a CPYSPLF command specifying *PRTCTL. Once sent, fax text is placed in the Cobwebb Fax log file. A separate log file member is utilised for each communications session. The text in the logfile is packed into variable length lines separated by 'carriage returns', to save space.

The size of the logo should be taken into account when estimating the number of lines available on the cover page.

The Cover Page Format

Outgoing Faxes may or may not have a cover page depending on the setting of the System 'Cover Page Format', or if there is a Cobwebb user profile, the user profile cover page format.

This parameter controls whether the cover page will be sent, and whether a form feed will follow the cover page. The cover page format depends on the type of document. The sending of a cover page for faxes sent from a PC using the Cobwebb Fax Windows fax driver is controlled by the parameter 'Allow PC cover page', see [Work with User Profiles](#) for more details.

All faxes will be sent as a complete page the size of which is controlled by the size specified in the Font being used, see [Work with font groups](#).

1.4 Cobwebb Email

As with Cobwebb Fax, **Cobwebb Email** reproduces the printed document and sends it as an email. The email option is integrated within Cobwebb Document Management, however for ease of use it is referred to as **Cobwebb Email**. **Cobwebb Email** sends spooled files as '.TXT' or '.PDF' attachments: in the case of .PDF, including Form Overlays, logos etc. **Cobwebb Email** works together with your SMTP Mail Server in order to send your emails, and no other hardware or software is required.

Cobwebb Email sends email via an SMTP Mail Server, such as MS Exchange, Lotus Notes, the IBM i SMTP Mail Server, etc., which must be available on the IBM i TCP/IP network.

These emails may be sent directly to the SMTP Mail Server or queued on the Cobwebb Queue and then sent automatically to the SMTP Mail Server. This function and other email setup parameters are configured via the [Email Parameters](#) menu option. The Cobwebb Queue may be accessed through an emulation or browser session.

Each email is given a unique reference number which is printed on the email: in addition each email is checked to make sure it has been received correctly by the SMTP Server. The email address may be found in the spooled file, held on the [Email Directory](#) or selected from the IBM i database, using a supplied Cobwebb 'Exit Program'. Additional details, such as From, To, Ref, Attn, Subject, plus a short message may be included in the email either as constant information, extracted from details provided in the spooled file or retrieved via a Cobwebb 'Exit Program'.

[Email confirmation](#) is also available within **Cobwebb Email**, again configurable via the [Email Parameters](#).

1.4.1 How Email Confirmation Works

Email confirmation works in different ways depending upon the **Confirmation type** selected. This is set in the **Destination** tab of the [Email Output Device](#) in your PPD design.

Delivery Confirmation (Type 20)

POSTIE3, the program that sends emails, adds a delivery confirmation request to the email header.

The Recipients Mail Box sends an email containing a delivery confirmation to the senders email address, but ONLY if configured to do so. Nowadays servers are rarely configured to respond to Delivery Confirmation Requests.

Read Confirmation (Type 30)

POSTIE3, the program that sends emails, adds a read confirmation request to the email header

The Recipients Mail Client sends an email containing a read confirmation to the senders email address, but ONLY if configured to do so, and usually after asking the recipient via a dialog box.

Note: Gmail does not even ask, but never returns a read confirmation. This is not unusual.

User Defined Confirmation (Type 10)

In order for this type of email confirmation to work emails must be written to the Cobwebb Queue before sending. **6. Work with system parameters | 1. System Parameters | 2. [Email parameters](#) | "Display queue reference"** - Must be set to Y(es)

POSTIE3, the program that sends emails, does not add any special headers.

The recipient is required to press reply and send the email back to the sender. Although more manual, this is by far the most successful method of receiving a Confirmation.

CPPD Subsystem Jobs

CNFAPI

This is configured via **6. Work with system parameters | 1. System Parameters | 2. [Email parameters](#) | "Email confirmation API"** - Must be set to Y(es)

Watches the /QDLS/ CPPD/ CNFAPI folder and for each file it receives, extracts the timestamp and TQREF. If the TQREF matches a message with status SR, it changes the status to SC.

MAILMON

This is configured via **6. Work with system parameters | 1. System Parameters | 2. [Email parameters](#) | "POP3 mail monitor"** - Must be set to Y(es)

Monitors a single POP3 email mailbox and for each email it receives, it searches for a Delivery Confirmation, Read Confirmation or TQREF in the subject. If found it creates a file in /QDLS/ CPPD/ CNFAPI named after the TQREF and containing the date and time the email was received, along with the TQREF. If a TQREF is not found, then the entire email is copied to /QDLS/ CPPD/ CNFAPI/ ERRORS. Obviously the POP3 email mailbox monitored should match the senders email address.

1.5 Cobwebb Barcode

Cobwebb Barcode is a fully integrated module of the Cobwebb suite of business documentation software which allows simple and automatic creation of barcodes for printing labels, as well as for documentation such as despatch notes and invoices. Specifying a barcode is made straightforward by using the module's Cobwebb Designer Barcode tool, which can take any data from the spooled file, with up to 30 characters able to be added both before and after the barcode so that it may be read directly into a user application. See [Adding a Barcode](#) for more details.

Cobwebb Barcode can not only produce barcode labels, but also reformat and print documents at the same time. In this way it incorporates functions that would previously have required two separate products.

Cobwebb Barcode helps keep production moving and communication flowing throughout the manufacturing process by printing out labels of any shape or size.

Labels created using Cobwebb Barcode do not require specialised paper; instead, they may be printed on plain paper using a laser printer or a suitable thermal printer (such as Zebra, Intermec, Datamax or Printronix).

1.6 Cobwebb XML

e-documents are an essential part of the e-business revolution, so what is an 'e-document'? e-documents are documents sent by email, replacing the existing printed, faxed and EDI documents which form the current B2B communications. The main advantages of e-documents are that they are broadly cost free to send via the internet, and that they can be read directly into the recipients business application thereby automating B2B supply chain communications between differing computer systems. Just sending the text of an invoice by email is not enough to enable the document to be printed with an appropriate form overlay, or to be read into the receiver's computer system. Some structure for the data plus a format is required to enable the data to be understood. The need for a standard has long been recognised but only recently has XML emerged as the front runner for internet data communications. XML (eXtensible Markup Language) enables the data to be arranged into a format (specified by a schema) which can be read by current versions of most internet browsers, in addition a style sheet can be specified for printing the data in the correct format, including the form overlay. The style sheet is not sent with the data, but is retrieved from the internet, or from the local cache.

Cobwebb XML enables IBM i spooled files to be converted to XML and sent as email via your SMTP server enabling the receiver's computer to print and import the data into an XML enabled application. No additional IBM i software is required. Cobwebb XML can be used in conjunction with Cobwebb Fax or Cobwebb Email to trial the principles of e-documents by sending XML to a limited number of customers/suppliers while continuing to fax or print to the remainder.

Cobwebb XML to Spool

Requires Cobwebb Server version 6.2.82 or above and IBM i OS V6R1M0 or above.

As part of the **Cobwebb XML** module there is a **Cobwebb XML to Spool file** function which will allow you to take incoming XML and print selected information to a spool file which may then be fed into a standard Cobwebb Design.

There is a [Work with XML Cross References](#) program which allows you to import your XML file(s) to generate **XML Cross References** to the data and decide which pieces of information you require to be output. This can be done more than once if you have XML files for different documents that you wish to process. **Cobweb XML to Spool** will handle multiple rows of information such as Item lines as well as multiple documents within one XML. You can configure the position and length of the data that you wish to be output and numeric data will be right justified so that it lines up correctly on the output. There is also a print option so that you can print your output to check that it looks correct.

Once you are happy there is a [Cobwebb Folder Monitor](#) program [FMXML2SPL](#) that you can configure to automatically pick up your XML from a pre-defined location and convert it using one of your XML Cross Reference files.

The generated spool file can then be picked up and processed via a Cobwebb Design in the usual way to allow you to distribute this information via any of the standard Cobwebb outputs such as Print, Fax, Email and File (Archiving).

1.7 Cobwebb File

Sharing and storing your output from existing ERP applications has never been easier. The **Cobwebb File** output device enables users to automatically turn their IBM i spooled files into either .TXT or .PDF files using the full reformatting power of Cobwebb Document Management.

This enables documents such as Purchase Orders, Invoices and Credit Notes etc. to be converted into files together with overlays and reformatting, including barcodes if required. If you are already using Cobwebb Document Management to reformat your prints then the creation of your file output could not be easier.

You can use the existing formatting of your printed, faxed or emailed output and just include an extra file output device in your Cobwebb Design. File names can be dynamically allocated using data from the spooled file such as Order Number, Invoice Number etc., to facilitate retrieval.

Files can be archived in various ways:

- as a IBM i physical file member
- as a IBM i document in a folder
- as a file in the IBM i integrated filing system

1.8 Cobwebb Docstore

The archiving option is integrated within Cobwebb Document Management, however for ease of use it is referred to as **Cobwebb Docstore**. **Cobwebb Docstore** is C.O.L.D archiving for your ERP documentation. Cobwebb Docstore can be used as an add-on to your current Cobwebb Document Management module or as a standalone archiving system with secure access to all documents so that only those with specific authority can access them.

IBM i native, **Cobwebb Docstore** automatically captures spooled files, merged form and report output from your ERP system, and then stores these files in a retrievable .pdf format. Simply use your browser with intelligent search criteria to selectively view, print, email or fax retrieved documents.

Full IBM i Security

Secure access to all documents so that only those with specific authority can access documents – full user based security based on the IBM i security protocol. See [How Docstore Authorisation works](#) for details.

[Web browser viewer](#) – users with the required authority can access all documents in the system directly from the browser from anywhere on the network (or Intranet) without any direct application connection.

1.8.1 Libraries, Files & Folders used by Docstore

Libraries vs. Folders

Document files that are archived by Cobwebb Docstore are stored in IFS, QDLS or QNTC file system folders. Each document type setup within the archive would typically have its own sub folder to hold document files of one type only. The document type folders would be created within a root 'Docstore' folder which is given a name to identify the Docstore archive. The Docstore root folder only contains sub folders for each document type. It is generally good practise to give the same name used for the Docstore root folder to the library used to store information about the Docstore archive data structure. Therefore the name used for the Docstore root folder would also need to be compliant with server library names. The Docstore root folder would normally be created in the folder: /cppd/Docstore/

Each Docstore that is created also has a library that holds index key values and data structures for the archive but no actual archived documents are stored here. This is referred to as the Docstore library.

Library DOCSTORE

If you have the Cobwebb Docstore module enabled then the first time the DOCSTORED job runs in the CPPD subsystem the library DOCSTORE will be created.

By keeping the Cobwebb Docstore information in the library DOCSTORE and out of the library CPPD, it allows the Cobwebb Server application to be upgraded without affecting Cobwebb Docstore's archive information or configurations so there's no need to re-import the Cobwebb Docstore database after an upgrade to the Cobwebb Document Management Server software has been performed. The list of Docstore archives held in the file DOCSTORES provides the link between the Cobwebb Docstore application and the archived documents and configurations for Cobwebb Docstore.

Library DOCSTORE contains the files:

- DOCSTOREQ
- DOCSTORES

DOCSTORES

This holds a list of Docstore archives (referred to as 'Docstores') that are currently setup for use with the Cobwebb Docstore application.

DOCSTOREQ

This is the log file which holds a log of all documents that have been submitted to be archived, whether successfully archived or not. The file DOCSTOREQ was previously used to store queued requests to store documents (hence the 'Q' in the filename), however, documents are now stored in the archive immediately when processed by Cobwebb Docstore (instead of being queued). All document archive attempts are therefore simply logged in the file DOCSTOREQ.

Docstore Library

One Docstore library needs to be created per Cobwebb Docstore archive which is created within the Cobwebb Docstore system. This library name is then specified at the time the Cobwebb Docstore archive itself is created using "Create a new Docstore" in the [Docstore configuration](#). When using "Create a new Docstore" it simply creates a record in the DOCSTORES file for the new Docstore being added and stores the library name to use for this new Docstore along with its Docstore name and description. See the topic [Creating a Docstore](#) for details.

The user named Docstore library holds database structure information for the Docstore archive and contains all the important data for document retrieval (but not the actual archived documents themselves). All document locations, identities, filenames, index key values and relational database information is stored in this library.

For example, two Docstores could be created, one for Company A and one for Company B so that each company keeps its own archive information in a separate Docstore library, this allows for separate archive document structures and indexes to be used for each company. Two libraries would therefore be created; each library holding one Docstore, the name of the libraries might be 'COMPANYA' and 'COMPANYB'.

The individual Docstore libraries hold the configuration and index files for the Docstore but no actual archived documents are held here e.g.

1. Various system files relating to the Docstore (journal files and logical files).
2. Relational database table files holding the Docstore data listing document types, index key names and archived document identities and locations.
3. Database files holding all index key values used for archived document retrieval.

Naming Convention for Docstore Files

@ Prefixed File Names

There will be one @ prefixed physical file existing per key field created in the Docstore. The same user defined name given to the key field in the Docstore is also used for the name of the @ prefixed file name. Each @ prefixed 'key field' file lists all key field values entered for documents in the Docstore along with document identification numbers for retrieval purposes. As there may be any number of key fields created in the Docstore there may also be any number of @ prefixed physical files in the Docstore library.

Prefixed File Names

prefixed file names are used for the physical data files which store information defining the overall structure of the Docstore database, such as listing the document types created in the Docstore and the list of key fields (not key values) that have been created and which key fields are used for each document type. The same named # prefixed files will be created for each Docstore created, these files define the Docstore structure.

Docstore Library Files

The following files are stored in the Docstore library:

#DOCTYPES (Document Types)

Contains a list of the Document Types created in the Docstore. Each Document Type has a Document Type Name, Description and ID number. For example, 'Invoice' and 'Purchase Order' are Document Types.

#KEYTABLES (Key Tables)

Contains a list of all the index Key Fields that have been created for use within the Docstore. For each Key Field there is a Key Table Name, Description and ID number. The Key Table Name is the name of the physical data file which stores the key field values for the key along with the archived document identities used for document retrieval.

#DOCTPKEYS (Document Type Keys)

The #DOCTPKEYS database file is an abbreviation for 'Document Type Keys' and is used to list those key fields which are used for each document type. This effectively maintains the list of all key fields attached to each document type. As there could be many key fields for one document type, each key field listed for a specific document type is given a unique sequence number to identify its sequence order in the list of key fields for a given document type. The sequence order of key fields for a document type is setup by the user when assigning key fields to a document type.

The sequence number given to a key field is important to ensure that when key field data is input for a document being archived, the correct key field is used to store the key field data. This is necessary because key fields are assigned with user defined names in the Docstore but within the Cobwebb Design, fixed parameter names are used for populating the key field data. In order to

link the correct parameters with the correct user named key fields the parameters must map to the key fields by using a one to one relationship using the ascending sequence number on the key field to map to the next ascending parameter number used for supplying key field information. E.g.

Key Sequence 10 = PARM1
 Key Sequence 20 = PARM2
 Key Sequence 25 = PARM3
 Key Sequence 30 = PARM4
 ...etc.

Note: The parameter names used in the Docstore Type Output Device Element in the PPD are substituted with the user defined key field names which are retrieved from the Docstore. This allows the user to identify each parameter easily when creating the Cobwebb Design. However, each parameter name is retrieved for the correct parameter using the ascending sequence number for each key field to map to the correct parameter in the [Docstore Output Device](#) element.

#DOCUMENTS (Document IDs and locations)

This physical data file lists unique Document ID numbers for every document which has been archived into the Docstore. Each entry contains a unique Document ID number and a File path location where the archived document is stored along with the Document File name (PDF or TXT file) used for retrieval. Other information stored for each document entry is the Document Description which is used for the simple search retrieval string, the date and time when the document was inserted into the Docstore and the Document Creator.

@<key_field_name> (Key field data files)

Each key field created in the Docstore will have a corresponding file which has the @ prefix, this file store every key field value along with the unique Document ID number to retrieve. There may be many @ prefixed files depending on the number of key fields used by the Docstore.

For example: The file @INV_NO stores key field values for the invoice number and would contain:

DOCID	VALUE
2133	C3985090

IFS Document Folders

Note: If you need to move the storage location of documents in Docstore please see [Moving Document Type Storage Location](#).

/cppd/DocStore/

This is the route folder used to store all Cobwebb Docstore archives. There will be one sub folder existing within /cppd/Docstore/ per Docstore archive that is created. The sub folder for the Docstore archive should be named with the same name as the Docstore library name entered in "Create a new Docstore" (see above).

/cppd/DocStore/<DocstoreName>/

This is the user named folder created for the DocStore archive. The name of this folder should be the same name as the library used for the Docstore entered in "Create a new DocStore" (see

above). This folder should contain one sub folder per Document Type configured in the Docstore archive.

/cppd/DocStore/<DocStoreName>/<DocType>/

This is the Document Type sub folder. This folder stores the actual archived document files (PDF, TXT etc.) for this Document Type (eg. Invoices). There may be many Document Type sub folders, each sub folder should ideally be named with the same name given for the Document Type in "Create a new Document Type". See the topic [Creating a Docstore Document Type](#) for details.

/cppd/DocStore/incoming

This is the folder which is used for temporary storage of all document files before they are archived into the document sub folders.

/cppd/chttpd

This folder holds the Cobwebb Web Server system files for web browser access to the [Cobwebb Email & Fax Queue](#) and also web browser system files for [Cobwebb Docstore](#).

1.8.2 How Docstore Authorisation works

When using Docstore to retrieve and display documents a user's permission to any retrieve document is checked. Depending upon the results a user may be able to:

- **Read** the Document
- **Upload** a new Document
- **Delete** a Document

QNTC File System Notes:

- The Server cannot store security information (Owner, Public Authority, Authorisation List) in the QNTC file system - so in Docstore v1.96 and above it stores it in the Docstore database instead.
- For files stored in the QNTC file IBM it may be helpful to define a **Document Handling Username** that will be used for all **Read/Write** of files to Docstore. See [Creating a Docstore Document Type](#) for further details.

Read Document Authority Checks

Clicking on the **Information** link in the [Search Results](#) will display the user's authorisation to the selected document - see [Displaying Document Metadata](#) for details.

A user's **Read** authority is checked using the following steps:

Global

- **administratorAuthority** - If the user is Docstore [Administrator](#) then grant permission.

Document

- **fileAuthority** - If the Document contains authorisation information (e.g. IFS files) then grant or deny permission according to file **Read** authorisation information. This includes Authorisation Lists attached to a file by the IBM i operating system which is only possible for files stored on the IBM i.
- **documentPublicAuthority** - If the Document entry contains permissible [Public Authority](#) then grant permission.

- **documentCreatorAuthority** - If the Document entry contains a [Owner](#) that grants the User permission then grant permission i.e. the user is either the Owner or, if the Owner is a Group Profile, the user exists in that Group.
- **documentAutListAuthority** - If the Document entry contains an [Authorisation List](#) then grant or deny permission according to **Read** permission in this Authorisation List. This is an Authorisation List attached to a Docstore document by an entry in Docstore and applies to all files regardless of where they are stored.

Document Type

- **docTypeAutListAuthority** - If the Document Type contains a [Default Authorisation List](#) then grant or deny permission according to **Read** permission in this Authorisation List.
- **proxyObjectAuthority** - If the Document Type has a [Proxy Authority Object](#) then grant or deny permission according to **Read** permission to this Proxy Object.

If all of the above checks fail then **Read** permission is denied.

Upload Document Authority Checks

A user's **Upload** authority is checked using the following steps:

Global

- **administratorAuthority** - If the user is Docstore [Administrator](#) then grant permission.

Document Type

- **folderAuthority** - If the user has **Write** access to the **Document Folder** for the Document Type that you are uploading the document to then grant permission.
- **docTypeAutListAuthority** - If the Document Type contains a [Default Authorisation List](#) then grant or deny permission according to **Write** permission in this Authorisation List
- **proxyObjectAuthority** - If the Document Type has a [Proxy Authority Object](#) then grant or deny permission according to **Write** permission to this Proxy Object.

If all of the above checks fail then **Upload** permission is denied.

Delete Document Authority Checks

A user's **Delete** authority is checked using the following steps:

Global

- **administratorAuthority** - If the user is Docstore [Administrator](#) then grant permission.

Document

- **fileAuthority** - If the Document contains authorisation information (e.g. IFS files) then grant or deny permission according to file **Write** authorisation information.
- **documentPublicAuthority** - If the Document entry contains permissible [Write] [Public Authority](#) then grant permission.
- **documentCreatorAuthority** - If the Document entry contains a [Owner](#) that grants the User Write permission then grant permission i.e. the user is either the Owner or, if the Owner is a Group Profile, the user exists in that Group.
- **documentAutListAuthority** - If the Document entry contains an [Authorisation List](#) then grant or deny permission according to **Write** permission in this Authorisation List.

Document Type

- **folderAuthority** - If the user has **Write** access to the **Document Folder** for the Document Type that you are uploading the document to then grant permission.
- **docTypeAutListAuthority** - If the Document Type contains a [Default Authorisation List](#) then grant or deny permission according to **Write** permission in this Authorisation List
- **proxyObjectAuthority** - If the Document Type has a [Proxy Authority Object](#) then grant or deny permission according to **Write** permission to this Proxy Object.

If all of the above checks fail then **Delete** permission is denied.

1.9 Cobwebb Designer

Anyone who has tried to define the changes they wish to make to an existing IBM i printed document has experienced the feeling of knowing what they want, but not having the means to do it.

The **Cobwebb Designer** changes all that.

Starting with the IBM i print file from your application, which you want to modify: -

- The print file is loaded into the left-hand window of the **Cobwebb Designer** (the [Input pane](#)) straight from any IBM i output queue; a Form Overlay (*produced using any common forms software such as Microsoft Word and using the **Cobwebb PPD Printer** driver*) can be loaded in the right hand window (the [Output pane](#)). Note that **Cobwebb Designer** is just as useful with pre-printed forms. See [Creating your Overlay](#).
- Using a set of specially designed tools, **Cobwebb Designer** allows you to drag and drop the text from the print file into the form, thus ensuring that the correct data is placed in the correct position. The form can be portrait or landscape.
- Using the tools you can identify line items and totals so that data appearing on variable lines can be processed as required. Fixed text can be inserted depending on present conditions, and an 'exit program' can be called with parameters taken from the text to look up additional data from the IBM i database, including Barcodes and Fax Numbers.
- Any number of **Output Devices** (Print, Fax, Email, File or Docstore) can be specified, which may be dependent on a condition, making it possible to distribute the printout to a variety of destinations.

To make the process of defining conditions easy, we have employed a visual 'tree' structure ([Explorer window](#)) similar to the familiar PC 'Explorer' function, to allow you to create a visual list of all the functions you have defined, including conditional tests and output devices. You can drag and drop the functions into order to perform the desired result.

The list of [PPD instructions](#) is exported to the IBM i together with any graphics / form overlays etc.

[Cobwebb Server](#) on the IBM i allows you to specify any spooled file to be processed using the file of instructions prepared on the PC. If a Form overlay is used the resulting spooled file is printed using an AFP printer, or any network printer supported by Host Print Transform, if you wish to print on pre-printed stationery use the *SCS print option to specify the IBM i output queue or printer, characters per inch, lines per inch, no. of copies etc...

To begin with you will have created a Cobwebb Design of instructions on the PC using the **Cobwebb Designer**. To view the imported files on the IBM i use Option 1 on the Cobwebb Main menu [Work with PPD](#) and the [PPD File Maintenance](#) menu, the imported files are: -

- 1 - Graphics files

- 2 - Font Groups
- 3 - Barcodes
- 4 - Printer Resources
- 6 - Output Devices

Note: - Any amendments should be made by using the Cobwebb Designer and then re-exporting the file.

1.10 About Cobwebb Communications Ltd

Our mission

Through consistently delivering excellence in business product innovation, we help businesses reduce costs and increase efficiency by designing and implementing software solutions that deliver real and tangible business benefits, with a level of support that cannot be matched by any other company.

Our story

In 1986 Peter Webb spotted an opportunity to help businesses improve efficiency with telex. Over the years, Cobwebb Communications have built on that initial product to develop a wide range of dependable and efficient business solutions. At Cobwebb we continue to grow and build on our heritage, delivering a range of technical products and solutions to help our customers on their digital transformation journey.

Our ethos

Our job at Cobwebb is simply to help our customers solve problems. And to make that process as enjoyable as possible. We are focused on building long-lasting relationships with our customers through transparent and reliable partnerships that bring about long-term results.

Who we are

Family-run since 1986, Cobwebb Communications have more than 35 years' experience in delivering dependable and efficient business solutions. Based in Kent, UK, the core of our business is software development, which we complement with consultancy, implementation and support.

2 Installing / Upgrading & Configuring the Cobwebb Server Software

If you do not have an Installation CD you may download the latest version from the [Cobwebb website](#). **Note:** The same installation CD is used for both **installing** the Cobwebb Document Management Server software for the first time and for **upgrading** an existing version. The downloaded file will be called **CPPDnnnn.iso.zip** file where **nnnn** is the version number. The .zip file contains the file **CPPDnnnn.iso** which may either be burnt as an image to a CD and then installed on the Server or installed directly from the IFS using a Virtual Optical device.

For the cumulative **Release Notes** please download the [What's New in Cobwebb Document Management](#) pdf from the Cobwebb website.

Pre-Requisites

- Minimum IBM i Version: **V6R1M0** (Please see [CPPD & IBM i Compatibility](#) for further details.)
- Available Disk Space: **1GB HDD**
- Server Authority:
 - Server sign on as **QSECOFR** or with a User Profile that has the following authorities:
 - ***ALLOBJ**
 - ***SECADM**
 - ***JOBCTL**
 - ***SPLCTL**
 - ***IOSYSCFG** - required if you are going to be installing Cobwebb Document Management from a Virtual Optical Device.
 - This **User Profile** must also be enrolled in the **System Directory** as the Cobwebb Server installation restores a folder to **QDLS**. For details on how to enroll a user in the **System Directory** please see [Installing / Upgrading the Cobwebb Server Software](#) below.

Steps to perform BEFORE Upgrading the Cobwebb Server Software

If you are upgrading your version of Cobwebb Document Management then you will need to perform the following tasks BEFORE following the instructions for [Installing / Upgrading the Cobwebb Server Software](#).

The upgrade works by renaming the existing **CPPD** library to **CPPDOLD**. The new **CPPD** library is restored and all of the data from **CPPDOLD** is copied to the new **CPPD** library. All of your existing configurations will also be carried through to the new **CPPD** library.

1. If you are a [Cobwebb Email](#) or [Cobwebb Fax](#) customer, make sure that you have run the [Cobwebb Housekeeping](#) to reduce the size of the **Cobwebb Queue**.
2. Agree time with end users of **Cobwebb PPD** and the **Cobwebb Web Server** (CHTTPD) for the upgrade as they will not be able to use these during the upgrade process. The **Cobwebb Web Server** may include **Docstore / Portal** external usage, Imports to Docstore e.g. **Tungsten Capture** and **Folder Monitoring, Mobile POD**, or whatever else uses the CHTTPD job.
3. Check the **Available Disk Space** on the Server is greater than that of the size of your current **CPPD** library.

WRKSYSSTS - (Will show you the Available Disk Space)

DSPLIB LIB(CPPD) OUTPUT(*PRINT) - (Will show you the Total size of library CPPD at the bottom of the print)

4. Check for a **CPPDOLD** library (*this will only exist if you have run a previous upgrade of CPPD as it copies the current CPPD to CPPDOLD in case a rollback is required.*) If a CPPDOLD library exists then either RENAME this or DELETE it.

DSPLIB CPPDOLD - (Will show you the contents of library CPPDOLD if it exists)

Note: If an upgrade has just failed, the **CPPDOLD** library may contain the only 'live' good version of **CPPD** so **Renaming** would be better than **Deleting** in this case. Also if you are going to **Delete** the library you will need to first clear the **QPRINT** Output Queue in the **CPPDOLD** library otherwise the library will not be deleted use `CLROUTQ OUTQ(CPPDOLD/QPRINT)`

5. End the **CPPD** subsystem.

```
ENDSBS CPPD
```

6. End any other systems that might automatically lock any of the Cobwebb libraries or DLOs, such as **MIMIX**.
7. Check that there is nothing/no one using the **CPPD** library

```
WRKOBJLCK OBJ(CPPD) OBJTYPE(*LIB)
```

You should see the following message:

```
(There are no locks for the specified object)
```

8. If there are locks displayed then end the relevant jobs and keep running **Step 7** until there are no locks existing on the **CPPD** library.
9. Install the **Cobwebb Server Software** - see below [Installing / Upgrading the Cobwebb Server Software](#) for details.

Notes: As a general rule the library **CPPD** should NOT hold any **Bespoke** objects for a customer.

- Bespoke **Exit Programs** will normally reside in a library called **COBEXIT**, if they have been put in library **CPPD** the upgrade will try to move them (from **CPPDOLD** to the new **CPPD**) but this cannot be guaranteed.
- Any none system **Job Descriptions** in library **CPPD** will be copied across along with existing **CPPD** Job Descriptions in case you have changed library lists etc.
- If you have any bespoke **Output Queues** or **Data Queues** that are configured in the [Work with Spooled File Monitor](#), and exist in library **CPPD**, the upgrade process will give you the chance to move these to somewhere more suitable e.g. **QUSRSYS**. This means that no data waiting to be processed by **Cobwebb PPD** will be lost in the upgrade process.

Installing / Upgrading the Cobwebb Server Software

1. Sign on as **QSECOFR** or with a User Profile that meets the [Prerequisites](#) outlined above.

This User Profile must also be enrolled in the **System Directory** as the Cobwebb Server installation restores a folder to QDLS. To add a Directory Entry you can use the following command replacing the words in red with your own entries:

```
ADDIRE USRID('User ID' 'Address') USRD('User Description')
USER(User_Profile) SYSNAME(*LCL)
```

User ID - is usually the same as the User i.e. the User Profile

Address - is usually either the System Name or the same as the User Id

User_Profile - must match the User Profile that you are going to use for the installation.

2. Install Cobwebb Server software:

- Installing the Cobwebb Server software from a **CD**^{#1}
 - Place the Installation CD in the IBM i Optical Disc drive and type


```
LODRUN DEV( *OPT)
```

 Please refer to the topic on the [System Installation Wizard](#) for details.

Note: ^{#1} In order to create an Installation CD from the downloaded ISO you will need software that will allow you to burn the ISO Image file to a CD such as: <http://isorecorder.alexfeinman.com/isorecorder.htm>
 - [Installing the Cobwebb Server software from a Virtual Optical Device](#)

Note: From version 6.2.60 the joblog from the Cobwebb Server software installation will be automatically written to the **AINSLOG** file in library CPPD creating a new member each time.

What is installed?

Library:	CPPD	Contains all the objects required to run the Server Software
Folder:	CPPD	Used by the Cobwebb Server software. Includes the installer for the Cobwebb Designer, the documentation and server software help.
Directory	cppd	In the IFS root - contains the Web Service static files.
User Profiles:	CPPDOBJO WN	Owens all the objects in library CPPD apart from a few which are required to be owned by QSECOFR. This is created with the following options: <pre>CRTUSRPRF USRPRF(CPPDOBJOWN) PASSWORD(*NONE) STATUS(*ENABLED) USRCLS(*USER) INLMNU(*SIGNOFF) TEXT('CPPD Object manager')</pre>
	CPPDMM	Runs all the jobs in the CPPD subsystem. This is created with the following options: <pre>CRTUSRPRF USRPRF(CPPDMM) PASSWORD(*NONE) STATUS(*ENABLED) USRCLS(*USER) INLMNU(*SIGNOFF) TEXT('CPPD Machine Manager') SPCAUT(*ALLOBJ *JOBCTL *SPLCTL)</pre>
Directory Entry:	CPPDMM	Needed for the CPPDMM user

2.1 Installing the Cobwebb Server software from a Virtual Optical Device

This scenario uses the IFS folder /CPPDISO which can be created using the command:

```
CRTDIR DIR( '/CPPDISO' )
```

If you need to grant permission for other users to this IFS folder then you can use the following command:

```
WRKAUT OBJ( '/CPPDISO' )
```

This will display the current permissions. Use the **1=Add user** or **2=Change user authority** to apply the relevant permissions. (***RWX** should give the correct permission)

Please substitute / **CPPDISO** in the following instructions for the folder you are using, if different. [Download the ISO](#) and unzip to a local folder [say on your C drive] and then copy the ISO into an IFS folder e.g. /CPPDISO – See [Note 1](#).

Steps to install Cobwebb Server from a Virtual Optical Device

1. Create a Virtual Optical Device using the following command:

```
CRTDEVOPT DEVD(OPTCPPD) RSRNAME(*VRT) ONLINE(*YES) TEXT('Virtual optical drive')
```

2. Vary on the device:

```
VRYCFG CFGOBJ(OPTCPPD) CFGTYPE(*DEV) STATUS(*ON)
```

3. Create an Image Catalog

```
CRTIMGCLG IMGCLG(OPTCPPD) DIR('/CPPDISO') TEXT('PTF image catalog')
```

4. Add the ISO to the Image Catalog

```
ADDIMGCLGE IMGCLG(OPTCPPD) FROMFILE('CPPDnnnn.iso') TOFILE(*FROMFILE) REPLACE(*YES) TEXT(*GEN)
```

(Where CPPDnnnn.iso is the name of the ISO file you have downloaded. Please replace nnnn with the version number of the ISO you are installing.)

5. Load the Image Catalog

```
LODIMGCLG IMGCLG(OPTCPPD) DEV(OPTCPPD)
```

6. Install Cobwebb Server

```
LODRUN DEV(OPTCPPD)
```

See [System Installation Wizard](#) for details.

Cleaning up

The following are the instructions to run to tidy up after installing the Cobwebb Server software using Virtual Optical Device.

1. Unload the Image Catalog

```
LODIMGCLG IMGCLG(OPTCPPD) DEV(OPTCPPD) OPTION(*UNLOAD)
```

2. Delete images from Image Catalog

```
RMVIMGCLGE IMGCLG(OPTCPPD) IMGCLGIDX(1)
```

3. Delete the Image Catalog

```
DLTIMGCLG IMGCLG(OPTCPPD)
```

4. Vary off the Device

```
VRYCFG CFGOBJ(OPTCPPD) CFGTYPE(*DEV) STATUS(*OFF)
```

5. Delete the Device

```
DLTDEVD DEVD(OPTCPPD)
```

6. Delete the IFS folder and all the files within it

```
RMVDIR DIR('/CPPDISO') SUBTREE(*ALL)
```

Note 1: Accessing the IFS

IFS is the IBM i Integrated File System. You may have the IFS shared on your IBM i in which case you can see the folder from the Windows Network Neighbourhood. If you can see the IFS then simply drag and drop the ISO file using Windows File Explorer.

If you cannot access the IFS from Windows File Explorer you can use FTP to copy the ISO to the IFS:

This following example assumes that you unzipped the ISO to the c: drive.

1. Start a **DOS** prompt
2. Type the entries in **red** when prompted; the *green* entries are simply comments:

Change to the folder where you unzipped the ptf

```
C:\Documents and Settings>c:
```

```
C:\Documents and Settings>cd \
```

Start an FTP Session - Change the IP address below to your IBM i

```
C:\>FTP 192.168.255.100
```

```
Connected to 192.168.255.100.
```

```
220-QTCP at COBWEBB.
```

```
220 Connection will close if idle more than 5 minutes.
```

```
Enter your Username
```

```
User (193.119.31.16:(none)): USERNAME
```

```
331 Enter password.
```

```
Enter The password
```

```
Password: *****
```

```
230 USERNAME logged on.
```

Set the transfer type

```
ftp> BINARY
```

```
200 Representation type is binary IMAGE.
```

Move to the correct destination folder

```
ftp> CD /CPPDISO
```

```
250 "/CPPDISO" is current directory.
```

Put the file

```
ftp> PUT CPPDnnnn.iso
```

```
200 PORT subcommand request successful.
```

```
150 Sending file to /CPPDISO/CPPDnnnn.iso
```

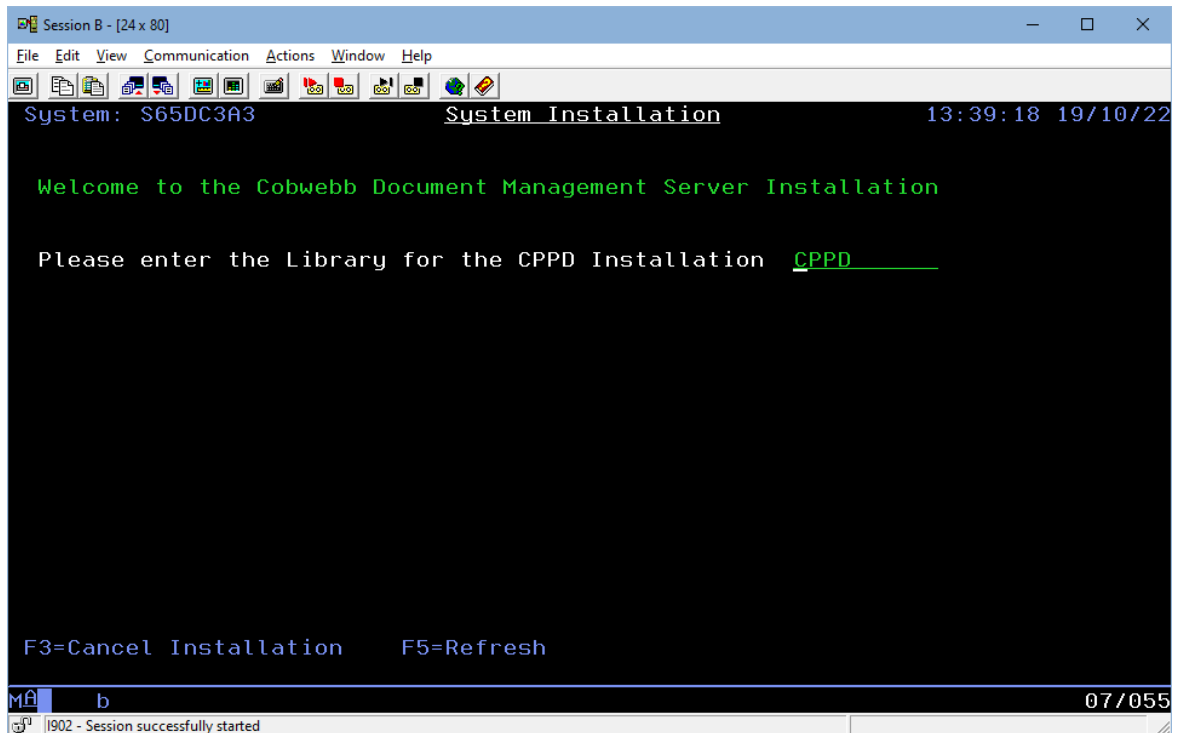
```
Quit
```

```
ftp>quit
```

2.2 System Installation Wizard

When you press Enter on the **LODRUN** statement the first thing that happens is that all of the objects required for the Installation / Upgrade are copied into QTEMP. Once all of the objects have been copied the **System Installation Wizard** will start.

From v6.2.85 you will have the option to enter a library name other than **CPPD** e.g.



Note: You will not be able to use any of the following names for your CPPD installation:

- CPPD.*
- CPPD_*
- Q*
- CPPDOLD

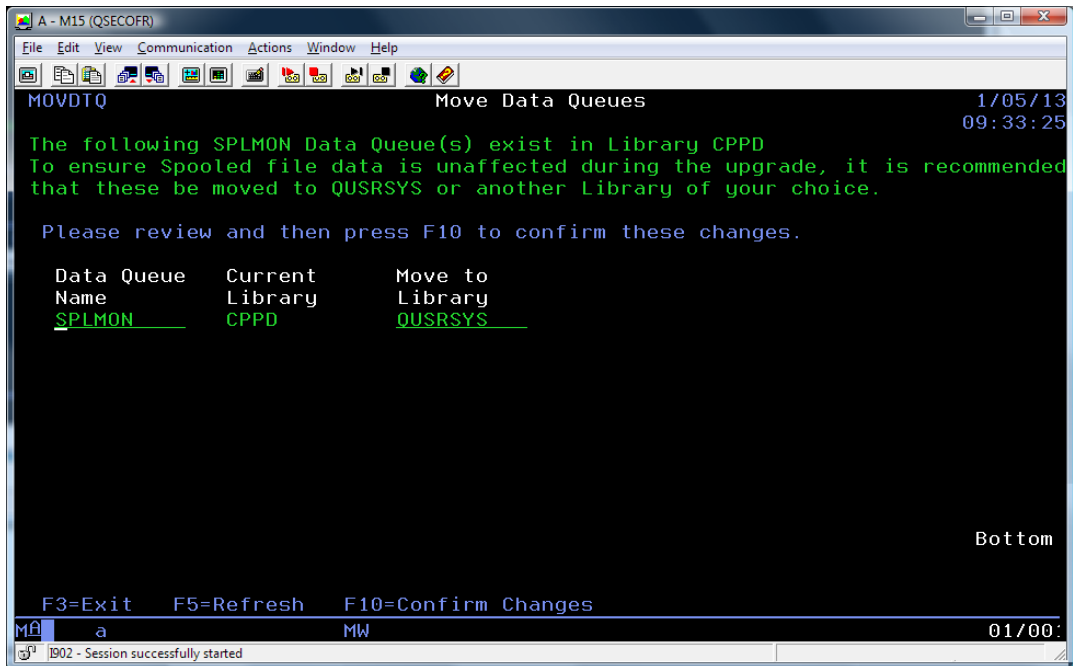
Press **Enter** and then press **F10** to confirm you are happy to continue.

Before the **Installation** or **Upgrade** begins the wizard performs some **Pre-installation** checks such as:

- a. Do you have the requisite authority to perform this Installation / Upgrade?
- b. Do you already have a version of Cobwebb Document Management installed? If the answer is **Yes** then the wizard will perform an **Upgrade** rather than an **Install**.

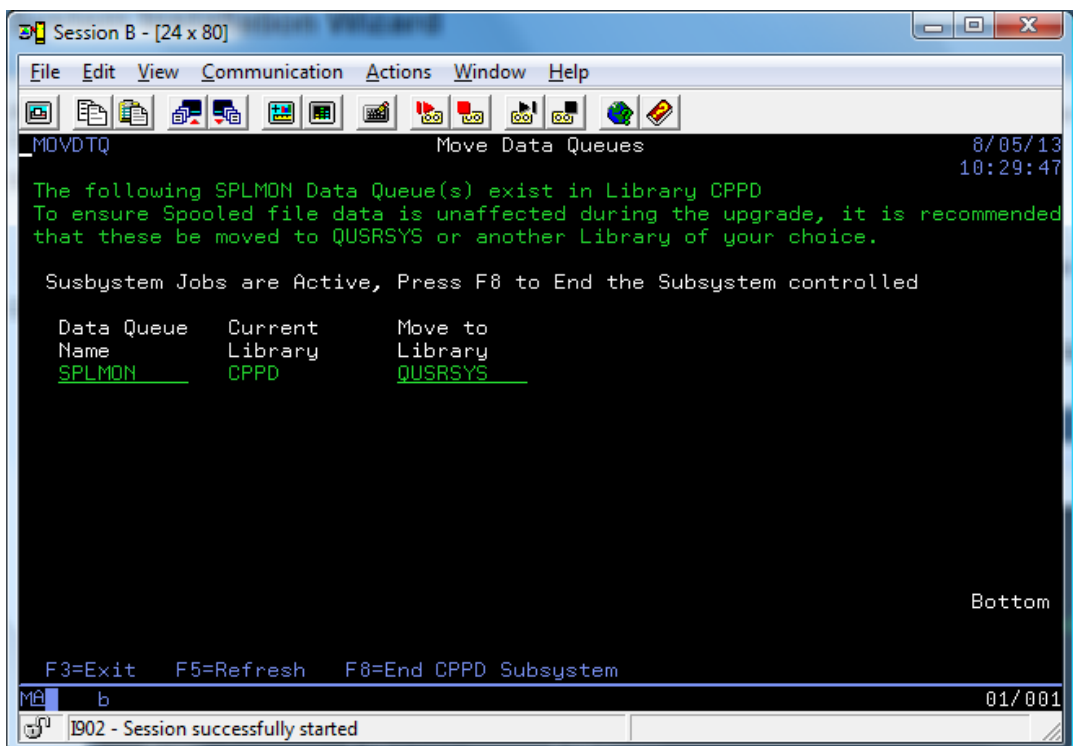
Once the **Pre-installation** checks have been passed the System Installation can start.

1. If you are performing an **Upgrade** the wizard checks to see if there are any **Spooled File Monitor Data Queues** in the library CPPD and suggests that these are moved e.g.



If you are happy with the suggested move to **QUSRSYS** all you have to do is to press **F10 to Confirm Changes**. If you wish to move the Data Queues to a different library then simply overwrite QUSRSYS with a library of your choice - this library must already exist. Pressing **F3** will return you back to the main System Installation Wizard without moving your Data Queues. Pressing **F5** will refresh the **Move to Library** entries back to **QUSRSYS** if you have changed them.

Note: If the CPPD Subsystem is still active then you will see a message asking you to end the subsystem e.g.



Press **F8 to End CPPD Subsystem**. You can then press **F5=Refresh** until the message disappears and you see the message saying to "...press F10 to confirm these changes."

- Next the wizard performs a few **Pre-requisite** checks like checking to see if there are any locks on the CPPD library. If there are any object locks you will see the following dialog.

```

Session B - [24 x 80]
File Edit View Communication Actions Window Help
System: S65DC3A3 System Installation 14:37:07 8/05/13
Release 6.2.23

Welcome to the Cobwebb Document Management Server Installation

Upgrade cannot start while objects are in use, Press F7 to work with Locks

Installation Task                               Status
1 Checking existing CPPD Version 5227           Completed Normally
2 Moving SPLMDN Data Queues                     Completed Normally
3 Checking Upgrade Pre-requisites              Completed Normally

Bottom

F3=Exit F5=Refresh F7=Work with Locks F8=End CPPD Subsystem
b 01/001
1902 - Session successfully started

```

Here you can press **F7=Work with Locks**. If the CPPD subsystem is active then you will also see the function key **F8=End CPPD Subsystem**. Once you have sorted out the locks you will be able to proceed with the installation. You can press **F5=Refresh** until the error message disappears. If you are unable to proceed at this time press **F3 to Exit** the System Installation Wizard.

- When all the **Pre-requisite** checks have been performed, and passed, you will see the following:


```

System: S65DC3A3          System Installation          10:40:06 8/05/13
                                                                Release 6.2.23

Welcome to the Cobwebb Document Management Server Installation

Press F10 to Start the Upgrade

Installation Task                                     Status
1 Checking existing CPPD Version 5227                 Completed Normally
2 Moving SPLMDM Data Queues                           Completed Normally
3 Checking Upgrade Pre-requisites                    Completed Normally

                                                                Bottom

F3=Exit  F10=Confirm Upgrade

ME  b  01/001
1902 - Session successfully started

```

Press **F10 to Start** your **Installation / Upgrade** of the Cobwebb Server software. If you wish to cancel the System Installation then press **F3 to Exit**.

- As the System Installation Wizard progresses you will see the different Tasks being performed. These may be different depending upon your environment and whether this is an Install or Upgrade e.g.

```

System: S65DC3A3          System Installation          10:50:56 8/05/13
                                                                Release 6.2.23

Welcome to the Cobwebb Document Management Server Installation

Upgrade is in Progress

Installation Task                                     Status
1 Checking existing CPPD Version 5227                 Completed Normally
2 Moving SPLMDM Data Queues                           Completed Normally
3 Checking Upgrade Pre-requisites                    Completed Normally
4 Checking User Profiles                             Completed Normally
5 Checking Directory Entries                         Completed Normally
6 Update Library List                                Completed Normally
7 Restore Library CPPD_62                             Work in Progress

                                                                Bottom

ME  b  01/001
1902 - Session successfully started

```

The Task that is currently being performed will be highlighted in yellow with a **Status** of **Work in Progress**.

5. When the Server Installation Wizard has completed you will see a screen similar to the following:

```

System: S65DC3A3          System Installation          11:02:39 8/05/13
                                                Release 6.2.23

Welcome to the Cobwebb Document Management Server Installation

Upgrade has Completed, Press F4 for Configuration Wizard or
Press F3 to Exit

Installation Task                                     Status
13 Copy Fax and Email commands                       Completed Normally
14 Restore IFS Objects                               Completed Normally
15 Deleting Document Library CPPDOLD                 Completed Normally
16 Rename Document Library CPPD to CPPDOLD           Completed Normally
17 Restore Document Library CPPD                    Completed Normally
18 Check Object Ownerships                           Completed Normally
19 Checking for Font Library QFNTCPL                 Completed Normally
20 Checking Menu Library Information                 Completed Normally
21 Software Upgrade Completed Successfully           Completed Normally
22 Update Installation Logs                           Completed Normally

                                                Bottom

F3=Exit  F4=Configuration Wizard
F11=View Errors

01/001
  
```

You may use the **Page Up** and **Page Down** keys to scroll through the list of **Installation Tasks** to check that they have all completed normally. You can also do this by pressing **F11= View Errors**.

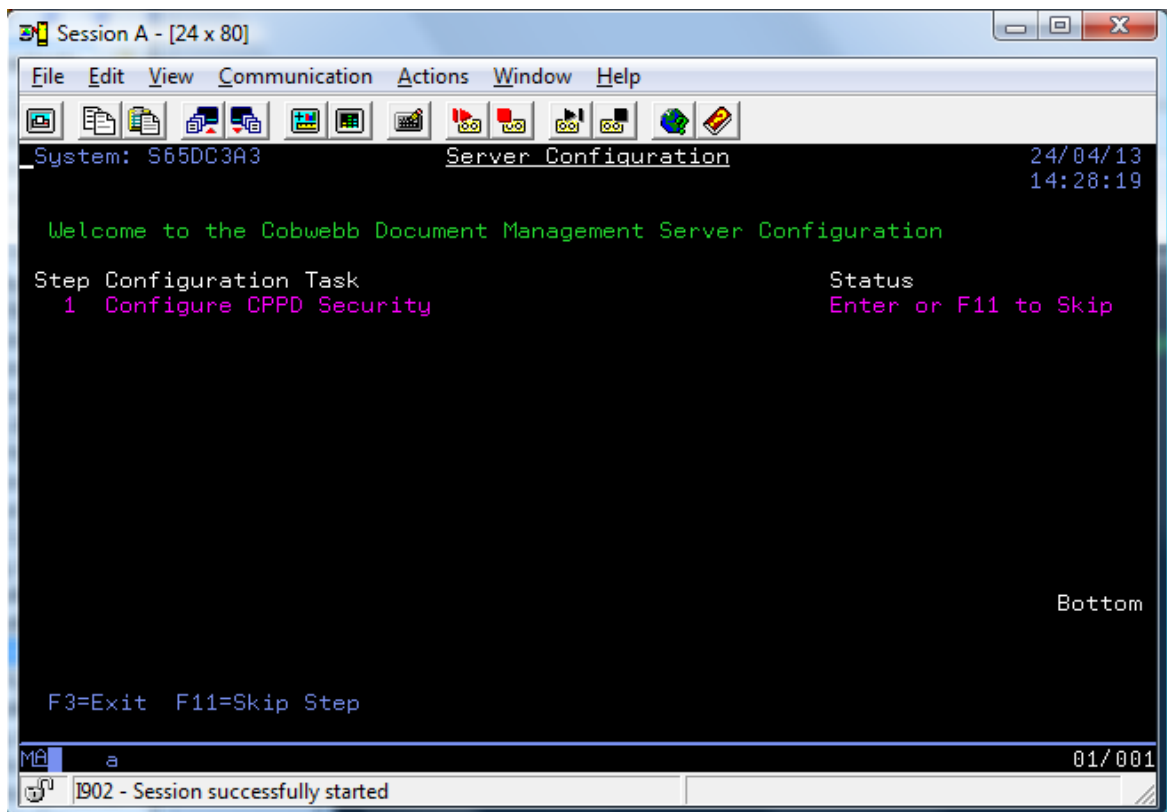
6. Once you are happy you can either press F4 to start the [Server Configuration Wizard](#) or **F3** to exit the System Installation Wizard.

2.3 Server Configuration Wizard

When the Cobwebb Server Software has been installed successfully you will be given the option to press **F4=Configuration Wizard** to call the **Server Configuration Wizard**. You may press **F3=Exit** to exit the Server Configuration Wizard at any time to return to the main [System Installation Wizard](#).

The Configuration Wizard may also be accessed from the [Cobwebb Main Menu](#) - **Option 7**.

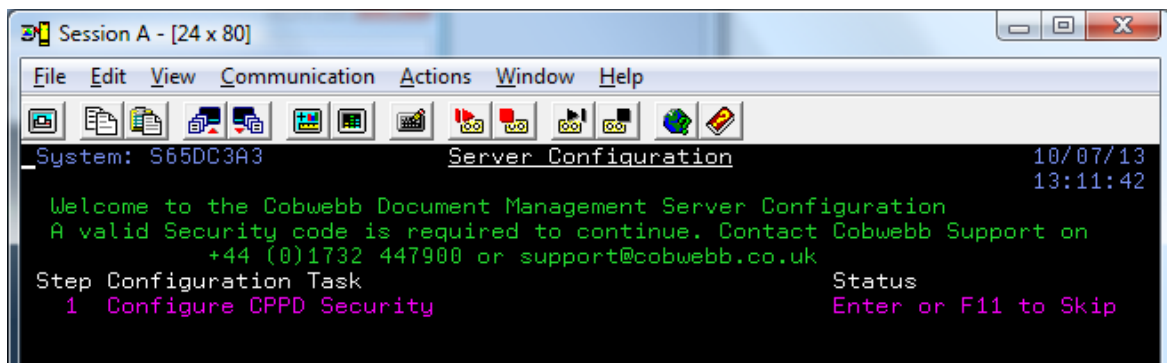
Note: All of the entries in the wizard may also be configured via various CPPD menu options at a later date if required but the wizard covers all of the main areas.



Configure CPPD Security

The first task is to [Configure CPPD Security](#). If you are performing an upgrade and are not adding any extra modules, i.e. already have a valid Security Code, then you may skip this step by pressing **F11=Skip Step**. If you are doing an install then this step must be performed otherwise the wizard will not know which configuration options are required.

If you do not have a valid **Security Code** then you will see the following message and you will not be able to continue with the wizard:



Once you have completed, or skipped, this step the wizard will work out, depending upon your configuration, which further steps are required.

```

System: S65DC3A3                               Server Configuration                               19/10/16
                                                14:51:20

Welcome to the Cobwebb Document Management Server Configuration

Step Configuration Task                               Status
 1 Configure CPPD Security                             Completed
 2 Configure PPD Parameters                           Enter or F11 to Skip
 3 Configure Fax & Email Entries
 4 Configure Operator Profiles
 5 Configure Fax Communication Lines
 6 Configure System Integrity
 7 Schedule Housekeeping
 8 Configure CHTTTPD Web Server Administrators
 9 Upgrade Spool-a-matic to Version V2R5M0

                                                Bottom

F3=Exit  F11=Skip Step

MA b                                           01/001
|1902 - Session successfully started

```

Press Enter to perform the Step in pink or press F11 to Skip this Step and go on to the next step in the list.

Configure PPD Parameters

This Step allows you to configure the PPD Parameters for your setup. Please see [Work with PPD parameters](#) for details.

Configure Fax & Email Entries

This Step will only be displayed if you have either the **Fax** or **Email Interface** enabled and enable the configuration of your Fax and/or Email settings. You will find all of these entries under the [System Parameters](#).

Queue Reference length

Here you can specify the number of digits you wish to use for your Fax and Email unique reference. This reference will be prefixed with either a **S** or **E** for Fax and Email respectively and then you can choose to display between 5-9 digits e.g. E999999999. **Note:** The larger the number the greater the capacity of the Cobwebb Message Queue.

Fax Settings

This entry will only be displayed if you have the **Fax Interface** enabled and allows you to configure your Fax settings.

PABX Access code

Specify up to 3 characters to be inserted before every fax number. If necessary a pause characters can be included (see Fax Destination field in the [Send a Fax](#) Screen). The PABX Access code will be ignored if an 'I' is inserted in the first character of the Fax Destination field.

Email Settings

These entries will only be displayed if you have the **Email Interface** enabled and allows you to configure the details for your SMTP Mail Server.

SMTP Mail Server

Enter the IP address of your SMTP Mail Server E.g. 192.255.255.1

SMTP Port

Enter the Port number of your SMTP Mail Server.

SMTP Encryption

From version 6.2.81. Decide the type of encryption you wish to use to send email.

- 0 No encryption (default).
- 1 Use SSL/TLS encryption.
- 2 Use STARTTLS.

SMTP user name

If your SMTP server requires user authentication then please enter a valid user name here.

SMTP password

If your SMTP server requires user authentication then please enter a password for the above user name.

Configure Operator Profiles

This Step will only be displayed if you have either the **Fax** or **Email Interface** enabled. Here you can configure the User Profiles you wish to have Operator privileges. Please see [Operator Profiles](#) topic for details.

Configure Fax Communication Lines

This Step will only be displayed if you have the **Fax Interface** enabled. This is where you configure the details of your individual Fax Communication lines Please see [Communication Lines](#) topic for details.

Configure System Integrity

This Step will only be displayed if you have either the **Fax** or **Email Interface** enabled. You will find these entries under the [System Parameters](#).

Archive sent messages

The number of days outgoing messages are left on the queue before being moved to the Archive Queue. This is used in the [Housekeeping Menu](#) options [Archive Queue Entries](#) and [Schedule Housekeeping](#) - sub option **Archive the CPPD Queue**.

Clear if older than (days)

Specify the number of days for which you wish to keep messages on the queue. This is used in the [Housekeeping Menu](#) options [Clear Queue Entries](#) and [Schedule Housekeeping](#) - sub option [Save & Clear the CPPD Queue](#). [CLRPPDQ and RGZPPDQ commands respectively]

Schedule Housekeeping

This Step will only be displayed if you have either the **Fax** or **Email Interface** enabled. This Step allows you to configure Scheduled Jobs to run your Housekeeping. Please see [Schedule Housekeeping](#) topic for details.

Configure CHTTTPD Web Server Administrators

This Step will only be displayed if you have the **Web Interface** enabled. Here you can configure the User Profiles you wish to be Administrators of the CHTTTPD Web Server. Please see [CHTTPD Web Server Administrators](#) topic for details.

Install / Upgrade Spool-a-matic version VnRnMn

This Step will only be displayed if you have the **PDF Interface** enabled. The wizard will check for the appropriate version of Spool-a-matic for your IBM i version. If you already have the correct version installed then you will not see this Step. The Step will only be displayed if you do not have Spool-a-matic installed or if there is a newer version for your IBM i. Please see [Installing Spool-a-matic](#) topic for details.

Configuration Wizard Completed

When you have finished you will see a new Step saying **All Configuration Tasks - Completed**. Press **Enter** and you will be returned to the main main [System Installation Wizard](#).

```

Session B - [24 x 80]
File Edit View Communication Actions Window Help
System: S65DC3A3 Server Configuration 19/10/16
                                         14:52:19
Welcome to the Cobwebb Document Management Server Configuration

Step Configuration Task                Status
  1 Configure CPPD Security             Completed
  2 Configure PPD Parameters            Completed
  3 Configure Fax & Email Entries        Completed
  4 Configure Operator Profiles          Completed
  5 Configure Fax Communication Lines    Completed
  6 Configure System Integrity           Completed
  7 Schedule Housekeeping                Completed
  8 Configure CHTTTPD Web Server Admins Completed
  9 Upgrade Spool-a-matic to Version V2 Completed
 10 All Configuration Tasks             Completed

                                         Bottom

F3=Exit F11=Skip Step
MA b                                         01/001
| 902 - Session successfully started

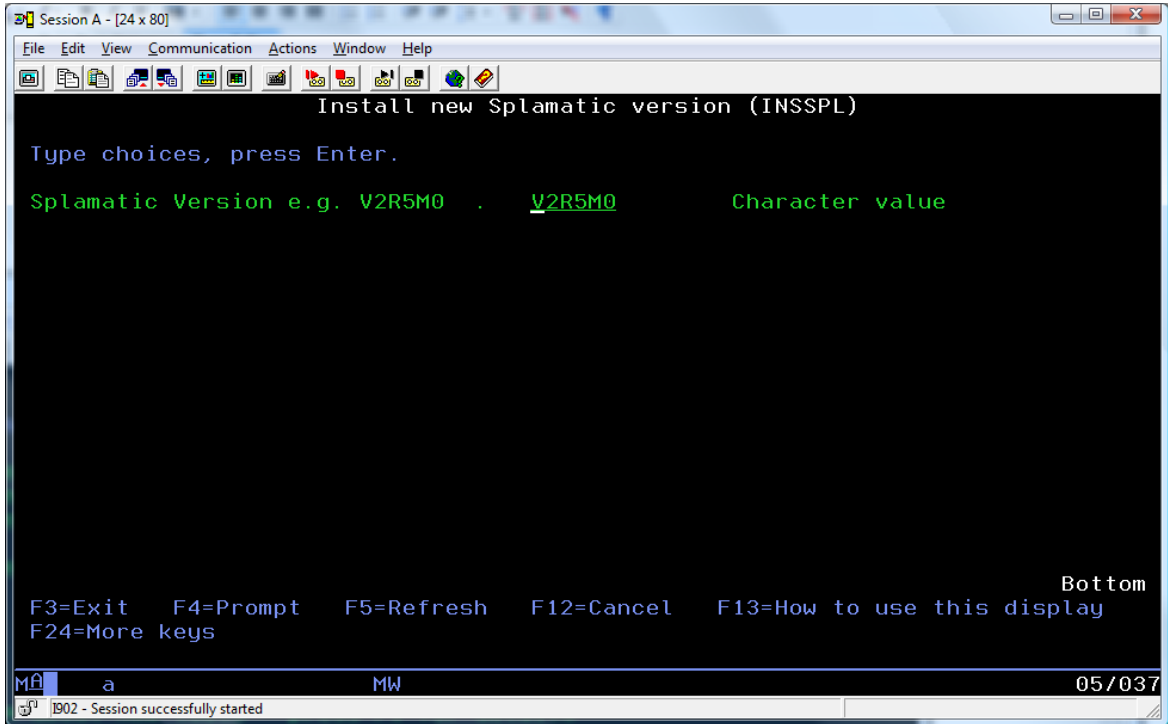
```

2.4 Installing Spool-a-matic

Spool-a-matic is an additional chargeable feature used by Cobwebb to generate PDF. In order to use this module your Cobwebb licence will need to include this module - see the **PDF Interface** entry in [PPD Security](#) for details.

Spool-a-matic may be installed via the [Server Configuration Wizard](#) as this will automatically work out which version of the application is required for your OS version and then call the **INSSPL** command; or you can call the command **INSSPL** [from v6.2] from a command line and manually enter the version you wish to install. This process will install / upgrade a library called **SPLAMATIC**.

- Add the library **CPPD** to your library list and then type **INSSPL** on a command line and press **F4**.



Splamatic Version

Here you need to enter the correct Spool-a-matic version number for your OS version. **Note:** If this command has been called from the [Server Configuration Wizard](#) then the correct version will have already been selected.

In order to determine which version to install you will find a list of **Save Files** in the **CPPD** library relating to Spool-a-matic e.g.

Save File Name	Description	Type
SAMSAVF16	PDF Library V1R6M0 for IBM i V4R5M0	Full
SAMSAVF17	PDF Library V1R7M0 for IBM i V4R5M0	Full
SAMSAVF18	PDF Library V1R8M0 for IBM i V5R1M0	Full
SAMSAVF21	PDF Library V2R1M0 for IBM i V5R3M0	Full
SAMSAVF23	PDF Library V2R3M0 for IBM i V5R4M0	Full
SAMSAVF24	PDF Library V2R4M0 for IBM i V6R1M0	Full

SAMSAVF25	PDF Library V2R5M0 for IBM i V6R1M0 & later	Full
SAMSAVF27	PDF Library V2R7M0 for IBM i V7R1M0 & later	Full
SAMSAVF28	PDF Library V2R8M0 for IBM i V7R2M0 & later	Full
SAM16PTF	PTFs for PDF Library V1R6M0	PTF
SAM23PTF	PTFs for PDF Library V2R3M0	PTF
SAM24PTF	PTFs for PDF Library V2R4M0	PTF
SAM25PTF	PTFs for PDF Library V2R5M0	PTF
SAM27PTF	PTFs for PDF Library V2R7M0	PTF
SAM28PTF	PTFs for PDF Library V2R8M0	PTF

Check which version [**highlighted in red**] you need to install from the list of "Full" installations where the file name is in the format **SAMSAVFnn**. If there is also a PTF [SAMnnPTF] for the version you select this will be automatically installed at the same time.

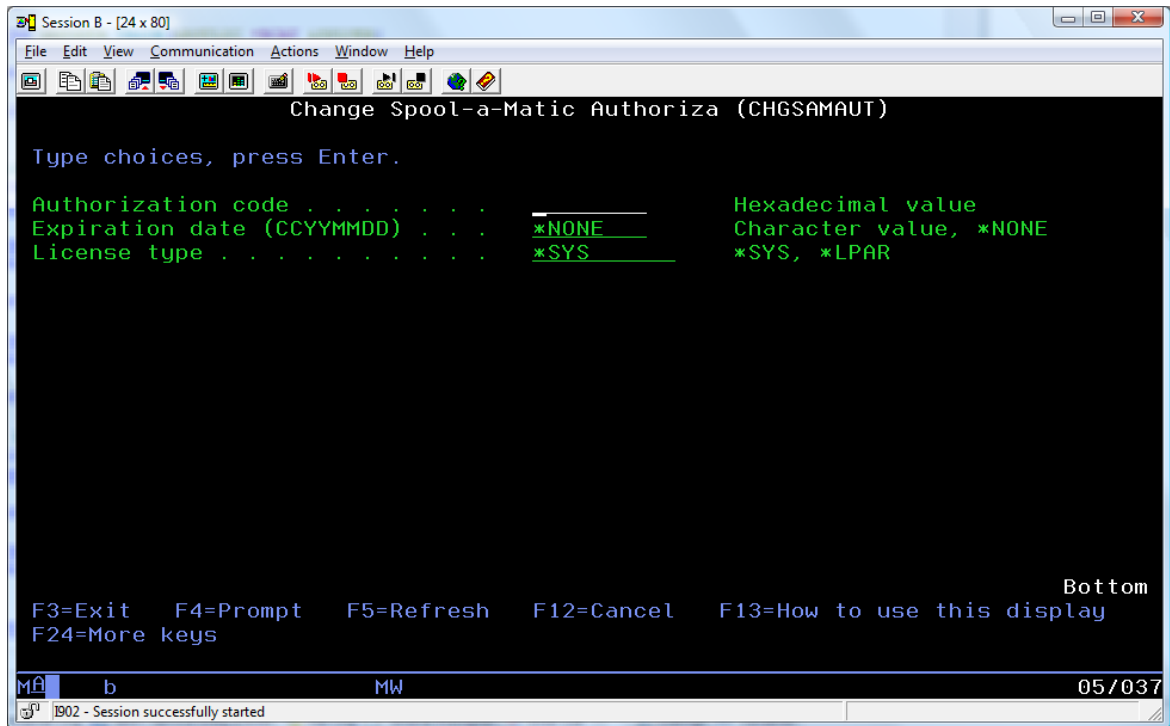
- Once you have entered the version you wish to install press **Enter**.

When Spool-a-matic has finished installing the following command will be run to set the Spool-a-matic defaults to the best values for producing PDF output:

```
CHGSAMDFT  REFPRTEDEV(*AFPYES) REFOFFSET(0 0)
PDFFONTIMB(*TRUETYPE) PDFIMG PBL(*PREBLEND32)
```

Description	Keyword / Recommended Value	Why?
Reference printer device & Refprtdev offset correction	REFPRTEDEV(*AFPYES) REFOFFSET(0 0)	These two keywords prevent text near the edge of the page being 'pushed' into the page and overwriting other text. The Default for REFPRTEDEV appears to be *HPTASCII which can cause problems.
PDF font imbedding	PDFFONTIMB(*TRUETYPE)	This allows embedded True Type fonts in the PDF.
PDF image process blending	PDFIMG PBL(*PREBLEND32)	This blends the 4 colour planes of a 32bit CMYK image into one plane. This decreases the size of the PDF and prevents each colour plane opening one after the other when the PDF is opened.

Then you will be presented with a screen asking you to enter your licence code e.g.



Authorisation code

Enter the authorisation code supplied by Cobwebb.

Expiration date

Enter the expiration date that you have been given. This must be in the format CCYYMMDD.

License type

Leave the default of *SYS.

- Press **Enter**

Congratulations - you should have now successfully installed Spool-a-matic.

2.5 Create a copy of your CPPD Library

Cobwebb supply a command **CRTTSTLIB** [from version 6.2.37] which will allow you to copy your existing CPPD library and restore it as a new name. It will also change all of the necessary objects such as the CPPD Subsystem name and Job Description to be the same as your new library name as well as making sure they all point to the new library.

Note: The **CPPD** folder in **QDLS** will also be copied and a new folder created with the same name as your new CPPD Library.

1. Sign on as **QSECOFR** or with a User Profile that has ***ALLOBJ** and ***SECADM** authority.

This User Profile must also be enrolled in the System Directory as the Cobwebb Server installation restores a folder, with the same name as your new library, to QDLS. To add a Directory Entry you can use the following command replacing the words in red with your own entries:

```

ADDDIRE USRID('User ID' 'Address') USRD('User Description')
USER('User Profile') SYSNAME(*LCL)

```

User ID - is usually the same as the User i.e. the User Profile

Address - is usually either the System Name or the same as the User Id

User Profile - must match the User Profile that you are going to use for the installation.

2. End the **CPPD** subsystem

```
ENDSBS CPPD
```

3. Run the **CRTTSTLIB** command with your current CPPD library in your library list and press **F4**:

```

Session B - [24 x 80]
File Edit View Communication Actions Window Help
Create PPD test library (CRTTSTLIB)

Type choices, press Enter.

Copy from Library Name . . . . CPPD          CPPD, Library Name
Create new Library Name . . . . CPPDTST     CPPDTST, Library Name

F3=Exit  F4=Prompt  F5=Refresh  F12=Cancel  F13=How to use this display
F24=More keys

Bottom
05/037
1902 - Session successfully started

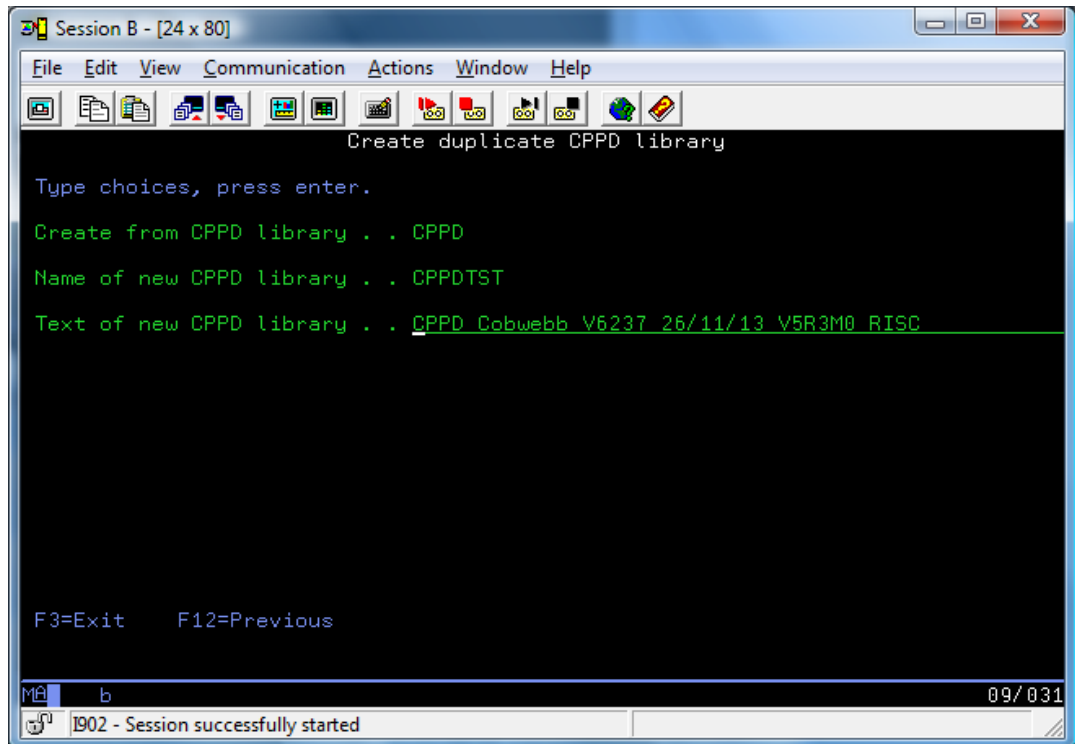
```

FRMLIB - Copy from Library Name. The name of your existing CPPD library.

NEWLIB - Create new Library Name. The name for your new CPPD library. **Note:** this library must NOT already exist.

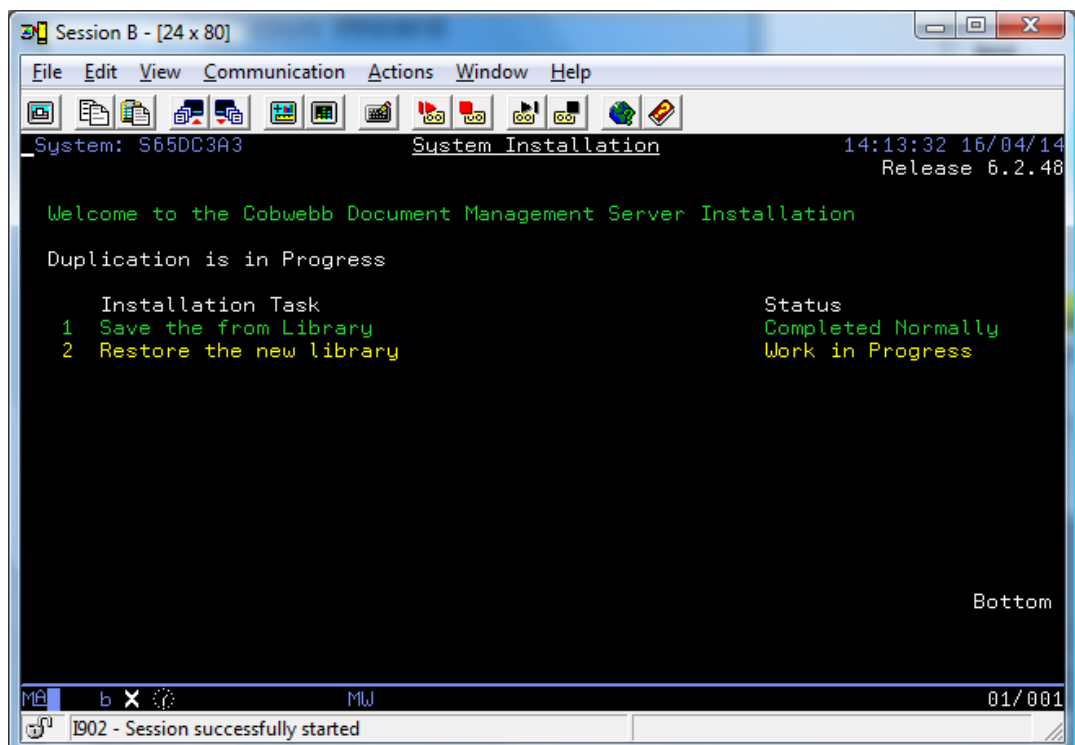
Note: You are only allowed to create a library name of up to 8 characters as Cobwebb requires a Folder in QDLS of the same name and folder names are limited to 8 characters.

4. Press **Enter**



Now you can change the **Text** for your new CPPD library and Press **Enter**.

5. The wizard performs a few **Pre-requisite** checks like checking to see if you have the correct authority and that the CPPD subsystem has been ended. As the Wizard progresses you will see the different Tasks being performed e.g.



The Task that is currently being performed will be highlighted in yellow with a **Status** of **Work in Progress**.

6. When the Wizard has completed creating a copy of your CPPD library you will see a screen similar to the following:

```

Session B - [24 x 80]
File Edit View Communication Actions Window Help
System: S65DC3A3      System Installation      11:46:42 20/11/13
                                      Release 6.2.35

Welcome to the Cobwebb Document Management Server Installation

Duplication has Completed, Press F4 for Configuration Wizard or
                          Press F3 to Exit

      Installation Task      Status
13 Duplication Completed    Completed Normally

                                      Bottom

F3=Exit  F4=Configuration Wizard
F11=View Errors

b      MW      01/001
1902 - Session successfully started

```

You may use the **Page Up** and **Page Down** keys to scroll through the list of **Tasks** to check that they have all completed normally. e.g.

```

Session B - [24 x 80]
File Edit View Communication Actions Window Help
System: S65DC3A3      System Installation      14:24:46 16/04/14
                                      Release 6.2.48

Welcome to the Cobwebb Document Management Server Installation

Duplication has Completed, Press F4 for Configuration Wizard or
                          Press F3 to Exit

      Installation Task      Status
1 Save the from Library      Completed Normally
2 Restore the new library     Completed Normally
3 Save DLO Objects           Completed Normally
4 Restore DLO Objects        Completed Normally
5 Update the Library list    Completed Normally
6 Create the Subsystem       Completed Normally
7 Update the Job Descriptions Completed Normally
8 Update the Commands        Completed Normally
9 Update the Menus           Completed Normally
10 Update the Data Areas     Completed Normally
11 Update the Data Files     Completed Normally
12 Update Object Ownership   Completed Normally

                                      More...

F3=Exit  F4=Configuration Wizard
F11=View Errors

b      MW      01/001
1902 - Session successfully started

```

You can also do this by pressing **F11= View Errors**.

7. Once you are happy you can either press F4 to start the [Server Configuration Wizard](#) to configure your copied CPPD library or **F3** to exit the Wizard.

2.6 Moving Cobwebb Server software to another Server

Introduction

It may be required to move the Cobwebb Server software to another IBM i Server. The simplest method is for the Cobwebb Server software to be moved during a System Save and Restore.

Note: If you also need to move the storage location of documents in Docstore please see [Moving Document Type Storage Location](#).

The following is a manual method if a System Save and Restore is not possible:

Step 1 - Saving objects on the Source Server

The following commands will need to be run on the IBM i Server where the Cobwebb Server software currently resides. You will need to be logged on to the Server with a User Profile that has ***SECADM** authority.

End the CPPD Subsystem

```
ENDSBS SBS (CPPD)
```

Save Cobwebb Server objects

Using the following commands, each of the required objects will be saved to a **Save File** so for each step the Save File will have to first be created.

Library CPPD

```
CRTSAVF (QGPL/CPPD)
SAVLIB LIB(CPPD) DEV(*SAVF) SAVF(QGPL/CPPD)
```

QDLS folder CPPD

```
CRTSAVF (QGPL/CPPDFLR)
SAVDLO DLO(*ALL) FLR(CPPD) DEV(*SAVF)
SAVF(QGPL/CPPDFLR)
```

IFS folder CPPD

```
CRTSAVF (QGPL/CHTTPDIIFS)
SAV DEV(' /QSYS.LIB/QGPL.LIB/CHTTPDIIFS.FILE')
OBJ((' /CPPD'))
```

Spool-a-matic program

```
CRTSAVF (QGPL/SPLAMATIC)
SAVLICPGM LICPGM(2A55SAM) DEV(*SAVF)
SAVF(QGPL/SPLAMATIC)
```

Docstore Considerations

If Docstore is being used, then there are additional objects that need to be saved.

Library DOCSTORE

```
CRTSAVF (QGPL/DOCSTORE)
SAVLIB LIB(DOCSTORE) DEV(*SAVF) SAVF(QGPL/DOCSTORE)
```

Save each individual Docstore Library & Folder

Each Docstore stores its metadata in a Library on the IBM i Server. The name of the library each Docstore uses can be found in the Docstore Configuration.

Browse to the Cobwebb Docstore Configuration web page and you will see a list of all the Docstores together with their Library Names e.g.

```
https://Server:6443/config/docStore/store/
```

where **Server** should be replaced with the IBM i Server name (or `http://Server:6400/config/docStore/store/` if using HTTP).

Individual Docstore Library

In this example we are assuming that the Docstore Library Name is **DOCSTORE01** so the commands would be:

```
CRTSAVF (QGPL/DOCSTORE01)
SAVLIB LIB(DOCSTORE01) DEV(*SAVF) SAVF(QGPL/DOCSTORE01)
```

Individual Docstore Folder

Each **Document Type** stores its data in a folder, either on the IFS or the network via QNTC. This data will need to be accessible to the new Docstore. If all **Document Types** have their data stored on the IFS in the CPPD root folder then this will have been backed up when saving the Cobwebb Server objects. To see where each **Document Type** stores its data you will need to click on each Docstore and then click the **Document Types** button to display all of the Document Types for the Docstore and the **Document Folder** they are using.

Step 2 - Restoring objects to the Target Server

You will need to make sure that the Target Server meets all of the [Pre-Requisites for installing CPPD](#) on the IBM i Server and that you are logged on to the Target Server with a [User Profile with the required authority](#). The following commands will need to be run on the IBM i Server where you wish to restore your Cobwebb Server software.

Create User Profiles

Create CPPDOBJOWN User Profile

This profile owns all the objects in library CPPD apart from a few which are required to be owned by QSECOFR.

```
CRTUSRPRF USRPRF(CPPDOBJOWN) PASSWORD(*NONE)
STATUS(*ENABLED) USRCLS(*USER) INLMNU(*SIGNOFF)
TEXT('CPPD Object manager')
```

Create the CPPDMM User Profile

This profile runs all the jobs in the CPPD subsystem.

```
CRTUSRPRF USRPRF(CPPDMM) PASSWORD(*NONE)
STATUS(*ENABLED) USRCLS(*USER) INLMNU(*SIGNOFF)
TEXT('CPPD Machine Manager') SPCAUT(*ALLOBJ *JOBCTL
*SPLCTL)
```

Add User Profiles to Distribution Directory

Add CPPDOBJOWN

```
ADDDIRE USRID(CPPDOWN CPPDOWN) USRD('CPPD Object
Owner') USER(CPPDOBJOWN)
```

Add CPPDMM

```
ADDDIRE  USRID(CPPDMM CPPDMM) USRD('CPPD Machine
Manager') USER(CPPDMM)
```

Restore Cobwebb Server Objects**Library CPPD**

```
RSTLIB  SAVLIB(CPPD) DEV(*SAVF) SAVF(QGPL/CPPD)
ALWOBJDIF(*ALL) RSTLIB(CPPD)
```

QDLS folder CPPD

```
RSTDLO  DLO(*ALL) SAVFLR(CPPD) RSTFLR(CPPD) DEV(*SAVF)
SAVF(QGPL/CPPDFLR) NEWOBJ(*NEW)
```

IFS folder CPPD

```
RST  DEV('/QSYS.LIB/QGPL.LIB/CHTTPDIFS.FILE')
OBJ('/CPPD') ALWOBJDIF(*ALL)
```

Spool-a-matic program

```
RSTLICPGM LICPGM(2A55SAM) DEV(*SAVF)
SAVF(QGPL/SPLAMATIC)
```

Restore Docstore Objects

If Docstore is being used, then there are additional objects that need to be restored.

Library DOCSTORE

```
RSTLIB  SAVLIB(DOCSTORE) DEV(*SAVF) SAVF(QGPL/DOCSTORE)
ALWOBJDIF(*ALL) RSTLIB(DOCSTORE)
```

Individual Docstore Library

Now you need to restore each Docstore library you have previously saved. In this example we are assuming that the Docstore Library Name is **DOCSTORE01** so the command would be:

```
RSTLIB  SAVLIB(DOCSTORE01) DEV(*SAVF)
SAVF(QGPL/DOCSTORE01) ALWOBJDIF(*ALL)
RSTLIB(DOCSTORE01)
```

Individual Docstore Folder

If you have had to save any other IFS folders (other than CPPD) containing data for a **Document Type** then you will need to restore these.

Step 3 - Update CPPD Object Ownership on the Target Server

The following command needs to be run on the IBM i Server where you have just restored your Cobwebb Server objects.

First add the library **CPPD** to your library list.

```
ADDLIBLE CPPD
```

Now you can use the command **CHGPPDOWN** to correct the security of all objects in the CPPD Library.

Enter **CHGPPDOWN** and press **F4** e.g.

```

Session A - [24 x 80]
File Edit View Communication Actions Window Help
Change CPPD Object Ownership (CHGPPDOWN)

Type choices, press Enter.

CPPD Library Name . . . . . CPPD           Library where CPPD installed
CPPD Object Owner . . . . . CPPDOBJOWN e.g. CPPDOBJOWN
CPPD Object Owner [*SECADM] . . . QSECOFR    e.g. QSECOFR
CPPD System User [SBS jobs] . . . CPPDMM     e.g. CPPDMM
Remove information messages? . . . Y          Y=Yes, N=No

F3=Exit  F4=Prompt  F5=Refresh  F12=Cancel  F13=How to use this display
F24=More keys

MA a 05/037
|1902 - Session successfully started

```

You can leave the default values and just press **Enter**.

3 Installing the Cobwebb Designer

The **Cobwebb Designer** is a Windows application together with a Windows Printer Driver. The **Cobwebb Designer Setup.exe** may be downloaded from the Cobwebb website <https://www.cobwebb.co.uk/software/CPPD/Designer>.

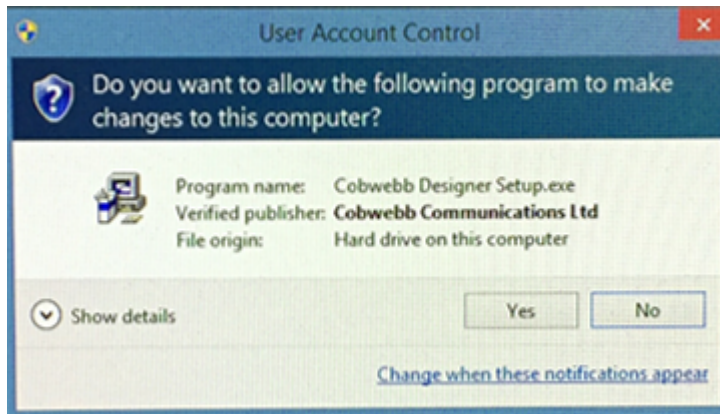
Pre-Requisites

- Windows 7 - 10 (32 & 64 bit)
- **IBM® i Access Client Solutions - Windows Application Package** - this is the new Java based solution, 5250 emulation, Data Transfer, Printer output, Console support, and more. Please see [Installing IBM i Access Client Solutions](#) for details.
OR
- **IBM® i Client Access** - this is the original version we all know and love with IBM i Navigator, Emulators, Data Queues, Output Queues, translation etc. The last version was [V7.1 supporting Windows 8.1](#) - the Cobwebb Designer is fully compatible with this product.

Installing / Upgrading the Cobwebb Designer

Once you have downloaded the installer, run the **Cobwebb Designer Setup.exe** as an Administrator on the PC, otherwise the **Cobwebb Printer Driver** will not be installed.

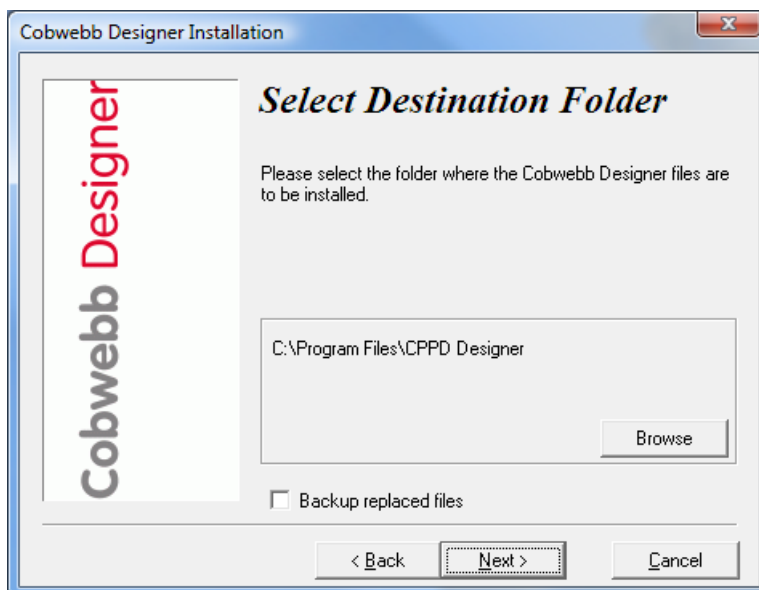
From **v7 (build 15)** the **Installer, Cobwebb Designer & Cobwebb PPD Printer Driver** are signed. This means then when you start to install the software you will see the following:



Click **Yes** to continue with the installation.



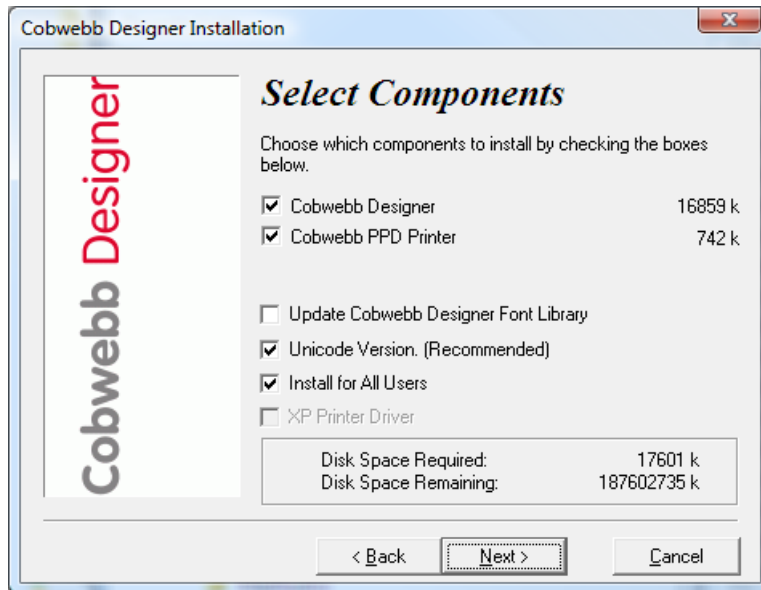
Click **Next**.



If you wish to choose a different **Destination Folder** click the **Browse** button.

If you already have the **Cobwebb Designer** installed then, if you wish to keep a backup of any files that are replaced check the "**Backup replaced files**" box.

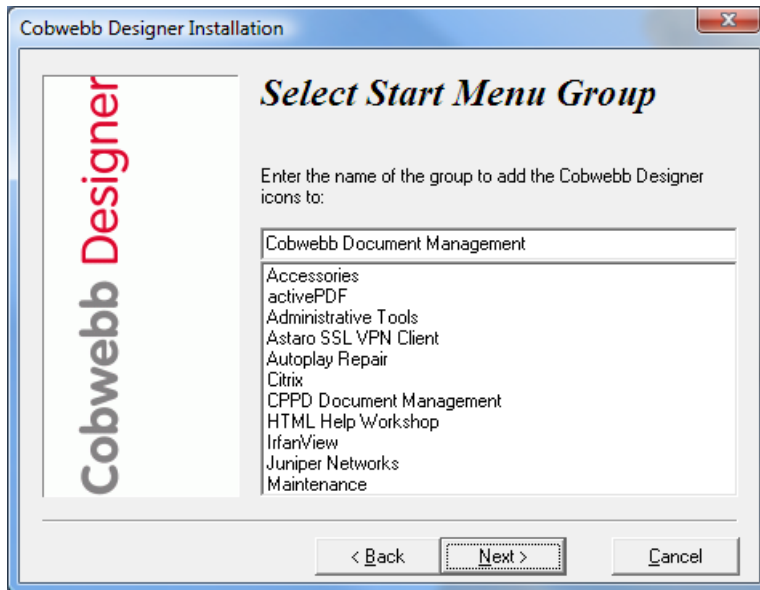
Click **Next**.



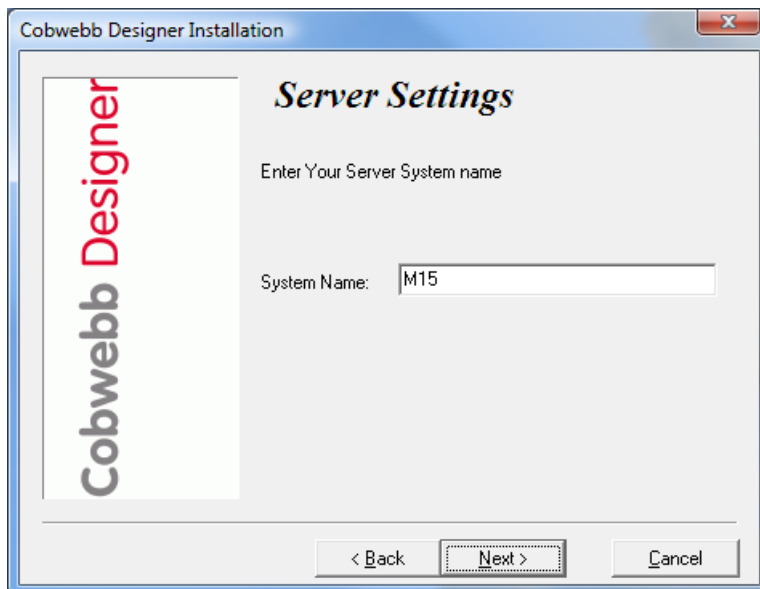
Here you can select which components you wish to install.

- Cobwebb Designer** Installs the Cobwebb Designer application. **Note:** The Cobwebb Designer software is designed to work with IBM Client Access. Other routers such as the Netsoft Router can be used, but some features may not be available.
- Cobwebb PPD Printer** Installs the Cobwebb Printer Driver for creating overlays, logos etc. **Note:** You will need to be logged on as an Administrator to be able to install the printer driver.
- Update Cobwebb Designer Font Library** Updates the Cobwebb Designer Font Library with the latest fonts. From v6.95 of the Cobwebb Designer this also includes the default IBM True Type Fonts.
- Unicode Version** Installs the Unicode version of the application - recommended.
- Install for All Users** Install for All Users rather than just the user running the installation.
- XP Printer Driver** This is only displayed if you are installing on a PC that has Windows XP and will install the XP version of the Cobwebb Printer Driver. **Note:** - You will need to be logged on as an Administrator to be able to install the printer driver.

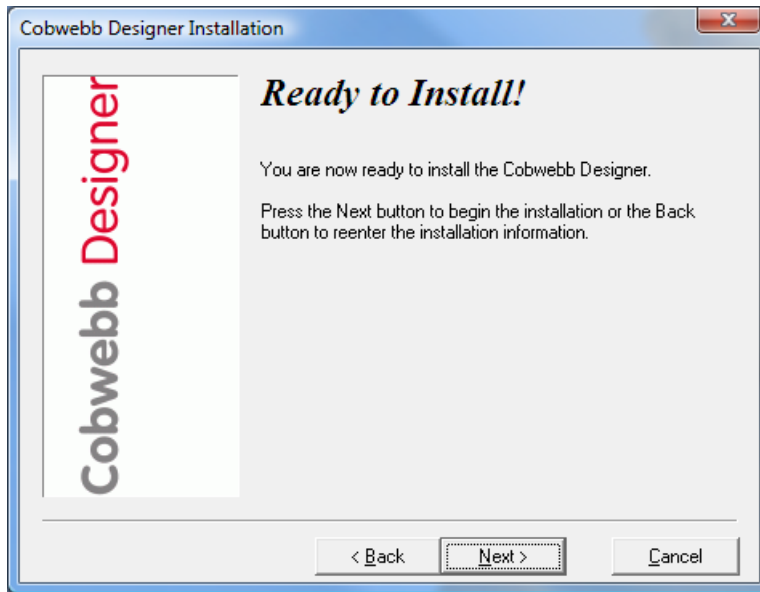
Click **Next**.



If you wish to change the name of the Start Menu group you may enter it here.
Click **Next**.

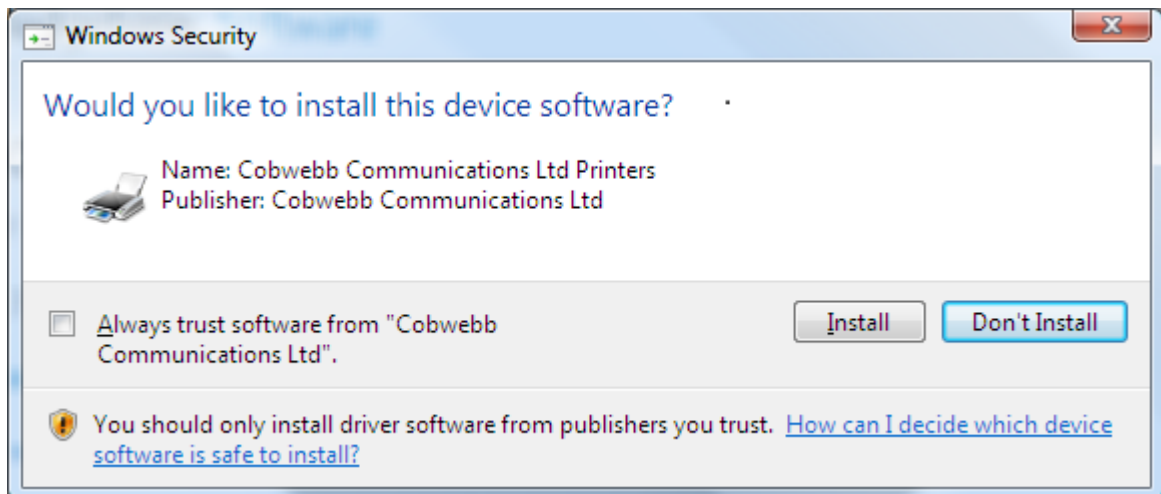


If your PC can see your Server [Client Access installed and configured] then the **System Name** will be automatically populated. This should be the name of your IBM i.
Click **Next**.



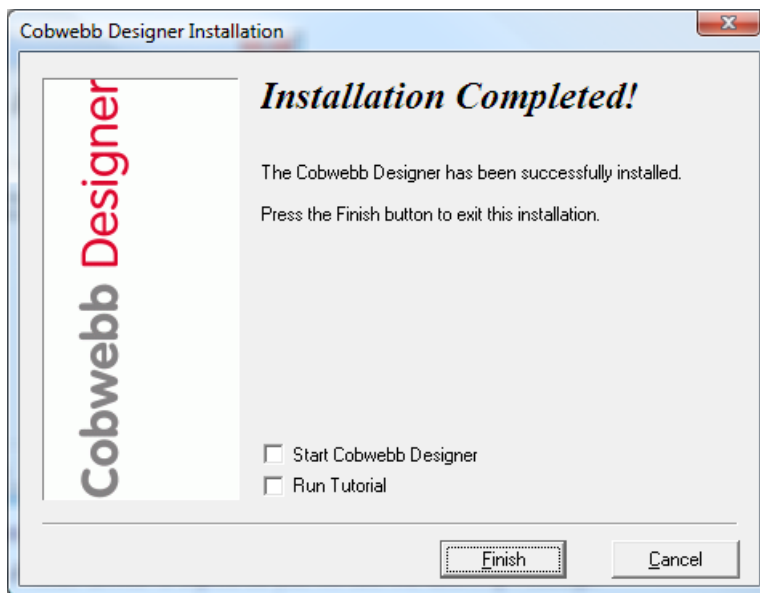
The configuration has been completed .Click **Next** to start installing.

From **v7 (build 15)** the **Cobwebb Printer Driver** is signed so you will see the following message:



Check the box to **Always trust software from "Cobwebb..."** if you don't wish to see this security dialog every time you upgrade your Cobwebb Designer software.

Click **Install** to install the **Cobwebb Printer Driver**.



The installation has completed. Now you can choose to start the Cobwebb Designer if you want or just click **Finish** to end the installation wizard.

Having installed the Cobwebb Designer software you are ready to redesign and distribute your documents.

Please refer to [Using the Cobwebb Designer](#) for instructions on designing your documents.

3.1 Installing IBM i Access Client Solutions - Windows Application Package

IBM i Client Access is now called **IBM i Access Client Solutions**. This provides familiar IBM programs such as **5250 Emulator** and **Navigator for i**. The **Windows Application Package** software needs to be separately downloaded and installed.

Note: *Windows Application Package* is different to just *Windows Application* and this wording is important as the **IBM i Access Client ODBC Driver** is only contained in the *Windows Application Package*.

Download and Install Windows Application Package for IBM i Access Client Solutions

The [Windows Application Package](#) software may be downloaded from IBM by logging on to the **My Entitled Software Support** (ESS) website.

- Browse to the ESS website:

<https://www.ibm.com/servers/eserver/ess/index.wss>

- Once you have logged in you need to select to download the:

ACS Windows App Pkg English (64bit) - 6th entry in this screenshot.

Support & downloads My IBM

IBM i Access Client Solutions

Downloads

IBM i Access Client Solutions
English
2018-11-12

To download using http, click on 'Download now'.

You can also download the files [using Download Director](#) [Learn more](#)

Download using Download Director Download using http

IBM i Access Client Solutions IBMIAccess_v1r1.zip (102657745 B)	Download now
Readme file for 5733-XJ1 Readme.txt (5 KB)	Download now
Quick Start Guide QuickStartGuide_en.html (10 KB)	Download now
Getting Started GettingStarted_en.html (105 KB)	Download now
ACS EHLLAPI - Version 8.18.316 acshllapi.exe (1119120 B)	Download now
ACS Windows App Pkg English (64bit) IBMIAccess_v1r1_WindowsAP_English.zip (55123225 B)	Download now
ACS Linux App Pkg IBMIAccess_v1r1_LinuxAP.zip (21303291 B)	Download now

- **Unzip** the file
- **Run** the installer

Run the IBM i Access Client

The **IBM i Access Client Solutions** Windows Application software is opened by running the following program (*32 bit version also available in sub folder*):

```
C:\Users\Public\IBM\ClientSolutions\Start_Programs\Windows_x86-64\acslaunch_win-64.exe
```



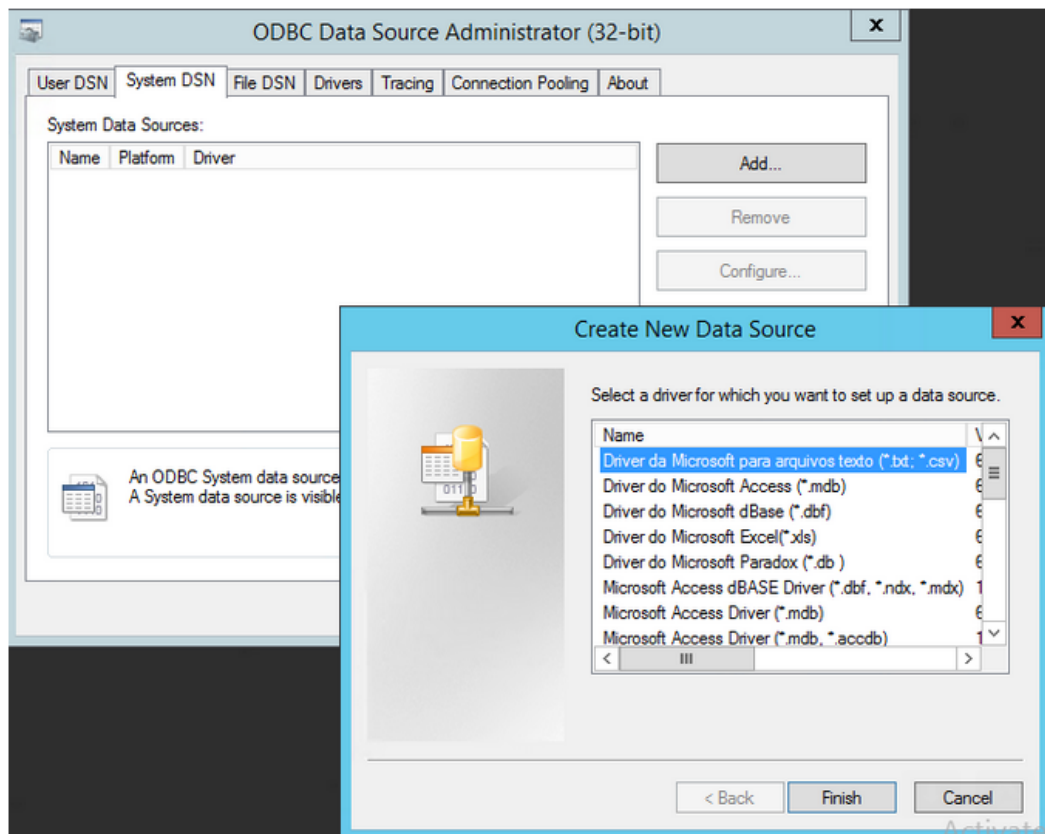
Install the ODBC Driver for Access Client

The **ACS Windows Application Package** includes an [ODBC driver](#) that allows your applications convenient access to DB2® for IBM® i.

Note: This is only required if you wish to use applications such as [Tungsten Capture](#) to connect to your IBM i.

- Open the **ODBC Data Source Administrator** (search for ODBC) - select either the **32-bit** or **64-bit** depending upon the application e.g. Tungsten Capture requires the 32-bit.
- Select the **System DSN** tab

- Click **Add** to add a new System Data Source



- Select the **IBM i Access Client ODBC Driver** from the list and complete the wizard.

4 Cobwebb Main Menu

To see the CPPD menu '**ADDLIBLE CPPD**' and '**GO CPPD**' or select option **80 – CPPD menu** from the [Fax/Email](#) menu.

The main CPPD menu has the following options: -

Option Description

1. [Work with PPD](#)
 2. [Create PPD](#)
 3. [Import PC PPD file](#)
 4. [PPD Security](#)
 5. [Work with PPD parameters](#)
 6. [PPD file maintenance](#)
 7. [Configuration Wizard](#)
 8. [Configure CPPD Subsystem Jobs](#)
-
80. [Fax/Email menu](#)
 85. [Cobwebb Tools menu](#)

86. [Cobwebb Hot Keys menu](#)

90. Sign off

To view the Help for a specific option simply click on one of the above links.

4.1 Work with PPD

Work with PPD provides for the input and update of the PPD file. This can be found from the [Cobwebb Main Menu - Option 1](#). The Work with PPD display lists all the PPD files. You can add new PPD file to the list (create), modify, copy and delete entries. Normally these entries would be created automatically by exporting your Cobwebb Design using the [Cobwebb Designer](#).

The PPD file contains the [instructions](#) for processing a spooled file using the:

- Spooled File Monitor job (SPLMON) in the [CPPD subsystem](#), running over the entries in [Work with Spooled File Monitor](#)
- [RUNPPD](#) command
- [CRTPPD](#) command
- [Create PPD](#) menu option

Position to

If there are a number of PPD files, use this function to begin the display starting with the characters entered here.

Options

Select one of the following options:

- 1=Create** Allows you to create a new PPD file. This option is only valid on the top (entry) line of the display.
- 2=Revise** Allows you to amend a PPD file.
- 3=Copy** Copy this PPD file.
- 4=Delete** Delete the PPD file and, from *Cobwebb Server version 6.2.88*, any [Spooled File Monitors](#) entries using the PPD.
- 7=Rename** Rename the PPD file.
- 8=PPD Statistics** Displays the **PPD Statistics** for the PPD member. **Note:** Only available if you are [Collecting PPD Statistics](#).

Entries

Page definition

The name to be given to the PPD file.

Descriptions

The description of the PPD file.

Function keys

F3=Exit Exits the Work with PPD dialog and returns to the Main menu, without updating.

F12=Canc Cancels the Work with PPD dialog and returns to the Main menu, without updating.
el

4.1.1 Print Page Definition Instructions

This screen is used to input the instructions for the CRTPPD command.

Page Definition

The name of the PPD file that you are creating / modifying.

Options

1=Create Create a new function, the new function is inserted before the current line

2=Revise Amend an existing function

3=Copy Copy a function.

4=Delete Delete a function.

Functions

Each type of function has a different layout. The possible functions are:

[COP](#) Copy text from any position on a line to the same or any other line.
[Y](#)

[MO](#) Text data can be inserted using the move instruction.
[VE](#)

[LOOP](#) The LOOP defines the lines within the input document which are tested for the conditions specified in the following IF instructions.

[IF](#) Conditional test, if true the instructions following are completed.

[IFP](#) Conditional test on a parameter field.

[END](#) Completes a sequence of one or more IFs.
[I](#)

[END](#) Completes a loop.
[L](#)

[GRP](#) Graphics member inserts an Image or Overlay.
[H](#)

[RES](#) Resource element - This is useful in reducing the size of your output if you are using the same image multiple times as it just references a single resource.

Limitations

- These need to be full page images

- Only Blank & White
- Positioning if using PDF output can have issues due to the "No print border".

[OUT](#) Defines an output device, one or more OUTP can be used.

[P](#)

[PAR](#) Parameter for an exit program.

[M](#)

[CAL](#) Call an exit program.

[L](#)

[VAR](#) Variables 1-6 which can be loaded from the spooled file and tested.

[BLN](#) Blanks an area of the output page.

[K](#)

[XML](#) Defines an XML element.

[E](#)

[XML](#) Defines an XML attribute.

[A](#)

[XML](#) Defines an XML instruction.

[I](#)

[XML](#) Defines an XML comment.

[C](#)

[XML](#) Defines an XML text.

[T](#)

Entries

Line

The input spooled file line number.

Description

The description of the function.

Function keys

F3=Exit Returns to the Work with PPD screen without updating.

[F10=More Parameters](#) Display the PPD Control Screen. Use the PPD Control Screen to enter the control details for splitting the spooled file into separate documents.

F12=Previous Returns to the previous screen without updating.

Note:

Press **ENTER** to update

4.1.1.1 COPY

All data, which is required on the output page, must be copied from the input page. The **COPY** function allows as many lines as required to be copied at the same time.

Copy from line number

The starting line number to copy

start position

The first position to copy

end position

The last position to copy

Copy to line number

The line number to copy to

to line number offset

The offset to add to the copy to line number in 1440'ths of an inch.

start position

The first position in the line to copy to.

start position offset

The offset to add to the first position of the copy.

end position

The last position to copy to.

Number of lines to copy

The number of lines to copy

Font

The font (0-2)

Underline

Underline (0-1)

Inverse

Invert text (0-1)

Italics

Italics (0-1)

Bold

Bold (0-1)

Width

Width (0-1)

Align characters to grid

Position each character in its correct grid position. Used when lining up columns of numbers in a variable pitch font.

Barcode

Barcode to be used.

Foreground Colour

Text colour - where supported.

Function keys

F3=Exit Returns to the Work with PPD screen without updating.

F12=Previous Returns to the previous screen without updating.

4.1.1.2 MOVE

The **MOVE** function is used to move the text defined on the move statement, to the specified position on the output page.

Move to line number

The starting line number to move to.

to line number offset

The offset to add to the move to line number in 1440'ths of an inch.

start position

The first position in the line to move to.

start position offset

The offset to add to the first position of the move.

Text

132 positions of text to move.

Font

The font (0-9)

Underline

Underline (0-1)

Inverse

Invert text (0-1)

Italics

Italics (0-1)

Bold

Bold (0-1)

Width

Width (0-1)

Align characters to grid

Position each character in its correct grid position. Used when lining up columns of numbers in a variable pitch font.

Barcode

Barcode to be used

Foreground Colour

Text colour - where supported.

Function keys

F3=Exit Returns to the Work with PPD screen without updating.

F12=Previous Returns to the previous screen without updating.

4.1.1.3 LOOP

A **LOOP** is used in conjunction with the [IF](#) function. IFs within a loop are executed on each line within the loop.

Loop from line number

The first line of the loop.

Loop to line number

The last line in the loop.

Only increment line if IF true

When looping with a conditional statement (IF) the line count of the page being copied to is only updated if the IF statement is satisfied. This means that lines which do not satisfy the IF are not included on the output, thereby moving the other lines on the page up a line.

Loop Type

This should be "**0**" if you have specified a "Loop to line number". If you wish to loop to the end of the page then this should be a "**1**" and if looping to the end of the document (used in XML) it should be a "**2**".

Function keys

F3=Exit Returns to the Work with PPD screen without updating.

F12=Previous Returns to the previous screen without updating.

4.1.1.4 IF

The **IF** function is used to test data on the input page and compare it to the specified string. If the IF is true all the functions following up to the [ENDI](#) are executed. An IF can be followed by any number of IF's but the following functions will only be executed if all the conditions are satisfied.

The sequence is IF, IF, Functions, ENDI.

Testing is character based unless the 'Compare Data' field is all numeric including preceding zeros, in this case the test is Numeric.

If the test is numeric the field to be compared is checked to make sure it contains only numbers, (preceding blanks and the characters "." and "," are counted as zeros) and a numeric comparison is carried out. If non-numeric characters are found in the field to be compared (excepting preceding blanks, commas and decimal points), the test will not be successful.

IF from line number

The line number of the input page to be tested.

start position

The first position in the line to be tested.

end position

The last position in the line to be tested.

Compare operation

The condition being tested, possible conditions are Equal EQ, Not Equal NE, Greater than GT, Less than LT.

Compare data

This is the data used to compare with the data on the input page.

Character fields maximum 30 chs. EQ, NE, GT, LT, GE, LE

Numeric fields maximum 10 chs (numeric only: blank and '.', are treated as zeros) GT, LT, GE, LE.

Function keys

F3=Exit Returns to the Work with PPD screen without updating.

F12=Previous Returns to the previous screen without updating.

4.1.1.5 IFP

The **IFP** function is used to test a Parameter (PARM1-6), a Variable, the current Page Number (PAGE) of a document, the number of copies or the paper drawer.

Testing is character based for the [PARM](#) and [VAR](#) parameters unless the 'Compare Data' field is all numeric (preceding zeros must be included). In this case the field to be compared is checked to make sure it contains only numbers (preceding blanks are counted as zeros) and a numeric comparison is carried out. The testing is numeric for the PAGE, Copies and Drawer parameters.

Parameter name

PARM1-6 - The parameter to be tested

Parameters are the input/output of an Exit Program, 6 parameters of 132 characters are passed to/from the exit program. Unused parameters are specified and ignored. The specified parameter(s) (from 1-6) is compared with the Compare Data if true all the functions following the IFP, up to the ENDI are executed. One IFP can be followed by any number of others but the functions will only be executed if all conditions are satisfied. The correct sequence is IFP, IFP, Functions, ENDI.

Variable name - The Variable to be tested

Variables are not passed to an exit program and are used solely for storing data for testing at a later date. Typically variables are loaded within a loop and tested after the end of the loop, to condition the output. This can now be any name that you have given to a variable.

PAGE - The Page number to be tested

Testing using the 'PAGE' Keyword enables the page number to be checked. This can be used to condition the use of the graphics overlay, either for the first **page or continuation pages**.

Copies - Number of Copies to be tested

Number of copies can be used to condition data on the output page; perhaps only the first copy requires an overlay.

Drawer - Paper Drawer to be tested

The number of the paper drawer may be tested so that, for instance, you do not add an overlay when you are using the drawer containing letterhead.

Compare operation

The condition being tested, possible conditions are Equal **EQ**, Not Equal **NE**, Greater than **GT**, Less than **LT**.

Compare data

This is the data used to compare with the PARM, VAR, PAGE, Copies or Drawer. You may also use another Parameter or Variable to compare with by specifying ?PARM1 or ?VAR1 for instance.

For Page this can be *FIRST, or *LAST for the first or last page in a group or the page number '99999'. See [Print Page Definition Instructions](#) for details on how to set up page control.

Function keys

F3=Exit Returns to the Work with PPD screen without updating.

F12=Previous Returns to the previous screen without updating.

4.1.1.6 ENDI

The **ENDI** function is required as the last statement in an **IF** group, i.e. IF, IF, Functions, ENDI. Only one ENDI is required

The ENDI has no parameters.

4.1.1.7 ENDL

The **ENDL** function is used to mark the end of a **LOOP**. The end loop line number defines the last line of the input page to be included in the loop. If the last line number is blank the loop continues to the end of the page.

End loop line number

End Loop line number (1-99). If blank the loop continues to the end of the page.

Function keys

F3=Exit Returns to the Work with PPD screen without updating.

F12=Previous Returns to the previous screen without updating.

4.1.1.8 GRPH

The **GRPH** function is used to place an image (CPPD graphics file member) on the output page. Any number of images may be output anywhere on the page. Images can be output dependent on conditional tests.

Insert at line number

The line number where the graphics is to be inserted.

to line number offset

The offset in 1440'ths of an inch below the line number.

start position

The position (column) where the graphics is to be placed.

start position offset

The offset in 1440'ths of an inch to the right of the start position.

Graphics to insert

The name of the CPPD graphics file member to insert.

or Graphics from line number

Or you can select a position on the input spooled file which holds the name of the graphic you wish to insert.

start position

The position (column) where the graphic name is to be found.

end position

The position (column) where the graphic name is to be found.

Function keys

F3=Exit Returns to the Work with PPD screen without updating.

F12=Previous Returns to the previous screen without updating.

4.1.1.9 RES

The **RES** function is used to place a Printer Resource on the output page. This is useful in reducing the size of your output if you are using the same image multiple times as it just references a single resource.

There are some limitations however:

- These need to be full page images
- Only Blank & White
- Positioning if using PDF output can have issues due to the "No print border".

Resource

The number for the Printer Resource that you wish to use - this can be 0 - 9.

Function keys

F3=Exit Returns to the Work with PPD screen without updating.

F12=Previous Returns to the previous screen without updating.

4.1.1.10 OUTP

The **OUTP** function causes the page to be output to the specified output device.

Output device

The CPPD Output device name. See [Work with output devices](#) for all Output devices. You can select any output device name for the OUTP. Each output device can hold parameters for *SCS, *HPT, *AFP, *FAX, *EML, *FIL and *DSP.

Description

This is the description of the output device.

Output types

The output type. Possible output types are: -

*SCS	Text data only, can be printed on any printer.
*HPT	Host print transform, text and image data, printed using Host Print Transform to a PCL or HPT compatible printer attached to the IBM i using a suitable connection e.g. TCP/IP.
*AFP	Advanced function presentation, text and image data, printed using PSF/400 on the IBM i and an AFP Printer attached to the IBM i.
*FAX	The output page will be sent as a fax. The fax number is selected from the text using the parameters specified in the OUP *FAX parameters.
*EML	The output page will be sent as an email. The destination is selected from the text using the parameters specified in the OUP *EML parameters.
*DSP	The output page will be sent as an image to a PC running Cobwebb Cview.
*FIL	The output page will be generated as a txt or pdf file.

See [Work with output devices](#) in CPPD file maintenance for details.

Function keys

F3=Exit Returns to the Work with PPD screen without updating.

F12=Previous Returns to the previous screen without updating.

4.1.1.11 PARM

If you need to call an exit program to get more data to add to the spooled file you will need to define one or more **PARM**. Six parameters of 132 characters in length are always defined, although you may only use the first few characters of the first. The data in the parameter passed to the called program is replaced with the data to be output.

Parameter number

The number of the parameter. This can be in the range 1-6.

Parameter from line number

The line number in the spooled file containing the parameter field.

start position

The first position of the parameter.

end position

The last position to of the parameter.

Parameter to line number

The line number to copy the output parameter to.

to line number offset

The offset to add to the output parameter line number in 1440'ths of an inch.

start position

The first position in the line to copy the output parameter to.

start position offset

The offset to add to the output parameter start position in 1440'ths of an inch.

end position

The last position to copy to.

Parameter

Up to 132 characters of data to be passed to the exit program. On return from the exit program this parameter contains up to 132 characters of data.

Font

The font to be used.

Underline

Underline (0-1)

Align characters to grid

Position each character in its correct grid position. Used when lining up columns of numbers in a variable pitch font.

Barcode

No longer used.

Foreground Colour

Text colour - where supported.

Function keys

F3=Exit Returns to the Work with PPD screen without updating.

F12=Previous Returns to the previous screen without updating.

4.1.1.12 CALL

The **CALL** function is used to call an exit program. The exit program parameters are defined in the [PARM](#) function.

Call program

The name of the exit program to be called.

Library

The library containing the exit program. If you need to add more libraries in order to retrieve the correct files then enter a plus "+" to add up to five libraries in total. If you have more than one exit program in your PPD file then these libraries are cumulative up to a total of 25 libraries.

Function keys

F3=Exit Returns to the Work with PPD screen without updating.

F12=Previous Returns to the previous screen without updating.

4.1.1.13 VAR

The Variables 1-6 are used to store data from the spooled file or to be loaded with a value. The variable can be tested using the [IFP](#) function and the result used to modify the output or other functions. Variables may be used within a [LOOP](#) and tested outside the Loop, to condition whether a document is printed or faxed.

Variable

The name of the Variable. This entry may also contain COPIES or DRAWER as special variables.

Variable from line number

The line number of the spooled file, from which the variable is loaded.

start position

The first position in the line of the variable.

end position

The last position in the line of the variable.

Variable

Up to 132 characters can be moved into the variable.

Function keys

F3=Exit Returns to the Work with PPD screen without updating.

F12=Previous Returns to the Work with PPD screen without updating.

4.1.1.14 BLNK

You may wish to print the output of a spooled file page to more than one output device and, if each device requires a different layout, you would need to create the output page for the first device and write it, use the **BLNK** element to effectively blank the page and start all over again for the second output layout.

Blank to line number

Enter the line number from where you wish to start blanking your output page.

to line number offset

The offset in 1440'ths of an inch below the above line number.

start position

The first position in the line to start blanking.

start position offset

The offset to add to the start position in 1440'ths of an inch.

end position

The last position in the line to blank.

Number of lines to blank

Enter the number of lines from the start line that you wish to blank.

Function keys

F3=Exit Returns to the Work with PPD screen without updating.

F12=Previous Returns to the Work with PPD screen without updating.

4.1.1.15 XMLE

This element is only used in an XML PPD file and allows you define an XML element as it appears in the selected schema.

Element name

Enter the name of the element e.g. SuppliersProductCode.

Element from line number

Enter the spooled file line number from which you wish to retrieve the XML element data.

Start position

The first position in the line for the XML element data.

End position

The last position in the line for the XML element data.

Constant

Enter the constant data for the XML element if you are not retrieving the data from the spooled file

Function keys

F3=Exit Returns to the Work with PPD screen without updating.

F12=Previous Returns to the Work with PPD screen without updating.

4.1.1.16 XMLA

This element is only used in an XML PPD file and allows you define an XML attribute as it appears in the selected schema.

Attribute name

This allows you define an XML attribute as it appears in the selected schema.

Attribute from line number

Enter the spooled file line number from which you wish to retrieve the XML attribute data.

Start position

The first position in the line for the XML attribute data.

End position

The last position in the line for the XML attribute data.

Constant

Enter the constant data for the XML attribute if you are not retrieving the data from the spooled file

Function keys

F3=Exit Returns to the Work with PPD screen without updating.

F12=Previous Returns to the Work with PPD screen without updating.

4.1.1.17 XMLI

This element is only used in an XML PPD file and allows you define an XML instruction.

Instruction name

Enter the name of the instruction e.g. xml.

Function keys

F3=Exit Returns to the Work with PPD screen without updating.

F12=Previous Returns to the Work with PPD screen without updating.

4.1.1.18 XMLC

This element is only used in an XML PPD file and allows you define an XML comment.

Comment from line number

Enter the spooled file line number from which you wish to retrieve the XML comment data.

Start position

The first position in the line for the XML comment data.

End position

The last position in the line for the XML comment data.

Constant

Enter the constant data for the XML comment if you are not retrieving the data from the spooled file.

Function keys

F3=Exit Returns to the Work with PPD screen without updating.

F12=Previous Returns to the Work with PPD screen without updating.

4.1.1.19 XMLT

This element is only used in an XML PPD file and allows you define XML text.

Text from line number

Enter the spooled file line number from which you wish to retrieve the XML text data.

Start position

The first position in the line for the XML text data.

End position

The last position in the line for the XML text data.

Constant

Enter the constant data for the XML text if you are not retrieving the data from the spooled file.

Function keys

F3=Exit Returns to the Work with PPD screen without updating.

F12=Previous Returns to the Work with PPD screen without updating.

4.1.1.20 Print Page Definition Control

The PPD control (F10 from **Print page definition instructions**) is used to specify the splitting up of the spooled file into separate documents e.g. all the pages for a multi-page invoice. The PAGE variable contains the page number. The **IFP** function allows the PAGE variable to be tested (*FIRST, *LAST or page no are allowed) to determine which page of a group is being processed, e.g. different overlays can be used depending on the Page number of the document. The PAGE variable is updated with the appropriate page number according to the Print page definition control and is reset at the start of each new document.

For example: -The Invoice number can be used to separate invoices, allowing the overlay on the Last page to be different from the preceding pages.

First page of new document

Compare data text

Each page of the spooled file is scanned for this text, if found the page is considered the first page of a new document and is marked as such.

or compare data line number

As an alternative to scanning each page for Compare data text, a specified place (line number and position) is compared on each page depending on the comparison (EQ or NE) a change of fax recipient is detected. The Compare data line number specifies the line number on which the data to indicate a new fax will be found.

Compare data position

The position in the line where the data to indicate a new document will start.

Compare data field length

The length of the data which will be used to indicate a new document.

Comparison

The type of comparison **EQ**=Equal, **NE**=Not Equal.

Ignore first page

If the spooled file is created with a setup page as the first page this option will enable it to be ignored.

Select from page

Select from this page of the spooled file.

to page

to this page of the spooled file.

Use Spool file Start & End pages

You can choose to use the "Page range to print" from the spooled file attributes instead of the from and to pages specified above. Enter a **Y** if you wish to use this option.

PPD document type

This is **0** for a PPD file and **1** for an XML file

Source spooled file code page

The code page of the source spooled file.

Version

This is the version number of PPD design. This is updated every time something is changed in the design.

UTC Timestamp

This is the date and time that the file was last uploaded.

PC File Path

This is the path to the PPD design from which this PPD was last uploaded.

Function keys

F3=Exit Exits the PPD control screen and returns to the Work with PPD members screen without updating. Press Enter to Update.

F12=Cancel Exits the PPD control screen and returns to the Work with PPD instructions screen without updating. Press Enter to Update.

4.1.2 Copy or Rename PPD

If you select to **Copy** or **Rename** a PPD file you will be asked for the following details

Copy / Rename to:**Print page definition**

Enter a new name for your PDD.

Description

Here you may either leave the same description or enter a new one.

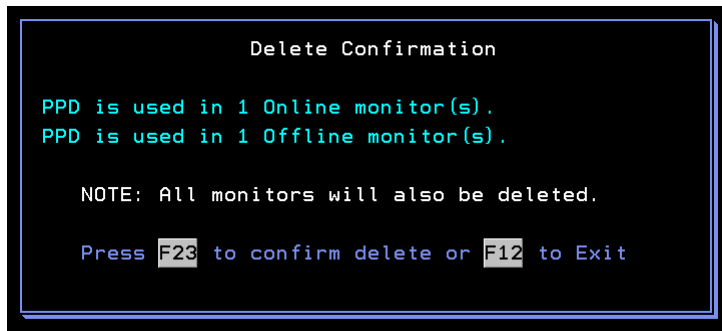
Replace existing:**Replace if already exists**

If the new name you have chosen already exists then you may select to overwrite it by entering a 'Y'.

4.1.3 Delete PPD

Deleting a PPD will display a screen showing the PPD name and description.

Press Enter and, from *Cobwebb Server version 6.2.88*, if the PPD is being used in any [Spooled File Monitors](#) a window is displayed e.g.



If you are happy that you want to delete the PPD and any existing [Spooled File Monitors](#), press **F23** to confirm. If not press **F12** to cancel.

Prior to *Cobwebb Server version 6.2.88* or if the PPD is not used in any Spooled File Monitors, just pressing enter deletes the PPD only.

4.2 Create PPD

The CRTPPD command is used to specify the spooled file or files to be selected, together with the PPD file which will be used to convert the layout of the selected spooled files. This can be found from the [Cobwebb Main Menu - Option 2](#).

The first decision is to decide how you which the CRTPPD command to find the required spooled file. This command would normally only be used to test your Cobwebb Design or if you wish to embed the command into your own program. Normally a Cobwebb Design would be run automatically when configured to be used by a [Spooled File Monitor](#).

Select spooled file

[*SLTSPL](#) - Allows you to enter Output queue, User Data, Form Type etc. to select the spooled file to be processed. This is that option that would normally be used if you wished to test your PPD file.

[*ENTSPL](#) - Allows you to select a spooled file based upon the job and spool file details which is useful if you wish to embed the CRTPPD command into your own program and retrieve a spooled file that you have just created.

4.2.1 *SLTSPL Parameters

If ***SLTSPL** is used the spooled file or files matching the selection criteria will be selected and converted.

Spooled File

Enter the name of your spooled file or *ALL

User

Enter a specific User profile used to select the spooled files, *CURRENT for the User profile running the job or *ALL to select spooled files for all users.

Output Queue name / Library name

Enter the print output queue and library name from which the spooled files will be selected, or enter *ALL to select spooled files from all output queues.

If you enter *ALL for the output queue name then you must leave the library name blank. If you enter an output queue name then either enter *LIBL to search the user library list for the

print output queue, *CURRENT to search the current library list for the output queue or a specific library name.

Form type

Enter the Form type used to select the spooled files, *ALL to select all form types or *STD to select 'Standard' form type.

User data

Enter the User specified data used to select the spooled files or *ALL to select all spooled files regardless of user data.

Spooled file status

Select the final spooled files(s) status. Enter *DLT if you wish to delete the selected spooled file(s) after processing, *SAV to set the selected spooled file(s) status to SAVED after processing, *HLD to set the selected spooled file(s) status to HELD after processing and *MOV to move the spooled file to another Output queue.

Output queue

If you use *MOV you must then enter the Output queue and Library name for the move.

PPD file name

Use the PPD file name containing the PPD member to be used for converting this spooled file. The default file name is AP RTPDM and should not be changed.

Library

Use the PPD library name containing the PPD file to be used for converting this spooled file. The default library name is CPPD.

Member name

Use the PPD member name containing the PPD instructions for converting this spooled file.

4.2.2 *ENTSPL Parameters

If *ENTSPL is specified then the details of the spooled file need to be entered. If an * is used in the Job name the last spooled file created in the current job is used, this is the way to include the command in a CL program.

Spooled File

Specify the name of the spooled file to be converted using CRTPPD. The spooled file can be specified uniquely in the following parameters, or use '*' in the Job number to select the last spooled file created in the current job (See the IBM CPYSPLF command for more details of selecting using * in the Job number).

Job name

Enter the specific Job name relating to the spooled file or * to select the current job.

User

If a Job name is specified then you must enter the specific User name relating to the spooled file.

Number

If a Job name is specified then you must enter the specific Job number relating to the spooled file.

Spooled number

Enter the specific spooled number relating to the spooled file (1 – 9999), *ONLY to select the ONLY available spooled number (error if more than one) or *LAST to select the LAST spooled number created by the Job.

Spooled file status

Select the final spooled file(s) status. Enter *DLT if you wish to delete the selected spooled file(s) after processing, *SAV to set the selected spooled file(s) status to SAVED after processing, *HLD to set selected spooled file(s) status to HELD after processing and *MOV to move the spooled file to another Output queue. If you use *MOV you must then enter the Output queue and Library name for the move.

Output queue

If you use *MOV you must then enter the Output queue and Library name for the move.

PPD file name

Use the PPD file name containing the PPD member to be used for converting this spooled file. The default file name is AP RTPDM and should not be changed.

Library

Use the PPD library name containing the PPD file to be used for converting this spooled file. The default library name is CPPD.

Member name

Use the PPD member name containing the PPD instructions for converting this spooled file.

4.3 Import PC PPD file

Use this option to import the PC PPD file which has been exported from the PC to a IBM i shared folder. This can be found from the [Cobwebb Main Menu - Option 3](#).

Normally this is an automatic process within the Export function of the Cobwebb Designer. Manually importing the file is only necessary if you cannot use shared folders.

Entries

PC file name

The name of the PC PPD file which you exported from the PC. The file name can be specified with or without the '.XPD' extension.

Function keys

F3=Exit Exits the Import PC PPD file screen and returns to the Main menu, without updating. Press Enter to Update.

F12=Canc Cancels the Import PC PPD file screen and returns to the Main menu, without updating. Press Enter to Update.

4.4 PPD Security

The PPD security is used when installing CPPD, or when updating from a demo copy, or when changing IBM i processors. This can be found from the [Cobwebb Main Menu - Option 4](#) or from the [Cobwebb Fax & Email Menu - Work with System Parameters - Option 6](#).

CPPD will not convert or print spooled files without a valid security code. The Cobwebb Server software is licensed for use on a specified IBM i; a change of IBM i processor requires a new access code.

If a new access code is required please contact Cobwebb Communications Ltd. - see [Requesting a new Cobwebb Server Security Code](#).

Note: You can restrict access to this option if required; please see the topic [Restricting Access to Cobwebb PPD Security & System Parameters](#).

Entries

System Description

This name is used as part of the security to identify the CPPD System and is usually the company name. (Previously called System name)

Instance Description

This identifies the CPPD Instance if there is more than one installation of CPPD. (Previously called Location)

Country Code

The Country Code identifies the country of installation e.g. UK

Expiry date

If a demonstration copy of the software is provided an expiry date is used to identify the end of the trial period. A permanent copy of the software has a blank expiry date. After the expiry date the software will not create spooled files. Cobwebb also supply a "Term" licence which will also have an expiry date.

Term

This entry is only used if an Expiry Date has been entered. It is used to determine if the licence is a "Term" licence or a "Temporary / Demonstration" licence. Enter a "Y" if you have a "Term" licence or "N" for a "Temporary / Demonstration" licence. The only difference is in the message that is sent to QSYSOPR when the licence is nearing its Expiry Date.

IBM i Serial number / Partition

This is automatically populated with the IBM i machine serial number and the partition where CPPD is loaded.

IBM i Model

This is automatically populated with the IBM i model number.

Print Page Designer

A Y indicates that you can create output using a PPD e.g. [CRTPPD](#), [RUNPPD](#) or the [Spooled File Monitor](#).

Advanced Print feature

A Y indicates the AFP print feature is authorised. This enables use of Graphics overlays, fonts barcodes etc.

PC Designer

A **Y** indicates that you may upload Cobwebb Designs to the IBM i from the [Cobwebb Designer](#).

XPD version

This information should be used to make sure that you upload your PPD files with a matching version number - see the **XPD File Version** on the **Server** tab of the [Options](#) entry on the **View** menu in the **Cobwebb Designer**.

Fax interface

A **Y** indicates the [Cobwebb Fax](#) interface is authorised.

Maximum lines

The maximum number of authorised fax lines.

Auth PC users

The number of PC users authorised to use the Cobwebb Fax PC Windows Software (no longer used).

Email interface

A **Y** indicates the [Cobwebb Email](#) interface is authorised.

Number of jobs

The number of Email driver jobs to start in the CPPD subsystem.

File interface

A **Y** indicates the [Cobwebb File](#) interface is authorised.

Web interface

A **Y** indicates the [Cobwebb Web Service](#) interface is authorised.

XML interface

A **Y** indicates the [Cobwebb XML](#) interface is authorised.

Docstore

A **Y** indicates the [Cobwebb Docstore](#) module is authorised.

PDF interface

A **Y** indicates the [Spool-a-matic](#) PDF interface is authorised.

Access code

The access code provided by Cobwebb Communications Ltd. On older versions of the Cobwebb Server software (*prior to v6.2.58*) this entry was hidden (non display) so the best way to position the cursor in the correct place for entering your supplied code is to press the Tab key until the cursor is on the correct line.

Once you have updated the Access code you need to press **Enter** to apply the code. You should see the message "**Access code updated**"

Function keys

F3=Exit

Exits the PPD Security screen and returns to the Main menu, without updating. Press Enter to Update.

- F14=Command String** Displays your current Security details as a string which may be copied and emailed to [Cobwebb Support](#) in order to request a security code.
- F12=Previous** Cancels the PPD Security screen and returns to the Main menu, without updating. Press Enter to Update.

4.5 Work with PPD parameters

The Work with PPD parameters allows the PPD system parameters to be changed. This can be found from the [Cobwebb Main Menu - Option 5](#).

Entries

Date format

The format of the date **1**=DMY, **2**=MDY, **3**=YMD.

Application data queue interface

If 'Y' starts the CDQAPI program in the CPPD subsystem. CDQAPI creates a spooled file from the COBWEBB data queue. This enables applications which output text records to the Cobwebb API to remain unchanged at the same time providing an input file for CPPD.

Spooled file monitor

If 'Y' starts the CPPD SPLMON program in the CPPD subsystem. SPLMON monitors for spooled files specified in the Work with spooled monitor file. The program will not recognise output queues added after it has been started and will not start unless there is at least one output queue specified and 'Online'. To add additional output queues stop and start the subsystem.

PC Server Interface

If you wish to use the TCP/IP interface to export your PPD files from your PC to your IBM i then you will need to enter a 'Y' here in order to start the relevant task in the CPPD subsystem.

Port

This should be left as the default of 3772 unless asked to change this by Cobwebb Support department.

Use Spool-a-Matic for PDF Creation

From version 6.2 of the Server software only. If you wish to create PDF output then you may either use the default **AFP2PDF** module or the **Spool-a-Matic** module. If you have **Spool-a-Matic** installed and wish to use this then enter a 'Y' here. If you enter a 'Y' and **Spool-a-Matic** has not been installed or the licence has expired then this will be changed back to 'N'.

Spool-a-Matic vs AFP2PDF Comparison table:	AFP2PDF	Spool-a-Matic
Produce colour output	No	Yes
Allow text to be selected from the PDF output	No	Yes

Collect PPD Statistics

From version 6.2.41 of the Server software only. If you wish to **Collect PPD Statistics** then change this entry to a **Y**. [Cobwebb PPD Statistics](#) allows you to collect statistics detailing the amount of output processed by the CPPD system. **Note:** You will need to *Stop* and *Restart* the CPPD subsystem if this entry is changed.

Job Scheduler delay time

From version 6.2.70 of the Server software only. This entry specifies the length of time (in minutes) the [Cobwebb Job Scheduler](#) will sleep between checking for jobs to run. Valid entries are **1 - 1440** minutes or **0** if you don't wish the Cobwebb Job Scheduler job **JOBSCD** to run in the [CPPD subsystem](#). **Note:** If you have specified a **Schedule Time** for a Job and this falls within the sleep period then it will be run when the job wakes up.

Job Scheduler Job Monitor

From version 6.2.70 of the Server software only. This entry specifies whether or not the [Job Scheduler Job Monitor](#) program **JOBSCDSTS** runs in the [CPPD subsystem](#). This checks the status of any job that has been set to run via the [Cobwebb Job Scheduler](#).

Note: If you set this to **Y** then, the first time you start the CPPD subsystem, a System Journal **QACGJRN** will be created (if it doesn't already exist) and the Accounting Level System Value **QACGLVL** will be adjusted to include ***JOB** journaling if not already included.

Function keys

F3=Exit Exits the PPD Parameters screen and returns to the Main menu, without updating. Press Enter to Update.

F12=Previo us Cancels the PPD Parameters screen and returns to the Main menu, without updating. Press Enter to Update.

4.6 PPD File Maintenance

The PPD file maintenance menu can be used to update the PPD files. This can be found from the [Cobwebb Main Menu - Option 6](#).

Note: Options that are **Uploaded = Yes**, are automatically updated when importing your PPD file to the Server. It is also possible to change these files using the PPD maintenance menu, but this is not advisable as it is recommended to keep the master copy of the PPD instructions on the PC.

Option	Description	Uploaded
1.	Work with Graphics File	Yes
2.	Work with Font Groups	Yes
3.	Work with Barcodes	Yes
4.	Work with Printer Resources (*AFP only)	Yes
5.	Work with Spooled File Monitor	
6.	Work with Output Devices	Yes
7.	Work with PPD Routeing - from version 6.2.87 Work with Standard Text	
8.	Work with PPD Users	
9.	Work with Directories	
10.	Work with Folder Monitor	
11.	Work with PPD Statistics - from version 6.2.43	
12.	Work with Job Launcher - from version 6.2.70	
13.	Work with XML Cross References - from version 6.2.82	

To view the Help for a specific option simply click on one of the above links.

4.6.1 Work with Graphics file

The Work with Graphics file option provides a simple method of getting a PC graphic file from a shared folder into the **Cobwebb Image Library** file (see [Creating your Overlay](#) for details of preparing a suitable PC graphics file).

This can be found from the [Cobwebb Main Menu - PPD File Maintenance - Option 1](#) or from the [Cobwebb Fax & Email Menu - System Maintenance - Maintenance Menu - Option 4](#).

The Work with graphics file display lists all the graphics file members. You can add a new graphics member to the file (create), or delete a member. Graphics members can only be viewed in PC PPD on the PC. This file is automatically updated when a CPPD file containing a graphic is exported from the PC to the IBM i.

Position to

If there are a number of Graphics members, use this function to begin the display starting with the characters entered here.

Options

Select one of the following options:

1=Create Allows you to create a new graphics file member, and copy the graphics data from a shared folder. *This option is only valid on the top (entry) line of the display.*

2=Revise Allows you to amend a graphics file.

4=Delete Allows you to delete a graphics file.

Entries

PPD Member

The name of the CPPD file that is using the graphic.

Image Name

The member name to be given to the graphics file member.

Description

The description of the graphics file member.

Function Keys

F3=Exit Exits the Work with graphics file screen and returns to the Maintenance menu, without updating. Press Enter to Update.

F5=Refresh Refreshes the list of graphics

F16=DSPMS Displays the CPPD message queue.

G CPPD

Page Up Scrolls up through the list.

Page Down Scrolls down through the list.

4.6.1.1 Graphics File Details

This information is displayed when creating or amending a graphic.

Entries

Member

The name of the CPPD file that is using the graphic.

Image Name

The member name to be given to the graphics file member.

Path

The path to where the graphical information is stored.

Description

The description of the graphics file member.

Image width

The width of the image in pixels (output automatically when the graphics member is imported by PC PPD).

Image height

The height of the image in pixels (output automatically when the graphics member is imported by PC PPD).

Lines

The approximate number of lines (at 6 lines per inch) the graphics member will occupy. If the graphics member is an overlay the number of lines is blank or zero.

User

If blank the Graphics member will be available to all users. The current userid may be entered so that only this user or a CPPD 'operator' can see the entry.

Created Timestamp

The date and time the entry was created.

Function Keys

F3=Exit Exits the Work with graphics file details screen and returns to the Work with graphics file list, without updating. Press Enter to Update.

F12=Previous Cancels the Work with graphics file details screen and returns to the Work with graphics file list, without updating. Press Enter to Update.

4.6.2 Work with Font Groups

Work with Font Groups allows you to select up to ten fonts which can be used in the spooled file. The Font group is specified in the CRTPPD (Create PPD) command. This can be found from the [Cobwebb Main Menu - PPD File Maintenance - Option 2](#) or the [Cobwebb Fax & Email Menu - System Maintenance - Maintenance Menu - Option 6](#).

Within a spooled file the 10 fonts are selected using the #F0-#F9 text instructions. Note: - if you use a font which has not been specified in the Font Group you will get a 'Sense Data Error' 218 in

the QFAXOPR message queue in library QUSRSYS. For information on how CPPD uses Font Groups please see the topic [Font Groups and CPPD](#).

Position to

If there are a number of Font Group members, use this function to begin the display starting with the characters entered here.

Options

Select one of the following options:

1=Create Allows you to create a new font group file member. *This option is only valid on the top (entry) line of the display.*

2=Revise View and/or amend a font group member.

3=Copy Copy the font group member to a new member.

4=Delete Delete the font group member.

Entries

Font

The name to be given to the font group member.

Description

The description of the font group.

Space

The number of units per line. A unit is a 1440th of an inch. Blank is the default and is 240, or 6 lines to the inch.

Function keys

F3=Exit Exits the Work with font groups screen and returns to the Maintenance menu, without updating. Press Enter to Update.

F12=Previous Cancels the Work with font groups screen and returns to the Maintenance menu, without updating. Press Enter to Update.

Page Up Scrolls up through the list.

Page Down Scrolls down through the list.

4.6.2.1 Font Group Details

This information is displayed when creating or amending a font group member.

Entries

Font group name

The name to be given to the font group member.

Font group description

The description of the font

Font lines spacing

The vertical grid spacing specified in the Cobwebb Designer in lines per inch and converted on the IBM i into 1440th's of an inch. The default is 240, or 6 lines to the inch.

Font lines per page

The number of lines (as defined above) per page.

Font character spacing

The horizontal grid spacing specified in the Cobwebb Designer in characters per inch and converted on the IBM i into 1440th's of an inch. The default is 144, or 10 characters per inch.

Font default margin

The default margin is zero. This means that the margin defined in the document is used. If an additional margin is required it can be specified here.

Note : the margin can be altered in the text using the #Mn text instruction.

Fax page size

The Fax page size is used by Facsimile Support/400 when sending a fax. The Fax page size is calculated after the number of lines per page is calculated, so that if the Fax page size is less than the number of lines on a page an additional page break will be inserted when the fax is sent. This occurs for example if the number of lines on a page is 70 (A4), but the Fax page size is Letter (66 lines).

1=Letter (216 x 279 mm, 8.50 x 11.00 inches)

2=Legal (216 x 316 mm, 8.50 x 14.00 inches)

3=A4 (210 x 297 mm, 8.27 x 11.69 inches)

The paper in thermal paper fax machines may vary in width however the difference is small, normally between 210 and 216 mm. Plain paper fax machines may adjust the image to fit the paper; this often results in the size and quality of the received fax being different on different fax machines.

Transmission mode

A fax can be transmitted in either Normal mode (200 x 100 pixels per inch (vertical resolution at 100 ppi is half horizontal resolution at 200 ppi), or in Fine mode (200 x 200 pixels per inch). Naturally Fine mode takes longer to transmit however the quality is superior, the default is Fine mode. If you want to send faxes taking less time test out Normal mode and see if the quality is acceptable. Different Font Groups can use different Transmission modes. It is not possible to change mode while transmitting a fax.

Function Keys

F3=Exit Exits the Work with font group detail screen and returns to the Work with font group list, without updating. Press Enter to Update.

F12=Previous Cancels the Work with font group detail screen and returns to the Work with font group list, without updating. Press Enter to Update.

Page Down Displays the [Work with Font Character Set Name - Downloaded fonts](#) dialog.

4.6.2.2 Work with Font Character Set Name - Downloaded fonts

Use the Work with Font Character Set Name to define the Font Character Set Name and Code Page of downloaded fonts.

Entries

Char set [SBCS only]

The Font Character Set Name. If the Font Resource is not found in QFNTCPL or another specified library an error message will be displayed.

Use the command WRKFNTRSC with library name QFNTCPL to display a list of available fonts. Most of the fonts in QFNTCPL are included in the Cobwebb Fonts groups FONT1 - FONT13. To print a sample of each font change the Font group of your Userid to one of the above and create a test fax using text e.g. the Standard Text 'FONTS'.

Code Page [SBCS only]

The Code Page to be used with this font. The code page is normally T1V1 followed by the Character Set name defined in the System Value QCHRID. e.g. for the UK T1V10285.

PC Code Page:- If either code pages T1000437 or T1000850 are used the text characters will be translated from EBCDIC to ASCII and sent to the printer as ASCII. A PC Font is used if line drawing characters are required, as line drawing characters are not available in EBCDIC fonts. Vertical line drawing is not satisfactory unless the lines per inch match the size of the vertical line, if this is not the case the vertical line appears with a gap between each line.

Coded Font [DBCS only]

This is the name of the coded font for the double byte character set e.g. X0HB3D [CHARACTER SET COH201D0 AND CODEPAGE T1000259]. This contains the Character Set and the Code Page information.

Library

When a font character set name is used the font resource must be available to the program, so the font library name must be in the library list. Specify the font library name if the font library is not in the library list. If the fonts are in the IBM i font library 'QFNTCPL' it does not need to be specified.

Description

The description of the font.

Function Keys

F3=Exit	Exits the Work with Font Character Set Name - Downloaded screen and returns to the Work with font group screen, without updating. Press Enter to Update.
F7=DBCS font	Switches the view to the Double Byte Character set Font information
F7=SBCS font	Switches the view to the Single Byte Character set Font information
F12=Previous	Cancels the Work with Font Character Set Name - Downloaded screen and returns to the Work with font groups dialog, without updating. Press Enter to Update.
Page Up	Returns to the Work with font groups dialog, without updating. Press Enter to Update.

Page Down Displays the [Work with Font Global identity \(FGID\) - Resident Fonts](#) dialog.

4.6.2.3 Work with Font Global identity (FGID) - Resident Fonts

Use the Work with Font Global Identity display to define the Font Global Identity of Printer Resident Fonts.

Entries

Type Face

The Typeface or Registered Font ID is the same for a particular Font whether it is used in an IBM i, a PC or in fact wherever it is used. If you print a list of Resident Fonts on your IBM i AFP printer the FGID should be displayed, use the decimal number, e.g. 11 is Courier. The width indicates the width of the Font in 1440ths of an inch. You may find the IBM i has no equivalent width (especially on the larger fonts) in which case it will choose the nearest, this is often similar on the smaller fonts but may be completely different on the larger fonts. The [Appendix D. Working with Fonts, Font Character Sets, Code Pages, CHRIDs, and Coded Fonts](#) lists all the tables used when substituting fonts.

Width

The Font Width in 1440ths of an inch. The IBM i font library mostly has 10 and 12 character per inch fonts so it often appears that the width does not change.

Attr

Not used.

Char Set

The character set used for this font, See System Value QCHRID.

Code Page

The Code Page used for this font. See System Value QCHRID.

Description

The description of the font.

Function keys

F3=Exit Exits the Work with Font Character Set Name - Downloaded screen and returns to the Work with font group screen, without updating. Press Enter to Update.

F7=DBCS font Switches the view to the Double Byte Character set Font information

F7=SBCS font Switches the view to the Single Byte Character set Font information

F12=Previous Cancels the Work with Font Global identity (FGID) - Resident Fonts screen and returns to the Work with font groups dialog, without updating. Press Enter to Update.

Page Up Displays the [Work with Font Character Set Name - Downloaded Fonts](#) dialog.

4.6.2.4 Font Groups and CPPD

Introduction

A number of features are available which can be associated with the font group. Thus text rotation can be specified as well as line spacing, lines per page, margin and the font to be used with spooled files.

There are over 100 fonts supplied with PSF/400, they are held in file QFNTCPL which must be available on the IBM i. Most of these fonts are very similar. There is one 10 cps reverse image font. The most effective fonts for printing and faxing are the Gothic Roman series. The bold fonts fax well. Fonts are available in 10, 12 and 15 characters per inch. The Proprinter 5pt is the largest font available in QFNTCPL. Additional font libraries may be purchased from IBM.

The font file CFAX contains the Gothic Roman fonts. The font file HFU contains fonts compatible with the Cobwebb/400 fax system.

The spooled file font is inserted automatically if a spooled file is wider than 80 characters, so that the text fits on the page.

Each font can be specified using either the Font Character Set Name or the Font Global Identifier (FGID), or both.

In both cases a Code Page is specified to ensure the correct character set is used, this will normally be the same as the character set and code page specified in the IBM i System Values QCHRID.

The FGID is used to print a fax on an IBM i AFP printer if an FGID has been entered, if not the font specified in the Font Character Set name is downloaded to the printer from the IBM i.

The only disadvantage to using a downloaded font is the time taken to download the fonts to the printer.

To specify the correct FGID i.e. an FGID similar to the font specified as a Font Character Set Name it is necessary to have details of the resident fonts held in the printer including the Type Face, Width, Character Set and Code Page. Note: - It may be difficult to find a resident printer font which looks the same as the IBM i downloaded font.

For the more technically minded here are some points of interest: -

1. The IBM i automatically determines the FGID's of the resident fonts stored in the printer.
2. If an FGID is specified which is not a resident printer font, the IBM i will decide on the nearest match to a resident font in the printer, and use that font.
3. If an FGID is specified with no equivalent Font Character Set, the IBM i will decide on the nearest Font Character Set to download.

For a full explanation of Working with Fonts see the [Appendix D. Working with Fonts, Font Character Sets, Code Pages, CHRIDs, and Coded Fonts](#).

The Work with font groups display lists all the font group file members. You can add a new font group member to the file (create), revise or copy an existing member and delete a member.

See the topic [Fonts available using CPPD](#) for more information on the use of fonts in CPPD.

4.6.2.4.1 Fonts available using CPPD

The fonts available for use when printing or faxing a document depend on the IBM Font Libraries installed on the Server.

The Cobwebb Designer allows you to specify the font libraries installed on your Server. The fonts available within your installed font libraries are displayed, allowing you to select the most suitable for your application.

Note: Some Times Roman fonts are available for printing using Host Print Transform, even though you may not have them installed.

The standard IBM i font library is QFNTCPL, approximately 100 fonts are available however, they are mostly fixed pitch 240 pel fonts between 6 and 12 pt.

Note that 240 pel fonts are used for fax, while 300 pel fonts are better for printing.

A wider variety of fonts is available using the IBM Font Collection 5769-FNT. This includes Times Roman, Helvetica, Courier and Prestige in various point sizes. The font libraries QFNT300LA1 and QFNT240LA1 are included in 5769-FNT.

CPPD provides for up to 10 fonts to be specified in a 'Font Group'. The font group is associated with the spooled file which is being reformatted by CPPD, you can specify as many font groups as you need.

Within the font group the required fonts can be specified either by Character Set ID or by Font Group Global Identity (FGID).

The Character Set ID refers to fonts which are stored in the IBM i, these are always used in faxes.

The FGID refers to the fonts stored in the printer, however printer resident fonts are not available unless the appropriate font is also available in the Server.

Either Character Set Ids or FGIDs can be used for printing.

4.6.3 Work with Barcodes

The Work with barcodes display lists all the barcode entries. You can add a new barcode to the list (create), change (revise) or delete an existing entry. This can be found from the [Cobwebb Main Menu - PPD File Maintenance - Option 3](#) or the [Cobwebb Fax & Email Menu - System Maintenance - Maintenance Menu - Option 8](#).

For information on how CPPD uses Barcodes please see the topic [Barcodes and CPPD](#).

Position to

Position the display to the 'Starting barcode'.

Options

Select one of the following options:

1=Create Allows you to create a new barcode definition. You cannot create a barcode definition with the same code as an existing barcode or standard text member. *The create option is only valid on the top (entry) line of the display.* Enter the code for the barcode. Only one character is allowed as this code is used as a 'text enhancement' code.

2=Revise Use this option to revise an existing barcode.

3=Copy Copy an existing barcode entry.

4=Delete Delete an existing barcode.

Entries

Definition

The name for the barcode definition.

Barcode

The code of the barcode.

Description

The description of the barcode.

Function Keys

F3=Exit Exits the Work with barcodes screen and returns to the Maintenance menu, without updating. Press Enter to Update.

F12=Previous Cancels the Work with barcodes screen and returns to the Maintenance menu, without updating. Press Enter to Update.

Page Up Scrolls up through the list

Page Down Scrolls down through the list

4.6.3.1 Barcode Details

This information is displayed when creating or amending a barcode entry.

Entries

Page Definition

The name for the barcode definition.

Barcode name

The name of the barcode.

Barcode description

Enter the description of the barcode.

Position X axis

The horizontal position of the barcode measured in 1440'ths of an inch. The barcode will print at this position no matter where it occurs in the text.

Position Y axis

The vertical position of the barcode measured in 1440'ths of an inch. The barcode will print at this position no matter where it occurs in the text.

Type

Ty pe	Barcode type	No of characters	Comments
02	MSI	1 through 31	
03	UPCA	11	
04	UPCE	10	
06	UPC2	2	
07	UPC5	5	
08	EAN8	7	
09	EAN13	12	(NOTE the first 2 digits specify the country e.g. 50 is UK, this also further defines the Barcode Type)
0A	INDUST2OF 5	1 through 31	
0B	MARTIX2OF 5	1 through 31	
0C	INTERL2OF5	1 through 31	
0D	CODEBAR	1 through 50	
11	CODE128	1 through 50	
16	EAN2	2	
17	EAN5	5	
18	POSNET	1 through 31	

Modifier

This byte gives additional information about the barcode e.g. to define check digit calculation and printing. If in doubt use '00'.

Number of characters

Enter the number of characters to be used in the barcode. The maximum number of characters depends on the Barcode 'Type', see above.

Font

The LID identifies the Font used to print the Barcode in character form. The most commonly used Barcodes EAN and UPC use the OCR-B font, Gothic has also been used. The LID is the Font within the Font group (0-9).

Note: If an incorrect font is specified (the font is not OCR-B or Gothic, or there is no Chr Set specified in the Font Group), the document will not print and an Error Message 0821 will be sent to QSYSOPR.

Width

The width of the smallest barcode dimension in 1440'ths of an inch.

Height

The height of the barcode in 1440'ths of an inch.

Print barcode text

This is only valid when printing to a *AFP output device and this will output the text of the barcode underneath the actual barcode if set to a 'Y'

Preamble

Add static data to the beginning of your barcode. *From version 6.2.70 this entry will be read only if the hex value of a character is less than 3F.*

Postamble

Add static data to the end of your barcode. *From version 6.2.70 this entry will be read only if the hex value of a character is less than 3F.*

Remove leading spaces

When set to Y all leading spaces will be removed from the barcode.

Remove trailing spaces

When set to Y all trailing spaces will be removed from the barcode.

Function Keys

F3=Exit Exits the Work with barcode details screen and returns to the Work with barcodes list, without updating. Press Enter to Update.

F12=Prev Closes the Work with barcodes details screen and returns to the Work with barcodes list, without updating. Press Enter to Update.

4.6.3.2 Barcodes and CPPD

Barcodes can be printed anywhere in a document. If you want to use a barcode you must first define the barcode (using the Barcode Name which is a single character), and its characteristics in this file.

When you specify a Barcode on a **COPY** or **MOVE** CPPD automatically inserts a Barcode **Text Enhancement Code** within the text of the document (¶C) followed by the single character Barcode Name, plus the digits to be converted into the Barcode. The position where the Barcode is printed depends on the Barcode Definition.

If you wanted to print Barcode 'A' you would specify ¶(the text enhancement character) followed by C, and 'A' followed by the Barcode Number ¶CA123456789. This will cause a barcode 123456789 to be printed in the position specified in the X and Y axis, in this file. Note if X/Y are zero the Barcode will be inserted at the COPY/MOVE 'To' position.

4.6.4 Work with Printer Resources

This display lists all the Printer Resources. Select one of the following to create or work with a Printer Resource. This can be found from the [Cobwebb Main Menu](#) - [PPD File Maintenance](#) - **Option 4**.

Position to

If there are a number of Resource Groups, use this function to begin the display starting with the characters entered here.

Options

Select one of the following options:

1=Create Allows you to create a new Resource group.

You cannot create a Resource group with the same name as an existing one. *The create option is only valid on the top (entry) line of the display.* Enter the code for the Resource group which is in fact the PPD name.

2=Revise Use this option to revise an existing Resource group.

3=Copy Copy an existing Resource group entry.

4=Delete Delete an existing Resource group.

Entries

Resource Group

The name of the PPD file is used as the Resource Group.

Description

The description of the Resource Group.

Function Keys

F3=Exit Exits the Work with Printer Resources screen and returns to the Maintenance menu, without updating. Press Enter to Update.

F12=Previous Cancels the Work with Printer Resources screen and returns to the Maintenance menu, without updating. Press Enter to Update.

Page Up Scrolls up through the list

Page Down Scrolls down through the list

4.6.4.1 Printer Resource Details

This information is displayed when creating or amending a printer resource entry.

Entries

Resource group

The name of the Resource group / PPD name.

Resource group desc

Enter the description of the Resource group.

Resource name

The name of the printer resource. You may have up to 10 printer resources in one PPD.

Function Keys

F3=Exit Exits the Work with Printer Resources details screen and returns to the Work with printer resource list, without updating. Press Enter to Update.

F12=Prev Cancels the Work with Printer Resources details screen and returns to the Work with printer resource list, without updating. Press Enter to Update.

4.6.4.2 Printer Resources and CPPD

The Printer Resource file is used to control the Printer Resources required when printing using AFP and the CPPD PRTPPD command. The Printer Resources which can be controlled are: - Form Overlays, Printer Drawer selection and Duplex Printing (printing on the reverse side of the page). Note:- the appropriate feature must be installed on the printer.

Form Overlays can be included in the text of the document (e.g. #GTEST), but defining the Overlay as a Printer Resource is much more efficient as the Overlay is only downloaded to the printer at the start of printing, and not with each page.

The Overlays downloaded for one job can be retained in the printer and used in a subsequent job. Note: - the amount of memory available in the printer will determine the number of overlays which can be downloaded.

To retain printer resources between jobs, create a PSFCFG object with the same name as the printer device, use the WRKPSFCFG command to create the PSFCFG object with the RSCRET parameter set to *YES.

Note:- the resources are lost when the printer session ends.

The Printer Resources file contains as many members as required, any one of which can be included in the PRTPPD command. Each member can contain up to 10 separate resource definitions, although normally only one will be used (#R0). The #R0 - #R9 text instructions are used to specify the Printer Resources to be used within the spooled file text. If you change to a new Printer Resource the current page will be ejected.

4.6.5 Work with Spooled File Monitor

This is where you can specify the Spooled Files you wish to monitor for and the Cobwebb Design to use. You need to create an entry for each spooled file you wish to monitor using the Cobwebb **Spooled File Monitor**. This can be found from the [Cobwebb Main Menu - PPD File Maintenance - Option 5](#).

Type in your choices and then press 'Enter', this will take you to a second screen. Highlighted entries are those that are 'Online'.

From v6.2.82 or above

- Online entries where [Debug Test Mode](#) has been enabled will have the **Sequence Number** highlighted in red and entries where the **Max Pages of Spool** has been set will have the **Spooled file** highlighted in white.
- The CPPD **Subsystem** Status is displayed.

Position to

Enter one or more characters from which to start the display.

Filter by

From v6.2.82 or above

Filters allow you to filter the list of monitors by **Output Queue** and/or **Data Queue** which greatly helps in finding the correct entry when you have many monitors. Filtering by **PPD Name** has been added from **v6.2.88** or above along with the ability to add an **asterisk** for a wild card at the end of any of the filters e.g. **TEST*** would return all entries where the **Output Queue / Data Queue / PPD Name** begins with **TEST**, depending on which entry you had applied the filter to.

Options

Select one of the following options:

- 1=Create** Allows you to create a new Spooled file Monitor entry. *This option is only valid on the top (entry) line of the display.*
- 2=Change** Use this option to revise an existing Spooled file Monitor entry.
- 3=Copy** Copy an existing Spooled file Monitor entry. **Note:** You cannot copy a Label entry.
- 4=Delete** Delete an existing Spooled file Monitor entry.
- 5=Display** Display the details of an existing entry. *v6.2.82 or above.*
- 6=Work with SPLFs** Display all spooled files that match the selection for the entry. *v6.2.88 or above.*
- 7=Online/Offline** Toggle the status for the selected entry. *v6.2.82 or above.*
- 8=Statistics** Displays the **PPD Statistics** for the PPD member. **Note:** Only available if you are [Collecting PPD Statistics](#).
- 9=Add Label** To add a new **Label** line, This is a line of data that is just holding static text and is used to help group Monitors together. *This option is only valid on the top (entry) line of the display. v6.2.82 or above.*

Entries

Seq

The sequence number to arrange the order in which the Spooled File Monitor checks the entries when processing a spooled file. You may use the same number more than once. From v6.2.82 alpha characters will be allowed with these entries being left justified whilst numeric only entries are right justified.

OutQ Name

The print output queue from which the spooled files will be selected.

OutQ Library

The print output queue library name from which the spooled files will be selected.

Spoolfile

The print output file name, as specified in the program creating the print file. Enter *ALL to select all files in the output queue.

User

The name of the user who owns the spooled file. *ALL to select all owners of the spooled file.

User Data

The 10 characters of user-specified data which describes this file. *ALL to select all user data, leave blank for blank user data.

PPD Name

The name of the Cobwebb PPD you wish to use for formatting the spooled file.

DataQ/Job

Displayed in place of User & User Data when F11 pressed - The name of the Data Queue / Job that is being used for this monitor. *v6.2.82 or above.*

DataQ Lib

Displayed in place of User & User Data when F11 pressed - The name of the Library where the Data Queue resides. *v6.2.82 or above.*

Function keys

F3=Exit Exits the Work with spooled file monitor screen and returns to the Maintenance menu, without updating.

F5=Refre sh Refreshes the list of monitor entries

F11=Alt View Switch between showing User / User Data and Data Queue & Library. *v6.2.82 or above.*

Page Up Scrolls up through the list

Page Down Scrolls down through the list

Keys

This shows a key to the colour of an individual entry to highlight if an entry is **Online** or Offline and where it has been configured to run in **Test mode** or has the **Max Pages** set.

4.6.5.1 Spooled file Monitor Details

The second spooled file monitor screen displays the details entered on the first screen, in addition a 40-character description can be entered. This screen also allows the Status to be changed, use the F7 function key to set the status to 'online' and the F8 function key to set the status to 'offline'.

Pressing **F10=Data queue** allows you to change the SPLMON data queue used if you wish to start more than one SPLMON job in the CPPD subsystem. **Note:** In Cobwebb Server v6.2.61 and prior, a maximum of five SPLMON jobs may be started in the CPPD subsystem i.e. 5 different data queues. If you do create more than 5 data queues then only the first 5 jobs will be started in the CPPD Subsystem and you will see a message in the CPPD subsystem startup joblog. In newer versions the maximum has been increased to 1000.

Entries

Sequence

The sequence number to arrange the order in which the Spooled File Monitor checks the entries when processing a spooled file. You may use the same number more than once. From v6.2.82 alpha characters will be allowed with these entries being left justified whilst numeric only entries are right justified.

Spooled file

The print output file name, as specified in the program creating the print file. Use *ALL to select all files in the output queue.

User

The name of the user who owns the spooled file. *ALL to select all owners of the spooled file.

Output Queue / Library

The print output queue from which the spooled files will be selected.

Form Type

The type of form specified for use with this document. *ALL to select all form types, leave blank for a blank form type.

User Data

The 10 characters of user-specified data which describes this file. *ALL to select all user data, leave blank for blank user data.

Spooled file status

Select the final spooled file(s) status.

To **delete** the spooled file after processing

|
|
.

To set spooled file **Status** to **HELD** after processing

|
|
|

To **move** the spooled file to another **Output Queue** (specified in the Output queue / Library entries). You might use this if you wanted to keep your spooled files after they have been processed; these could then be archived using the [Spool File Housekeeping](#).

,

(Not recommended) To set the spooled file **Save File** entry to ***YES** after processing. **Note:** This does not change the spooled file **Status** which will remain as **RDY** (Ready)

,
,

Output queue / Library

If you use *MOV you must then enter the Output queue and Library name for the move.

PPD Name

The name of the Cobwebb PPD to be used. If you enter ***NONE** then no output will be generated and the original spooled file status will be updated as set above.

Library

The name of the library containing the PPD file, default CPPD. *Removed in v6.2.82 or above.*

Member name

The name of the member containing the PPD instructions. *Removed in v6.2.82 or above.*

Status

The status of the spooled file monitor entry, 'offline' means the spooled file monitor will ignore this entry, 'online' means the spooled file monitor will include this entry. From v6.2.82 or above this is displayed at the top right of the screen.

Description

Enter a description to identify the Work with spooled file monitor entry.

Max Pages of Spool

If set, and the number of pages in the spooled file being processed is greater than the value, then the spooled file will not be processed. *v6.2.82 or above.*

Debug Test Mode

[Enable Test Mode](#) for the monitor. This has an immediate effect if the job is already running in the CPPD subsystem. *v6.2.82 or above.*

Debug Trace Mode

[Enable Trace Mode](#) for the monitor. This has an immediate effect if the job is already running in the CPPD subsystem. *v6.2.82 or above.*

Function keys

F3=Exit Exits the Work with spooled file monitor details screen and returns to the Work with spooled file monitor list, without updating.

F7=Online/Off Toggle the status for the selected entry.
line

[F10=Data queue](#) Allows you to change the name of the SPLMON data queue for the selected spooled file monitor entry in order that more than one SPLMON job will be started in the CPPD subsystem. See [Work with Spooled file Monitor - Data Queue](#) topic for details.

F12=Previous Cancels the Work with spooled file monitor details screen and returns to the Work with spooled file monitor list, without updating.

4.6.5.2 Work with Spooled file Monitor - Data Queue

This is accessed by pressing the **F10=Data Queue** key on the Spooled file Monitor details. **Note:** If you change the **Data Queue** for an entry, then all other entries using the same **Output Queue** will also be changed, as the Data Queue is linked to the Output Queue. From v6.2.82 or above a screen will be displayed showing how many entries this change would affect.

Note: In Cobwebb Server v6.2.61 and prior, a maximum of five SPLMON jobs may be started in the CPPD subsystem i.e. 5 different data queues. If you do create more than 5 data queues then

only the first 5 jobs will be started in the CPPD Subsystem and you will see a message in the CPPD subsystem startup joblog. In newer versions the maximum has been increased to 1000.

Entries

Data Queue Name

The name of the data queue that you wish to use to run this SPLMON job. The data queue must already exist with a 'Max len' of 128 characters, or you will be asked to use **F6=Create Data queue** to automatically create the data queue. The default is SPLMON and this data queue already exists.

If you are monitoring a large number of output queues then you may wish to start more than one SPLMON job in the CPPD subsystem. For each other job you wish to run you must create another data queue e.g. SPLMONA. You may then use this data queue to process more than one output queue.

Data Queue Library

The name of the library containing the above data queue.

Function keys

F3=Exit Exits the Work with spooled file monitor details screen and returns to the Work with spooled file monitor list, without updating.

F6=Create data queue This will create the data queue specified in the above parameters.

F12=Previous Cancels the Work with spooled file monitor Data Queue screen and returns to the Work with spooled file monitor list, without updating.

4.6.5.3 Spooled file Monitor and CPPD

SPLMON is a feature of CPPD which monitors one or more IBM i Output Queues for selected spooled files to be processed by CPPD.

The Spooled file monitor program is automatically started in the CPPD subsystem if the Spooled file monitor interface is set to 'Y'. (See [Work with PPD parameters](#)) As a spooled file is added (or released) to any specified output queue it is checked to see whether it is to be processed.

If the spooled file is to be processed the spooled file is selected and the specified PPD file is used to create a new spooled file.

Set up SPLMON

Firstly you need to enable the Spooled file monitor interface. From the CPPD main menu, select [Option 5 - Work with PPD Parameters](#) and set the "Spooled file monitor" to 'Y'.

Now you need to set up the spooled file to be selected. From the CPPD main menu, select [Option 6 - PPD file maintenance](#) and then [Option 5 - Work with spooled file monitor](#).

Create a new entry for each spooled file you wish to monitor for. If you want to select all the spooled files going to the specified output queue, enter the Output Queue and Library names with *ALL in the File/User/User Data/Form Type fields. If you want to select all the spooled files having the same User enter the User Id in the User field (this also applies to the other fields). If you leave a field blank SPLMON will only select spooled files containing blank in that entry.

Note: SPLMON will only select matching spooled files if the status is '**Online**'. Spooled files with a status of 'Offline' will not be selected. You can change the status while the subsystem is running. The subsystem must be stopped and restarted when adding a new output queue to be monitored.

Having entered the details of the spooled files to be selected, press 'enter'. The next screen allows you to enter a Description. Use F10 on this screen if you wish to specify a data queue other than SPLMON to run the job, effectively starting another SPLMON task in the CPPD subsystem.

When starting the SPLMON program CPPD automatically assigns the data queue SPLMON in library CPPD for each Print Output queue for which there is an 'Online' entry in Work with spooled file monitor' maintenance.

Note: DO NOT specify an Output Queue for use with SPLMON which already has a data queue assigned, this is because the data queue records are deleted as soon as they are read, and are therefore not available to two systems. Instead you can setup a new output queue and divert the appropriate spooled files to it.

4.6.6 Work with Output Devices

The Work with output devices display lists all the CPPD output devices. You can add a new CPPD output device, and revise, copy and delete existing output devices. For information on how CPPD uses Font Groups please see the topic [Output Devices and CPPD](#). This can be found from the [Cobwebb Main Menu - PPD File Maintenance - Option 6](#).

Position to

If there are a number of output devices use this function to begin the display starting with the characters entered here.

Options

Select one of the following options:

1=Create Allows you to create a new output device. *This option is only valid on the top (entry) line of the display.*

2=Revise Use this option to revise an existing output device.

3=Copy Allows you to copy an existing output device.

4=Delete Use this option to delete an existing output device.

Entries

Page definition

The name of the CPPD file that is using the Output device.

Output device

The name of the output device, the default name is the same as the CPPD file name.

Description

The description of the output device.

Type

The type of output device.

Function keys

F3=Exit Exits the Work with output devices screen and returns to the Maintenance menu, without updating.

F5=Refresh Refreshes the list of output devices

F16=DSPM SG CPPD Displays the Cobwebb message queue (CPPD) followed by the users message queue

Page Up Scrolls up through the list

Page Down Scrolls down through the list

4.6.6.1 Output Device Details

This information is displayed when creating or amending an Output Device.

Entries

Page definition

The name of the CPPD file that is using the Output device.

Output device

The name of the output device to be created/revised.

Description

The description of the output device,

Output type

The type of output device.

***SCS** for non AFP printing

***HPT** for non Host Print Transform printing

***AFP** for AFP printing

***FAX** to generate a fax

***EML** to generate an email

***FIL** to generate a txt or pdf file

Function keys

F3=Exit Exits the Work with output devices detail screen and returns to the Maintenance menu, without updating.

F5=Refresh Refreshes the list of Output Devices

4.6.6.1.1 Print Output Details

The following entries apply to **ALL** Print Output devices:

Entries

Print output queue

The output queue for the printout.

Name The name of the output queue (and library)

***DEV** Use the output queue of the Printer Device

***JOB** Use the output queue associated with the job

Library

The name of the library where the above named output queue will be found.

Printer device

As an alternative to the output queue and library specify the printer device name. Note: the output queue must be *DEV.

Name The Printer device name

***JOB** Use the printer device associated with the job

User data

The User data (if required) for this print file, or *SOURCE to pick up the user data from the original spooled file.

Form

The Form Type for this print file (default *STD).

Note: Use the default *STD if you do not want a message to change the paper.

Hold print file

***NO** Print the print file immediately

***YES** Hold the print file

Save print file

***NO** Delete the print file after printing

***YES** Save the print file after printing

Source Drawer

Here you can specify the source drawer used when single-cut sheets are semi-automatically fed into the printer.

1 – The printer paper drawer to be selected (default 0001)

225

***E1** The envelopes are fed from the envelope drawer on the sheet-feed paper handler

Copies

If you wish for more than one copy to be printed then enter the number here [**1 - 255**]; alternatively you may enter **0** to use the number of copies based upon the number of copies of your input spooled file.

Output bin

Here you can specify the destination of the output on printers capable of multiple output bins. Valid entries are:

1- Specify the output bin for the destination of the output.

65535

***DEVD** The destination of the output is the device default output bin.

Click on one of the following for entries specific to a Print output Type for a definition of the other entries.

[*HPT specific entries](#)

[*AFP specific entries](#)

[*SCS specific entries](#)

First page of new document

This part of the command is used to specify the start of each new document in a multi document spooled file. Each document can be one or more pages long. The start of a new document can be when the 'Compare data text' is found on the page, or by specifying a field on the page which is compared with the next page, if the comparison (EQ/NE) is true then it is a new document. If a 'compare data position' is specified the field will either be on the 'compare data line number' or on the first line found with a string matching the 'compare data text'. Note:- The text string must be exactly as found in the spooled file, including the correct case.

Compare data text

Enter the text, which if found anywhere on the page indicates the first page of a new document, e.g. 'Page 1'.

or compare data line number

Enter the line number containing the data to be compared to indicate a new document.

Compare data position

Enter the start position in the line to be used for comparison.

Compare data field length

Enter the number of characters to be compared (max30).

Comparison

Enter the required comparison, either EQ=Equal, or NE=Not Equal also DQ= Equal but Delete data and DN = Not Equal but Delete.

Destination from spooled file

Select destination from spooled file - This part of the command covers the selection of the destination from the data in the spooled file itself. This is usually an Account number or name.

Destination text

Enter destination text. The destination text identifies the line on the spooled file which contains the destination for Example 'YOUR ACCOUNT NO.' again the text must be correct, and is case sensitive.

or destination line number

As an alternative to the destination text the line on which the destination is to be found can be specified. It must be the same for all documents selected.

First position of destination

Enter first position of destination. This defines the exact print position of the first position of the destination.

Destination field length

Enter destination field length. This defines the length of the destination.

Exit program type

This entry is not used for Printing.

Exit program

The name of the Print Exit program you wish to call.

Library

Enter the library name where the Print Exit program will be found.

Function keys

- | | |
|--------------------------------|---|
| F3=Exit | Exits the Work with Output Device screen and returns to the Maintenance menu, without updating. |
| F8=Print Customiser | These offsets enable you to separately move your selected images and/or text on your printed page and are measured in pixels. These offsets are downloaded from your PPD document Output Device details. (*HPT only). |
| F9=Work with font group | Specify the CPPD font group to be used to print the document. Most problems with printing arise from difficulty selecting the correct font. The FGID's specified in the font group must match the available fonts in the printer. See Work with font groups in PPD File Maintenance. (Not *SCS) |
| F12=Previous | Returns to the previous screen without updating. |

*HPT specific entries

*HPT printers normally support all the fonts, image overlays, barcodes etc. which are available in CPPD.

Duplex Printing

- *NO** The output is printed on one side of the paper
- *YES** The output is printed on both sides of the paper, with the top of each printed page at the same end of the sheet of paper
- *TUMBLE** The output is printed on both sides of the paper, with the top of one printed page at the opposite end from the top of the other printed page. This is usually used for output that will be bound at the top
- *FORMDF** The output is printed on both sides of the paper if the duplex value is specified in the form definition. If a form definition is not specified, then the output is printed on one side of the paper

Rotation

The orientation of the print.

O/blank Portrait

1 Landscape

No print border

*HPT printers usually add a 'no print border' of around 1/4 inch (360x1440'ths inch) and this is automatically included as 360. CPPD automatically compensates for the 'no print border' for *AFP enabling *HPT and *AFP output to look the same when printed.

Page Width

Here you can specify the width of your output page.

Page Height

Here you can specify the height of your output page.

*AFP specific entries

*AFP printers normally support all the fonts, image overlays, barcodes etc. which are available in CPPD. See [Work with font groups](#) in PPD File Maintenance.

Duplex Printing

***NO** The output is printed on one side of the paper

***YES** The output is printed on both sides of the paper, with the top of each printed page at the same end of the sheet of paper

***TUMBLE** The output is printed on both sides of the paper, with the top of one printed page at the opposite end from the top of the other printed page. This is usually used for output that will be bound at the top

***FORM DF** The output is printed on both sides of the paper if the duplex value is specified in the form definition. If a form definition is not specified, then the output is printed on one side of the paper

Rotation

The orientation of the print.

O/blank Portrait

1 Landscape

Printer resource

The printer resources file provides for resources (overlays, drawer, duplex print) to be specified for the print file. The resource can be changed in the text of the print file using the #Rn text instruction.

Using printer resources for overlays can substantially improve the speed of printing for *AFP.

*HPT is often as fast as *AFP printer resources are not required with *HPT.

Page Width

Here you can specify the width of your output page.

Page Height

Here you can specify the height of your output page.

***SCS specific entries**

*SCS printers cannot change the font, line spacing or rotation while printing, the following parameters provide the only options for *SCS printers (some of these may not be supported by the chosen printer).

Replace unprintable characters

Select this option if you wish to replace any unprintable characters with a space.

Lines per inch

The number of lines per inch. Select from 6,3,4,8,9, or 12 lines per inch.

Characters per inch

The number of characters per inch. Select from 5,10,12,15 characters per inch.

Page size

The number of lines per page (1-255). The Overflow line number is one less than the page size.

Page width

Here you can specify the width of your output page.

Rotation

The orientation of the print.

***AUTO** Leave orientation to the printer

***DEV D** Use IBM i printer device default orientation

0 Portrait

90 Landscape

Start printing on line number

The line number to print the first line of the document, e.g the first line says skip to line 10 and you would like the first line to print on line 5, enter 5. **Note**: this will not solve all start line printing problems.

4.6.6.1.2 Fax or Email Device Details

The process of sending a Fax or Email requires that the destination is known and that a spooled file containing multiple messages can be broken down into separate messages.

To specify the first page of each new message you can either enter a string, which if found anywhere in a page indicates a new message, or the line number and position of a control field can be specified.

The position of the field containing either the fax/email destination or a key to extract the destination is specified. If an Exit Program is specified the field data is passed to the program which should return the destination.

As each spooled file arrives in the output queue it is processed as above and a fax is generated and added to the Cobwebb queue.

Note : Only text (or SCS) spooled files can be processed. If you want to send an AFP spooled file by fax Cobwebb Fax contains a SNDFAXAFP command, but this requires the fax number to be passed as a parameter, rather than extracting it from the text (it is not practical to read the text of an AFP spooled file). This is one reason why CPPD starts with a text file and adds the overlay, font etc later.

Entries

Spooled file status

- *DLT** Delete the print file after processing
- *SAV** Save the print file after processing
- *HLD** Hold the print file after processing

Rotation

- 0 or Blank** Portrait
- 2** Landscape

Font Group

Specify the CPPD font group to be used to print the document. You may experience difficulty in selecting the same font for faxing as you used for printing. This will almost certainly happen if you are printing using variable pitch fonts such as Times Roman. Fonts used for faxing must be resident in the IBM i, whereas fonts used for printing can reside in the printer. The standard IBM i font library QFNTCPL contains a range of fixed pitch fonts from 15cpi to 10cpi, if you want to use the same font as in the printed output you may find it is not in QFNTCPL. In this case you will need to order the appropriate font library from IBM.

See [Work with font groups](#) in PPD File Maintenance for more details on CPPD font groups.

Fax form file name

Enter the Fax form file name/library/member name of the Fax form. A Fax Form is used if you have Cobwebb Fax without CPPD and want to add Cobwebb Fax text instructions or other text to each page of a spooled file. The Cobwebb Fax Standard Text File ASTDDOC is used for Fax forms.

Name Enter a specific Fax Form file name, normally ASTDDOC in library CPPD

***NONE** There is no form selected

Library

Enter a specific library name containing the Fax Form file.

Member name

Enter a specific member containing the Fax Form.

First page of new document

This part of the command is used to specify the start of each new message in a multi fax spooled file. Each message can be one or more pages long. The start of a new message can be when the 'Compare data text' is found on the page, or by specifying a field on the page which is compared with the next page, if the comparison (EQ/NE) is true then it is a new message. If a 'compare data position' is specified the field will either be on the 'compare data line number' or on the first line found with a string matching the 'compare data text'. Note:- The text string must be exactly as found in the spooled file, including the correct case.

Compare data text

Enter the text, which if found anywhere on the page indicates the first page of a new message, e.g. 'Page 1'.

or compare data line number

Enter the line number containing the data to be compared to indicate a new message.

Compare data position

Enter the start position in the line to be used for comparison.

Compare data field length

Enter the number of characters to be compared (max30).

Comparison

Enter the required comparison, either EQ=Equal, or NE=Not Equal.

Destination from spooled file

Select destination from spooled file - This part of the command covers the selection of the destination from the data in the spooled file itself. This is usually an Account number or name (rather than a fax number). The appropriate Account number or names can be set up as FAX / EMAIL directory entries. Note:- The message 'No destinations found' means that the place which was specified in the spooled file is blank, try again with another line number.

Destination text

Enter destination text. The destination text identifies the line on the spooled file which contains the destination for Example 'YOUR ACCOUNT NO.' again the text must be correct, and is case sensitive.

or destination line number

As an alternative to the destination text the line on which the destination is to be found can be specified. It must be the same for all documents selected.

First position of destination

Enter first position of destination. This defines the exact print position of the first position of the destination.

Destination field length

Enter destination field length. This defines the length of the destination. For Faxing the maximum length is 19 characters, which is the same as the length of the Cobwebb Fax directory entry.

Fax/Email number or directory entry

The Fax number or Directory Entry parameter determines whether the fax number is in the text or whether it will be found in the Cobwebb Fax directory or a user directory. If the destination cannot be found in the Cobwebb Fax directory it will be put on the queue with the destination shown with an * in front and a status of QV (invalid destination). If the fax number cannot be found in the User directory, or if it is blank, an entry will be put on the queue with a blank fax number with the destination key shown in the 'Attn' field.

All documents on the spooled file will therefore create a queue record (unless fax no = NOFAX) so that documents do not get 'lost'.

for Fax number (no directory look up)

to look up the destination in the Cobwebb Fax Directory

to look up the destination in the Cobwebb Fax Directory with the directory entry right justified

to call the user exit program specified in the 'Directory exit program' and 'library' parameters. The default is the program GETFAXNO in *LIBL. You must either modify the sample program GETFAXNO in QUSRTOOL in library CPPD or write your own. The

input parameters are DIR (20) the directory key to look up. The fields which can be returned from the look up are: - FAXNO (20), CMPNY (50) the 'To' field, TO (20) the 'Attn' field, REF (30) the 'Reference' field and FROM (30) the 'From' field

NOTE : - if a fax number of 'NOFAX' is used a fax will not be created for this directory entry (no queue record will be created).

Directory exit program

If 'Fax number or directory entry' equals '4' (Exit program), the Directory exit program name is entered here. The default program name is 'GETFAXNO'.

Library

Enter the library name where the Exit program will be found.

Time to send

Enter the time to send the fax/email 'hhmm', if blank the fax will be sent immediately.

Date to send

Enter the date to send the fax/email 'yymmdd', if blank the fax will be sent immediately.

From

From, up to 30 characters will be included on the queue record (From) and optionally in the text of the fax. This is controlled by the Fax header page format specified in the Cobwebb User Profile associated with the USRID field of this command. The From field can be extracted from the spooled file by specifying the position of the data on the first page of each new fax as follows: - ? a,b,c where a,b and c are 1,2 or 3 digit numeric fields separated by commas. a=the line number of the data, b=the position, c=the length. OR ??a,b,c where a=a scan field which identifies the line number. The resulting text will be placed in the From field (max 30 chs).

To

To or company name, up to 30 characters will be included on the queue record and optionally in the text of the fax. The To field can be extracted from the spooled file by specifying the position of the data on the first page of each new fax, as follows: - ?a,b,c where a,b and c are 1,2 or 3 digit numeric fields separated by commas. a=the line number of the data, b=the position c=the length. OR ??a,b,c where a=scan field which identifies the line number. The resulting text will be placed in the To field (max 30 chs).

User name

Enter a User name. This is the User name which is displayed on the Cobwebb queue and is used to look up the Cobwebb User profile. The Logo and Department code can be selected from the Cobwebb User file based on the User name entered here.

Name Enter a specific User name

***CURRE** The User name of the User who created the spooled file

NT

***NONE** No User name

User ID (if required)

Enter User ID. If the Userid is used in addition to the User name a message will be returned to the User ID specified, via SNADS. See [SNDAP1 'QRCD'](#) for special use of this field.

User address (if required).

Enter User address. This is used together with the User ID to return a message to the originator, via SNADS.

Priority

Cobwebb queue priority. 0 = Hold (put fax on queue but do not send). 1-3 = Message is put on queue at the appropriate priority.

Public authority

Cobwebb queue public authority. Determines who can view the Fax on the Cobwebb queue.

Click on one of the following for entries specific to either *FAX or *EML

[*FAX specific entries](#)

[*EML specific entries](#)

Function keys

F3=Exit Exits the Work with output device screen and returns to the Maintenance menu, without updating.

F12=Prev Returns to the previous screen without updating.

ious

***FAX specific entries**

Attention

Attention, up to 30 characters which will be included on the queue record and optionally in the text of the fax. The Attention field can be extracted from the spooled file by specifying the position of the data on the first page of each new fax, as follows:- ?a,b,c where a,b and c are 1,2 or 3 digit numeric fields separated by commas. a=the line number of the data, b=the position c=the length. OR ??a,b,c where a=scan field which identifies the line number. The resulting text will be placed in the Attention field (max 30 chs).

Reference

The Reference data, up to 30 characters which will be included on the queue record and optionally in the text of the fax. The Reference field can be extracted from the spooled file by specifying the position of the data on the first page of each new fax as follows:- ?a,b,c where a,b and c are 1,2 or 3 digit numeric fields separated by commas. a=the line number of the data, b=the position c=the length. OR ??a,b,c where a=scan field which identifies the line number. The resulting text will be placed in the Reference field (max 30 chs).

Cover page logo

If Cover page logo is blank no cover page is produced. If Cover page logo not blank the cover page name will be looked up in the Cover page file (See [Work with cover pages](#)). If found a cover page will be produced including the details on the Cover page. Details you can specify on the Cover page include a logo or form overlay, the From, To, Attention and Reference.

If Cover page logo *USRPRF the Cover page logo in the Cobwebb User profile will be used.

Cover page signature

If a Cover page signature is entered the name will be looked up in the Cover page header file, if found the cover page header will be included after the last line of text, on the last page of the fax. The Cover page logo will normally be a graphics file member name containing a signature.

Department

Enter the Department code (only required if Cobwebb Fax costing in use). If left blank the Department code from the Cobwebb User file will be used (if not blank).

Start printing on line

Enter the start printing line number. This can be used to start the printing of the Fax on a different line than the first line number of the selected spooled file. Note : The first line of a printed form may take into account skipping over a pre-printed heading, a fax logo does not count as print lines, use this parameter to resolve this difference. If you require to remove blank lines in the text, this can be done when creating the form by using the *@ command with F17 on.

Transparency on

Not used at present

Transparency off

Not used at present

Transmission mode

***NORMAL** Default Fax mode

***FINE** Sends the fax in fine mode (better quality but slower)

***HFU** Hasler Fax Unit

***EML specific entries**

Subject

The Subject that you wish to be used when creating your email.

From e-mail address

The From e-mail address data, up to 256 characters which will be included on the queue record and optionally in the email header. The From e-mail field can be extracted from the spooled file by specifying the position of the data on the first page of each new email as follows:- ?a,b,c where a,b and c are 1,2 or 3 digit numeric fields separated by commas. a=the line number of the data, b=the position c=the length. OR ??a,b,c where a=scan field which identifies the line number. The resulting text will be placed in the From email field (max 256 chs).

Postmaster address

The Postmaster Email should be the email address of the person monitoring your emails, as all error messages will be sent to this address.

Attachment name

The Attachment name data, up to 64 characters which will be included on the queue record and used as the name for the attachment created. The Attachment name field can be extracted from the spooled file by specifying the position of the data on the first page of each new email as follows:- ?a,b,c where a,b and c are 1,2 or 3 digit numeric fields separated by commas. a=the line number of the data, b=the position c=the length. OR ??a,b,c where a=scan field which identifies the line number. The resulting text will be placed in the Attachment name field (max 64 chs).

Extension

The extension that you wish to be added to the attachment name. If the attachment format is SCS then TXT should be the extension and if the format is PDF then PDF should also be the extension.

Attachment format

This is where you select the type of attachment you wish to create. Please see the topic [File Formats](#) for details.

Attachment CCSID

This entry affects the translation of the attachment and will be different for *SCS and *PDF.

Email confirmation

If you do not require email confirmation then leave this entry as 00. For user defined confirmation enter 10, for delivery confirmation 20 and for read confirmation 30.

Envelope type

Not used at present

Use PDF/A format instead of PDF

PDF/A is similar to PDF and is often used for archiving but unlike PDF doesn't allow passwords - see <http://en.wikipedia.org/wiki/PDF/A>. Requires [SPLAMATIC](#) module to be installed. If you wish to output PDF/A then enter ***YES** here.

PDF options - please see the topic on [PDF Options](#) for details. **Note:** These options are not allowed when using PDF/A output.

Message

Here you can enter up to 1024 characters to make up the message text to be sent with your email attachment.

From version 6.0.30 - If you wish to include more than 1024 bytes of data in your Message text or to include carriage returns, then you may specify an html or txt file to use as the message text. You do this by specifying a **%FILE** parameter in the **Message** entry e.g.

%FILE"/test/message.html"

where **/test/message.html** is the path to the document you wish to use.

Additional Email Recipients

This is where you will see any additional email recipient details:

Name - Recipient name

Email Address - Recipient Email Address

Type - This can be either **TO**, **CC**, **BCC**

4.6.6.1.3 File Output Details

The *FIL type of output device is used if you wish create a .pdf or .txt file of your output for archiving purposes. This output device is also used by Cobwebb Docstore.

Spoiled file status

This indicates the status of the input spoiled file after it has been processed. The choices are to Hold the file (*HLD), Delete it (*DLT) or Save it (*SAV).

File path & File name

This is the path and name for your output file. Please see the topic [Specifying File Paths](#) for more information on how to configure the **Path** and file **Name** as this differs depending upon where you wish to store your file.

Extension

The default extension for the file format of SCS is TXT, which will enable someone to read the document with their standard text browser. The default extension for PDF is PDF, which may be read using the Acrobat viewer. You may change this extension if you wish.

Format

This is where you select the type of output you wish to create. Please see the topic [File Formats](#) for details.

Note: If you wish to use PDF/A then you should enter PDF here and the *YES

File CCSID

PDF output uses the CCSID which specifies the ASCII coded character set identifier (CCSID) that is used to map data in the generated file. If left blank this will default to *WINANSI. Other valid entries are:

1-65533	*GBK	*ISO88598	*ISO-8859-5
*UNICODE	*ISO88591	*ISO88599	*ISO-8859-7
*WINANSI	*ISO88592	*USASCII	*ISO-8859-8
*UTF8	*ISO88595	*ISO-8859-1	*ISO-8859-9
*BIG5	*ISO88597	*ISO-8859-2	*US-ASCII

SCS or **TXT** output uses the stream file Codepage which specifies the method of obtaining the stream file code page and the CCSID equivalent of the code page that is used for data conversion. If left blank this will default to 1252. Other valid entries are:

1-32767
*STMF
*PCASCII
*STDASCII

Owner

This must be a valid Server User Id and will be used as the owner of the generated file output.

Authorisation list

This must be a valid Server Authorization List and will be used for the generated file output.

Public authority

This is used to define the public authority for the generated file output. Valid entries are:

*NONE, *RWX, *RX, *RW, *WX, *R, *W, *X, *EXCLUDE, *AUTL

First page of new document

This part of the command is used to specify the start of each new fax in a multi fax spooled file. Each fax can be one or more pages long. The start of a new fax can be when the 'Compare data text' is found on the page, or by specifying a field on the page which is compared with the next page, if the comparison (EQ/NE) is true then it is a new fax. If a 'compare data position' is specified the field will either be on the 'compare data line number' or on the first line found with a string

matching the 'compare data text'. Note:- The text string must be exactly as found in the spooled file, including the correct case.

Compare data text

Enter the text, which if found anywhere on the page indicates the first page of a new fax, e.g. 'Page 1'.

or compare data line number

Enter the line number containing the data to be compared to indicate a new fax.

compare data position

Enter the start position in the line to be used for comparison.

compare data field length

Enter the number of characters to be compared (max30).

comparison

Enter the required comparison, either EQ=Equal, or NE=Not Equal.

Directory exit program/Library

You can use the Exit Program to write a record to your own archive software. As well as passing the File path, name and extension you may define up to ten Long parameters (132 characters) and ten Short parameters (64 characters).

Enter the name of your Exit program and the library where it may be found. This program must already exist.

Note: The Exit program will be called after the file has been created.

Parm 1 – 10

These parameters are all 132 characters long

Parm 11 – 20

These parameters are all 64 characters long.

Use PDF/A format instead of PDF

PDF/A is similar to PDF and is often used for archiving but unlike PDF doesn't allow passwords - see <http://en.wikipedia.org/wiki/PDF/A>. Requires [SPLAMATIC](#) module (*V2R1M0 or greater*) to be installed. If you wish to output PDF/A then enter ***YES** here.

PDF options - please see the topic on [PDF Options](#) for details. **Note:** These options are not allowed when using PDF/A output.

Function Keys

F3=Exit Exits the Work with output device screen and returns to the Maintenance menu, without updating.

F12=Prev Returns to the previous screen without updating.

ious

4.6.6.2 Output Devices and CPPD

CPPD output devices are referenced in the PPD file 'OUTP' instruction and may be created via that command. The output devices file shows all the CPPD devices and allows for them to be modified.

The CPPD output device contains a list of the parameters used when printing, faxing or emailing. As many output devices as required may be specified within a CPPD file, allowing the output to be directed as required. Note that each output device must have a unique name.

The 'Type' parameter *SCS, *HPT, *AFP, *FAX, *EML, *FIL or *DSP defines the type of output.

***S** Text data only, can be printed on any printer, only the chs per inch, lines per inch, drawer
CS and rotation can be specified.

***H** Host print transform, text and image data, printed using Host Print Transform to a PCL or
PT HPT compatible printer attached to the IBM i using a suitable connection e.g. TCP/IP. Fonts from the specified CPPD font group can be used together with barcodes, graphic overlays or printer resources, as specified in the CPPD file maintenance.

***A** Advanced function presentation, text and image data, printed using PSF/400 on the IBM i
FP and an AFP Printer attached to the IBM i. Fonts from the specified CPPD font group can be used together with barcodes, graphic overlays or printer resources, as specified in the CPPD file maintenance.

***F** for faxing using the Cobwebb Fax interface. The Output device contains the parameters for
AX defining the start of each new fax (using the data in the reformatted CPPD spooled file), extracting the fax destination from within the spooled file data, plus other parameters for controlling the fax.

***E** for emailing using the Cobwebb Email interface or directly to your SMTP mail server. The
ML Output device contains the parameters for defining the start of each new email (using the data in the reformatted CPPD spooled file), extracting the destination from within the spooled file data, plus other parameters for controlling the email.

***FI** enables users to automatically turn their IBM i spooled files into either .TXT or .PDF files
L using the full reformatting power of CPPD. This means that you can archive your faxes, emails, prints to a PC or Server for ease of access and reference. An automatic program may be called to enable selected data from the output to be included as keys to the PDF data stream for automatic retrieval by your archive package.

***D** for sending the document as an image to a PC running CView. The Output device contains
SP the parameters for defining IP address of the PC to which the document should be sent.

4.6.7 Work with PPD Routeing

PPD Routeing allows you to configure **Printer** and **Email** override details based on up to four pieces of information supplied by your Cobwebb Design (PPD) via an Exit Program [COBGETRTG](#) - from version 6.2.87.

The Work with PPD Routeing display lists all the PPD Routeing entries for you to maintain or add new entries. This can be found from the [Cobwebb Main Menu - PPD File Maintenance - Option 7](#).

These details are held by **PPD Name** and **Environment / Company** to make it easier if you have different Aurora Environments / Companies requiring different output. **Please Note:** There is nothing actually stopping you from using any of the overrides to supply other information to your PPD these are just suggestions.

Position to

Enter one or more characters from which to start the display.

Options

Select one of the following options:

- 1=Create** Allows you to add a new PPD Routeing entry. *This option is only valid on the top (entry) line of the display.*
- 2=Revise** Use this option to revise an existing entry.
- 3=Copy** Allows you to copy details from an existing entry.
- 4=Delete** Use this option to delete an existing entry.
- 8=Details** Use this option to maintain the PPD Routeing entry comparison details.

Entries

For each entry in the PPD Routeing list, the following is displayed:

PPD Name

The name of the Cobwebb Design (PPD) that will be using these routeing entries.

Env/Comp

The Environment / Company that will be using these routeing entries.

Keys 1 - 4

These are purely for display purposes and are useful when displaying the actual routeing entries comparisons in order to know what each entry represents.

Function Keys

F3=Exit Exits the Work with PPD Routeing. Press Enter to Update.

F5=Refre Refresh the current list.

sh

F12=Prev Cancels the Work with PPD Routeing. Press Enter to Update.

ious

Page Up Scrolls up through the list

Page Scrolls down through the list

Down

4.6.7.1 Routing Entry Details

When you create a new PPD Routing entry it automatically creates the Seq No **0** entry, with ****** in the **Comparison Type** fields, and this is the default entry for the PPD / Environment. The default **Printer Override Command** is set to **LIBQ=CPPD/QPRINT** and the **Email** entries are left blank. You may change these defaults but you cannot delete this entry.

Position to

Enter the Sequence Number from which to start the display.

Options

Select one of the following options:

- 1=Create** Allows you to add a new PPD Routing Details entry. *This option is only valid on the top (entry) line of the display.*
- 2=Revise** Use this option to revise an existing entry.
- 3=Copy** Allows you to copy details from an existing entry.
- 4=Delete** Use this option to delete an existing entry.
- 5=View** Use this option to view an existing entry.
- I=Insert after** This will copy the existing entry and increment the sequence number for all subsequent entries by one.

Entries

For each entry in the PPD Routing Details list, the following is displayed:

Seq No

The sequence number for the comparison entry. Note the [COBGETRTG](#) Exit program will start trying to find a match using this sequence number in ascending order.

Key Field Comparison Type & Value 1 - 4

The Comparison Type and Value for each of the Key fields specified for the PPD Routing Details entry. Apart from the default entry where the Comparison Type is set to ******* you may have the following Comparison Types:

Comparison Type	Description
blank	No comparison is performed for this field
=	Equal to
<>	Not Equal to
<	Less than
<=	Less than or Equal to
>	Greater than
>=	Greater than or Equal to

Function Keys

F3=Exit Exits the Work with PPD Routing. Press Enter to update.

F5=Refre Refresh the current list.

sh

F12=Prev Cancels the Work with PPD Routing Details. Press Enter to update.

ious

Page Up Scrolls up through the list

Page Scrolls down through the list

Down

4.6.7.1.1 Comparison Details

This is where you can enter the following overrides for your Cobwebb Design Output.

```

Session A - [24 x 80]
File Edit View Communication Actions Window Help
Work with PPD Routing Details
Type choices, press Enter.      PPD Name SAMPLE      PPD Env/Comp SAMPLE
Seq.No    0      KEY 1
          **      **      **      **
Comparisons: = Equal, <> Not Equal, < Less than, <= Less than or Equal
              > Greater than, >= Greater than or Equal, ** Default
P1. Printer Override Cmd. . _LIBQ=CPPD/QPRINT|HLDP=*YES|CPYS=1|DPLX=*NO
P2. Sender Email . . . . . test@domain.com
P3. Sender Name . . . . . Sender Email Name
P4. Recipient Email. . . . . test@domain.com
P5. Recipient Name . . . . . Receipt Email Name
F3=Exit    F12=Previous
MA a      MW      11/029
I902 - Session successfully started
  
```

Printer Override Command

This will allow you to configure a string of overrides for the Print Output Device, separated by a pipe (see above screen shot) to be used in conjunction with the **COBPRTOVR** Cobwebb Print Exit Program in your Cobwebb Design. Please see the [COBPRTOVR](#) page for details on formatting and valid entries. This will be returned as **Parameter 1** in the [COBGETRTG](#) Exit program to return the routing details.

Sender Email

You may wish to configure the Sender Email address to be used as the [From Email](#) in your Cobwebb Design. This will be returned as **Parameter 2** in the [COBGETRTG](#) Exit program to return the routing details.

Sender Name

The Sender Name to be used as the [From](#) in your Cobwebb Design. This will be returned as **Parameter 3** in the [COBGETRTG](#) Exit program to return the routing details.

Recipient Email

This should be the Email address you wish to send email to i.e the [Destination Text](#) in your Cobwebb Design. This will be returned as **Parameter 4** in the [COBGETRTG](#) Exit program to return the routing details.

Recipient Name

The Recipient Name to be used as the [To](#) in your Cobwebb Design. This will be returned as **Parameter 5** in the [COBGETRTG](#) Exit program to return the routing details.

Function Keys

F3=Exit Exits the Work with PPD Routing. Press Enter to update.

F12=Prev Cancels the Work with PPD Routing Details. Press Enter to update.

ious

4.6.8 Work with PPD Users

If you wish to direct your CPPD printed output dependent upon the owner (UserId) of the document then you need to specify *USR in the Output queue name of your Print Output Device and define your users to CPPD. If a user has not been set up and *USR has been specified then the print will be directed to the printer defined in the Printer device entry of your Output Device.

This can be found from the [Cobwebb Main Menu - PPD File Maintenance - Option 8](#).

Position to

Enter one or more characters from which to start the display.

Options

Select one of the following options:

1=Create Allows you to add a new PPD User. *This option is only valid on the top (entry) line of the display.*

2=Revise Use this option to revise an existing PPD user.

3=Copy Allows you to copy details from an existing PPD User to a new user.

4=Delete Use this option to delete an existing PPD User.

Entries

User

An Server User profile.

Name

The description for your User profile.

Function Keys

F3=Exit Exits the Work with PPD Users and returns to the Maintenance menu, without updating. Press Enter to Update.

F12=Previous Cancels the Work with PPD Users and returns to the Maintenance menu, without updating. Press Enter to Update.

Page Up Scrolls up through the list

Page Down Scrolls down through the list

4.6.8.1 PPD User Details

This information is displayed when creating or amending a PPD User.

Entries**Name**

The description for your User profile.

PPD output queue

The name of the output queue to which you wish your prints directed.

PPD output library

The name of the library where the above output queue may be found.

Function Keys

F3=Exit Exits the Work with PPD User details and returns to the Work with PPD Users list, without updating. Press Enter to Update.

F12=Previous Cancels the Work with PPD User details and returns to the Work with PPD Users list, without updating. Press Enter to Update.

4.6.9 Work with Directories

The CPPD directories allow you to store information for retrieval when designing your PPD files. This can be found from the [Cobwebb Main Menu - PPD File Maintenance - Option 9](#) or the [Cobwebb Fax & Email Menu - Option 3](#).

Depending upon the modules that you have installed you will be able to maintain the following directories:

Option Description

1. [Work with Fax directory](#)
2. [Work with Email directory](#)
3. [Work with General directory](#)

To view the Help for a specific option simply click on one of the above links.

4.6.9.1 Work with Fax directory

The Cobwebb Fax Directory is used to store frequently used Fax numbers. Each directory entry is normally used to hold one Fax number, use the keywords to make lists of directory entries, for sending to multiple destinations. This can be found from the [Cobwebb Main Menu - PPD File Maintenance - Work with directory - Option 1](#).

Keywords may be assigned to each directory entry. If the directory is displayed when sending a fax it is displayed in keyword order, up to 999 keywords may be entered against each directory entry and so the same directory entry can appear under 999 different keywords.

All the entries listed under a keyword may be selected (sending to the whole list) or one or more entries may be selected (selecting from a list). This assists in controlling redundancy by allowing the same entry to be identified by many different names.

Directory entry names can be up to 19 characters in length. As the directory is a system-wide facility, you should consider administering it centrally to minimise redundancy and maintain uniformity of naming conventions, etc.

The directory may be printed using the PRTDIR command or F15 from the Work with Fax directory display.

Position to

Enter one or more characters from which to start the display.

Options

Select one of the following options:

1=Create Allows you to add a new fax directory entry. *This option is only valid on the top (entry) line of the display.*

1=Select When the Fax directory is called when pressing F4 from [Send a Fax](#) it allows you to select one or more directory entries in order to specify fax destinations.

2=Change Use this option to revise an existing fax directory entry.

4=Delete Use this option to delete an existing fax directory entry.

8=Fax numbers Use this option to work with fax numbers associated with a directory entry.

Entries

Entry Name

The name by which the directory entry is known. This must not begin with an asterisk (*). When specifying destinations, an asterisk is used to prefix a directory entry name (e.g. *ABC001).

Description

The description of the directory entry. If the System parameter or Cobwebb user profile parameter 'Output directory description' is 'Y' then this description will be output to the Fax header 'To:' line (50 chs).

If the Fax destination is 'NOFAX' a fax will NOT be created when using the Cobwebb Fax API or the [SNDFAXP](#) command (*do not select a NOFAX destination for manually prepared faxes*).

Function Keys

F3=Exit Exits the Work with fax directory and returns to the Maintenance menu, without updating. Press Enter to Update.

F12=Previous Cancels the Work with fax directory and returns to the Maintenance menu, without updating. Press Enter to Update.

F15=Print directory Prints the fax directory by directory entry. Prints each entry in the directory with all the associated Fax details.

F16=Print directory by keyword Prints the fax directory by keyword. Prints the fax number associated with each keyword in keyword order.

F17=Update PC directory Use this option to create a PC file containing all the fax numbers in the Cobwebb Fax Directory. This file can be accessed using the Cobwebb Fax Windows Fax Printer. The name of the fax directory file created on the PC is ADIRFAX in folder CPPD.

Page Up Scrolls up through the list

Page Down Scrolls down through the list

4.6.9.1.1 Fax Directory Details

This information is displayed when creating or amending an Fax Directory entry.

Entries

Enter a description (e.g. person or company name).

Keywords

Enter any keywords (aliases) by which the directory entry may be identified. Cobwebb Fax automatically creates a keyword for the entry name, do not delete this name, otherwise the entry will not appear when the directory is displayed by Keyword.

Function Keys

F3=Exit Exits the Work with fax directory details screen and returns to the Work with fax directory list, without updating. Press Enter to Update.

[F8=Fax Numbers](#) Displays the fax numbers associated with the directory entry.

F12=Previous Cancels the Work with fax directory details screen and returns to the Work with fax directory list, without updating. Press Enter to Update.

4.6.9.1.2 Fax Number Details

Use this display to enter the fax numbers associated with the fax directory.

Entries

Fax Number

Enter the fax number. More than one number may be entered but this is not advisable. Use keywords to create lists wherever possible.

Answerback

If this destination is a Group III fax machine with a programmed answerback, enter the answerback.

Attention

Type the name of the person (or department) to whom you would address a fax.

Function Keys

F3=Exit Exits the Fax Numbers screen and returns to the Work with fax directory list, without updating. Press Enter to Update.

F2=Change Go back to the details for this directory entry

F12=Previous Cancels the Fax Numbers screen and returns to the Work with fax directory list, without updating. Press Enter to Update.

4.6.9.2 Work with Email directory

This will allow you to enter email addresses for your customers/suppliers etc, which may then be retrieved by CPPD to direct your automatic email output. This can be found from the [Cobwebb Main Menu - PPD File Maintenance - Work with directory - Option 2](#).

Position to

Enter one or more characters from which to start the display.

Options

Select one of the following options:

1=Create Allows you to add a new email directory entry. *This option is only valid on the top (entry) line of the display.*

2=Revise Use this option to revise an existing email directory entry.

3=Copy Allows you to copy details from an existing email directory entry.

4=Delete Use this option to delete an existing email directory entry.

Entries

Directory

This should be the key for your directory entry. If you wish to use this directory to retrieve email addresses automatically using the Spool File Monitor then this would normally be the Supplier/Customer number as it appears on your existing spooled file.

Description

The description for your email directory entry.

Function Keys

F3=Exit Exits the Work with email directory and returns to the Maintenance menu, without updating. Press Enter to Update.

F12=Prev ious Cancels the Work with email directory and returns to the Maintenance menu, without updating. Press Enter to Update.

Page Up Scrolls up through the list

Page Down Scrolls down through the list

4.6.9.2.1 Email Directory Details

This information is displayed when creating or amending an Email Directory entry.

Entries

Description

The description for your email directory entry.

Email address

The email address e.g. support@cobwebb.co.uk

Email recipient

The name of the recipient.

Function Keys

F3=Exit Exits the Work with email directory details screen and returns to the Work with email directory list, without updating. Press Enter to Update.

F12=Prev ious Cancels the Work with email directory details screen and returns to the Work with email directory list, without updating. Press Enter to Update.

4.6.9.3 Work with General directory

This will allow you to store General information which may be retrieved in your Cobwebb Design using the Exit Program [GETGEND](#). This can be found from the [Cobwebb Main Menu - PPD File Maintenance - Work with directory - Option 3](#).

The Cobwebb General Directory can be a useful place to store a list of libraries that you wish to be used in your PPD in order to access data from files on the Server. An Exit Program has been supplied for you to retrieve this information and **Add** or **Remove** the libraries from the Library List - see [COBGENLIBL](#) - *versions after v6.2.61*.

Note: If you wish to restrict users to only maintaining certain records then, from Cobwebb Server versions after v6.2.82, you can use the [WRKGEND](#) command to supply the **Filters** for **Key 1, 2 & 3** as parameters to prevent users from maintaining entries except those that match the supplied filter. The General Directory is often used to direct output from a Cobwebb Design and by using the filters you could restrict users to only changing those entries that relate to their output.

Position to

Enter one or more characters from which to start the display. This entry is not case sensitive.

Filter by

If you wish to reduce the list of entries displayed then you can use this filter option. You may enter information in any of the three key fields and this will be used to find an exact match (*excluding case*) and display only those options. If you leave any of the Filter by key fields blank then that portion of the key will not be checked. This means that if you had say a Customer Number in Key 3 for various entries you could enter this in the Filter by Key 3 and just see entries relating to that customer. For example entering "abc001" would return "abc001", "Abc001", "ABc001", "ABC001" etc. *Versions after v6.2.61*

Pressing F5 will clear your filter and re-display all records.

Options

Select one of the following options:

1=Create Allows you to add a new general directory entry. *This option is only valid on the top (entry) line of the display.*

2=Revise Use this option to revise an existing general directory entry.

3=Copy Allows you to copy details from an existing general directory entry.

4=Delete Use this option to delete an existing general directory entry.

5=View Use this option to view an existing general directory entry. *Versions after v6.2.61*

Entries

Key 1 - 3

At least one Key value is required to store your general information against but you may use up to three.

Function Keys

F3=Exit Exits the Work with general directory and returns to the Work with Directory menu, without updating. Press Enter to update.

F12=Previous Cancels the Work with general directory and returns to the Work with Directory menu, without updating. Press Enter to update.

Page Up Scrolls up through the list

Page Down Scrolls down through the list

4.6.9.3.1 General Directory Details

This information is displayed when creating or amending an General Directory entry.

Entries

General Data

This holds the general data that you wish to store against the selected Key values.

Function Keys

F3=Exit Exits the Work with general directory details screen and returns to the Work with General directory list, without updating. Press Enter to update.

F12=Prev ious Cancels the Work with general directory details screen and returns to the Work with General directory list, without updating. Press Enter to update.

4.6.10 Work with Folder Monitor

The **Cobwebb Folder Monitor** [[FLRMON](#)] allows you to monitor a folder on the IBM i and call a user-defined program to process each file that arrives in the folder.

When the Folder Monitor is running the specified folder is monitored at a frequency defined by the polling interval. For each file found it will call the call the program specified using the supplied Job Description. When the monitor program returns, if the return code is **x'00'** then the program is deemed successful and the file is deleted. Otherwise the program is deemed to have failed and the file is moved to the designated **failed** folder. You may create your own Folder Monitor program, please see [Creating a bespoke Folder Monitor program](#) for details, or you ask Cobwebb to create one for you.

You need to create a monitor entry for each folder you wish to monitor using the **Cobwebb Folder Monitor**. This can be found from the [Cobwebb Main Menu - PPD File Maintenance - Option 10](#).

Type in your choices and then press **Enter**, this will take you to a second screen. Highlighted entries are those that are *Online* those in **red** have an invalid folder specified. Each *Online* entry will be monitored when you next start the CPPD Subsystem.

Note: If you change any information here then you will need to **Stop** and **Restart** the CPPD subsystem for the changes to take effect.

Position to

Enter one or more characters of the Folder Monitor Name from which to start the display.

Options

Select one of the following options:

1=Create Allows you to create a new Folder Monitor entry. *This option is only valid on the top (entry) line of the display.*

2=Revise Use this option to revise an existing Folder Monitor entry.

3=Copy Copy an existing Folder Monitor entry.

4=Delete Delete an existing Folder Monitor entry.

5=View View an existing Folder Monitor entry.

7=Online Make Folder Monitor entry **Online**.

8=Offline Make Folder Monitor entry **Offline**.

Entries

Monitor Name

From version 6.2.62 - Specify a unique name for your Folder Monitor entry. This will be used as the name of the Job running in the CPPD Subsystem when it is active.

Description

From version 6.2.62 - Enter a description for your Folder Monitor entry. If you leave this blank then the folder being monitored will be displayed in the list.

Monitor Type

From version 6.2.62 - This is the [Type of Folder Monitor](#) selected. If you have chosen to use a bespoke [Parameter Maintenance](#) program then this will be blank.

Folder to Monitor

Prior to Version 6.2.62 only - Specify the name of the folder that you wish to monitor
e.g. **/test/flrmon**

Status

This entry displays the status of the entry. **Online** means that this folder will be monitored when the CPPD Subsystem is started; **Offline** entries will not be monitored.

Function keys

F3=Exit Exits the Work with folder monitor screen and returns to the Maintenance menu, without updating.

F5=Refre Refreshes the list of monitor entries
sh

F12=Prev Exits the Work with folder monitor screen and returns to the Maintenance menu,
ious without updating.

Page Up Scrolls up through the list

Page Scrolls down through the list
Down

4.6.10.1 Cobwebb Folder Monitor Types

The table below shows the list of currently supported Folder Monitor Types. Please check the **Supported CPPD Version** column to see if you need to upgrade to a later version of the Cobwebb Server Software.

Note#1: The **Program to use** column specifies the [Cobwebb supplied Folder Monitor program\(s\)](#) that may be used with the selected **Monitor Type**. You may use your own bespoke program if you wish.

Type	Description	Program to use#1	Parameter Names	Parameter Description	Required	Supported CPPD version
*DOC	Docstore Monitor	FMDOCS	DS_NAME	Docstore Name	Yes	6.2.63+
			DS_TYPE	Docstore Type	Yes	
			DS_DESC	Docstore Description. You may include parameter substitution e.g. %PARM1		
			DS_SEP	Separator character. Enter the character used as the key separator in the filename. Default is hyphen (-)		
			DS_KEYSEQ	Enter a comma separated list of the order of the Key fields in the filename e.g. 3,5,1,2,4		
			DS_KEYFORMAT	Enter a comma separated list of the format of any date Key field in the order it exists in the filename E.g. ,, *DMY,, The valid date format entries are: *DMY, *DMYY, *MDY, *MDYY, *YMD, *YYMD, *CYMD		
*FTP	FTP Monitor	FMFTP	IP_ADDRESS	IP Address of the Server - you could also enter a DNS - see Using DNS for FTP	Yes	6.2.63+
			USER_NAME	User name to log on to the Server	Yes	
			USER_PWD	Password for the User Name	Yes	
			DEST_FLR	The destination folder on the Server e.g. /test/testsuite/archive/ Note: If left blank the route folder will be assumed.		
*JAVA	Java Monitor	FMJAVA	JAVA_CLS	The Java Class path e.g. /test/java/CONSUMEIDX.jar . Please see the Java Folder Monitor topic for details on the jar file requirements for using this interface - <i>from version 6.2.78</i> .	Yes	6.2.78+
			MOVE_ALL	Move all matching filenames. Y = Yes, everything else = No. If you are monitoring for say a file extension of .idx but when this is processed you also wish to move a file with the same name but		

				an extension of .pdf then you would enter a Y here. If the file was successfully processed then all matching filenames will be either moved to the Success folder if defined or Deleted if not. If the the process fails then all matching files will be moved to the Failed folder.		
			PARM01 - PARM16	Up to sixteen <i>optional</i> parameters for passing on to the Java program.		
*STD	Standard Monitor	FMEMAIL FMNOTIFY FMTXT2S PL FMXML2S PL	PARM1 - PARM9	Up to nine <i>optional</i> parameters.		6.2.62+
*WEB	Web Service Monitor	FMWEBPOST FMWEBXML	WS_URL1	The first 132 of the URL to the Web Service. Note : Characters must be escaped e.g. blank is %20 - <i>from version 6.2.78.</i>	Yes	6.2.78+
			WS_URL2	The second 132 of the URL to the Web Service - if required. Note : Characters must be escaped e.g. blank is %20.		
			WS_USER	The User name to log on to the Web Service - if required.		
			WS_PWD	The Password for the User name.		
			WS_FILPNAM	The Parameter name for the file parameter. Note ^{#2} : FMWEBPOST only.	Yes ^{#2}	
			WS_PARM06 - 18	Parameter Name - up to 12 Parameter Names where the value retrieved from IDX file. For FMWEBXML WS_PARM06 can hold the path to the Response XML e.g./test/testsuite/xmlresponse/ otherwise this will default to the path of the original file.		

4.6.10.2 Changing the Monitor Type

From version 6.2.62 - Cobwebb supply a list of Monitor Types which you may use, and which have their own Parameter maintenance program, or you can opt to create a **Bespoke Program (F6)** - see [Creating your own Parameter Maintenance program](#). By default, when you create a Folder Monitor it will assume the ***STD** Monitor Type.

Changing the Monitor Type

You may change this by pressing **F22=Change Monitor Type** from the [Folder Monitor Details](#) screen e.g.

Current Monitor Types

```

Select Monitor Type

Type 1 and press Enter to make your selection
or press F6 to enter a bespoke program

Opt Type Description
_ *DOC Docstore Monitor
_ *FTP FTP Monitor
_ *JVA Java Monitor
_ *STD Standard Monitor
_ *WEB Web Service Monitor

Bottom

F3=Exit F6=Bespoke Program F12=Cancel

```

Type a "1" beside the entry you wish or press **F3** or **F12** to Exit without making a selection. Once you have made your choice the following screen will be displayed for you to confirm (**F10=Update**) your new selection.

```

_ Parameter Maintenance Program

Parameter Type. . . . *FTP

F4=Prompt F10=Update F12=Cancel

```

Press **F10=Update** to update the program details or **F12=Cancel** and return without changing the program

Bespoke Maintenance Program

If you had previously selected to create a bespoke program (**F6=Bespoke Program**) then you will see this screen instead:

```

Parameter Maintenance Program

Monitor Type. . . . . Bespoke
Program to call . . . . BESPOKEPGM
Program Library. . . . *LIBL

F4=Prompt F10=Update F12=Cancel

```

Here you can either change the name of the program or press **F4=Prompt** to display the list of [Cobwebb Folder Monitor Types](#). Press **F10=Update** to change the entry.

Note: If you enter the name of a program that is not a Parameter Maintenance program i.e. has the wrong parameter list then pressing **F10 to Maintain / View Parameters** will cause a program failure.

4.6.10.3 Folder Monitor Details

The second folder monitor screen displays the details that can be entered. This screen also allows the **Status** to be changed, use the **F7** function key to set the status to *Online* and the **F8** function key to set the status to *Offline*.

Note: *From version 6.2.62*, all folder paths will be validated but will only display warning messages as they could be unauthorised to user CPPDMM. If this is the case then you will need to make sure that you use a [Job Description](#) which has the **User** entry set to a User Id which does have authority otherwise the Folder Monitor will fail - for instance if you are using QNTC.

Entries

First Page

Monitor Type

From version 6.2.62 - This is the type of Folder Monitor selected and will be ***STD** by default. If you have chosen to use a bespoke [Parameter Maintenance](#) program then this will be say "Bespoke".

Monitor Name

From version 6.2.62 - This is the unique name for your Folder Monitor entry. This will be used as the name of the Job running in the CPPD Subsystem when it is active.

Description

From version 6.2.62 - Enter a description for your Folder Monitor entry. If you leave this blank then the folder being monitored will be displayed in the list.

Folder to Monitor

Specify the name of the folder that you wish to monitor e.g. **/test/flrmon**

Failed folder

Specify the name of the folder where you wish to place files that have failed e.g. **/test/flrmon/failed**.

Note 1: This cannot be the same name as the [Folder to Monitor](#).

Note 2: If this entry is left blank and the folder monitor fails the file then, *from version 6.2.62 (FLRMON V0.7)*, the file will be left in the original folder and picked up for retry. **This should only be used with caution as, if you have the Polling interval set to 1 second and you only have this one failed file in the folder, it will keep trying this same file forever until the subsystem has ended and you delete the file.**

Program to call

Specify the name of the Program that you wish to be called when a new file appears in the monitored folder. Please see [Supplied Folder Monitor programs](#) for a list of standard programs in library CPPD:

You may create your own Folder Monitor program, please see [Creating a bespoke Folder Monitor program](#) for details, or you ask Cobwebb to create one for you.

Note: *Prior to version 6.2.62* - This is also the entry that is used as the **Job Name** when the job is running in the CPPD Subsystem.

Program Library

The library name where the above Program resides. This may be left as ***LIBL** for the [Supplied Folder Monitor programs](#).

Polling interval (mins / secs)

Specify the number of **minutes** and/or **seconds** you wish to wait before checking for new files arriving in the monitor folder. These two entries will be added together for the polling interval. If nothing is entered here then the default polling interval is **5 minutes**. **Note:** *The addition of seconds is from version 6.2.53 only.*

Job Description

Specify the name of the Job Description to use when running the monitor program - this will be **FLRMON** by default. We would suggest that you create a Job Description, perhaps with the same name as your Program, so that you can specify details such a Library List, Logging etc. We have supplied a **FLRMON** Job Description that you can copy which has the correct **User** and **Job Queue** entries to run in the [CPPD Subsystem](#).

This **Job Description** will be used for the Folder Monitor entry when the CPPD subsystem starts; for instance, if you are printing output you can use OUTQ(*JOB) and it will default to the Output Queue specified in the Job Description. *From version 6.2.54 only.*

Also if you need the Folder Monitor to run with a different **User**, i.e. with access to **QNTC**, then you can change the **User** entry in the **Job Description** and this user will be used to run the Folder Monitor job in the CPPD subsystem - see [QNTC Configuration](#) for details.. *From version 6.2.54 only.*

Library

The library name where the above Job Description resides.

EBCDIC Code Page

The EDCDIC Code page used for file name conversions. If you wish to use a Code Page other than **1146** when processing files then enter a valid entry here. *From version 6.2.53 only.*

Locale

The Locale used for file name conversions. If you wish to use a Locale other than **EN_GB** when processing files then enter a valid entry here. *From version 6.2.53 only.*

Note: Use "WRKOBJ OBJ(QSYS/*ALL) OBJTYPE(*LOCALE)" to see currently installed locales. Use "DSPSYSVAL SYSVAL(QLOCALE)" to see current locale.

Call if no file

If you wish the Monitor program to be called every Polling interval even when there are no files to be processed then enter a 'Y'. The default is 'N' i.e. the Monitor program will only be called if a file has been found in the folder being monitored. *From version 6.2.53 only.*

Status

This entry displays the status of the entry. **Online** means that this folder will be monitored when the CPPD Subsystem is started; **Offline** entries will not be monitored.

Second Page

From version 6.2.57.

Success Folder

Specify the name of the folder that you wish your successfully processed file to be move to e.g. **/test/flrmon/success**. If this is left blank then the files will be deleted once they have been successfully processed. **Note:** This cannot be the same name as the [Folder to Monitor](#).

Note: Unless you are on Version 6.2.70 or above of the Cobwebb Server Software, if you are using a Docstore folder monitor which uses the [STOREDOC](#) command, this command deletes the file when it has been stored successfully so documents will not be copied to the Success folder.

Include Files Filter

This is where you may specify a comma separated string of file names that you wish to be **included** for processing by the Folder Monitor. This may include the standard generic replacement characters of * or ? E.g. *.tst, *.txt. If you leave this entry blank it will assume that any file name should be included as if you had specified *.*.

Exclude File Filter

This is where you may specify a comma separated string of file names that you wish to be **excluded** for processing by the Folder Monitor. This may include the standard generic replacement characters of * or ? E.g. *.tmp. **Note:** Only file names that fall within the **Include File Filter** above will be eligible for excluding.

Function keys

F3=Exit	Exits the Work with Folder Monitor details screen and returns to the Work with Folder Monitor list, without updating.
F7=Online	Make Folder Monitor entry Online .
F8=Offline	Make Folder Monitor entry Offline .
F10=Maintain / View Parameters	This calls the pre-defined Parameter Maintenance Program which allows you to define any parameters that you wish for your Folder Monitor program. <i>From version 6.2.62 only.</i>
F12=Previous	Returns to the previous screen, without updating.
F22=Change Monitor Type / View Parameter Maintenance Program	This allows you to change the Monitor Type / Bespoke Parameter Maintenance program or view the bespoke Parameter Maintenance Program. <i>From version 6.2.62 only.</i>

4.6.10.4 Maintaining Folder Monitor Parameters

From version 6.2.62 - In order to make the Folder Monitor a truly flexible application you may specify any number of parameters that may then be used within your Folder Monitor program. These are held as pairs of information e.g. **Parameter Name / Parameter Value**.

If you are using the Cobwebb supplied Parameter Maintenance program **WRKFLRMP** then you will see a screen similar to the following when you press **F10=Maintain Parameters** which allows you to maintain up to 18 parameters depending upon the Monitor Type. The only difference will be the Parameter Names as these will change according to the type of monitor selected. Simply type the parameter **Value** against the correct parameter **Name** and press **Enter** or press **F12** to return without making any changes. You may leave entries blank if required. If you require an explanation of what to enter in any of the parameter values then you can press

F11= Display Parameter Description. Press F11 again to return to entering the parameter values.

Function keys

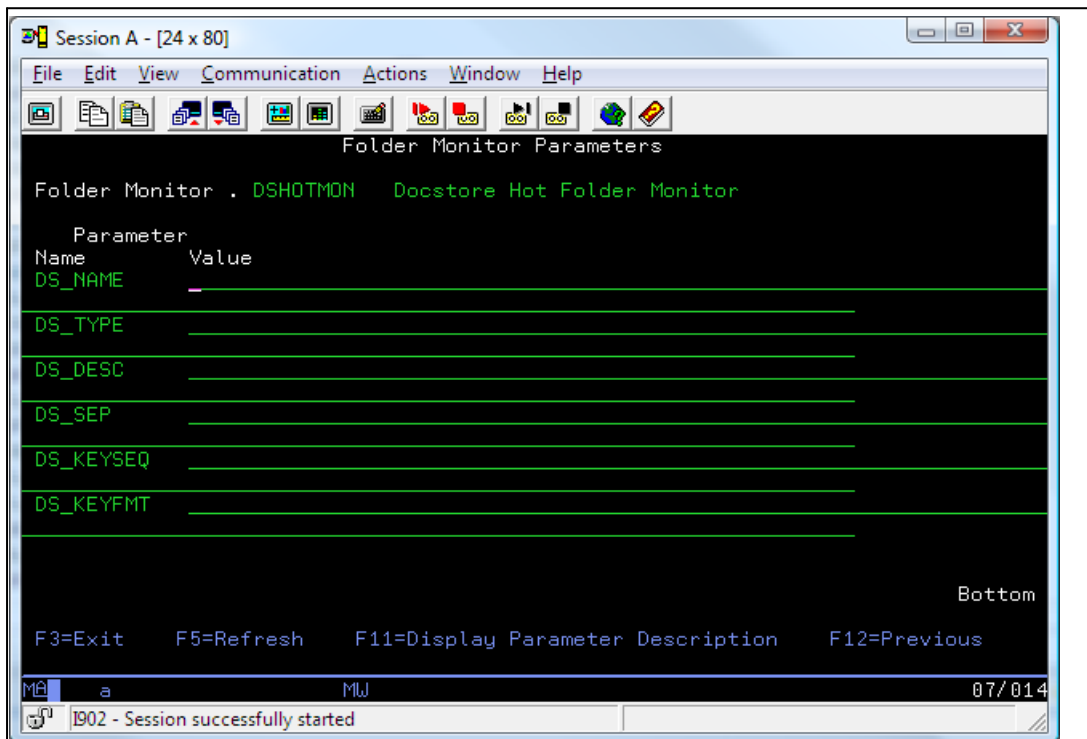
F3=Exit Exits the Work with Folder Monitor Parameters screen and returns to the Work with Folder monitor list, without updating.

F75=Refresh If you have changed any of the parameters pressing F5 will return them to their previous values.

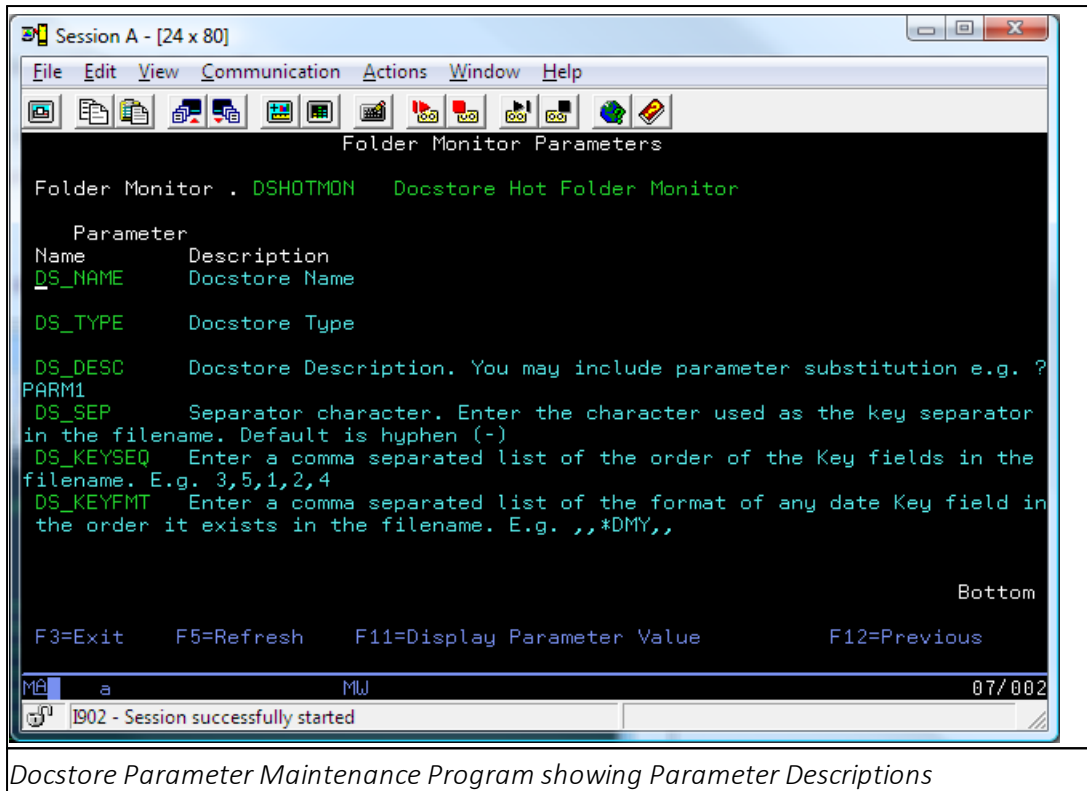
F11=Display Parameter Description This function key allows you to toggle between displaying the parameter values and the parameter descriptions.

F11=Display Parameter Value

F12=Previous Returns to the previous screen, without updating.



Docstore Parameter Maintenance Program showing Parameter Values



Docstore Parameter Maintenance Program showing Parameter Descriptions

4.6.11 Work with PPD Statistics

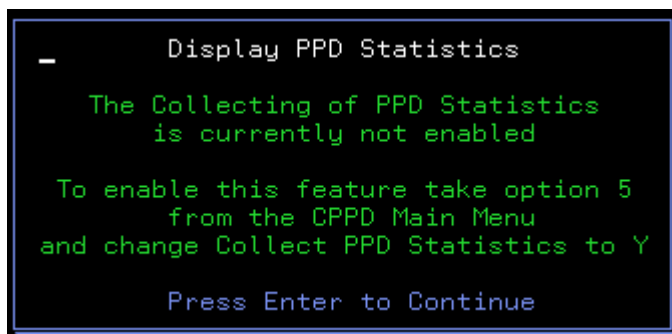
To **Work with PPD Statistics** you may use the **WRKPPDSTAT** command.

Command Parameters

PPD - PPD Name

Enter the name of the PPD file for which you wish to work with Statistics or use ***ALL** to work with the Statistics for all your PPD files.

Note: If you are not currently collecting PPD Statistics then you will see the following pop-up:



Press Enter and the **Work with PPD Statistics** dialog will be displayed but the statistics will not be current.

Note: See [Collect PPD Statistics](#) for details on how to enable the collection of PPD Statistics.

Work with PPD Statistics

In the following example screenshot we have left the default of ***ALL**.

```

PPDSTAT                                Work with PPD Statistics                                26/02/14
                                         12:11:49

Select options, press Enter.
5=Details

  Definition Details      Non Spool Output      Spool Output
  PPD      Times      Last      Times      Last      Times      Pages      Last
  Name      Uploaded  Uploaded  Used      Used      Used      Created  Used
-
BUG1169      1      12/02/14      1      12/02/14      2      2      12/02/14
-
BUG1169A      1      12/02/14      1      12/02/14
-
BUG1169E      1      12/02/14      3      12/02/14
-
BUG1169F      1      12/02/14
-
BUG1169J      1      12/02/14      2      12/02/14
-
BUG1169P      1      12/02/14      2      12/02/14
-
BUG1169S      1      12/02/14      2      12/02/14
-
BUG1169T      1      12/02/14      2      12/02/14
-
BUG1169V      1      12/02/14      1      12/02/14
-
BUG1169X      1      12/02/14      2      12/02/14
-
DBCS1      1      12/02/14
-
DBC1      1      12/02/14
-
DBC6E      1      12/02/14

F3-Exit  F5=Refresh  F23=Archive Statistics      Total Pages      4      Bottom
  
```

Options

Select one of the following options:

5=View Allows you to view the individual details for the selected PPD entry.

Entries

Here you can see that the information is split into three categories:

Definition Details

PPD Name

The name of the PPD file.

Time Uploaded

The first time that this PPD file was uploaded to the Server.

Last Uploaded

The last time that this PPD file was uploaded to the Server.

Non Spool Output [i.e. File / Email Attachment Output]

Times Used

The number of times this PPD has been run to produce Non Spool File output.

Last Used

The last time that this PPD file was run to produce Non Spool File output.

Spool Output

Times Used

The number of times this PPD has been run to produce Spool File output.

Pages Created

The total number of spool file pages created.

Last Used

The last time that this PPD file was run to produce Spool File output.

At the bottom of the screen you can also see a **Total Pages** entry which displays the total number of pages created.

Function keys

F3=Exit Exits the Work with PPD Statistics.

F5=Refresh Refreshes the Work with PPD Statistics with the latest information.

F23=Archive Statistics Archive all the current PPD Statistics. This command is not available if you have selected to Display PPD Statistics for a single PPD file. **Note:** This information is not physically deleted just hidden from the view.

4.6.11.1 Display PPD Statistics

Displaying the **PPD Statistics** may be accessed in the following ways:

- From the [WRKPPDSTAT](#) command and entering option **5=Details** beside an entry.
- From the [Work with PPD](#) menu option and entering option **8=PPD Statistics** beside an entry.
- From the [Work with Spool File Monitor](#) menu option and entering option **8=PPD Statistics** beside an entry.

If **Cobwebb PPD Statistics** are not currently being collected then you will see this dialog:

```

-      Display PPD Statistics

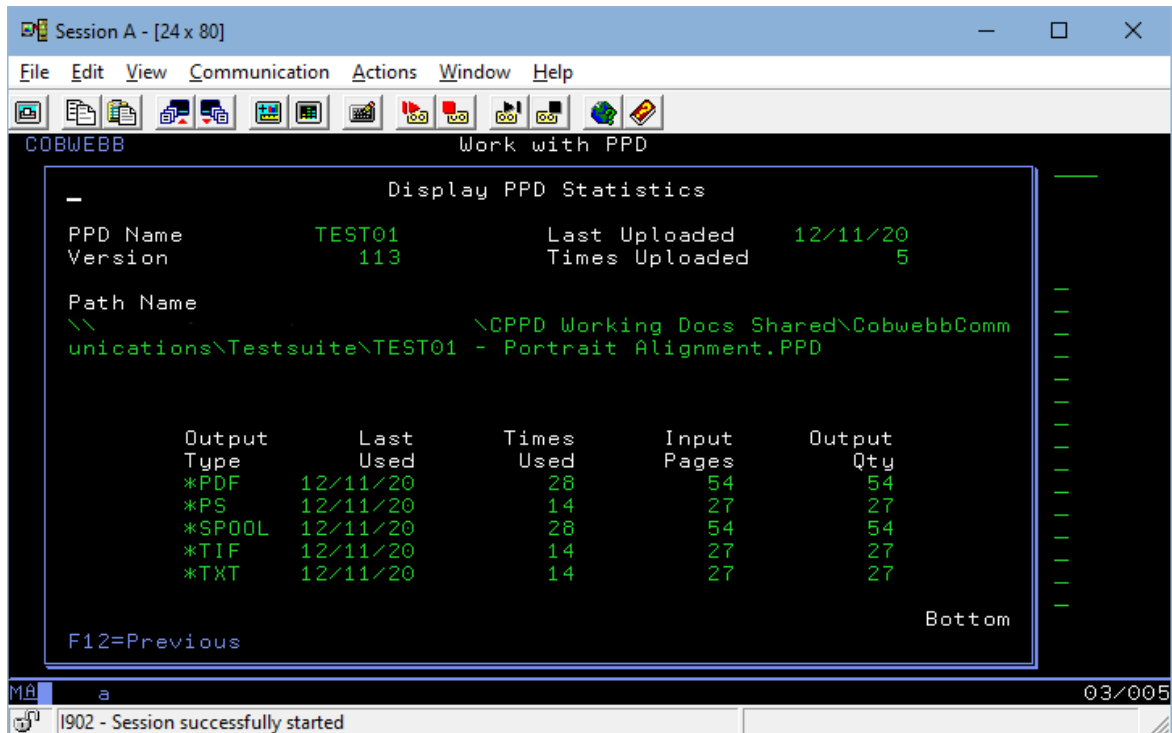
      The Collecting of PPD Statistics
      is currently not enabled

      To enable this feature take option 5
      from the CPPD Main Menu
      and change Collect PPD Statistics to Y

      Press Enter to Continue
```

Pressing Enter will show the following pop-up window but the details will not be current.

The pop-up window gives a more detailed view showing the **PPD Upload** information and details of all of the **Output Types** for that particular PPD Name e.g.



4.6.12 Work with Job Launcher

The [Cobwebb Job Launcher Monitor](#) [JOBMON] allows you to launch a user-defined program in the CPPD subsystem - *from version 6.2.70*.

When the Job Launcher Monitor is running the specified Job Launcher is monitored at a frequency defined by the **Polling interval**. For each "Online" entry found it will call the call the program specified using the supplied Job Description. You may create your own Job Launcher program, please see [Creating a bespoke job launcher program](#) for details, or you ask Cobwebb to create one for you.

You need to create a Job Launcher entry for each program you wish to call using the **Cobwebb Job Launcher Monitor**. This can be found from the [Cobwebb Main Menu - PPD File Maintenance - Option 12](#).

Type in your choices and then press **Enter**, this will take you to a second screen. Highlighted entries are those that are *Online* those in **red** have an invalid folder specified. Each *Online* entry will be monitored when you next start the CPPD Subsystem.

Note: If you change any information here then you will need to **Stop** and **Restart** the CPPD subsystem for the changes to take effect.

Position to

Enter one or more characters of the Launcher Name from which to start the display.

Options

Select one of the following options:

- 1=Create** Allows you to create a new Job Launcher entry. *This option is only valid on the top (entry) line of the display.*

- 2=Revise** Use this option to revise an existing Job Launcher entry.
- 3=Copy** Copy an existing Job Launcher entry.
- 4=Delete** Delete an existing Job Launcher entry.
- 5=View** View an existing Job Launcher entry.
- 7=Online/Offline** Toggle between **Offline** and **Online** for an existing entry. Entries which are **Online** will be highlighted.

Entries

Launcher Name

Specify a unique name for your Job Launcher entry. This will be used as the name of the Job running in the CPPD Subsystem when it is active.

Description

Enter a description for your Job Launcher entry.

Launcher Type

This is the Type of Job Launcher selected. If you have chosen to use a bespoke [Parameter Maintenance](#) program then this will be blank.

Status

This entry displays the status of the entry. **Online** means that this job will be launched when the CPPD Subsystem is started; **Offline** entries will not be launched.

Function keys

F3=Exit Exits the Work with job launcher screen and returns to the Maintenance menu, without updating.

F5=Refresh Refreshes the list of job launcher entries

F12=Previous Exits the Work with job launcher screen and returns to the Maintenance menu, without updating.

Page Up Scrolls up through the list

Page Down Scrolls down through the list

4.6.12.1 Job Launcher Details

This screen also allows the **Status** to be changed, use the **F7** function key to toggle the status between *Online* and *Offline*.

Entries

Launcher Type

This is the type of Job Launcher selected and will be ***STD** by default. If you have chosen to use a bespoke [Parameter Maintenance](#) program then this will be say "Bespoke".

Launcher Name

This is the unique name for your Job Launcher entry. This will be used as the name of the Job running in the CPPD Subsystem when it is active.

Launcher Description

Enter a description for your Job Launcher entry.

Program to call

Specify the name of the Program that you wish to be called by the job launcher. Please see [Supplied Job Launcher programs](#) for a list of standard programs in library CPPD:

You may create your own Job Launcher program, please see [Creating a bespoke Job Launcher program](#) for details, or you ask Cobwebb to create one for you.

Program Library

The library name where the above Program resides. This may be left as ***LIBL** for the standard Job Launcher programs.

Polling interval (mins / secs)

Specify the number of **minutes** and/or **seconds** you wish to wait before calling the program again. These two entries will be added together for the polling interval. If nothing is entered here then the program will only be run ONCE when the CPPD subsystem first starts.

Job Description

Specify the name of the Job Description to use when running the monitor program - this will be **JOBLMON** by default. We would suggest that you create a Job Description, perhaps with the same name as your Program, so that you can specify details such a Library List, Logging etc. We have supplied a **JOBLMON** Job Description that you can copy which has the correct **User** and **Job Queue** entries to run in the [CPPD Subsystem](#).

This **Job Description** will be used for the Job Launcher entry when the CPPD subsystem starts; for instance, if you are printing output you can use OUTQ(*JOB) and it will default to the Output Queue specified in the Job Description.

Also if you need the Job Launcher to run with a different **User** then you can change the **User** entry in the **Job Description** and this user will be used to run the job in the CPPD subsystem.

Library

The library name where the above Job Description resides.

Status

This entry displays the status of the entry. **Online** means that this program will be launched when the CPPD subsystem is started; **Offline** entries will not be launched.

Function keys

F3=Exit Exits the Work with Job Launcher without updating.

F5=Refresh Refresh current entries with their original values.

F7=Online/Offline Switches the status of the entry between **Online** and **Offline**.

F10=Maintain / View Parameters	This calls the pre-defined Parameter Maintenance Program which allows you to define any parameters that you wish for your Job Launcher program.
F12=Previous	Returns to the previous screen, without updating.
F22=Change Launcher Type / View Parameter Maintenance Program	This allows you to change the Launcher Type / Bespoke Parameter Maintenance program or view the bespoke Parameter Maintenance Program.

4.6.12.2 Maintaining Job Launcher Parameters

In order to make the Job Launcher a truly flexible application you may specify any number of parameters that may then be used within your Job Launcher program. These are held as pairs of information e.g. **Parameter Name / Parameter Value**.

If you are using the Cobwebb supplied Parameter Maintenance program **WRKJOBPL** then you will see a screen similar to the following when you press **F10=Maintain Parameters** which allows you to maintain up to 18 parameters depending upon the Launcher Type. The only difference will be the Parameter Names as these will change according to the type of launcher selected. Simply type the parameter **Value** against the correct parameter **Name** and press **Enter** or press **F12** to return without making any changes. You may leave entries blank if required. If you require an explanation of what to enter in any of the parameter values then you can press **F11= Display Parameter Description**. Press F11 again to return to entering the parameter values.

Function keys

F3=Exit	Exits the Work with Job Launcher Parameters screen and returns to the Work with Job Launcher entries, without updating.
F75=Refresh	If you have changed any of the parameters pressing F5 will return them to their previous values.
F11=Display Parameter Description	This function key allows you to toggle between displaying the parameter values and the parameter descriptions.
F11=Display Parameter Value	
F12=Previous	Returns to the previous screen, without updating.
Page Up	Scrolls up through the list
Page Down	Scrolls down through the list

Session B - [24 x 80]

File Edit View Communication Actions Window Help

Job Launcher Parameters

Launcher Name. . LREFUPD Update Docstore Item Reference
 Launcher Type. . *REF

Parameter

Name	Value
DOC_LIB	DOCSTORE18
CO_NO	COMPANY
SUP_NO	SUP_ACC
SUP_REF	SUP_REF
ITM_TYP	ETYP
ITM_REF	LREF
COMP_TEXT	*NOTSET*

F3=Exit F5=Refresh F11=Display Parameter Description F12=Previous More...

MA b 08/014

|I902 - Session successfully started

LREFUPD Parameter Maintenance Program showing Parameter Values

Session B - [24 x 80]

File Edit View Communication Actions Window Help

Job Launcher Parameters

Launcher Name. . LREFUPD Update Docstore Item Reference
 Launcher Type. . *REF

Parameter

Name	Description
DOC_LIB	Docstore Library name to monitor e.g., DOCSTORE1
CO_NO	Company Number Docstore key name e.g., COMPANY
SUP_NO	Supplier Account Docstore key name e.g., SUP_ACC
SUP_REF	Supplier Reference Docstore key name e.g., SUP_REF
ITM_TYP	Item Type Docstore key name e.g., ETYP
ITM_REF	Item Reference Docstore key name e.g., LREF
COMP_TEXT	Comparison text for Item Reference key e.g., *NOTSET*. Max 8 chars.

F3=Exit F5=Refresh F11=Display Parameter Value F12=Previous More...

MA b 08/002

|I902 - Session successfully started

LREFUPD Parameter Maintenance Program showing Parameter Descriptions

4.6.12.3 Changing the Launcher Type

Cobwebb supply a list of Launcher Types which you may use, and which have their own Parameter maintenance program, or you can opt to create a **Bespoke Program (F6)** - see [Creating your own Parameter Maintenance program](#). By default, when you create a Job Launcher entry it will assume the ***STD** Launcher Type.

Changing the Launcher Type

You may change this by pressing **F22=Change Launcher Type** from the [Job Launcher Details](#) screen e.g.

Current Launcher Types

```

                                Select Launcher Type

Type 1 and press Enter to make your selection
  or press F6 to enter a bespoke program

Opt Type Description
  _  *REF LREF Update Launcher
  _  *STD Standard Launcher

                                Bottom

F3=Exit   F6=Bespoke Program   F12=Cancel

```

Type a "1" beside the entry you wish or press **F3** or **F12** to Exit without making a selection. Once you have made your choice the following screen will be displayed for you to confirm (**F10=Update**) your new selection.

```

  _ Parameter Maintenance Program

 Launcher Type . . . . *REF

F4=Prompt  F10=Update  F12=Cancel

```

Press **F10=Update** to update the program details or **F12=Cancel** and return without changing the program

Bespoke Maintenance Program

If you had previously selected to create a bespoke program (**F6=Bespoke Program**) then you will see this screen instead:

```

Parameter Maintenance Program

 Launcher Type . . . . Bespoke
 Program to call . . . . BESPOKEPGM
 Program Library. . . . *LIBL_____

F4=Prompt  F10=Update  F12=Cancel

```

Here you can either change the name of the program or press **F4=Prompt** to display the list of [Cobwebb Job Launcher Types](#). Press **F10=Update** to change the entry.

Note: If you enter the name of a program that is not a Parameter Maintenance program i.e. has the wrong parameter list then pressing **F10 to Maintain / View Parameters** will cause a program failure.

4.6.12.4 Cobwebb Job Launcher Types

The table below shows the list of currently supported Job Launcher Types - *from version 6.2.70.*

Type	Description	Program to use#1	Parameter Names	Parameter Description
*RE F	Update Docstore Item Reference (LREF)	LREFUPD	DOC_LIB	Docstore Library name to monitor e.g. DOCSTORE1
			CO_NO	Company Number Docstore key name e.g. COMPANY
			SUP_NO	Supplier Account Docstore key name e.g. SUP_ACC
			SUP_REF	Supplier Reference Docstore key name e.g. SUP_REF
			ITM_TYP	Item Type Docstore key name e.g. ETYP
			ITM_REF	Item Reference Docstore key name e.g. LREF
			COMP_TXT	Comparison text for Item Reference key e.g. *NOTSET*. Max 8 chars.
			NOTFND_TXT	Not Found text for Item Reference key e.g. *NOTFND*. If left blank then will keep checking forever. Max 8 chars.
			NOTFND_DYS	Number of days to keep checking for Item Reference e.g. 5. If left blank will default to 1 day. Max 3 chars.
*ST D	Standard Monitor		PARM1 - PARM7	

Note#1: The **Program to use** column specifies the standard Job Launcher program to use with the selected **Launcher Type**. You may use your own bespoke program if you wish.

4.6.13 Work with XML Cross References

Work with XML Cross References allows you to import an existing XML file. An XML Cross Reference will be generated for each element in your XML. Once the Cross References have been generated you can then decide which of the entries you wish to print along with other details that will help when creating a Cobwebb Design to process the printed XML. This can be found from the [Cobwebb Main Menu - PPD File Maintenance - Option 13](#). *Requires Cobwebb Server version 6.2.82 or above and IBM i OS V6R1M0 or above.*

Say you have incoming XML that you wish to process and turn into a document to **Print**, send out as an **Email** or **File** in your Document Archiving system. You can drop the XML into a folder which will be monitored using a [Cobwebb Folder Monitor](#) configured to use the **Extract XML to Spool** Folder Monitor program [FMXML2SPL](#). This will print the XML, using the configured Cross References, to an Output Queue of your choice, which in turn will be monitored by a [Spooled File Monitor](#) using your Cobwebb Design.

Position to

Enter one or more characters of the **File ID** from which to start the display.

Options

Select one of the following options:

- [1=Create](#)** Allows you to create a new XML Cross Reference entry. *This option is only valid on the top (entry) line of the display.*
- [2=Change](#)** Use this option to revise an existing entry.
- [3=Copy](#)** Copy an existing XML Cross Reference entry. *From version 6.2.88.*
- [4=Delete](#)** Delete an existing XML Cross Reference entry.
- [5=View XML](#)** View the XML Cross References for an existing entry.
- [6=Print XML](#)** Print the XML Cross References for an existing entry. Calls [PRTXMLSPL](#) to print the XML details. Requires [Cobwebb XML](#).
- [9=Design XML](#)** Configure the XML Cross References to be used in your Print program.

Entries

File ID

Specify a unique name (File ID) for your XML Cross Reference file entry.

Description

Enter a description for your XML Cross Reference file entry. **Note:** This is not displayed if you have pressed **F14=Show File Path**.

File Path

The path to the XML file that you wish to Cross Reference. **Note:** This is only displayed if you have pressed **F14=Show File Path**.

Seq No Len

This is the length of the sequence number that you wish to be used when generating the Cross References for your XML. The default is **3** which will result in Cross References of XML_ddd where ddd is an incrementing number from 001 - 999. Should you have more than 999 elements in your XML then you may need to increase this to a maximum of 5 i.e. XML_dddnnn.

Function keys

- F3=Exit** Exits the Work with job launcher screen and returns to the Maintenance menu, without updating.
- F5=Refresh** Refreshes the list of job launcher entries
- F12=Previous** Exits the Work with job launcher screen and returns to the Maintenance menu, without updating.
- F14=Show File Path** Shows the XML File Path in place of the Description
- F14=Show Description** Shows the Description in place of the File Path.

Page Up	Scrolls up through the list
Page Down	Scrolls down through the list

4.6.13.1 XML Cross Reference Details

This information is displayed when creating or amending an XML Cross Reference entry. Pressing **F10=Import XML** will Import the XML and create Cross References for each element. **Note:** If you have already imported an XML file for the selected File ID and you select to Import again then any new XML elements that are found in the new file will be added to the end of the list.

Entries

File ID

The unique name (File ID) for your XML Cross Reference file entry.

Description

The description for your XML Cross Reference file entry.

Sequence No Len

This is the length of the sequence number that you wish to be used when generating the Cross References for your XML. The default is **3** which will result in Cross References of XML_ *nnn* where *nnn* is an incrementing number from 001 - 999. Should you have more than 999 elements in your XML then you may need to increase this to a maximum of 5 i.e. XML_ *nnnnn*.

Path to XML file

The path to the XML file that you wish to Cross Reference e.g. /test/XML_Schemas/Input.xml.

Function keys

F3=Exit	Exits the Work with XML Cross References without updating.
F5=Refresh	Refresh current entries with their original values.
F10=Import XML	Imports your XML file and generates the Cross References.
F12=Previous	Returns to the previous screen, without updating.

4.6.13.2 Work with XML Cross Reference Details

The XML Cross Reference Details are generated when you **Import** your XML file. If you have used **5=View** then you will only be able to view these details but if you have used **9=Design XML** then you will be able to configure the XML Cross References you wish to use in your print program. XML elements that have already been configured will have their **XML Element** details highlighted in the list.

How it Works

Output can be grouped by **Label ID** and is printed in Label ID order so if you want address information at the top start your Label ID with 'A'. **Note:** The combination of **Label ID** and **Field/Key** must be unique.

When writing the information to the spooled file the **Field/Key** entries can be used as the Headings for the data. All of the Headings (*prefixed *H*) for a Label ID will be written out for each line before the Data (*prefixed *D*) are written. If you don't want Headings to be printed for a Label ID / Line then enter an '**N**' in the **Prt H** (Print Heading) on ANY of the entries for the line and no heading will be printed. *From version 6.2.88* you may also enter a '**1**' on ANY of the entries for the line and a blank line will be printed before the heading. You may only want headings for Loop lines say. **Note:** If the **Field/Key** is greater in length than the **Field Length** then it will be truncated to the Field Length when printed.

The **Label Line** and **Position** entries are for you to specify where, within your Label ID, you wish to output the data on the spooled file. The Line number is relative to the Label ID so each Label ID output will start at Line 1. If you start at Line 2 then a Blank line (*prefixed *B*) will be written, before Line 2, to the spooled file; or you could miss out a line i.e. 1, 2, 3, 5, 6 and a Blank line will be written before Line 5. **Note:** These entries can only be left blank if you are specifying a **Record Flag** of '**C**' = Complete/Close entry or an '**F**' = First line of new Document and then this information will not be output to the spooled file. If no '**C**' or '**F**' is specified then these both default to 1. **Label Position** is the start position, on the selected Line, for the data on the spooled file.

The **Field Length** entry is the actual length of the data that you want to be output. In this way it is possible to right justify the numeric entries, which are left justified in the XML and also wrap extra long data to this length. **Note:** The maximum length of data that can be output on the page is 264 characters.

The **Record Flag** is used in a couple of ways:

1. For XML files that contain information for more than one Document (i.e. several Invoices, Orders in one XML) then you need to have a record Flag set to an '**F**' to denote the **First line of a new Document**. This '**F**' can only appear once and must occur before any other Labels in your XML. **Note:** If your XML only ever contains one Document then no F entry is required.
2. For elements that appear more than once in the XML (like a Loop in CPPD) then you should have record Flag set to a '**C**' for **Complete/Close** in order that the program knows that this is the last entry before the repeat. **Note:** For elements that only appear once then this is not required.

If you want to right justify numeric entries then you need to specify a **number of Decimals**, even if it is only 0. You can also change the number of decimals, i.e. if your input has 2 but you only want 1 then you can specify 1. Currently the numeric data is written out using EDTCDE = 'L' (Decimal point and - sign). Make sure you have a field length long enough to cater for the edited output. **Note:** Headings for numeric fields will also be right justified.

Find...

You can use this function to search through the XML Elements for a particular string. Enter the string and then press **F16=Find** to search the XML. If a match is found the cursor will be positioned to the first instance and all matches will be highlighted with the **XML Element** entry positioned to show the match.

Options

Select one of the following options:

5=View XML Element View the entire XML element.

Entries

Ref

This is the unique internal Cross Reference that has been generated for the XML Element.

Label ID

If you wish to print the value of an XML element then you must give it a Label ID. You may use the same Label ID more than once but the combination of **Label ID** and **Field/Key** must be unique. If you had several XML elements containing say the Invoice Address details then you would use the same **Label ID** for each Cross Reference but a different **Field/Key**. **Note:** Output is sorted by Label ID. See [Examples](#) below for details.

Field/Key

Enter a unique Key for a Label ID. This information will be output as a Heading for your data unless suppressed by entering an 'N' in the **Prt H** entry.

F/C (Record Flag)

The **Record Flag** is used in a couple of ways:

1. For XML files that contain information for more than one Document (i.e. several Invoices, Orders in one XML) then you need to have a record Flag set to an '**F**' to denote the **First line of a new Document**. This '**F**' can only appear once and must occur before any other Label IDs in your XML. **Note:** If your XML only ever contains one Document then no '**F**' entry is required.
2. For elements that appear more than once in the XML (like a Loop in a Cobwebb Design) then you should have record Flag set to a '**C**' for **Complete/Close** in order that the program knows that this is the last entry before the repeat.

Label Lin

The **Label Line** number is relative to the Label ID so each Label ID output will start at Line 1. If you start at Line 2 then a Blank line (*prefixed *B*) will be written, before Line 2, to the spooled output; or you could miss out a line i.e. 1, 2, 3, 5, 6 and a Blank line will be written before Line 5. Blank lines will only be written at Detail level NOT Header. **Note:** Leaving this entry blank will default to **1** unless you are specifying a **Record Flag** of '**C**' = Complete/Close entry or an '**F**' = First line of new Document as you may not want this information output to the spooled file.

Label Pos

The **Label Position** is the start position, on the above Label Line, for the data on the spooled file. **Note:** Leaving this entry blank will default to **1** unless you are specifying a **Record Flag** of '**C**' = Complete/Close entry or an '**F**' = First line of new Document as you may not want this information output to the spooled file.

Fld Len

The **Field Length** entry is the actual length of the data that you want to be output. In this way it is possible to right justify the numeric entries, which are left justified in the XML. If your XML data is greater than the length specified it will be truncated. Values 1 - 264.

No. Dec

Here you can specify a **number of decimals** for numeric output. Values 1 - 5 or blank. **Note:** Specifying a number of decimals means the data will be right justified on your output.

Prt H (Print Heading)

If you don't want Headings to be printed for a Label ID / Line then enter an 'N' on any of the entries for that line. You may only want headings for Loop lines for instance. *From version 6.2.88.* You may also enter a '1' on any of the entries for that line and a blank line will be printed before the Heading.

Note: Headings are only really appropriate if your Label ID only covers one line of output as the headings are output before the first data lines for a Label ID so if you have a Label ID covering several lines of data then all the headings will be output before any of the data.

Wrap

From version 6.2.88. If your XML contains more information than you can fit on a line then you can specify the **Field Length** and enter a 'Y' and the text will be wrapped to the length specified.

Note: We currently only cater for up to 1024 characters of XML data with a maximum spooled file line length of 264.

XML Element

The XML element details. By default the first characters of the XML element are displayed. If you press **F11=Alt XML View** then the last characters of the XML element are displayed.

Examples

For example if you wish to extract an **Invoice Address** & a **Delivery Address** to print side by side but you don't need field Headings and you want a space before i.e. start at Line 2:

```
*B
*D ADD      TEST COMPANY INVOICE ADDRESS      TEST COMPANY DELIVER TO ADDRESS
*D ADD      BRAND NEW HOUSE                  TEST HOUSE
*D ADD      NEW ROAD                          NO 0051 LU FING ROAD
*D ADD      SOMEWHERE1                       NANHUI DISTRICT
*D ADD      HANTS XXX
*D ADD      DA2 6QJ
```

Ref	Label ID	Field/Key	F/C	Label Lin	Label Pos	FLD Len	No. Dec	Prt H
XML_010	ADD	Inv Name		2	1	35		N
XML_011	ADD	Inv Add		3	1	30		N
XML_012	ADD	Inv Street		4	1	30		N
XML_013	ADD	Inv Town		5	1	20		N
XML_014	ADD	Inv County		6	1	20		N
XML_015	ADD	Inv Post		7	1	10		N
....								
XML_067	ADD	Del Name		2	50	35		
XML_068	ADD	Del Add		3	50	30		
XML_069	ADD	Del Street		4	50	30		
XML_070	ADD	Del Town		5	50	20		
XML_071	ADD	Del County		6	50	20		

Ref	Label ID	Field/Key	F/C	Label Lin	Label Pos	FLD Len	No. Dec	Prt H
XML_072	ADD	Del Post		7	50	10		

or the details relating to a recurring **Invoice Line** where you would like the **Headings** to print and leaving a space between each entry:

*H ITEM	Seq	QTY	Desc	Weight	Rate	Cur	Amount
*B							
*D ITEM	1	3	ITEM LINE 1 -----	499.00	4.11	GBP	2050.89
*B							
*D ITEM	2	2	ITEM LINE 2 -----	215.00	3.14	GBP	675.10
*B							
*D ITEM	3	5	ITEM LINE 3 -----	312.00	4.11	GBP	1282.32
*B							
*D ITEM	4	1	ITEM LINE 4 -----	499.00	4.11	GBP	2050.89
*B							
*D ITEM	5	10	ITEM LINE 5 -----	215.00	3.14	GBP	675.10

Ref	Label ID	Field/Key	F/C	label Lin	Label Pos	FLD Len	No. Dec	Prt H
XML_019	ITEM	Seq		2	1	3		
XML_020	ITEM	QTY		2	5	3	0	
XML_021	ITEM	Desc		2	9	30		
XML_022	ITEM	Weight		2	41	10	2	
XML_024	ITEM	Rate		2	53	10	2	
XML_026	ITEM	Currency		2	67	3		
XML_027	ITEM	Amount		2	72	10	2	
XML_028	ITEM	End	C					

Function keys

- F3=Exit** Exits the Work with XML Cross Reference Details screen and returns to the Work with XML Cross References, without updating.
- F5=Refresh** Refreshes the list of XML Cross Reference Details
- F10=Update** Update the XML table with your changes.
- F11=Alt XML View** Toggle between showing the first or last characters of the XML element.
- F12=Previous** Exits the Work with XML Cross Reference Details screen and returns to the Work with XML Cross References, without updating.
- F16=Find** Highlights all of the XML Elements that contain the string you have entered in the **Find...** entry.
- Page Up** Scrolls up through the list
- Page Down** Scrolls down through the list

4.7 Configure CPPD Subsystem Jobs

The Configure CPPD Subsystem Jobs allows you to configure the jobs that run in the CPPD subsystem that are based on switches which may be enabled/disabled by entering a **Y** to enable or **N** to disable. This can be found from the [Cobwebb Main Menu - Option 8](#). *Requires Cobwebb Server version 6.2.88 or above.*

Notes:

1. You will have to stop and restart the CPPD subsystem when changing any of these parameters.
2. These switches may also be found on other menu options but this option consolidates those most commonly used.

Entries

Spooled File Monitor

Starts the **SPLMON** job which monitors for spooled files specified in the [Work with spooled file monitor](#). The program will not recognise output queues added after it has been started and will not start unless there is at least one output queue specified and 'Online'. To add additional output queues please stop and start the subsystem.

PC Server Interface

If you wish to use the [TCP/IP interface](#) to export your PPD files from your PC to your IBM i then you will need to enter a **Y** here in order to start the **PCSRVI** job.

Use Cobwebb Email Queue

If you wish to queue your email to the [Cobwebb Queue](#) to keep a record of your emails then enter a **Y** here to start the **EMLSND** job. If this entry is left as an **N** then messages are sent directly to your SMTP Mail Server.

Email API

If you have selected to send your email via the Cobwebb Queue i.e. **Use Cobwebb Email Queue** has been set to **Y** above, then this API will also need to be enabled to start the **EMLAPI** job.

Email confirmation API

If you wish to have confirmation of your sent emails then you will need to enter a **Y** here. This will automatically start the **CNFAPI** job, which will monitor for entries in the sub-folder **CNFAPI** in folder **CPPD**.

POP3 mail monitor

If you wish to monitor user account on the POP3 mail server for confirmation messages then enter a **Y** here. This will start the **MAILMON** job. **Note:** You will need to also configure the other POP3 details by pressing [F9=Work with Email parameters](#) if you change this entry to a **Y**.

Job Scheduler delay time

This entry specifies the length of time (in minutes) the [Cobwebb Job Scheduler](#) will sleep between checking for jobs to run. Valid entries are **1 - 1440** minutes or **0** if you don't wish the Cobwebb Job Scheduler job **JOBSCD** to run. **Note:** If you have specified a **Schedule Time** for a Job and this falls within the sleep period then it will be run when the job wakes up.

Job Scheduler Job monitor

This entry specifies whether or not the [Job Scheduler Job Monitor](#) program **JOBSCDSTS** runs. This checks the status of any job that has been set to run via the [Cobwebb Job Scheduler](#).

Note: If you set this to **Y** then, the first time you start the CPPD subsystem, a System Journal **QACGJRN** will be created (if it doesn't already exist) and the Accounting Level System Value **QACGLVL** will be adjusted to include ***JOB** journaling if not already included.

Fax API

This enables the **SNDAPI** job which, as well as writing Fax messages to the [Cobwebb Queue](#), also handles the printing of incoming/outgoing faxes if the Print option on the [System parameters](#) has been used.

Fax Lines monitor

If set to a **Y** this will start the **LINMON** job which checks all the [Cobwebb Fax communications lines](#) (not including Cobwebb Fax Twinax communications) approximately every 10 minutes, if a line is found to have failed a message is sent, and the program attempts to restart the communications for that line.

COBWEBB data queue monitor

Enables the **COBWEBB** data queue by starting the **CDQAPI** job. This is used by customers who wish to fax from System 21 using the default interface. **Note:** This has been superseded by CPPD and the Spooled File Monitor.

Spooled File Fax monitor

Starts the Spooled file fax monitor job **SFFMON**, providing there is an 'online' entry in the [Work with Spooled File Fax monitor](#). This monitors the specified print output queue for specified spooled files and runs a modified [SNDFAXP](#) command automatically, to send faxes from any text spooled file.

Function keys

F3=Exit	Exits the Configure CPPD Subsystem Jobs and returns to the CPPD menu, without updating.
F5=Refresh	Refreshes the list of entries
F9=Work with Email parameters	Displays the Email parameters where you can maintain all the email details.

5 Cobwebb Fax & Email Menu

To see the CPPD Fax/Email menu '**ADDLIBLE CPPD**' and enter '**GO CFA400**' or select option **80 – Fax/Email menu** from the main [CPPD menu](#).

The **Fax/Email** menu has the following options: -

Option Description

1. [Send a fax](#)
2. [Send an email](#)
3. [Work with directory](#)
4. [Work with queue](#)
5. [Work with log](#)

6. [Work with system parameters](#)
7. [System maintenance](#)
80. [CPPD Menu](#)
90. Sign off

To view the Help for a specific option simply click on one of the above links.

5.1 Send a Fax

This function allows you to prepare and send a fax to one or more recipients. This can be found from the [Cobwebb Fax & Email Menu - Option 1](#).

The fax number can be entered directly (spaces may be included in the number for convenience), or indirectly by using a Directory short code. The short code may specify more than one fax number, this is known as a distribution list (see [Work with Directory](#) for more information).

Sending a Fax comprises two steps:

1. Addressing the fax including the 'Header Page' details, destination, logo/signature, and date and time the fax is to be sent.
2. Typing the text using the Cobwebb Editor or IBM i spooled file that contains the fax text (you have the opportunity to revise the document).

In order to avoid repetitive keying, Cobwebb Fax remembers certain information from the last fax you sent (you may, of course, override this if need be). The cursor location can be specified at the most appropriate line for each user, in the [Cobwebb User profile](#) (see 'Send, position cursor').

The following data is shown on the queue record, and is used to identify the message on the queue: From, To, Attention, Reference.

Entries

From

Type the name of the person sending the message; this appears as part of the Standard Fax Format, prefixed by From.

Public authority

This controls who can view or change the fax. Normal means only you; your 'manager' and Cobwebb Fax 'operators' have access to the fax. None means only you and your 'manager' have access to the fax. All means everybody has access to the fax.

Priority

This is the priority assigned to the fax. **Hold** denotes the fax is to be queued but not sent (until the priority is changed see [Work with Queue](#)). **Low** will place the fax last on the queue. **High** will place fax above any lower priority fax already on the queue.

To

Type the name of the addressee (company). This appears as part of the Standard Fax Format prefixed by 'To:'

If a directory entry is selected, and if the Output directory description option has been selected in the [Cobwebb User profile](#), the description for the selected directory entry will be output unless entered manually.

Attention

Type the name of the recipient of the fax. This appears as part of the Standard Fax Format prefixed by 'Attn:'

If a directory entry is selected, and if there is an Attention for the directory entry, the Attention from the directory will be output unless entered manually.

Reference

Enter the subject, title or some other identifying text for the fax. This appears as part of the Standard Fax Format prefixed by 'Ref:'

Destination

Specify the distant fax number. The following characters may be embedded:

- = insert .5 seconds pause
 - _ insert 0 second pause
 - :
- wait for dial tone (required by some PABX)

For clarity, you may also insert spaces between numbers (e.g. 01 234 5678).

If you are using a PABX access code inserting an 'I' before the number will cause the PABX access code to be ignored, this is used to send a fax to an internal number on the PABX where the access code is not required.

When dialling via a PABX, you may need to prefix the fax number with a 9 (or some other digit), this can be done automatically by specifying the PABX access code in the System Parameters.

If you wish to retrieve fax numbers from the Directory, specify a short code prefixed with an asterisk (e.g. *ABC001). Should you wish to select one or more entries from the Fax Directory, press F4 (see [Directory Keyword List](#) for details).

Answerback

If you are sending to a Group III fax machine that has been programmed with an answerback, enter the answerback here.

+ for more destinations

If, after specifying the first destination or following selection of one or more directory entries, further destinations are required, enter a + sign. The [More Destinations](#) screen will be displayed.

Defer delivery until

The current time is displayed, change the date or time to delay the sending of the Fax.

Department

The user's department, if any (from the Cobwebb user profile), will be displayed.

Cover page logo

The Cover page logo is the cover page which comes before the first page of the fax. It contains the details (which can include the company logo) specified in the cover page (see [Work with cover pages](#) in System Maintenance). The Cover page logo specified in the Cobwebb user profile is normally used, if that is blank the System Cover page logo is used, if that is blank no Cover page logo is used.

Cover page signature

A Cover page signature is defined as Cover page which come at the end of the last page of a fax. A signature can be specified in the cover page. The Cover page signature specified in the Cobwebb

user profile is normally used, if blank the System Cover page signature is used, if that is blank no Cover page signature is used.

Pressing **Enter** displays the [Cobwebb Editor](#).

Function keys

F3=Exit Exits the Send a Fax function.

F4=Prompt Displays the [Directory Keyword List](#) from which one or more destinations may be selected.

F8=Work with directory Interfaces to the [Work with Fax directory](#) function allowing you to update the directory 'on the fly'.

F9=Edit options If the option to Display edit options in the Cobwebb User profile is = N, the F9 function will be displayed. If F9 is pressed the Edit options screen will be displayed.

F12=Previous Exits the Send a Fax function.

5.1.1 More Destinations

This display enables you to specify further destinations. You may specify up to 50 further destinations either explicitly by typing Destination/Answerback/Attention, or by using a Directory entry prefixed with an asterisk (e.g. *ABC001).

Entries

Destination

Specify the distant fax number. The following characters may be embedded:

- = insert .5 seconds pause
- _ insert 0 second pause
- : wait for dial tone (required by some PABX)

For clarity, you may also insert spaces between numbers (e.g. 01 234 5678).

If you are using a PABX access code inserting an 'I' before the number will cause the PABX access code to be ignored, this is used to send a fax to an internal number on the PABX where the access code is not required.

When dialling via a PABX, you may need to prefix the fax number with a 9 (or some other digit), this can be done automatically by specifying the PABX access code in the System Parameters.

If you wish to retrieve fax numbers from the Directory, specify a short code prefixed with an asterisk (e.g. *ABC001). Should you wish to select one or more entries from the Fax Directory, press F4 (see [Directory Keyword List](#) for details).

To

Type the name of the addressee (company). This appears as part of the Standard Fax Format prefixed by 'To:'

If a directory entry is selected, and if the Output directory description option has been selected in the Cobwebb User profile, the description for the selected directory entry will be output unless entered manually.

Attention

Type the name of the recipient of the fax. This appears as part of the Standard Fax Format prefixed by 'Attn:'

If a directory entry is selected, and if there is an Attention for the directory entry, the Attention from the directory will be output unless entered manually.

Answerback

If you are sending to a Group III fax machine that has been programmed with an answerback, enter the answerback here.

Function keys

F3=Exit	Exits the Send a Fax function.
F4=Fold	Allows you to view or suppress the Attention and Answerback entries.
F8=Work with directory	Interfaces to the Work with Fax directory function allowing you to update the directory 'on the fly'.
F12=Previous	Exits the Send a Fax function.
F13=Duplicate Attention	If you have entered an attention on the previous screen, say "Marketing Director" then you can duplicate this for all the other destinations entered on this screen by pressing F13.
Page Up	Displays the previous page of destinations.
Page Down	Displays the next page of destinations.

5.1.2 Edit Options

The **Fax Document** display is used to select the source document for a Fax. Default values are supplied from the last fax you prepared. A destination list is also shown, you may browse this using the Roll keys.

Entries

Source of Document

0=Unspecified	Only used if the fax document has been created using the SNDAPI program and is not valid here.
1=Editor	The Cobwebb Editor will be used to prepare the text of the fax.
2=Word processing	The Office/400 editor (DisplayWrite) will be used to prepare or supply the text of the fax. No longer supported.
3=Spooled file	One or more IBM i spooled files will be used for the fax (pages can be selected). The spooled file will be selected and sent without the possibility to amend the text. If you want to add/amend text call the spooled file into the Cobwebb Editor using the *F command.
4=PC file	A PCFILE in a shared folder will be used to supply the text of the fax. This file must contain standard ASCII text. This option is not designed for Windows documents.
5=Document	An RFTDCA (or RFTAS400) document, this may have been created by the Office Editor or by a PC based word processor that supports revisable form text.

6=AFP Use this option to send a Spooled file which contains only AFP data.

Spooled file

Document

The name of the document supplying the fax text. If the last Cobwebb Fax function you used was filing text into the document library, the assigned document name will appear here. If you are going to use an existing Office/400 document, type the name of the document. Alternatively, you may enter:

* to create a new document which will be named as the fax reference number (Snnnnn). This value is only relevant when using word processing as source of document.

You may select from a list of documents in a specified folder by pressing F4.

Folder

Type the name of the Office/400 folder containing the document to be used.

Function keys

F3=Exit Exits the Send a Fax function.

F4=Prompt Displays a list of documents in the folder specified. You may then select a document from this list. If you type '4' in the Source of Document field, then only PCFILE documents are listed, otherwise revisable form text documents are listed.

F5=Display Job Invokes the display job menu. If you are using a spooled file in the current job to supply fax text, you may note the name, etc.

F12=Previous Discards any choices typed and returns to the Send a Fax screen.

5.2 The Cobwebb Editor

The Cobwebb Editor is used to enter text for a message or standard document (which may be included in a message). The editor may be selected when sending a Fax or Email message, or when preparing Standard Text or revising a queue entry.

The maximum number of lines which the editor can process is 999.

Text is keyed, line-by-line, until the message is complete or the screen is full. When the screen is full, press Enter to continue with the next screen. When wordwrap is on, lines are adjusted following Enter being pressed.

In normal text mode the screen is 69 characters wide with word wrap occurring if the 69th character of a line is not blank. If F19/20 are used to window to right of the 69th character or if line drawing characters are used, extended text mode is entered and word wrap will not function.

The top line of the edit display identifies the message or standard text you are editing. Next to the word Edit there may be a B (denoting baudot character checking is on - see [System Parameters](#) for further details), followed by a W (denoting that wordwrap is on - use F7 to toggle this). You may enter the following values on the second line of the edit display:

Entries

Top

Redisplays with the line entered here as the first line on the screen.

Roll

Determines the number of lines to be scrolled when the roll keys are used.

Col

Redisplays with the column entered here as the first column on the left of the screen.

Window

Determines the number of columns to be scrolled when F19 or F20 Window Left/Right keys are used.

You may simply type your text into the area provided. There are other functions that can be performed such as:

- [Using Line Commands](#)
- [Select a File](#)
- [Message Text Enhancement](#)
- [Line Drawing Characters](#)

Function keys

F3=Exit Exits the edit display, any changes pending on the current screen will be updated. The [Exit Editor](#) prompt will then appear.

F5=Cancel pending Any pending *B or *L commands are cancelled.

F7=Word wrap on/off Use this to toggle the word-wrap facility. When word-wrap is on, a W will appear in the top left of the Edit display.

F12=Previous us Exits the edit display, any changes pending on the current screen will be updated. Displays the [Exit Editor](#) prompt

F17=Rule on/off Turn on/off the display of a rule to the right of the screen showing the vertical line number and on the bottom line of the screen showing the position horizontally. This is used to determine the exact positions when designing a Fax Form.

F19=Left Window left the number of columns shown in 'Window' on the top line (default 40). Maximum width 160 characters.

F20=Right Window right the number of columns shown in 'Window' on the top line (default 40). Maximum width 160 characters.

F24=More Keys Display more Function Keys

Rolldown Ignores any text typed and displays the previous page of text.

Rollup Ignores any text typed and displays the next page of text.

5.2.1 Using Line Commands

Before using line commands (*I, *D, etc.), be sure to press Enter to update any text on the current display. The following line commands may be used and must be entered left justified:

***B** Marks the beginning or end of a block of text to be copied or moved or deleted.

- *C** Identifies the target line for a block copy. Text is copied to the line following the line containing this command.
- *Dn** Delete n lines including the line containing the command.
(n must be entered as a value in the range 19). The 'Block' delete command will delete as many lines as required. Mark first and last lines of the block using *B, and put *D on any suitable line.
- *F** The file instruction allows for a Spool file or any suitable Database file to be inserted into the document. Select the type of file required from the EDIT menu. See [Select File](#) for further details.
- *In** Insert n lines before the line containing the command (n must be entered as a value in the range 19).
- *L** Marks a single line to be copied or moved.
- *M** Identifies the target line for a block move. Text is moved to the line following the line containing this command.
- *P** Inserts a Page Break, a 'P' will be displayed on the left of the text indicating the first line of the new page. To remove the page break enter *P again, the 'P' will disappear.
- *S** Insert standard text. Enter this command on the line before the point where standard text is to be placed. Pressing Enter will display a list of standard text documents from which you may select one by typing 1 (Select).
- *@** Zero space line. If F17 (rule) is on *@ will create a line with zero spacing. A zero will show in the left margin, enter *@ again and the zero will go indicating zero space has been removed. Zero space lines can be useful when creating a Fax Form, by ignoring one or more lines of text in the middle of a document.

5.2.2 Select File

To copy a Spool file or a Database into the Cobwebb Editor use the *F Line Command. The 'Select popup menu' will be displayed.

The Select popup menu

Enter **1** to copy a Spool file.

Enter **2** to copy a Database file.

F12 to Cancel and return to the Editor.

Select a Spool file

The select Spool file parameters allow you to select which Spool files you want to display.

User profile

*CURRENT your own UserId - Default

*ALL all Users

Name a specific UserId

Output queue and library name

*ALL all Output queues - Default

*LIBL the user library list
 *CURRENT the current library list
 Name a specific Output queue

Form type

*ALL all Form types
 *STD the standard Form type
 Name only the specified Form Type

User specified data

*ALL all Spool files
 Name select only Spool files with this User data

Select Spooled file display

The Select spooled file display shows the selected spooled files and allows one or more of them to be viewed or selected into the document. Use option **2** to select one or more pages from a spooled file.

A maximum of 999 lines can be selected from the Spool file, any more and an error message will be displayed, the remaining lines will be ignored.

Option 1 - Select

Select the complete spooled file to be copied into editor (max. 999 lines).

Option 2 - Select Pages

Select only those pages specified on the next screen (Select Spooled file pages). One page will be selected if the same 'From' and 'To' page number are entered.

Option 5 - Display

Display the spooled file.

Select a Database file

Any suitable Database file can be copied into the Cobwebb Editor. This means a physical file which does not contain any packed or binary fields, or other 'nondisplayable' characters. The record length should not exceed 132; otherwise the data will be lost when transmitted by fax.

Source Files can be copied using the FMTOPT *NOCHK parameter.

From File, From Library, From Member

This is the name of the file you wish to copy; a degree of technical IBM i knowledge is required. Do not use the copy function unless you know what you are doing.

Copy from record number

nn select from this record number
 *START select from the first record

Copy to record number

*END select to the last record (Max. 999 records)
 nn select to this record number (Max. 999 records)

Record format field mapping

Use *CVTSRC if copying a source file.

5.2.3 Message Text Enhancement

The following is a list of codes which may be inserted within the text of any message (whether produced using the Cobwebb editor or an application program).

All text enhancement features are set back to the Default setting at the end of each message.

Text enhancement codes are not seen in the text of the message when sent or printed, but will be seen if the text is viewed on a screen.

Note 1:- the text enhancement character e.g. U, M, F etc. must be **UPPERCASE**.

For example: the code ¶U1 means turn on Underline while ¶U0 means turn underline off. Other text enhancement codes have a similar format, except ¶G (Insert Graphics) where the ¶G is followed by a 28 character graphics member name.

Note 2:- the graphics member name **MUST BE FOLLOWED BY A BLANK** otherwise it will not be recognised.

Note 3: any one of these features will remain in force until changed. They may be used in any reasonable combination.

Underline (¶U0, ¶U1)

Off ¶U0

On ¶U1

Margin (¶M0¶M9)

You can specify a margin to start at position 0 to 9 using ¶M0 to ¶M9. This is useful when you want to line up a document with an overlay.

Font (¶F0¶F9)

The font is determined by the FONT GROUP currently active for the user. The default font group is specified in the Cobwebb Fax System parameters, or in the Cobwebb user profile.

Within a FONT GROUP up to 10 fonts can be specified (¶F0 ¶F9). You should be aware of the fonts available to you in your default font group, for example you may have a BOLD or Italic Font available to you. It is essential that ALL the fonts used in the text are specified in the FONT GROUP you are using.

Rotation (¶R1=90 degrees)

Text can be rotated through 90 degrees for 'Landscape' mode, rotation takes place about the axis where it is specified.

Note: Graphics cannot be rotated so that it is necessary to have a landscape logo, if required.

Rotation is normally specified in the Font Group, this ensures that the correct fonts are available, as well as rotating about the correct axis.

Hasler Fax Unit Compatibility

In order to maintain compatibility with Cobwebb/400 some Cobwebb/400 features have been reproduced in Cobwebb Fax. This has been done by using a Cobwebb Fax Text Enhancement Code e.g. W2 and making it call a suitable Font e.g. Font 3 (this will only work if Font 3 is double the standard width). The Font Group 'HFU' is designed to give most Cobwebb Fax functions at 10 CPI. For other CPIs it is necessary to locate suitable Server fonts.

Graphics (¶Gnnnnnnnnnn)

Graphics are normally included in the text by using the *G text enhancement character because this ensures that the ¶G graphics name is correct, however there is no reason why it cannot be typed in manually.

¶Gnnnnnnnnnn where nnnnnnnnnn is a graphics file member (see File maintenance [Work with Graphics file](#)).

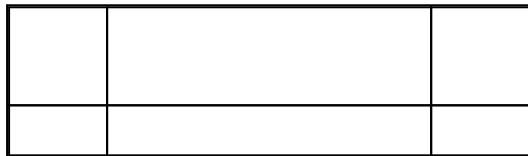
Note: The Graphics file member name **MUST** be followed by a blank.

Barcodes (¶CA - ¶CZ)

Barcodes are specified using the 'C' text enhancement character, followed by a letter which ties up with the Barcode specified in the Barcode file (See [Work with Barcodes](#), System Maintenance menu), followed by the number to be converted into the Barcode. The Barcode is printed in the position defined in the BarccCode file, and not where the text enhancement character comes within the document.

5.2.4 Line Drawing Characters

Line Drawing characters are used to draw boxes and can be included when drawing up a Fax Form, or for any other document. The Cobwebb Editor automatically inserts the correct characters to join all the lines to make up boxes. E.g.



The default character for horizontal lines is the overline character (hex A1), and for vertical lines is the vertical bar (hex 4F).

Note: The Line Drawing Characters can be changed by changing DTAARA **FRMCHRS** in library CPPD. There are two characters, the first is the **Horizontal** and the second is the **Vertical**.

5.2.5 Exit Editor

Having completed your text entry, this display appears to confirm completion or otherwise.

Entries

Send document

Enter **Y** to queue and **SEND** the document.

Enter **N** to queue the document as priority '0' held, the document will not be sent until released. (See [Work with Queue](#)).

Proof print

You may request a proof print of the text by entering Y. The message will be queued as priority '0' held, so you may verify the text before sending. The proof print will go to the user's output queue, or if not specified to the job output queue.

Destination Send a Fax only

If proofprint 'F = Fax' is displayed a 'destination' can be entered. If you enter 'F' with a destination, a copy of your fax will automatically sent to that destination, so that you can get an exact copy of

what the received fax will look like. The original of your fax will be queued 'held'. See [Work with System Parameters](#) for more details.

Update Document

Displayed when preparing standard text.

Enter **Y** = update document with amendments.

Enter **N = DO NOT UPDATE** document with amendments.

Function keys

F3=Exit Returns to the edit display without 'sending' or printing a proof print.

F10=Delete The message will be deleted, the document will only be retained in the folder, it will not be sent, a deleted Queue entry will be created to account for the message reference number, which has been allocated.

F12=Previous Returns to the edit display without 'sending' or printing a proof print.
us

5.3 Send an Email

This function allows you to prepare and send an email. The email address must be entered directly. This can be found from the [Cobwebb Fax & Email Menu - Option 2](#).

Sending an Email comprises two steps:

1. Addressing the email including the "Header page details", destination, subject and message information and the date and time the email is to be sent.
2. Typing the text using the Cobwebb editor or IBM i spooled file that contains the message text (you have the opportunity to revise the document).

In order to avoid repetitive keying, Cobwebb Email remembers certain information from the last message you sent (you may, of course, override this if need be).

The following data is shown on the queue record, and is used to identify the message on the queue: From, To, Subject, Reference.

Entries

Public authority

This controls who can view or change the message. Normal means only you; your 'manager' and Cobwebb Email 'operators' have access to the message. None means only you and your 'manager' have access to the message. All means everybody has access to the message.

Priority

This is the priority assigned to the message. Hold denotes the message is to be queued but not sent (until the priority is changed see [Work with Queue](#)). Low will place the message last on the queue. High will place message above any lower priority message already on the queue.

From

Type the name of the person sending the message.

To

Type the name of the addressee (company).

From email

Type the email address of the person sending the email.

To email

Enter the recipients email address.

Subject

Specify the subject of the email which will appear in the Subject heading.

Message

Enter any details that you wish to appear as message text in your email. The actual body text will be sent as an attachment.

Attachment name

The name that you wish to be given to the attachment containing the email text.

Extension

The extension for the attachment name. This would normally be TXT when using SCS format or PDF when using PDF format.

Attachment format

The format that you wish to send your attachment in. This can be either SCS (plain text) or PDF (Portable Document Format).

Email confirmation

If you do not require email confirmation then leave this entry as 00. For user defined confirmation enter 10, for delivery confirmation 20 and for read confirmation 30. If no confirmation is required then the status of the message on the queue will change from queued (Q) to active (A) to sent (S). If confirmation is required then the status of the message on the queue will change from queued (Q) to active (A) to Sent Reply pending (SR) then finally to Sent Confirmed (SC).

Delivery confirmation means that the email header is flagged to say that delivery confirmation is required from the recipient server. If the recipient server is configured correctly then the confirmation will be sent to the senders email address.

Read confirmation means that the email header is flagged to request read confirmation. If the recipients client is configured correctly, once they have read the email a message will be sent back to the senders email address.

Pressing **Enter** displays the [Cobwebb Editor](#).

Function keys

F3=Exit Exits the Send an Email function.

F12=Previous Exits the Send a Email function.

5.4 Work with Queue

The Cobwebb Queue provides a record of all current messages. Archived messages can be viewed using **F13=Archive Q**. This can be found from the [Cobwebb Fax & Email Menu - Option 4](#).

If you have the **Web Interface** module then you will have web access to the [Cobwebb Queue](#).

The queue may be viewed in a number ways:

1. Only the user's own messages are displayed as the default. Cobwebb users' may display all queue entries (**F7**), they may not be authorised to view or work with all messages. All queue entries are displayed and are available to Cobwebb [Operators](#) (except Public Authority 2=None).
2. All messages are displayed (**F7** Display all).
3. Your messages only are displayed (**F8** User Q).
4. Your/all outgoing messages are displayed (**F9** Send Q).
5. Your/all incoming faxes are displayed (**F10** Receive Q).
6. The 'default' queue display is specified on the in the System parameters or the Cobwebb User profile, use **F15** for the alternative display. You can re-sequence the queue display by positioning the cursor in the appropriate column and pressing **F11**.
7. Only faxes/only emails or both faxes and emails are displayed (**F22** Display Faxes etc.)

In the top right of the screen you will see **IDLE** or **ACTIVE**, this relates to the CPPD subsystem (if IDLE, then no messages can be sent or received through the communications interface).

Options

You will only be allowed to perform these options if you have authority to the message on the Queue. Please see [How the Queue Authority Works](#) for details.

Select one of the following options:

1=Select Displays one or more queue entries in detail.

2=Edit Displays the text of one or more queue entries to be edited.

3=Copy Any message can be copied, with the option of amending the text. For received faxes, you can create and send a copy of the received fax, to any fax machine

4=Delete Allows you to delete outgoing messages not already sent. Sent messages cannot be deleted.

5=View Displays the text of one or more queue entries to be viewed.

6=Print Prints the text of a Sent or Received message. The printed output is placed in the output queue specified on your user profile or the current job output queue if your user profile specifies *NONE. Incoming fax require the use of a graphics capable printer.

7=File Used to file a fax into the document library. Incoming faxes, or PC Windows generated faxes may be copied to an Office document or filed in the CPPD Graphics file.

8=Archive Transfers a Sent or Received message to the Archive queue (these may be accessed by pressing **F13=Archive Q**). This option will also reset a locked (status = *) queue entry to Q (use F5 to redisplay).

8=Queue Transfers a message from the Archive queue back to the current queue.

9=Notify Used to notify users of incoming faxes. You may also forward the fax as a distribution to one or more SNADS/Office users.

Entries

The Work with Queue display presents the following information about each message:

User

The IBM i user who prepared the outgoing fax, or the name of the first user notified of an incoming fax.

Status (Sts)

The Status entry is split into three characters; the first is the most important and indicates the **Current Status** of the message; the second is the **Call cancelled code** and the third is a **Print / Copy /Error indicator**:

Current Status

The first is the most important and indicates the **Current Status** of the message.

A=Active Message is currently being sent.

D=Deleted Message has been deleted, including text.

Q=Queued Message is queued waiting to be sent, providing the priority is not zero

R=Received Received message.

S=Sent Message has been sent.

W=Waiting Message is waiting to be retried after failing to be sent. If the retry cycle has been completed the priority will be '0'.

*****=Locked Message is in the process of being revised by another user. If permanently locked, use option 8 'Archive' to unlock.

Note: If a message is deleted during preparation a queue entry is still created, in order to maintain sequence number integrity.

Call cancelled code

This shows why the message failed to be sent, the **Priority** indicates if the message will be retried (**Priority = 0** means the message will not be retried). The call cancelled code for **Waiting** messages is the code returned when sending the message denoting the reason for failure. Use [Option 1 to Select](#) the message and display the reason. See **System Maintenance** [Work with call cancelled codes](#) for file maintenance details.

Sent email message call cancelled code of 'R' denotes '**Reply received**'. This is activated by pressing **F9** on the [Select queue entry](#) screen for a sent message. It is designed to assist customers wishing to be able to identify sent messages for which a reply has been received.

Print / Copy / Error indicator

P=Printed This indicates that the message has been automatically printed after sending.

If the [Auto Print Option](#) in the **System Parameters** is set to print outgoing messages and a print queue and library have been specified in the [Auto Print Queue](#) for the user, then once the message has been sent a copy will be printed to this print queue and the entry updated with a 'P'.

Note: Messages, for which a print has been requested from the queue using Option **6=Print**, will NOT be indicated with a 'P'.

- C=Copied** This denotes that a copy of the message has been sent to the original recipient with a warning:
*******COPY FAX*******
- *=Error** An asterisk (*) indicates that the message failed during transmission and will be resent with the message '*****POSSIBLE DUPLICATION*****' included after the header line.

Date

Date message due to be sent, was sent or date fax received.

Time

Time message due to be sent, was sent or time fax received.

Priority (Pty)

There are three characters in the Priority column the first being the **Service** indicator; the second **Priority** and the third a **Group** indicator:

Service **F** = Fax, or **E** = Email

Priority **0**=Held, **1**=Low, **2**=Normal, **3**=High

Note:- If priority is '0' the message will not be sent.

Group If this is an asterisk '*' this indicates that the outgoing message is one of several sharing the same text (i.e. the same text was sent to more than one destination).

From

The author of the message.

Destination

Destination number (first 10 characters are displayed). Use **Option 1=Select** to display full details

Attention

First 10 characters of the addressee. Use **Option 1=Select** to display full details.

Function keys

F2=Cobwebb Message Queue This is only displayed if you have the [Web interface](#) module enabled and will display the [Cobwebb Message Queue](#) via the Web Interface. *Version 6.2.82 or above.* **Note:** To configure the URL that this uses please see [Work with Docstore Hot Keys](#) and press **F8=Set System Default Values**.

F3=Exit Exit the Work with Queue function.

F4=Fold/Truncate This expands the queue display to two lines per message. The second line gives the CPPD reference number, if applicable.

F5=Refresh Redisplays queue from the top. Any options typed are ignored.

F6=DSPMSG Displays any messages in the message queue CPPD, followed by any messages in the users' own message queue.

F7=Display all Displays all messages in queue (as opposed to User Queue).

F8=User Q	Displays only your messages, unless you are a Cobwebb Fax operator, in which case you can enter the Userid and display all the messages of the user of your choice. Used together with 'Position to' you can select messages from the queue.
F9=Send Q	Displays only (your) outgoing messages.
F10=Receive Q	Displays only (your) incoming faxes.
F11=Resequence	Re-sequences the display according to the column in which the cursor is placed when you press F11.
F12=Previous	Exit the Work with Queue function.
F13=Archive Q	Displays messages which have been archived.
F14=Display Reference	Displays the Cobwebb message reference number in place of the User.
F15=Alternative display	The default Cobwebb queue display is defined in the Cobwebb User profile. The standard display is From - Destination - Attention. The alternative is Attention - To - Reference, F15 changes the display format.
F16=Send Fax	Calls the SNDFAX command to enable you to enter a new message.
F22=Display Faxes, Emails, Faxes/Emails	Repeatedly pressing F22 will toggle through the three displays either displaying both faxes and email, just faxes or just emails.
F24=More keys Rolldown	Displays more function keys. Display next page of queue entries.
Rollup	Display previous page of queue entries.

5.4.1 How the Queue Authority Works

The following checks are performed when deciding what authority a user has to a specific message on the queue.

Retrieve the [User Profile Details](#) for the User running the job [*Job User*] if they exist and retrieve the following information:

Authorised to Send message

Does the *Job User* have a **Manager** [*Job User Manager*]

Check the value of the [System Parameter](#) - **Authorisation System Active**

If this is a **Y** then check the *Job User* User Profile Details **Authorised to Send Message** is a **Y** - see above. If the **Authorised to Send Message** is not a **Y** then the user will NOT be authorised to the message.

Retrieve the User who owns the message on the queue [*Queue User*] and the Manager associated with the message on the queue [*Queue Manager*].

If the *Job User* is NOT in the same as the *Queue User* then check the [Public Authority](#) for the message as follows:

If the **Public Authority** = **All** then the *Job User* will have authority to the message.

If the **Public Authority** = **Normal** then the following checks are performed:

If the *Job User* the same as the *Queue Manager* then they will have authority to the message.

If the *Job User* in the list of [Operator Profiles](#) then they will have authority to the message.

If the *Job User Manager* is the same as the *Queue Manager* then the user will have authority to the message.

If the **Public Authority = None** then the *Job User* will only have authority to the message if they are the *Queue Manager*.

5.4.2 Select Queue Entry

Entries

This gives a detailed display of a selected outgoing message. Depending upon whether the message that you have selected is an Email or Fax message the details will be different.

The first few entries are displayed for both Email and Fax e.g.

Entries

This gives a detailed display of a selected outgoing message.

Service

2 = Fax.

4 = Email

Public authority

The public authority code (1=Normal, 2=None, 3=All). Normal means you, your 'manager' and Cobwebb Fax 'operators' have access to the message. None means only you and your 'manager' have access. All means everyone has access.

Priority

The priority code (0=Hold, 1=Low, 2=Normal, 3=High). Hold means do not send the message; you must change the priority to 1, 2 or 3 to release the message, or use F5.

Defer delivery until

The date/time when the message is to be sent. This is only displayed if the message has not been sent.

Queued on (display only)

The date and time the message was queued, by whom and from which job (CPPD subsystem job /workstation).

Next retry on (display only)

The date and time of next retry. If priority has automatically changed to Held (0), then the retry cycle is exhausted (use F5 to release for immediate retry). This is only displayed if the message has not been sent.

Sent on (display only)

The date and time the message was sent. This replaces the **Next retry on** details once a message has been sent successfully.

From

The sender's details.

To

The recipient's details.

Please select the relevant link below for the remaining details which are message type specific:

- [Additional Email details](#)
- [Additional Fax details](#)

Function keys

F3=Exit Exit the Work with Queue function.

F5=Release If waiting releases message to be resent immediately (resets priority and date/time).

F7=View Display message text.

F12=Cancel Ignore any choices typed and return to Work with Queue display or perform next option.

F15=Hold Holds the message on the queue and changes the priority to zero unless the message is active or has already been sent.

5.4.2.1 Additional Email details

The following are the email specific details which are displayed when you select (Option 1) for a Fax on the [Work with queue](#).

The entries which are the same for both email and fax are detailed [here](#).

First screen**From email**

The email address of the person sending the message.

To email

The destination email address.

Fail code (display only)

This is blank if the message has not yet been sent, otherwise it contains the failure code and description. See [Email SMTP Server Error Messages](#) for details.

Sent code (display only)

This is blank if the message has not yet been sent, otherwise it contains the sent code and description.

Second screen

Page down to get to this screen.

Subject

The subject email entry.

Message

The message text to go with the email attachment.

Attachment name and extension

The name of the attachment created. Ideally the extension name should be TXT when the format is SCS and PDF when the format is PDF.

Attachment format

The attachment format type, which can be either SCS or PDF.

PPD Member name

The name of the PPD that generated the email.

PPD Output Device

The name of the Email Output Device that generated the email.

Third screen

Page down to get to this screen.

Message

The message text to go with the email attachment.

Fourth & subsequent screens

Page down to get to these screens. These hold the Additional email destination details.

Name

The recipient's name

Email address

The recipient's email address

Type

The type of email address e.g. TO, CC or BCC

Code

The success or failure code when the email is sent.

5.4.2.2 Additional Fax details

The following are the fax specific details which are displayed when you select (Option 1) for a Fax on the [Work with queue](#).

The entries which are the same for both email and fax are detailed [here](#).

First screen**Attention**

Change the attention details.

Reference

Change the reference or subject.

Destination

Change the destination (you must not specify a directory short code here enter an explicit destination). This is applicable if you are redirecting the message to a different service or if you specified an incorrect destination when you originally prepared the message (it may now be Waiting due to call canceled because number unobtainable).

F4 is available on this line to display the Cobwebb Fax directory. Only a single destination may be selected.

Answerback

Not normally required.

Department

Change the department code.

Font Group

The font group that is to be used when sending the message.

Cover page Logo and signature code

Change the Logo or signature code. Enter blanks to remove a logo or signature.

Current status (display only)

Current message status (Queued, Active, Waiting, Sent, Locked).

Call cancel code (display only)

The code and reason for nondelivery of the message.

Number of retries (display only)

The number of times Cobwebb Fax has tried to send the message.

Transmit time (secs) (display only)

The number of seconds taken to transmit the message.

5.4.3 Edit Queue Entry

Selecting **Option 2** for a message on the Cobwebb Queue allows edit the text

The Edit option on can only be used on messages which have not yet been sent. The text of messages which have been sent cannot be changed.

The Edit option will select the [Cobwebb Editor](#). The functions are exactly the same as when the message was created.

The [Exit Editor](#) screen is displayed as when preparing the message. You can select whether you Send the document, or have a proofprint.

5.4.4 Copy Queue Entry

Selecting **Option 3** for a message on the Cobwebb Queue allows you to send a copy of a Queued, Waiting or Sent message to another destination using F10. If necessary, you can copy and edit the text using F9. Faxes may only be copied to another fax destination and emails to another email destination

When copying a sent message, a new copy of the text will always be created; using F9 will allow the text to be edited. The text will require editing because a sent message has at least one and maybe several heading and possible footing lines added to it as it is being sent, the number of lines depends on the setting of the System and User parameters.

The addressing details of the new message can be entered as required. The Cobwebb Fax directory can be searched for a number, however if more than one destination is selected, only the first will be used.

If multiple destinations are required you can either file the text in an office document, or copy it into the [Cobwebb Editor](#) using the *F command.

The entries on the Copy screen are the same as for the Select screen. Please refer to the [Select Queue Entry](#) topic for details.

Function Keys

F3=Exit Exit the Work with Queue function. Any changes typed are lost.

F9=Edit text and queue copy If you want to change the text of the message to be copied, F9 will copy the message into the [Cobwebb Editor](#) ready for editing.

Note: For a Queued or Waiting message only the text will be displayed. For a Sent message the complete message will be displayed, including the addressee, heading and footing text of the original. You may need to delete unwanted lines.

F10=Queue copy If you want to make a copy of the message without changing the text use F10. Note that the message 'as sent previously' will be copied including Heading text.

F12=Cancel Ignores any changes typed and cancels copy.

5.4.5 Delete Queue Entry

Selecting **Option 4** for a message on the Cobwebb Queue allows you to delete a message on the queue that has not already been sent.

Confirm delete requests by pressing Enter. The message is deleted from the queue and the status updated to D. Deleted messages will be removed on archiving.

Function Keys

F3=Exit Exit the Work with Queue function. The message is not deleted.

F12=Cancel Returns to the Work with Queue without deleting the message.

5.4.6 View Queue Entry

Selecting **Option 5** for a message on the Cobwebb Queue displays the text of outgoing messages.

Entries

Text

The text of the message (use Roll keys to browse).

Use the F19 and F20 keys to window a document wider than 70 characters.

Destination/Answerback/Attention

One or more destinations to which this message is to be sent. Use Roll keys with cursor to browse.

Function keys

F3=Exit	Exit the Work with Queue function.
F7=File	File message into a server document/folder.
F8=Print	Print the message.
F10=Notify	Notify one or more users of incoming fax.
F11=Copy	Copy message and display Send menu.
F12=Previous	Return to Work with Queue display or perform next option.
F19=Left	Window the display 40 characters to the left.
F20=Right	Window the display 40 characters to the right.

5.4.7 Print Queue Entry

Selecting **Option 6** for a message on the Cobwebb Queue will allow you to print the selected message. If the message has not been sent the printout will be in the form of a 'Proofprint' showing all the destinations which have yet to be sent. If the message has been Sent or Received the print will show the actual message text sent or received, including any logos or graphics files. The printout will be submitted and sent to the output queue specified in the user's 'User Profile'.

Print Incoming Fax (If Incoming Fax installed)

Incoming faxes can be printed on a laser printer.

5.4.8 File Queue Entry

Selecting **Option 7** for a message on the Cobwebb Queue allows you to file a message as a Graphics member or into a PC file.

Entries

Type of File

The type of file to be created.

***GRAPHI** Used to copy a message to a Cobwebb Fax Graphics File member. Use a Queued message created by the Cobwebb Fax Windows printer driver, or a Received fax.

***PC** Used to copy a message to a PC file.

*GRAPHICS

Member

The name of the Cobwebb Fax Graphics file member to be created.

Description

The Description of the Cobwebb Fax Graphics file member to be created.

Number of Lines

The number of lines taken up by the Cobwebb Fax Graphics file member to be created. **Note:** 0=Overlay.

User

The User Id of the Cobwebb Fax Graphics file member to be created. **Note:** Leave User blank unless you want to restrict the use of the Graphics file member to a user.

PC*Document**

The name of the PC document to be created.

Folder

The name of the Folder for the PC file to be created.

Description

The description of the PC file to be created.

Function keys

F3=Exit Exits the File queue entry function.

F12=Previous Cancels file queue entry request and returns to Work with Queue display.

5.4.9 Archive Queue Entry

Archiving of queue entries is normally done automatically. (See System Maintenance Option 2=[Housekeeping](#) for details).

Selecting **Option 8** for a **Sent** or **Deleted** message will send it to the **Archive** queue. If the entry is an **unconfirmed email** then selecting **Option 8** will confirm the message. Selecting **Option 8** again will then archive the message.

5.4.10 Notify Queue Entry

Selecting **Option 9** for a received message on the Cobwebb Queue allows you to notify one or more users of an incoming fax.

Notify (user names)

Enter the user profile name of the user to notify (a message is sent to the message queue specified on the user profile). Alternatively, you may enter the name of an IBM i message queue.

Function keys

F3=Exit Exits Work with Queue function. No notifications are sent.

F10=Send distribution Prompts SNDDST command to send distribution to one or more office users via SNADS. This does not apply to incoming facsimiles which must be filed first (either as PCFILE printer data stream or as a GDF), then sent explicitly by using SNDDOC or SNDNETF commands.

F12=Cancel Cancels notifications typed and returns to Work with Queue display or performs next option.

5.4.11 Work with Archive Queue

This display is the same as the **Work with Queue** except that it only displays entries in the Archive queue.

The **Archive queue** contains non-current queue entries. You may transfer entries from the current queue (and vice versa) using the **8=Archive** and **8=Queue** functions from the **Queue** and **Archive Queue** respectively. The archive queue provides access to old messages, you should keep your current queue down to a manageable size by transferring entries to the archive queue once you have viewed them.

See [Work with Queue](#) for further details.

5.5 Work with Log

The Cobwebb Fax Log provides a complete record of all incoming and outgoing messages. It also provides a detailed communications audit trail. This can be found from the [Cobwebb Fax & Email Menu - Option 5](#).

The Log is implemented as a multi-member database file. A new member is added each time a communications session is started, this member will store data specific to that device session. Log file member names are prefixed by 'FAX' for fax and 'EML' for email followed by the communications process job number (e.g. member FAX123456 pertains to fax communications job 123456).

You may scan one or more log file members for a specified text string. For example, you may wish to review all messages sent to a particular destination. To do this, you could search on either the destination fax number or email address (or perhaps the name of the addressee). Each time the search string is encountered, the message containing the string is displayed (see WRKQ > 5=View).

Log file members may also be saved offline. When one or more members are saved, the queue entries are also saved.

Entries

Scan

Enter a search string. This is always in uppercase; the scan function will translate log text to upper case before comparing.

Select

Nominate which messages should be included in the scan, **1**=Send only, **2**=Receive only, **3**=All messages.

- 1=Scan** Specifies one or more log members to be included in the scan. The procedure for scanning is:
- a. Type the scan text string and message select code (1=Send only, 2=Receive only, 3=All messages).
 - b. Type a 1 next to each member to be included in the scan use the Rollup key to display the next page of members, if available.
 - c. Press Enter, each message containing the search string is then displayed (press Enter to proceed to the next message).

3=Save Specifies one or more members to be saved. The save includes prompting you to copy data to an offline media (diskette or tape). The actual save will take place when you press F3 (Exit). Saved members are automatically removed.

4=Remove Removes (deletes) one or more members. All data in these members is lost.

5=View Displays the contents of one or more members.

6=Print Prints the contents of one or more members.

The following information is displayed for each member in the log file:

Member

The log file member name.

Date

The data the member was added.

Records

Number of records in the member.

Function keys

Rolldown Display previous page of log file members.

Rollup Display next page of log file members.

F3=Exit Exit the Work with Log function. Any members saved will now be copied to offline media.

F5=Refresh Redisplay Work with Log member list. Members tagged as *REMOVED on current display will not appear.

F8=Work with Archive Q Displays the [Archive queue](#).

5.6 Work with System Parameters

The **Work with System Parameters** menu allows you to change system-wide parameters. This can be found from the [Cobwebb Fax & Email Menu - Option 6](#).

Normally you will review these when you install Cobwebb Fax, but you may need to update them from time to time (for example, if a new Cobwebb Fax 'operator' needs to be enrolled).

The System Parameters are divided into various categories:

Option Description

1. [System Parameters](#)
2. [Notify Parameters](#)
3. [Operator Profiles](#)
4. [Communication Lines](#)
5. [CFAX400 Interfaces](#)
6. [CPPD System Security](#)
7. [CHTTPD Web Server Administrators](#)

To view the Help for a specific option simply click on one of the above links.

5.6.1 System Parameters

Here you can configure the System Parameters for Cobweb Fax & Email. This can be found from the [Cobwebb Fax & Email Menu - Work with System Parameters - Option 1](#).

Note: You can restrict access to this option if required; please see the topic [Restricting Access to Cobwebb PPD Security & System Parameters](#).

Selecting **Option 1** displays a second menu giving options for:

Option Description

n

1. [System parameters](#)
2. [Email parameters](#)
3. [User profile defaults](#)
4. [Work with multiple SMTP entries - from version 6.2.24](#)

To view the Help for a specific option simply click on one of the above links.

1. [System parameters](#)
2. [Email parameters](#)
3. [User profile defaults](#)
4. [Work with multiple SMTP entries - from version 6.2.24](#)

5.6.1.1 System Parameters

These parameters are applicable to system operation and are split over two pages; just press enter or Page Down on the screen to display the second page. Press F12 or Page Up to return to the first page. This can be found from the [Cobwebb Fax & Email Menu - Work with System Parameters - System Parameters - Option 1](#).

Entries

First Page

Notify severe errors

Severe errors result in a message not being sent (e.g. number unobtainable, abnormal termination, etc.). Depending on this parameter a message will be sent to the appropriate message queue regarding the failure. The message may be sent to QSYSOPR (leave blank), the message queue of the job that sent the fax (1), the message queue specified on the profile of the user who sent the fax (2), or the Cobwebb Queue. Once a message has failed because of a severe error, it remains on the Cobwebb queue in a held state (priority=0).

Notify messages not sent

If a message has not been sent and is being retried, a message is sent to the appropriate message queue at the frequency specified in the 'Notify Message Parameters'. This is normally every hour. The frequency of messages may be different depending on the priority; the frequency of messages is not adjustable by user. Once the retry cycle is exhausted (see [Work with Call](#)

[Cancelled codes](#) in System Maintenance) the message priority is set to 0 (held). Specify the IBM i message queue to receive the notify message when a not sent condition occurs.

Notify incoming fax

A notification advising the receipt of an incoming fax will be sent to this message queue, (*USRPRF is the user profile of the first name in the Cobwebb Fax Operators table).

Clear PPD Queue - from version 6.2.21

Specify the number of days for which you wish to keep messages on the queue. This is used in the [Housekeeping Menu](#) options [Clear Queue Entries](#) and [Schedule Housekeeping](#) - sub option [Save & Clear the CPPD Queue](#). [CLRPPDQ and RGZPPDQ commands respectively]

Save log file members - prior to version 6.2.21

Number of days to retain. Each logfile has a date on which it was created, during the SAVLOG procedure logfile members created before this number of days are saved. Logfile members which have been saved are automatically deleted.

Save to disk

The previous SAVE FILE is cleared; the logfile and received fax members to be saved are copied to a SAVE FILE, together with the necessary queue data. The saved files can be restored, and viewed using WRKSAVQ.

The SAVE FILE must be saved manually to suitable media and deleted by the user.

Save to tape

The 'Save to disk' option is completed, as above. A SAVSAVF prompt is then displayed for the operator to save to the appropriate media.

If Save to disk = Y, and Save to Tape = Y, this will have the same effect as Save to disk = N, and Save to tape = Y.

If both 'Save to disk' and 'Save to tape' are 'N', NO data will be saved, and the appropriate logfile members will be deleted.

Queue incoming fax

Determines whether incoming faxes are placed in the 'Active' queue (Y) or the 'Archive' queue (N).

Public Authority

Determines who can view incoming faxes

- 1 Cobwebb Fax operator only, and notified user.
- 2 None
- 3 Any User

Archive outgoing messages

The number of days outgoing messages are left on the queue before being moved to the Archive Queue. This is used in the [Housekeeping Menu](#) options [Archive Queue Entries](#) and [Schedule Housekeeping](#) - sub option **Archive the CPPD Queue**.

Archive incoming messages

The number of days incoming faxes are left on the queue before being moved to the Archive Queue. This is used in the [Housekeeping Menu](#) options [Archive Queue Entries](#) and [Schedule Housekeeping](#) - sub option **Archive the CPPD Queue**.

Auto Print Option

Messages containing graphics can only be printed on a laser printer.

If = **1** or **3**, outgoing messages are automatically printed to the spooled output queue (OUTQ) specified in the Printer File 'PPRFPRT' in library CPPD, unless a 'Sent message print queue and library' have been specified in the Cobwebb User profile for the user who sent the Message (see [Work with user profiles](#) on the System Maintenance menu, 'Sent message print queue and library').

If = **2** or **3**, incoming faxes are automatically printed to the spooled output queue (OUTQ) specified in the Printer File 'PPRFPRT' in library CPPD, unless a 'Received fax print queue and library' have been specified in the Cobwebb User profile for the Userid on the received fax queued record. (See [Work with user profiles](#) on the System Maintenance menu, 'Sent message print queue and library').

Print Failed Messages

If you wish to print messages that have failed to send then select the appropriate entry here:

Blank Don't print failed messages

- 1** Print failed Faxes only
- 2** Print failed Email only
- 3** Print both failed Faxes and Email

Output Device

Enter the name of the Output Device you wish to use to print your failed messages. This must be a valid output device created using [Work with Output Devices](#) from the Maintenance Menu.

Beginning fax message

If used, the Beginning Fax Message prints at the start of every fax. (60 chs)

End of fax message

If used, the End of Fax Message prints after the last line of every fax. (60 chs)

Second Page

This screen is displayed by pressing Enter or Page Down from the first System Parameters display (use Page Up or F12 to return to the first display).

Fax header TSI

The Fax header TSI (Transmitting Subscriber Identity) 30 chs is printed at the top of each page of all outgoing faxes, and may be the company name, fax number or both. The Fax Number from which the fax has been sent (The Transmitting ID) can be specified in the Fax Card setup (see [Communications Lines](#)).

Subsystem Shutdown Time

The Subsystem CPPD will automatically end at this time (specify 24 hour clock). The Subsystem cannot be restarted until the following day.

Destination grouping

Reserved

Authorisation system active

Enter Y to activate the Cobwebb Fax authorisation system. This prevents any user sending a message (preparation is not affected) unless authorised, by forcing proofprint to 'Y' and placing

the message on the queue as priority 0 (held). Authorised users may select the message to be sent from the queue and use F4 to release it for transmission.

This is a chargeable item and can only be activated if authorised in Cobwebb Fax Security.

Delete field from log

This is designed to prevent sensitive information (e.g. testkeys) from being viewed after a message has been sent. Enter a key field of up to 20 chs. If a matching character string is found in the text of the message the data following the character string up to the end of the line will be not be written to the logfile, although it will appear on the transmitted message in the normal way.

Location

Used in the Cobwebb Fax 'REFLECT' system to indicate a 'Remote' location.

Date format

Specify the format of the date required, when displaying processing, or printing the date.

Print sent via SNDNETSPLF

If set to 'Y', and if the message was created by a user on a remote IBM i, the prints of 'Sent' messages will be sent back to the Userid and Address of the user who created the message, using the SNDNETSPLF command. I.e. they will appear on the print queue of the remote user.

Query outgoing mail at

This entry removed after v6.2.28 of the Cobwebb Server software.

If you have Cobwebb Office API enabled - *removed from v6.0*, this interval specifies the outgoing mail 'polling' interval. Messages will wait at least this long before being queued unless they are received by the Server during a poll.

Dial precode

BlanDial precode not in use.

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- 1 Department - Use department code to look up dial precode.
- 2 Address - Use IBM i User address, or if blank department code, to look up dial precode.

Mercury communications (and possibly other carriers) offer a facility for analysing the calls for a telephone line by a code. This code is normally two digits and precedes every number dialled. Cobwebb Fax supports a 'Dial precode'. If selected, every fax number dialled is preceded by a code which is found by looking up either the Department code of the user who sent the fax, or his IBM i Address. If a precode is not found the default code '*DFT' is used, if this is not found a code of '00' is used. See Maintenance menu ['Work with dial precodes'](#) for precode file maintenance details.

Print output device

This should be the name of the output device that you wish to use when selecting to print messages from the Cobwebb queue. This must be a valid output device created using [Work with output devices](#) from the Maintenance Menu.

Fax conversion type

If you are using IBM's Facsimile Support 400 (FS/400) then you need to enter blank in this parameter. If you are using the Ascom Fax Gateway (Cobwebb modem) then this entry needs to be a '3' as the faxes need to be converted into the correct format for the modem. If you select a '3' in this field, when you start the CPPD subsystem you will see the job CNVHFU running.

Note: If you are using COBWEBB fax software then you will need to make this entry a '1'. This will mean that the faxes from CPPD are converted and held in a shared folder. You must also set-up a user profile (say FAXUSR) via the Work with user profiles option within Cobwebb Fax that is an authorised PC user and change the user name on the fax output device, within CPPD, to point to this user. Otherwise you will not have sufficient user licenses to create faxes in this way. You will see an extra job PCAPI running in the CPPD subsystem and you will only be able to view your faxes through the PC Client software.

PABX Access code

Specify up to 3 characters to be inserted before every fax number. If necessary a pause characters can be included (see Fax Destination field in the [Send a Fax](#) Screen). The PABX Access code will be ignored if an 'I' is inserted in the first character of the Fax Destination field.

Queue Reference length

Here you can specify the number of digits you wish to use for your Fax and Email unique reference. This reference will be prefixed with either a **S** or **E** for Fax and Email respectively and then you can choose to display between 5-9 digits e.g. E999999999. **Note:** The larger the number the greater the capacity of the Cobwebb Message Queue.

Function Keys

F3=Exit Ignores any choices typed on the current display, and exits Work with System Parameters.

F12=Previous Ignores any choices typed and returns you to the first System Parameters display.

Page Up Displays the second page of parameters.

Page Down Displays the first page of parameters.

5.6.1.2 Email Parameters

The email parameters determine the route to your **SMTP Mail Server** and whether or not you wish to send your messages direct to the server or to the [Cobwebb Queue](#). This can be found from the [Cobwebb Fax & Email Menu - Work with System Parameters - System Parameters - Option 2](#).

If you opt to send from the [Cobwebb Queue](#) then you will have a record of your messages and they will be sent to your **SMTP Mail Server** from there.

Entries

First Page

AS/400 Mail Server Framework

If you are using your IBM i as your SMTP Mail Server then you need to enter a **Y** here, otherwise leave the entry as an **N**.

Enable Email queue

If you wish to queue your email to the [Cobwebb Queue](#) to keep a record of your emails then enter a **Y** here. If this entry is left as an **N** then the message is sent directly to your SMTP Mail Server.

Display queue reference

If you wish to prefix the subject entry of your email with the [Cobwebb Queue](#) number then enter a **Y** here.

Email confirmation API

If you wish to have confirmation of your sent emails then you will need to enter a **Y** here. This will automatically start the job **CNFAPI** in the **CPPD** subsystem which will monitor for entries in the sub-folder **CNFAPI** in folder **CPPD**. You will have to stop and restart the subsystem when changing this parameter.

Postmaster address

This should be the email address of the person monitoring your emails. This entry will be used as the default Postmaster address if the entry in an email output device is left blank.

SMTP Mail Server

Enter the IP address of your SMTP Mail Server E.g. 192.255.255.1

SMTP Port

Enter the Port number of your SMTP Mail Server. E.g.

- 25** Standard for No encryption
- 465** Standard for SSL/TLS encryption
- 587** Standard for STARTTLS encryption

SMTP Encryption

From version 6.2.81. Decide the type of encryption you wish to use to send email.

- 0** No encryption (default).
- 1** Use SSL/TLS encryption.
- 2** Use STARTTLS.

SMTP user name

If your SMTP server requires user authentication then please enter a valid user name here.

SMTP password

If your SMTP server requires user authentication then please enter a password for the above user name.

Second Page

This screen is displayed by pressing Enter or Page Down from the first System Parameters display (use Page Up or F12 to return to the first display).

Postmaster address

You can enter a Postmaster address here to be used when sending email.

POP3 Mail Monitor

If you wish to monitor the following user and mail server for confirmation messages then enter a **Y** here. This will start the job **MAILMON** in the **CPPD** subsystem. You will have to stop and restart the subsystem when changing this parameter.

POP3 Mail server

Enter the name of the POP3 mail server that you wish to monitor for confirmation messages.

POP3 port

Enter the port that the POP3 mail server usually listens on. The default is usually 110.

POP3 user name

Enter the name of the user account on the POP3 mail server that you wish to monitor for confirmation messages.

POP3 password

Enter the password for the above user account.

Function Keys

F3=Exit Ignores any choices typed on the current display, and exits Email Parameters.

F12=Previous Ignores any choices typed and returns you to the Work with System Parameters menu.

5.6.1.3 User Profile Defaults

This can be found from the [Cobwebb Fax & Email Menu - Work with System Parameters - System Parameters - Option 3](#). The System parameter User profile defaults are used when:

- a. A Cobwebb User profile is created automatically the first time a new user sends a message using the Cobwebb Editor.
- b. As the defaults when adding a new Cobwebb User profile.
- c. When any message is sent by a Cobwebb user who does not have a Cobwebb User Profile (e.g. from a SNADS user or using the Cobwebb Fax API's).

Entries**Authorised PC User**

If the CPPD PC Fax Server is installed, only users who are 'Authorised PC Users' can send a fax using the Fax Server. A maximum number of PC Users is specified in the CPPD security. When a new user is authorised as a PC user the total number of currently authorised users is checked, if the number in the CPPD security has been exceeded the new user cannot be added.

Cover page format

Codes **Y** or **N**, **1-4**.

The fax Cover page format controls whether the cover page is sent as the first page of the fax and whether a form feed is inserted after the cover page. The code **Y** or **N**, **1-4** (Code 4 is user defined in file AFAXHDR) defines the cover page and form feed options for each type of document.

Code	Document Type	Print Fax Heading Details	Header Page Form Feed
1	0 (API)	N	N
1	1 (editor)	Y	N
1	2 (office)	N	N
1	3 (spool file)	Y	N

1	4 (PC file)	N	N
1	5 (office)	N	N
1	6 (AFP spool file)	Y	N
2	0 (API)	N	N
2	1 (editor)	Y	N
2	2 (office)	Y	N
2	3 (spool file)	Y	N
2	4 (PC file)	Y	N
2	5 (office)	Y	N
2	6 (AFP spool file)	Y	N
3	0 (API)	N	N
3	1 (editor)	Y	N
3	2 (office)	Y	N
3	3 (spool file)	Y	N
3	4 (PC file)	Y	N
3	5 (office)	Y	N
3	6 (AFP spool file)	Y	N
Y	0 (API)	N	N
Y	1 (editor)	Y	N
Y	2 (office)	Y	N
Y	3 (spool file)	Y	N
Y	4 (PC file)	Y	N
Y	5 (office)	Y	N
Y	6 (AFP spool file)	Y	N
N	0 (API)	N	N
N	1 (editor)	N	N
N	2 (office)	N	N
N	3 (spool file)	N	N
N	4 (PC file)	N	N
N	5 (office)	N	N
N	6 (AFP spool file)	N	N

Allow PC cover page

If all faxes sent by Cobwebb Fax are required to have the same cover page (the one generated on the IBM i) it may be desirable to prevent the PC user from selecting a different cover page. If this

is the case 'Allow PC cover page' = No will ensure that the IBM i cover page is always used. If Allow PC cover page is = Yes the User's IBM i cover page will be used unless the PC user requests a different one, or none at all.

Cover page logo

The Cover page logo is the cover page which comes before the first page of the fax. It contains the details (which include the company logo) specified in the cover page; see [Work with cover pages](#) in System Maintenance. The Cover page logo specified in the Cobwebb user profile is normally used, if that is blank the System Cover page logo is used; if that is blank no Cover page logo is used.

Cover page signature

A Cover page signature is defined as Cover page which come at the end of the last page of a fax. A signature can be specified in the cover page. The Cover page signature specified in the Cobwebb user profile is normally used, if blank the System Cover page signature is used, if that is blank no Cover page signature is used.

Font group

The font group defines which IBM i fonts will be used for the message. The font group is the Cobwebb Fax font group which will be used for the message, unless overridden by the font group in the Cobwebb User Profile, or specified in an API generated message. See System Maintenance ['Work with font groups'](#) for details.

Note 1: - If in doubt use the Cobwebb Fax default font group (CFAX) as this contains a number of fonts suitable for fax.

Note 2: - If you use a font (e.g. #F9) which is not included in the FONT GROUP you will get a Sense Data Error (218) and the message will not be sent.

Maximum priority

The maximum priority which can be used by this user. This may be used to prevent the user actually sending messages (by having a maximum priority of 0 'held'), or to control the maximum priority available to the user when sending messages.

Mandatory public authority

If entered the mandatory public authority will be used for all the user's messages and can only be changed by changing the user profile.

Send, position cursor

Controls the position of the cursor on the 'Send Fax', screen. The first time the user sends a message from Cobwebb Fax the 'From' field is blank. After this the screen shows the details which were entered on the previous message. The cursor can be positioned to return to the most convenient field, fields below the cursor position will be cleared.

Output directory description

This option is used to insert the company name automatically from the Cobwebb directory. N=Do not output directory description, Y=Output directory description.

If 'Output directory description' is = Y and the fax is created using a Cobwebb directory entry, the directory description will be output to the 'To:' line, providing nothing has previously been entered on the 'To:' line, e.g. on the Send a fax screen. The 'To:' line is normally used for the Company name.

Display edit options

When preparing a message the second screen provides for the selection of the appropriate edit options e.g. 1=Cobwebb Editor, 2=Office etc. as well as the selection of folder and logo. If the user does not require to see these options this screen may be bypassed by choosing not to display the edit options.

Note: the user can still display edit options by selecting F9 on the Send screen.

N = Do not display edit options, Y = Display edit options.

Queue display format

1=Standard display - The standard Cobwebb queue display shows:

..... '**From Destination Attention**'

2=Alternative display - an alternative format is now available:

..... '**Attention To Reference**'

Work with directory

The F9 key on the Send a fax screen allows any user to add/change/delete Cobwebb Fax directory entries. This facility can be disabled (F9 will not be displayed):

Y = enabled, N = disabled.

Display fax proofprint

If=Y, the Fax proofprint destination will be displayed on the 'Exit Editor' screen, if=N the option to Fax a proofprint will not be displayed. If a fax proofprint destination is specified a copy of the fax will be sent to that fax number, the original fax will be put on the queue as 'Held' and will not be sent until released. The purpose of this function is to allow a user to generate a copy of the fax before sending.

Function Keys

F3=Exit Ignores any choices typed on the current display, and exits User profile defaults.

F12=Previous Ignores any choices typed and returns you to the Work with System Parameters menu.

5.6.1.4 Work with multiple SMTP entries

The main SMTP details are entered under the [Email Parameters](#) option from the **System Parameters** menu but you may also override these options for a specific email account.

This can be found from the [Cobwebb Fax & Email Menu - Work with System Parameters - System Parameters - Option 4](#). [from version 6.2.24]

Position to

Enter one or more characters from which to start the display.

Options

Select one of the following options:

1=Create Enables you to create a new SMTP entry for a specific email account.

2=Revise Use this option to revise an existing SMTP entry.

3=Copy Provides a copy function to enable a number of similar SMTP entries to be created.

4=Delete Use this option to delete an SMTP entry.

Entries

Depending upon which of the following entries you complete the Cobwebb program sending your email will perform various overrides:

- If you enter an **SMTP Server** and **Port** number then these will be used instead of the default entries defined in the [Email Parameters](#) option from the **System Parameters** menu. If you leave either of these two entries blank then the default for that entry will be used.
- If you enter an **SMTP User** and **Password** then this user will be used for authentication when sending the email. If you leave these entries blank then it will be assumed that user authentication is not required. **Note:** the default **SMTP User** and **Password** as defined in the [Email Parameters](#) option from the **System Parameters** menu will *never* be used if there is an override entry here for the sender's email account.

From email [address]

Enter the email address of the person sending the email for whom you wish to override the SMTP details. This entry is compulsory as this is how the Cobwebb email program decides if an override of the default SMTP settings is required.

SMTP Server

Enter the IP Address or Server Name of your SMTP Mail Server E.g. 192.255.255.1

SMTP Port

Enter the Port number of your SMTP Mail Server. Normally the default port for an SMTP Mail Server would be port 25.

SMTP Encryption

Decide the type of encryption you wish to use to send email.

- 0** No encryption (default).
- 1** Use SSL/TLS encryption.
- 2** Use STARTTLS.

SMTP User

If your SMTP server requires user authentication then please enter a valid user name here. This may be left blank if user authentication is not required.

SMTP Password

If your SMTP server requires user authentication then please enter a password for the above user. This is a non-display field.

Function keys

F3=Exit Returns to the System Parameters menu

F12=Prev Returns to the System Parameters menu

ious

Page Up Scrolls up through the list

Page Down Scrolls down through the list

5.6.2 Notify Parameters

This displays the Notify Parameters which relate to the frequency of sending messages to Cobwebb Fax & Email users to notify them regarding the progress of messages which have failed, or are being retried. This can be found from the [Cobwebb Fax & Email Menu - Work with System Parameters - Option 2](#).

Entries

Pty (Priority)

A set of notify parameters may be specified for each priority (1=Low, 2=Normal, 3=High).

Q Wait time

Specifies a number of seconds (e.g. 4 x 5 = 20 seconds) that new messages will wait on the queue before becoming eligible to send.

Message after

For messages not sent (i.e. those being retried). Specifies the period of time (hh.mm) after which the first notify message is to be sent to the sender of the message.

Every

Specifies the frequency for subsequent messages.

Function Keys

F3=Exit Ignores any choices typed on the current display, and exits Work with Notify Parameters.

F12=Cancel Ignores any choices typed and returns you to the Work with System Parameters menu.

5.6.3 Operator Profiles

Here you can maintain the list of IBM i user profiles which are also Cobwebb Fax 'operators' (see [Users & Operators](#) for further information). This can be found from the [Cobwebb Fax & Email Menu - Work with System Parameters - Option 3](#).

You may decide to grant authority specifically to Cobwebb Fax 'operators' in order that they may perform housekeeping functions (such as RGZQ and Work with System Parameters).

Entries

Operators (User Profile Name)

List up to 50 Cobwebb Fax 'operators' by specifying the appropriate IBM i user profiles.

Function Keys

F3=Exit Ignores any choices typed on the current display, and exits Work with Operator Profiles.

F12=Cancel Ignores any choices typed and returns you to the Work with System Parameters menu.

5.6.4 Communication Lines

This displays the Fax Communication lines that have been configured. This can be found from the [Cobwebb Fax & Email Menu - Work with System Parameters - Option 4](#).

Cobwebb Fax works together with either the Ascom Fax Gateway or IBM Facsimile Support/400 software which in turn uses any of the IBM Internal Fax Modems (2751, 2761, 2771), an external IBM ECS Modem or the IBM Integrated Fax Adapter (IFA).

If you are using the Ascom Fax Gateway (Cobwebb Modem) then there is no other software required.

To ensure that the Cobwebb Fax interface works correctly it is necessary to setup a new Fax Description and add the Fax Cards/Addresses - you should always use the [F6 - Create Configuration](#) to create the required IBM i communications device descriptions.

Check that the IBM Fax support is ended (if required) by using **ENDFAXSPT**.

Note: Only lines set to 'Online' will be started when starting Subsystem CPPD.

You may setup as many lines as you wish, however the number of lines in use will be restricted by the 'Max Lines' specified in [CPPD security](#). The number of lines with a status of 'Online' should be no more than the number specified in Max Lines.

Where multiple lines are installed the same number will not be dialled on two different lines at the same time, if there are two or more messages waiting to be sent.

Position to

Use position to, to start the display at the required place, if you are using multiple lines.

Options

Select one of the following options:

1=Create Allows you to create new Cobwebb Fax communications line entries.

Note: Each line you create with link type *FAX will generate two lines, this is because each IBM Fax Adapter card comes complete with two lines. Providing the lines have been created by the Cobwebb Fax system they can be amended as required. DO NOT use the IBM commands to amend the details of the Fax Adapter Cards. Any changes which you need to make should be made using the Cobwebb Fax Option 2 'Revise Communication line' function.

2=Revise Use this option to setup, monitor and control a specific line.

4=Delete Use this option to delete a Cobwebb Fax line entry. This includes all the associated IBM Fax Adapter card entries and the Fax Description.

5=Display Log Use this option to display the Cobwebb Fax Logfile associated with an Active line.

Entries

For each Cobwebb Fax line entry in the list, the following information is displayed:

Link Type

This is the method of connection to be used, valid entries are:

- *AFG Cobwebb Ascom Fax Gateway.
- *FAX IBM's Facsimile Support 400 with the Integrated Fax Adapter card.
- *ASYN IBM's Facsimile Support 400 with the IBM 7852 External ECS modem, or the 2771 & 2772 internal ECS modem
- *IMAN IBM's Facsimile Support 400 with the IBM 2761 8 line integrated analogue modem.
- *IMIS IBM's Facsimile Support 400 with the IBM 2751 & 2805 4 port integrated ISDN modem.

Fax Description

The Fax Description is the IBM Fax Description name created by Cobwebb Fax. The last two characters must be numeric. When using FS/400 then your entry should be 'FAXDnn' where nn should be an incrementing numeric entry depending upon the number of lines you are configuring. E.g. FAXD01 When using the Ascom Fax Gateway your entry should be 'FAXnn' where nn should be an incrementing numeric entry depending upon the number of lines you are configuring. E.g. FAX01.

Note: This is also the entry that is used as the **Job Name** when the job is running in the [CPPD Subsystem](#).

Card/Address

This entry must be 'FAX' unless the Link Type entered above is *FAX. When the Link Type is *FAX the Fax Card name must be FAX1. Cobwebb Fax will automatically create a second fax card 'FAX2'. You can choose whether you use a Fax Card by setting it 'online' or 'offline' when you use option 2 to revise the Communications Line

Resource

This is the IBM i Resource which has been allocated to the fax hardware. You can enter the command WRKHDWRSC *CMN to verify the resource which has been used.

The above details are all that is required to create a new Cobwebb Fax Fax Description and to ADD the two Fax Cards. Use option 2 'Revise' to complete the installation of a new line.

Function

Determines whether the line is used for Sending, Receiving or Both Send and Receive.

The possibilities are:

- *SEND Send Only
- *RECEIVE Receive Only
- *BOTH Send and Receive
- *NONE This line is not in use

Status Send/Receive

Displays the current status of the line for 'Sending' and 'Receiving' messages. Note: The Status can only be changed using Option 2 'Revise', when the Cobwebb Fax Subsystem (and IBM Facsimile Support/400) are ended.

Offlin The line will not be started when starting communications (STRSBS CPPD).

e

Onlin The line will be started when starting communications (STRSBS CPPD).

e

Active The line is in use.

Note: if the subsystem 'CPPD' is ended *IMMED, or if the line fails the status will remain Active, the status will be reset automatically when the subsystem is restarted.

Log member

This is the Cobwebb Fax logfile member which is in use by this line at this time. Use option 5 to display the data sent/received on this line.

Function Keys

F3=Exit	Exits the Work with Communications Lines function.
F12=Previous	Ignores any choices typed and returns you to the Work with System Parameters menu.
F5=Refresh	Refresh the current display
F16=DSPMSG QFAXOPR	Displays the Facsimile Support/400 message queue QFAXOPR
F17=WRKSBSJOB CPPD	Displays all the jobs running in Subsystem CPPD. Use this function to check the job logs of the communications programs and API interface programs.
Rolldown	Display next page of entries.
Rollup	Display previous page of entries.

5.6.4.1 Communication Line Details

This information is displayed when creating or amending a Communication Line to control which lines are activated when the subsystem CPPD is started.

Entries

AS/400 line speed (AFG only)

This determines the line speed of the IBM i communications line. You should leave this as the default of 0=19200 as this will match the speed of the Ascom Fax Modem that you have installed. The choices are 0=19200 or 1=38400.

Fax Card Function

Determines whether the line is used for Sending, Receiving or Both Send and Receive.

The possibilities are:

*SEND	Send Only
*RECEIVE	Receive Only
*BOTH	Send and Receive
*NONE	This line is not in use

Maximum Active Faxes (FS/400 only)

Determines the maximum number of faxes (19), which are in the process of being sent by IBM Facsimile Support/400 at any one time. If there are too few the full capacity of the fax card may not be used, if there are too many you do not have such direct control over the status of faxes. Both the lines for a fax card are treated together so that this number should be the same on both lines (if link type *fax). If both lines are in use, 3 should be sufficient.

Text

Used only for reference, to identify the line.

Function Keys

F3=Exit	Exits the Work with Communications Lines function.
F12=Previous	Ignores any choices typed and returns you to the Work with System Parameters menu.
F5=Refresh	Refresh the current display
F6=Create Configuration	Creates the required configuration entries for the line.
F14=Work with configuration status	Displays the configuration status of this communication line (uses the 'WRKCFGSTS *DEV' command).
F16=DSPMSG QFAXOPR	Displays the Facsimile Support/400 message queue QFAXOPR
F17=WRKSBSJOB CPPD	Displays all the jobs running in Subsystem CPPD. Use this function to check the job logs of the communications programs and API interface programs.

5.6.5 CFX400 Interfaces

Here you can configure the Cobwebb Server API's which may be enabled/disabled by entering a **Y** to enable or **N** to disable. This can be found from the [Cobwebb Fax & Email Menu - Work with System Parameters - Option 5](#).

Entries

Send application interface

As well as being necessary when the Cobwebb Fax API is in use, this indicator must be set to **Y** to enable the printing of incoming/outgoing faxes if the Print option on the System parameters has been used.

Email application interface

If you have selected to send your email via the Cobwebb Queue i.e. Enable Email queue has been set to **Y** in the [Email Parameters](#), then this API will need to be enabled.

Receive application interface

If incoming fax has been authorised in the CPPD Security (Incoming fax = Y), then the incoming fax program will be started if the Receive application interface is set to 'Y'. Incoming faxes are put on the Cobwebb queue with a status of 'R'. The userid allocated to the incoming fax is specified in the

CUI file (see system maintenance '[Work with Call unit identity](#)'). If the Cobwebb Fax Client application is installed the incoming faxes can be viewed or printed on a PC.

PC Fax Interface

Enables the Cobwebb Fax PC fax server.

Application data queue interface

Enables the Cobwebb data queue. This is used by customers who wish to fax from System 21 using the default interface. This has been superseded by CPPD and the spooled file monitor.

Spooled file fax monitor

Starts the Cobwebb Fax Spooled file monitor program (SFFMON), providing there is an 'online' entry in the spooled file monitor file. See System Maintenance '[Work with spooled file fax monitor](#)' for details. SFFMON monitors the specified print output queue for specified spooled files and runs a modified SNDFAXP command automatically, to send faxes from any text spooled file.

Line monitor program

If selected will check all the Cobwebb Fax communications lines (not including Cobwebb Fax Twinax communications) approximately every 10 minutes, if a line is found to have failed a message is sent, and the program attempts to restart the communications for that line.

Function Keys

F3=Exit Ignores any choices typed on the current display, and exits CFX400 Interfaces.

F12=Cancel Ignores any choices typed and returns you to the Work with System Parameters menu.

5.6.6 Cobwebb Web Server Administrators

Here you can maintain the list of IBM i user profiles which are also Administrators of the Cobwebb Web Server. This can be found from the [Cobwebb Fax & Email Menu - Work with System Parameters - Option 7](#).

You need to be an Administrator if you wish to configure the [Cobwebb Web Server](#) and / or [Docstore](#). **Note:** If you remove all valid entries then you will disable the web service configuration option.

Entries

Administrators (User Profile Name)

List up to 80 Cobwebb Web Server 'Administrators' by specifying the appropriate IBM i user profiles.

Function Keys

F3=Exit Ignores any choices typed and returns you to the Work with System Parameters menu

F12=Cancel Ignores any choices typed and returns you to the Work with System Parameters menu.

5.7 System Maintenance

It is recommended that you secure the System Maintenance program **SYSMANT** from unauthorised use by revoking public authority in place of specific user authority. This can be found from the [Cobwebb Fax & Email Menu - Option 7](#).

The **System maintenance** provides access to the following functions. Command **SYSMNT** also displays the System maintenance menu.

1. [Maintenance Menu](#)
2. [Housekeeping Menu](#)
3. [Recovery Menu](#)

5.7.1 Maintenance Menu

The **Maintenance** menu covers the maintenance of files in the Cobwebb Fax system. The files may not require to be changed at all as the default settings are suitable to many installations. This can be found from the [Cobwebb Fax & Email Menu - System Maintenance - Option 1](#).

Note: Options that are **Uploaded = Yes**, are automatically updated when importing your PPD file to the Server. It is also possible to change these files using the Maintenance menu, but this is not advisable as it is recommended to keep the master copy of the PPD instructions on the PC.

Option	Description	Uploaded
1.	Work with user profiles	
2.	Work with call cancelled codes	
3.	Work with call unit identities	
4.	Work with graphics file	Yes
5.	Work with dial precodes	
6.	Work with font groups	Yes
7.	Work with cover pages	
8.	Work with barc codes	Yes
9.	Work with spooled file fax monitor	
10.	Work with output devices	Yes
11.	Work with standard text	

To view the Help for a specific option simply click on one of the above links.

5.7.1.1 Work with User Profiles

This can be found from the [Cobwebb Fax & Email Menu - System Maintenance - Maintenance Menu - Option 1](#).

For AS/400 users: A CPPD user profile is automatically created the first time a user sends a fax or email using the Cobwebb Editor, using the defaults in the [System Parameters](#).

For PC users: PC users must be authorised to use Cobwebb Fax and therefore a Cobwebb user profile must be set up in advance for each PC user using the Cobwebb Fax PC printer driver.

The User Profile Defaults from the System Parameters are used for automatically created CPPD user profiles. The CPPD user profile may be amended using the Work with user profiles option; this option can also be used to create new user profiles.

Details of the user's Fax cover page logo and signature are held in the user profile file together with parameters which define how the user will use the system.

Some of the information in the user profile is used to save the user re-keying standard data when preparing a fax (fields marked *).

Position to

Enter one or more characters from which to start the display.

Options

Select one of the following options:

1=Create Enables you to create a new CPPD user. This entry is only valid on the top line of the display. If you are using the [Cobwebb Editor](#) a CPPD user profile will be automatically created the first time a new user uses the Editor.

The defaults used when creating a new CPPD User Profile are in the System Parameters, [User Profile Defaults](#). Be sure to review these defaults before creating user profiles, to ensure that they are as required.

2=Revise Use this option to revise an existing CPPD user.

3=Copy Provides a copy function to enable a number of identical CPPD user profiles to be created.

4=Delete Use this option to delete a CPPD user.

Entries

User

The CPPD Userid. This is the same as the user's IBM i sign on.

Name

This field is changed each time the 'From' field on the send Fax screen is changed. It does not have to be the name of the user.

Function keys

F3=Exit Returns to the Maintenance menu

F12=Prev Returns to the Maintenance menu

ious

Page Up Scrolls up through the list

Page Scrolls down through the list

Down

5.7.1.1.1 User Profile Details

This information is displayed when creating or amending a CPPD User Profile. This information is split over three pages; just press enter or Page Down on the screen to display the next page. Press F12 or Page Up to return to the previous page.

Entries

First Page

User Profile

The CPPD Userid. This is the same as the user's IBM i sign on.

Name*

This field is changed each time the 'From' field on the send screen is changed using the Cobwebb Editor. It does not have to be the name of the user.

Manager

All users with the same 'Manager' have access to each other's messages. If a Userid is used as the 'Manager' and the 'Manager' field on the Userid's record is blank then users can access each others messages, but not the manager's.

Authorised PC User

If the Cobwebb Fax PC Fax Server is installed, only users who are 'Authorised PC Users' can send a fax using the Fax Server. A maximum number of PC Users is specified in the CPPD security. When a new user is authorised as a PC user the total number of currently authorised users is checked, if the number in the CPPD security has been exceeded the new user cannot be added.

Department*

A Department code may be input when creating a message. It is used for analysis purposes only.

Mandatory Department

If a mandatory department code is entered the user is not able to change the department code when preparing the fax. The mandatory department code is always displayed as the user's department code.

Auto print queue

If the System Parameters are set to 'Print outgoing messages' and an Auto print queue and library have been specified in the CPPD user profile, then once the message has been sent a copy will be printed to this print queue (with the Userid of the user who created the message), unless the print queue is:

***USE** in which case the message will be printed on the default output queue specified in the IBM i
R user profile of the user who created the message..

***NO** in which case a copy will not be printed to ANY print queue.
NE

Blank if the user's print queue and library are blank or if there is no Cobwebb user profile, the
k message will be printed to the output queue specified in the Cobwebb Fax print file
PPRFPRT, the default output queue is *JOB which will use the output queue in the job
description CPPD (default QPRINT in library CPPD).

Note: The print status flag on the [Work with queue](#) display will only be set to 'P' if a sent message has been printed automatically.

Auto print library

This is the library where the above print queue resides.

Hold sent spooled file

Y Sent messages will be held on the output queue.

N Sent message will not be held on the output queue.

Blank the default of the output queue will be used. E.g. if the default output queue in the

k Cobwebb Fax printer file PPRFPRT is used and it is 'HELD' then all sent messages will be held (see the IBM command CHGPRTF and the HOLD parameter).

Cover page format

Codes Y or N, 1-4. The fax Cover page format controls whether the cover page is sent as the first page of the fax and whether a form feed is inserted after the cover page. The code Y or N, 1-4 (Code 4 is user defined in file AFAXHDR) defines the cover page and form feed options for each type of document.

Code	Document Type	Print Fax Heading Details	Header Page Form Feed
1	0 (API)	N	N
1	1 (editor)	Y	N
1	2 (office)	N	N
1	3 (spool file)	Y	N
1	4 (PC file)	N	N
1	5 (office)	N	N
1	6 (AFP spool file)	Y	N
2	0 (API)	N	N
2	1 (editor)	Y	N
2	2 (office)	Y	N
2	3 (spool file)	Y	N
2	4 (PC file)	Y	N
2	5 (office)	Y	N
2	6 (AFP spool file)	Y	N
3	0 (API)	N	N
3	1 (editor)	Y	N
3	2 (office)	Y	N
3	3 (spool file)	Y	N
3	4 (PC file)	Y	N
3	5 (office)	Y	N
3	6 (AFP spool file)	Y	N

Y	0 (API)	N	N
Y	1 (editor)	Y	N
Y	2 (office)	Y	N
Y	3 (spool file)	Y	N
Y	4 (PC file)	Y	N
Y	5 (office)	Y	N
Y	6 (AFP spool file)	Y	N
N	0 (API)	N	N
N	1 (editor)	N	N
N	2 (office)	N	N
N	3 (spool file)	N	N
N	4 (PC file)	N	N
N	5 (office)	N	N
N	6 (AFP spool file)	N	N

Allow PC cover page

If all faxes sent by Cobwebb Fax are required to have the same cover page (the one generated on the IBM i) it may be desirable to prevent the PC user from selecting a different cover page.

Cover page logo

The Cover page logo is the cover page which comes before the first page of the fax. It contains the details (which include the company logo) specified in the cover page, see [Work with cover pages](#) in System Maintenance. The Cover page logo specified in the Cobwebb user profile is normally used, if that is blank the System Cover page logo is used, if that is blank no Cover page logo is used.

Cover page signature

A Cover page signature is defined as Cover page which come at the end of the last page of a fax. A signature can be specified in the cover page. The Cover page signature specified in the Cobwebb user profile is normally used, if blank the System Cover page signature is used, if that is blank no Cover page signature is used. If this is the case 'Allow PC cover page' = No will ensure that the IBM i cover page is always used. If Allow PC cover page is = Yes the User's IBM i cover page will be used unless the PC user requests a different one, or none at all.

Font group

The font group defines which IBM i fonts will be used for the message. This font group is the CPPD font group which will be used for the message, unless overridden by the font group in the Cobwebb User Profile, or specified in an API generated message. See System Maintenance ['Work with font groups'](#) for details.

Note: If in doubt use the Cobwebb Fax default font group as this contains a number of fonts suitable for fax.

Second Page

This screen is displayed by pressing Enter or Page Down from the first Work with User profiles display (use Page Up or F12 to return to the first display) or Page up or F12 from the third page.

Priority*

Priority of the last message sent by this user.

Maximum priority

The maximum priority which can be used by this user. This may be used to prevent the user actually sending messages (by having a maximum priority of 0 'held'), or to control the maximum priority available to the user when sending messages.

Public authority*

Public authority of the last message sent by this user. The public authority defines who can look at the message.

- 1 **Normal** - the user, manager and any Cobwebb Fax operator
- 2 **None** - only the user and manager
- 3 **All** - any user

Mandatory public authority

If entered the mandatory public authority will be used for all the user's messages and can only be changed by changing the user profile.

Send, position cursor

Controls the position of the cursor on the 'Send Fax / Email' screen. The first time the user sends a message from Cobwebb Fax the 'From' field is blank. After this the screen shows the details which were entered on the previous message. The cursor can be positioned to return to the most convenient field, fields below the cursor position will be cleared.

Output directory description

This option is used to insert the company name automatically from the Cobwebb Fax directory.

- N** Do not output directory description
Y Output directory description

If this entry is = Y and the message is created using a Cobwebb Fax directory entry, the directory description will be output to the 'To:' line, providing nothing has previously been entered on the 'To:' line, e.g. on the Send a fax screen. The 'To:' line is normally used for the Company name.

Display edit options

When preparing a message the second screen provides for the selection of the appropriate [Edit Options](#) e.g. 1= Cobwebb Editor, 3=Spooled file etc.. as well as the selection of folder and logo. If the user does not require to see these options this screen may be bypassed by choosing not to display the edit options.

- N** Do not display edit options
Y Display edit options

Note: the user can still display edit options by selecting F9 on the [Send a Fax](#) screen.

Queue display format

The standard Cobwebb queue display shows :

..... **From** **Destination** **Attention**

an alternative format is now available :

..... Attention To Reference

1=Standard display, 2=Alternative display**Work with directory**

The **F9** key on the send a fax screen allows any user to add/change/delete Cobwebb Fax directory entries. This facility can be disabled (F9 will not be displayed): **Y** = enabled, **N** = disabled.

Display fax proofprint

If=**Y**, the Fax proofprint destination will be displayed on the 'Exit Editor' screen, if=**N** the option to Fax a proofprint will not be displayed.

CPPD Print output device

This is the output device which will be used to print messages if Option 6=Print is selected from the [Cobwebb queue](#). This output device must have been previously created using the Work with output device.

CPPD Auto print output device

This is the output device which will be used to automatically print messages owned by the user. This output device must have been previously created using the Work with Output Device.

Authorised to send

If 'Authorisation system active = Y' on the System Parameters, then only users who are 'Authorised to send' can send a message. Any user can prepare a message.

Route messages via line number

Where more than one Cobwebb Fax fax line is installed it may be desirable to send faxes using a specified line. This may be done by entering the 'Line call number' from the desired line on the 'Work with Communication lines' screen. If entered, faxes from this user will only be sent using the specified line.

Third Page

This screen is displayed by pressing Enter or Page Down from the second Work with User profiles display (use Page Up or F12 to return to the previous display).

PC Incoming Fax details

These details apply to the PC DOS viewer program only. This program has been replaced by the Cview windows viewer.

Path for PC fax folder

- a) When used with the Cobwebb Queue Display program:

If blank the default is I:\CPPD\, if the I: drive on the PC is not available then enter 'drive:' (e.g. K:) in which case the path will be K:\CPPD\, or enter 'drive:\' (e.g. K:\) in which case the path will be K:\ where drive K is assigned to folder CPPD.

- b) When used with the Cobwebb Fax Office Exit program:

If blank the default is I:\current folder\, if the I: drive on the PC is not available then enter 'drive:' (e.g. K:) in which case the path will be K:\current folder\ or enter 'drive:\' (e.g. K:\) in which case the path will be K:\ where drive K is assigned to the current folder.

Path for PC fax programs

A significant improvement in performance can be obtained when viewing/printing faxes if the Cobwebb Fax fax display programs (Cview or CONVERT.EXE) are located in the user's PC as

opposed to a shared folder, however the administration required to ensure that all users have these programs in their PC's may make this option unacceptable.

The Path for PC fax programs is specified as follows:

If blank, the default is I:\CPPD\, if the I: drive on the PC is not available then enter 'drive:' (e.g. K:) in which case the path will be K:\, or enter 'drive:\folder' (e.g. K:\CPPD) in which case the path will be K:\CPPD\.

Screen type for PC fax display

Leave blank to use the default screen type (MCGA) to display an incoming fax. If you have an EGA screen enter 'EGA'.

Enter 'WIN' to start the Cview windows viewer to view and print faxes on a PC. Note that the Path for PC fax programs must be correct and that this Cview has only been tested with IBM PC support under windows with PC Organiser running.

Printer type for PC fax print

Leave blank to use the default printer type (HPLJ Hewlett Packard Laser Jet) for PC fax print. If you wish to use an OKI microline M182 enter 'M182'.

Printer name for PC fax print

Leave blank to use the default printer name (:LPT1) for PC fax print. If you wish to direct the print to another printer, enter the name here. **Note:** The speed of printing is slow, use of print cache or other buffering techniques is the responsibility of the user.

Function Keys

F3=Exit Returns to the Maintenance menu

F12=Prev Ignores any choices typed and returns you to the previous page.

ious

Page Up Displays the next page of details.

Page Displays the previous page of details.

Down

5.7.1.2 Work with Call Cancelled Codes

Call Cancel codes are used by the Fax & Email communication programs to control the frequency of retries. This can be found from the [Cobwebb Fax & Email Menu - System Maintenance - Maintenance Menu - Option 2](#).

Select "1" to work with **Fax** call cancelled codes and "2" for **Email**.

Cobwebb Fax processes the error codes sent by Facsimile Support/400 and the Ascom Fax Modem and converts these into a single character code (AZ). These codes reflect the information received by the Fax modem from the telephone exchange and may not always make sense the first time, several attempts may be required to determine the exact cause of failure.

The retries defined here determine the way your system operates, they should not be changed without being aware of the implications.

Some countries require the use RED/BLACK lists in the Facsimile Support/400 software after a certain number of retries. Once this number is reached the number will not be retried until the Facsimile Support/400 subsystem is stopped and restarted.

Cobwebb Email processes the error codes sent by the SMTP Mail Server.

Position to

Enter one or more characters from which to start the display.

Options

Select one of the following options:

1=Create Enables you to create a new Cancel Code (this is not normally necessary as all possible Cancel Codes are displayed). This entry is only valid on the top line of the display.

2=Revise Use this option to revise a Cancel Code.

4=Delete Use this option to delete a Cancel Code.

Entries

Cancel Code

The Call Cancel Code.

Description

The description of the Call Cancel Code. This is displayed from the Cobwebb queue display and may be changed if required.

Retry after (mins)

The number of minutes before the FIRST retry.

Retry every (mins)

The number of minutes before every subsequent retry.

Retry for (hrs.mins)

The number of hours and minutes to continue retrying.

Function keys

F3=Exit Ignores any choices typed on the current display, and exits Work with Call Cancelled Codes.

F12=Cancel Ignores any choices typed and exits Work with Call Cancelled Codes.

Page Up Displays the next page of details.

Page Down Displays the previous page of details.

5.7.1.3 Work with Call Unit Identities

A Call Unit Identity (CUI) is the number from which an incoming Fax has been received (providing the sender has programmed his Fax Machine to send it). This can be found from the [Cobwebb Fax & Email Menu - System Maintenance - Maintenance Menu - Option 3](#).

Adding CUI's to this file will enable one or more users to receive a message to their fax queue, or office mailbox to inform them that a fax has arrived from that CUI.

An entry with *ALL as the CUI will cause a message to be sent every time an incoming fax is received.

Position to

Enter one or more characters from which to start the display.

Options

Select one of the following options:

1=Create Enables you to create a new Call Unit Identity. This entry is only valid on the top line of the display.

2=Revise Use this option to revise a Call Unit Identity.

4=Delete Use this option to delete a Call Unit Identity.

Entries

Call Unit Identity

The number programmed into the fax machine from which the fax will be received. This number will generally have to be copied from the top of a received fax since the format of the number, e.g. where the spaces have been put between the numbers, must be copied exactly.

*ANY entered as the CUI will cause a message to be sent every time a Fax is received.

Description

The description of the CUI, this will appear as the description on the office distribution. Maximum 44 characters.

User Profile

The user profile to which the notify message is sent.

*NONE No message is sent

*USRPRF A message is sent to the current user.

User Id

The User Id of the office user to receive the distribution. Leave blank if office distribution not required. *CURRENT use the Userid and Address of the current user.

User Address

The Address for the above office user to receive the distribution.

Delete after use

If the user requires to be notified of the receipt of a fax just once, he may add the CUI with instructions for it to be deleted once the fax has been received.

N Do not delete the CUI when the fax has been sent.

Y Delete the CUI when the fax has been sent.

Folder

If you specify a valid QDLS folder path then the incoming fax will be copied to this location.

Send distribution

Enter a Y if you wish to notify the user, in the above User Id and User Address entries, of the incoming fax.

Function keys

F3=Exit Ignores any choices typed on the current display, and exits Work with Call Cancelled Codes.

F12=Can cel Ignores any choices typed and exits Work with Call Cancelled Codes.

Page Up Displays the next page of details.

Page Down Displays the previous page of details.

5.7.1.3.1 Work with Dial Precedes

Mercury communications (and possibly other carriers) offer a facility for analysing the calls for a telephone line by a code (Dial precode). This code is normally two digits and precedes every number dialled. This can be found from the [Cobwebb Fax & Email Menu - System Maintenance - Maintenance Menu - Option 5](#).

Cobwebb Fax supports a 'Dial precode'. If selected, every fax number dialled is preceded by a code which is found by looking up either the Department code of the user who sent the fax, or his IBM i Address. If a precode is not found the default code '*DFT' is used, if this is not found a code of '00' is used.

The option to use the Dial precode is set on in the System Fax parameters. See [Work with System parameters](#). The options are: Blank = Dial precode not in use, 1 = Use department code to look up dial precode, 2 = Use IBM i User address, or if blank department code, to look up dial precode.

Position to

Use this option to begin the display starting with the characters entered here.

Options

Select one of the following options:

1=Create Allows you to create a new dial precode entry.

2=Revise Revise the dial precode entry.

4=Delete Delete the dial precode entry.

Entries

Dept/Address

If the System parameters have been setup to look for a Cobwebb Fax Department code (1) enter the department code. The department code can either be input manually each time a fax is created, or automatically by adding it to the Cobwebb user profile. See [Work with User Profiles](#).

In a multi IBM i SNADS environment you may wish to cost each location, this can be done by using the User Address. System parameter dial precode setup (2).

Dial Precode

Use the code which you have agreed with the telephone company for costing purposes. Note: the first two (or more) digits of every telephone number will be assumed to be for cost analysis, if the Dept/Address code cannot be found the default code (*DFT) will be used, or if that is missing a code of '00' will be used.

Function keys

F3=Exit Ignores any choices typed on the current display and exits Work with dial precodes.

F5=Refre Refreshes the Work with dial precodes list.

sh

Page Up Displays the next page of details.

Page Displays the previous page of details.

Down

5.7.1.4 Work with Cover Pages

Cobwebb Fax cover pages are similar to Standard Text members, but contain special codes to include the information which is required in a fax cover page. This can be found from the [Cobwebb Fax & Email Menu - System Maintenance - Maintenance Menu - Option 7](#).

The cover page can be sent at the beginning of the fax, in which case it is referred to as a 'Cover Page Logo' or it can be sent at the end of the fax, in which case it is referred to as a 'Cover Page Signature'. A cover page signature will normally be used only where a signature is required on every fax.

Creating a cover page

The same editor is used to create a cover page as is used for creating standard text and faxes, See the [Cobwebb Editor](#).

When creating a cover page it is necessary to include a company logo and details of to whom the fax is addressed.

The logo is included using *G and selecting a graphics member.

Note : the graphics member must have already been created.

The logo can include the whole page; any text which is specified will overwrite the logo.

The following address details will be automatically included from the information provided when the fax was created, the information will be output from the position where the '&' is typed:

&TO	include the 'To' field (max 50 chs)
&ATTN	include the 'Attention' field (30 chs)
&FROM	include the 'From' field (30 chs)
&REF	include the 'Reference' field (30 chs)

If a Form Feed is specified in the Cover Page Format (see **Cover Page Format** parameter in [User Profile](#)) the text will start on the next page, if A Form Feed is not specified the text will start on the same page as the cover page details.

Cover page members

This display lists all the cover page members. Select one of the following to work with a cover page (note that only the first option entered is actioned):

Position to

Position the display to the 'Starting Cover page'.

Options

Select one of the following options:

- 1=Create** Allows you to create a new cover page. You cannot create a cover page with the same name as an existing cover page or standard text member, (existing cover pages are listed on this display). The create option is only valid on the top (entry) line of the display.
- 2=Edit** Use this option to revise an existing cover page - See the [Cobwebb Editor](#) for details.
- 3=Copy** use this option to copy an exiting cover page and give it a new name.
- 4=Delete** Use this option to delete an existing cover page.
- 6=Print** Use this option to print an existing cover page.

Entries

Cover page

The name of the standard text cover page (this corresponds to a member in database file ASTDDOC).

Description

The description of the cover page.

Skip CvrPg

If you wish to add a page skip at the end of the cover page then enter a Y here.

User

If you want to be the only person who can see this cover page (apart from a Cobwebb Fax 'Operator') enter your own 'Userid'. All your own standard text documents will be displayed, plus all the ones with blank Userid's. You can only enter your own Userid or leave it blank.

A Cobwebb Fax operator can view, change and amend any standard text cover page.

Function keys

F3=Exit Ignores any choices typed on the current display and exits Work with cover pages.

F12=Can cel Ignores any choices typed on the current display and exits Work with cover pages.

Page Up Displays the next page of details.

Page Down Displays the previous page of details.

5.7.1.5 Work with Spooled File Fax Monitor

This can be found from the [Cobwebb Fax & Email Menu - System Maintenance - Maintenance Menu - Option 9](#).

Overview

The Cobwebb Fax Spooled file monitor system (SFFMON). This has been replaced by the CPPD [Work with Spooled file Monitor](#).

SFFMON monitors one or more IBM i Output Queues for selected spooled files to be sent as faxes.

The Spooled file monitor program is automatically started in the CPPD subsystem if the Spooled file monitor interface in [CFAX400 interfaces](#) is set to 'Y'. As a spooled file is added (or released) to any specified output queue it is checked to see whether it is to be sent as a fax.

If the spooled file is to be sent as a fax the Cobwebb Fax SNDFAXP (Send Fax from Spooled File) command is run using the parameters specified in 'Work with spooled file monitor'.

Setup Spooled file fax monitor

1. Enable the Cobwebb Fax Spooled file monitor interface.
From the Cobwebb Fax main menu, use Option 6 – Work with system parameters, Option 5 - CFAX400 interfaces, set Spooled file fax monitor = 'Y'.
2. Set up the spooled file to be sent as a fax.
From the Cobwebb Fax main menu, use Option 7 - System Maintenance, Option 1 - Maintenance Menu, Option 9 - Work with spooled file fax monitor.

Work with Spooled file fax monitor

Create a new entry for each spooled file you want to monitor for. If you want to select all the spooled files going to the specified output queue, enter the Output Queue and Library names with *ALL in the File/User/User Data/Form Type fields. If you want to select all the spooled files having the same User enter *ALL in the User field (this also applies to the other fields). If you leave a field blank SFFMON will only select spooled files which are blank in that field.

Note: SFFMON will only select matching spooled files if the 'Status' is 'Online'. Spooled files with a status of 'Offline' will not be selected. You can change the status while the subsystem is running. It is advisable to stop and restart the subsystem when adding a new spooled file in 'Work with spooled file fax monitor'.

Having entered the details of the spooled files to be selected, press 'enter'. The next screen allows you to enter a Description. Use F10 on this screen to enter the SNDFAXP command parameters.

When starting the SFFMON program Cobwebb Fax automatically assigns the data queue SFFMON in library CPPD to each Print Output queue for which there is an 'Online' entry in 'Work with spooled file monitor' maintenance.

Note 1: - If there are no 'Online' entries then the SFFMON program will not start.

Note 2: - DO NOT specify an Output Queue for use with SFFMON which already has a data queue assigned, this is because the data queue records are deleted as soon as they are read, and are therefore not available to two systems. Instead you can setup a new output queue and divert the appropriate spooled files to it.

To enter the SNDFAXP parameters and select the destination from the text of the spooled file press F10, all the SNDFAXP parameters are displayed.

Position to

Position the display to the Output queue entered here.

Options

Select one of the following options:

- 1=Create** Allows you to create a new spooled file fax monitor entry.
- 2=Revise** Revise the spooled file fax monitor entry.
- 3=Copy** Copy the spooled file fax monitor entry.
- 4=Delete** Delete the spooled file fax monitor entry.

Entries

Output Queue

The print output queue from which the spooled files will be selected.

Library

The print output queue library name from which the spooled files will be selected.

File

The print output file name, as specified in the program creating the print file. *ALL to select all files in the output queue.

User

The name of the user who owns the spooled file. *ALL to select all owners of the spooled file.

User Data

The 10 characters of user specified data which describes this file. *All to select all user data, leave blank for blank user data.

Form Type

The type of form specified for use with this document. *ALL to select all form types, leave blank for a blank form type.

Status

The status of the spooled file monitor entry, 'offline' means the spooled file fax monitor will ignore this entry, 'online' means the spooled file fax monitor will include this entry.

Function keys

- F3=Exit** Exits the Work with spooled file fax monitor screen and returns to the Maintenance menu, without updating
- F5=Refresh** Refreshes the screen with any changes that have been made.
- F12 = Cancel** Cancels the Work with spooled file monitor screen and returns to the Maintenance menu, without updating.
- F16=DSPM SG** Displays the CPPD message queue followed by the users own message queue.

Page Up Displays the next page of details.

Page Down Displays the previous page of details.

5.7.1.5.1 Spooled File Fax Monitor Details

This information is displayed when creating or amending a Spooled File Fax Monitor entry.

Entries

Print Output Queue

The print output queue from which the spooled files will be selected.

Library

The print output queue library name from which the spooled files will be selected.

Printer File

The print output file name, as specified in the program creating the print file. Enter ***ALL** to select all files in the output queue.

User

The name of the user who owns the spooled file. Enter ***ALL** to select all owners of the spooled file.

User Data

The 10 characters of user specified data which describes this file. Enter ***ALL** to select all user data, leave blank for blank user data.

Form

The type of form specified for use with this document. Enter ***ALL** to select all form types, leave blank for a blank form type.

Status

The status of the spooled file monitor entry, '**offline**' means the spooled file fax monitor will ignore this entry, '**online**' means the spooled file fax monitor will include this entry.

Description

Enter a description to identify the Work with spooled file fax monitor entry.

Function keys

- | | |
|----------------------------|---|
| F3=Exit | Exits the Work with spooled file fax monitor screen and returns to the Maintenance menu, without updating. |
| F7=Online | Sets the status of the entry to 'online', the output queue will be monitored for this spooled file. |
| F8=Offline | Sets the status of the entry to 'offline', the output queue will NOT be monitored for this spooled file. |
| F10=More parameters | Displays the SNDFAXP (Send fax from spooled file) parameters. These parameters are required to split up multifax spooled files and to extract the fax destination from the spooled file text. See SNDFAXP Command for details. |

- F12 = Previous** Cancels the Work with spooled file fax monitor screen and returns to the Maintenance menu, without updating.
- F16=DSPMSG** Displays the CPPD message queue followed by the users own message queue.

5.7.1.6 Work with Standard Text

Standard text is normally used with Cobwebb Fax when preparing a fax or including a fax form from SNDFAXP. This can be found from the [Cobwebb Fax & Email Menu - System Maintenance - Maintenance Menu - Option 11](#). This display lists all existing Standard Text documents.

Position to

Enter one or more characters from which to start the display.

Options

Select one of the following options:

(Note that only the first option entered is actioned.)

- 1=Create** Allows you to create a new document. See the [Cobwebb Editor](#) for more details.
You cannot create a document with the same name as an existing document (existing documents are listed on this display). *This option is only valid on the top (entry) line of the display.*
- 1=Select** When displaying a list of standard text documents (*S) within the Cobwebb Editor, type a 1 next to the document you wish to include in the fax you are currently preparing using the Cobwebb Editor.
- 2=Revise** Use this option to revise an existing document. See the [Cobwebb Editor](#) for more details.
- 3=Copy** Allows you to copy details from an existing PPD User to a new user.
- 4=Delete** Use this option to delete an existing document.
- 6=Print** Use this option to print an existing document.
- 7=Copy to PC PPD** Use this option to copy the Standard text member to a PC file in folder CPPD. [Option no longer supported from v6.2.30]

Entries

For each document in the Standard Text Documents list, the following is displayed:

Document

The name of the standard text document (this corresponds to a member in database file ASTDDOC).

Description

The description of the text document.

User

If you want to be the only person who can see this standard text (apart from a Cobwebb ['Operator'](#)) enter your own 'Userid'. All your own standard text documents will be displayed, plus all the ones with blank Userid's. You can only enter your own Userid or leave it blank.

A Cobwebb operator can view, change and amend any standard text document.

Function Keys

F3=Exit Exits the Work with Standard Text and returns to the Maintenance menu, without updating. Press Enter to Update.

F12=Prev ious Cancels the Work with Standard Text and returns to the Maintenance menu, without updating. Press Enter to Update.

Page Up Scrolls up through the list

Page Down Scrolls down through the list

5.7.2 Housekeeping Menu

Housekeeping is very simple and if setup correctly will automatically maintain the minimum amount of data on your Server. This can be found from the [Cobwebb Fax & Email Menu - System Maintenance - Option 2](#).

Each menu option runs a command with parameters, so that the options can be included in regular daily, weekly or monthly runs. The [System Parameters](#) specify the number of days to retain queue entries.

A comprehensive housekeeping strategy would involve:

- a) Daily archiving using [ARCPPDQ](#)
- b) Monthly saving and clearing of files using [RGZPPDQ](#)

This will ensure that all Cobwebb files are properly maintained. You may use the [Schedule Housekeeping](#) option to help you to set up Scheduled Jobs to be run automatically.

Option Description

1. [Archive queue entries](#)
2. [Save queue entries](#)
3. [Clear queue entries](#)
4. [Schedule housekeeping](#)

To view the Help for a specific option simply click on one of the above links.

5.7.2.1 Archive Queue Entries

The Cobwebb queue file maintains a record of all messages on the system. Once a queue reference number has been allocated it cannot be re-used, so that if you do not wish to send a message once you have prepared it, it must be deleted. Deleted records remain on the queue for reference: the text is deleted and cannot be resurrected.

Messages on the queue may be "archived" that is to say they can be flagged so that they do not appear on the [Work with Queue](#) display, however they are still on the queue and may be seen using **F13 = Archive Q**.

Archiving can be done manually using **Option 8** on the [Work with Queue - WRKQ](#) display, or automatically using the **ARCPPDQ** command or from the [Cobwebb Fax & Email Menu - System Maintenance - Housekeeping Menu - Option 1](#).

Automatic daily archiving removes Sent, Received and Deleted records from the queue so that you only see the messages which need attention.

The **ARCPPDQ** command will send your sent or deleted messages to the log queue or archive. You should include this in your day-end or week-end job routine by creating a Scheduled Job - see [Schedule Housekeeping](#).

ARCPPDQ Options

PRTOPT - Print Option

Specify the entries that you would like to be printed. If printing is requested a complete copy, including text, of all messages which have been archived is printed. This can be used for archiving purposes.

- *NONE** Do not print any entries
- *SND** Print Sent messages only
- *RCV** Print Received messages only
- *ALL** Print All messages

DAYOUT - Archive outgoing messages

Specify a number of days. Outgoing messages older than this date will be archived. To change the default entry select **Option 6 – Work with system parameters** then **Option 1 - System parameters** and then **Option 1 – System parameters** again.

DAYIN - Archive incoming messages

Specify a number of days. Incoming messages older than this date will be archived. To change the default entry select **Option 6 – Work with system parameters** then **Option 1 - System parameters** and then **Option 1 – System parameters** again.

5.7.2.2 Save Queue Entries

The **SAVPPDQ** command is provided to allow you to save the Cobwebb queue to a Save File. This can be found from the [Cobwebb Fax & Email Menu - System Maintenance - Housekeeping Menu - Option 2](#).

You might wish to run this command prior to running the **CLRPPDQ** command to remove old entries.

If you then wanted to view old entries you would need to restore the Save File to a NEW library (NOT CPPD) then add this library to your library list (use ADDLIBLE NNNN where NNNN is your new library name). When you select "Option 4 - [Work with Queue](#) from the CPPD Fax and Email menu" you will be looking at the saved queue entries.

Note: You will only be able to view these entries.

The Cobwebb subsystem CPPD should be stopped while saving queue records.

The following files will be saved:

- AFAXQ** CPPD Fax & Email queue index records
- AFAXDOC** Fax message text

AEMLDOC Email message text
AFAXIMG Converted Fax images
QAFFRCV Incoming Fax images
AFAXLOG Fax & Email log file

You should include this in your day-end or week-end job routine by creating a Scheduled Job - see [Schedule Housekeeping](#). If you wish to restore a previously saved queue you would need to use the [RSTPPDQ](#) command.

SAVPPDQ Options

You need to define the following parameters:

SAVLIB - Save file library

From version 6.2.30 you will no longer see this entry as the required objects are now saved directly from library CPPD. This has been left as a hidden entry in the command for backward compatibility so that any schedule jobs will still run successfully.

This is the name that will be given to a temporary library used in the SAVPPDQ command which will be deleted when the Save File has been created. This library must not already exist. **NOTE:** You will need to use this library name as the "Saved library" if you wish to restore the library from the saved file.

SAVF - Save file

Enter a meaningful name for your Save File perhaps incorporating the date for future reference. This will make it easier to work out which Save File contains which queue records if you need to restore the file and look at the records. This file must not already exist.

LIB - Library

Enter the name of the library where you wish your Save File containing the queue entries to be saved. This library must exist.

REPL - Replace existing save file

If a save file already exists with the above name then you can use this option to overwrite the existing file. Choose ***YES** to overwrite or ***NO** to force a new name.

5.7.2.3 Clear Queue Entries

The **CLRPPDQ** command is provided to allow for selected queue entries to be deleted. Before running this command you should run the [SAVPPDQ](#) command to save the queue entries to a Save File for future reference. This command may also be found on the [Cobwebb Fax & Email Menu - System Maintenance - Housekeeping Menu - Option 3](#).

You can choose to clear the entries for up to 10 individual User IDs This may be useful if you have automatically generated messages that you do not wish to keep, and these are allocated a specific user id.

Notes:

- Unless you enter a "Y" for the "**Delete records**" parameter then NO records will be deleted. This could be used to simply print records that would be deleted before running the command again to actually delete the records.
- If you end the CPPD subsystem before running this command then any files with deleted records will be reorganised.

Check number of messages on the Cobwebb Queue

If you want to see the **Current number of records** in **AFAXQ** (the physical file holding the Cobwebb Queue entries) you can check using the following from a command line on your IBM i:

```
DSPFD FILE(CPPD/AFAXQ) TYPE(*MBR) OUTPUT(*) FILEATR(*PF)
```

By using the TYPE and FILEATR parameters this speeds up the command if you have a large number of records. Page down once and you will see the information e.g.

```
Access path maintenance . . . . . : MAINT
*IMMED
Access path recovery . . . . . : RECOVER *NO

Member size . . . . . : SIZE
*NOMAX
Current number of records . . . . . :
1810
Number of deleted records . . . . . :
0
```

End the CPPD Subsystem

Best practice is to **end** the CPPD subsystem otherwise, it will delete the records but it will not reorganise the files to remove deleted records and re-allocate the space.

```
ENDSBS CPPD
```

Example Command

If for instance, you wished to clear the queue for anything older than 100 days, for all users and all statuses, then you could use:

```
CLRPPDQ CLRDAY(100) USR(*ALL) CLRS(Y) CLRR(Y) CLRW(Y) CLRD(Y)
CLRQ(Y) QSRV(*ALL) DLTR(Y) PRTOPT(*NONE)
```

Note: If you find that this is taking a long time then you can end this job controlled and then run it again to carry on deleting records.

CLRPPDQ Options

You need to define the following parameters:

CLRDAY - Clear if older than (days)

Specify the number of days for which you wish to keep messages on the queue. The selected queue records will be checked against this parameter and, if older, be printed / deleted according to subsequent entries. If left blank then the default will be used. To change the default entry select **Option 6 – Work with system parameters** then **Option 1 - System parameters** and then **Option 1 – [System parameters](#)** again and change the **Clear PPD Queue** entry.

USR - User Id

You can choose to clear the entries for up to 10 individual User IDs. This may be useful if you have automatically generated messages that you do not wish to keep, and these are allocated a specific user id. Enter *ALL to clear entries regardless of the User ID.

CLRS - Clear sent entries

If you enter a "Y" then entries with status "S" for Sent messages are selected. **Note:** If you wish to clear the Fax/Email log then you will need to enter "Y" for both this parameter and the "Clear received entries" parameter.

CLRR - Clear received entries

If you enter a "Y" then entries with status "R" for Received messages are selected. Note: If you wish to clear the Fax/Email log then you will need to enter "Y" for both this parameter and the "Clear sent entries" parameter.

CLRW - Clear waiting entries

If you enter a "Y" then entries with status "W" for Wait messages are selected.

CLRD - Clear deleted entries

If you enter a "Y" then entries with status "D" for Deleted messages are selected.

PRTOPT - Print removed entries

Specify the entries that you would like to be printed. The queue details (not the text) are printed to give one line for each entry selected.

- *NONE** Do not print any messages
- *SND** Only print Sent messages being removed.
- *RCV** Only print Received messages being removed.
- *ALL** Print ALL messages being removed.

QSRV - Select service

Specify the type of messages that you would like to select.

- *FAX** Only clear Fax message type
- *EML** Only clear Email message type
- *ALL** Clear all message types

DLTR - Delete records

If you select to Delete records then the following will happen to queue records matching the rest of the selection criteria:

- Queue record will be deleted from AFAXQ
- Fax message text will be deleted from AFAXDOC
- Email message text will be deleted from AEMLDOC
- Converted Fax images will be deleted from AFAXIMG
- Received Fax images will be deleted from QAFFRCV

Also, if you have entered a "Y" to both "Clear sent entries" and "Clear Received entries", all logs entries will be removed from AFAXLOG that are older than the "No of days to retain".

5.7.2.4 Schedule Housekeeping

If you are unsure about how to add scheduled jobs to run the Housekeeping commands then there is an option on the [Housekeeping Menu](#) which will do this for you. This can be found from the [Cobwebb Fax & Email Menu - System Maintenance](#) - - [Housekeeping Menu - Option 4](#).

Archive the CPPD Queue

First you will be asked if you wish to add a Job Schedule Entry to **Archive the CPPD Queue**. Entering a **Y** will allow you to enter the details and prompt for you to select your schedule requirements. This passes your chosen entries to the [ARCPPDQ](#) command.

If you first wish to check if there is already a job scheduled to run the Archive Queue press **F16** to display the existing Job Schedule entries where the Job Name is prefixed **CPPD**. If you have changed the default name for the job then you will need to call the **WRKJOBSCDE** command from a command line.

Note: By default this command uses the Job Description **ARCPPDQ** which will run the job in **QBATCH** in **QGPL** so that it can run outside of the CPPD subsystem.

Archive messages

Specify a number of days. Outgoing messages older than this date will be archived. To change the default entry select **Option 6 – Work with system parameters** then **Option 1 - System parameters** and then **Option 1 – [System parameters](#)** again.

Print Option

Specify the entries that you would like to be printed. If printing is requested a complete copy, including text, of all messages which have been archived is printed. This can be used for archiving purposes.

- *NONE** Do not print any entries
- *SND** Print Sent messages only
- *RCV** Print Received messages only
- *ALL** Print All messages

Press **ENTER** to add a scheduled job to Archive the Queue.

Save & Clear the CPPD Queue

Next you will be asked if you wish to **Save & Clear the CPPD Queue**. Entering a **Y** will allow you to enter the details and prompt for you to select your schedule requirements. This passes your chosen entries to the [RGZPPDQ](#) command which is a combination of the [Save Queue](#) and [Clear Queue](#) functions.

If you first wish to check if there is already a job scheduled to run the Save & Clear Queue press **F16** to display the existing Job Schedule entries where the Job Name is prefixed **CPPD**. If you have changed the default name for the job then you will need to call the **WRKJOBSCDE** command from a command line.

Note: By default this command uses the Job Description **RGZPPDQ** which will run the job in **QBATCH** in **QGPL** so that it can run outside of the CPPD subsystem.

Temporary Save file library

This is the name that will be given to a temporary library used in the [SAVPPDQ](#) command which will be deleted when the Save File has been created. This library must not already exist. **NOTE:** You will need to use this library name as the "Saved library" if you wish to restore the library from the saved file. This entry is not used if you specify ***NONE** as the **Save file** parameter - see below.

Save file name

Enter a meaningful name for your Save File perhaps incorporating the date for future reference. This will make it easier to work out which Save File contains which queue records if you need to restore the file and look at the records. This file must not already exist.

NOTE: If you do not wish to Save the Queue then you may specify ***NONE** here and then the [SAVPPDQ](#) command will not be run just the [CLRPPDQ](#) command.

Library

Enter the name of the library where you wish your Save File containing the queue entries to be saved. This library must exist.

Replace existing Save File

If a save file already exists with the above name then you can use this option to overwrite the existing file. Choose ***YES** to overwrite the save file if it exists or ***NO** if the save file name you have entered does not exist and you wish the program to create it. **NOTE:** If you do not specify ***YES** and the save file already exists then a message will be written to the joblog and the job will end and the CPPD subsystem will not be restarted.

Clear if older than (days)

Specify the number of days for which you wish to keep messages on the queue. The selected queue records will be checked against this parameter and, if older, be printed / deleted according to subsequent entries. If left blank then the default will be used. To change the default entry select **Option 6 – Work with system parameters** then **Option 1 - System parameters** and then **Option 1 – [System parameters](#)** again and change the **Clear PPD Queue** entry.

Clear Sent entries

If you enter a "Y" then entries with status "S" for Sent messages are selected. **Note:** If you wish to clear the Fax/Email log then you will need to enter "Y" for both this parameter and the "Clear received entries" parameter.

Clear Deleted entries

If you enter a "Y" then entries with status "D" for Deleted messages are selected.

Clear Received entries

If you enter a "Y" then entries with status "R" for Received messages are selected. Note: If you wish to clear the Fax/Email log then you will need to enter "Y" for both this parameter and the "Clear sent entries" parameter.

Clear Waiting entries

If you enter a "Y" then entries with status "W" for Wait messages are selected.

Clear Queued entries

If you enter a "Y" then entries with status "Q" for Queued messages are selected.

Select service

Specify the type of messages that you would like to select.

- *FAX** Only clear Fax message type
- *EML** Only clear Email message type
- *ALL** Clear all message types

Print removed entries

Specify the entries that you would like to be printed. The queue details (not the text) are printed to give one line for each entry selected.

- *NONE** Do not print any messages
- *SND** Only print Sent messages being removed.
- *RCV** Only print Received messages being removed.
- *ALL** Print ALL messages being removed.

5.7.2.4.1 Save & Clear Queue Entries

The **RGZPPDQ** command is provided to allow you to save the Cobwebb queue to a Save File and for selected queue entries to be deleted. This command is used when you Schedule Housekeeping via the [Cobwebb Fax & Email Menu - System Maintenance - Housekeeping Menu - Option 4](#). This command incorporates the [SAVPPDQ](#) and [CLRPPDQ](#) commands.

If you then wanted to view old entries you would need to restore the Save File to a NEW library (NOT CPPD) then add this library to your library list (use ADDLIBLE NNNN where NNNN is your new library name). When you select "Option 4 - [Work with Queue](#) from the [Cobwebb Fax and Email menu](#) you will be looking at the saved queue entries - view only.

Notes: The CPPD subsystem is ended at the beginning of the job then, when it has cleared the records, it will reorganise ANY file in library CPPD that has deleted records, and then re-start the CPPD subsystem.

The following files will be saved:

- AFAXQ** CPPD Fax & Email queue index records
- AFAXDOC** Fax message text

- AEMLDOC** Email message text
- AFAXIMG** Converted Fax images
- QAFFRCV** Incoming Fax images
- AFAXLOG** Fax & Email log file

You should include this in your day-end or week-end job routine by creating a Scheduled Job - see [Schedule Housekeeping](#).

RGZPPDQ Options

You need to define the following parameters:

SAVLIB - Save file library

From version 6.2.30 you will no longer see this entry as the required objects are now saved directly from library CPPD. This has been left as a hidden entry in the command for backward compatibility so that any schedule jobs will still run successfully.

This is the name that will be given to a temporary library used in the [SAVPPDQ](#) command which will be deleted when the Save File has been created. This library must not already exist. **NOTE:** You will need to use this library name as the "Saved library" if you wish to restore the library from the saved file. This entry is not used if you specify ***NONE** as the **Save file** parameter - see below.

SAVF - Save file

Enter a meaningful name for your Save File perhaps incorporating the date for future reference. This will make it easier to work out which Save File contains which queue records if you need to restore the file and look at the records. This file must not already exist.

NOTE: If you do not wish to Save the Queue then you may specify ***NONE** here and then the [SAVPPDQ](#) command will not be run just the [CLRPPDQ](#) command.

LIB - Library

Enter the name of the library where you wish your Save File containing the queue entries to be saved. This library must exist.

REPL - Replace existing save file

If a save file already exists with the above name then you can use this option to overwrite the existing file. Choose ***YES** to overwrite the save file if it exists or ***NO** if the save file name you have entered does not exist and you wish the program to create it. **NOTE:** If you do not specify ***YES** and the save file already exists then a message will be written to the joblog and the job will end and the CPPD subsystem will not be restarted.

CLRDAY - Clear if older than (days)

Specify the number of days for which you wish to keep messages on the queue. The selected queue records will be checked against this parameter and, if older, be printed / deleted according to subsequent entries. If left blank then the default will be used. To change the default entry select **Option 6 – Work with system parameters** then **Option 1 - System parameters** and then **Option 1 – [System parameters](#)** again and change the **Clear PPD Queue** entry.

CLRS - Clear sent entries

If you enter a "Y" then entries with status "S" for Sent messages are selected.

CLRW - Clear waiting entries

If you enter a "Y" then entries with status "W" for Wait messages are selected.

CLRD - Clear deleted entries

If you enter a "Y" then entries with status "D" for Deleted messages are selected.

CLRQ - Clear queued entries

If you enter a "Y" then entries with status "Q" for Queued messages are selected.

PRTOPT - Print removed entries

Specify the entries that you would like to be printed. The queue details (not the text) are printed to give one line for each entry selected.

- *NONE** Do not print any messages
- *SND** Only print Sent messages being removed.
- *RCV** Only print Received messages being removed.
- *ALL** Print ALL messages being removed.

QSRV - Select service

Specify the type of messages that you would like to select.

- *FAX** Only clear Fax message type
- *EML** Only clear Email message type
- *ALL** Clear all message types

Example

```
CPPD/RGZPPDQ SAVLIB(PPDSAVQ) SAVF(PPDSAVF) LIB(QGPL) REPL(*YES) CLRDY(100)
CLRS(Y) CLRW(Y) CLRD(Y) CLRQ(Y) PRTOPT(*NONE) QSRV(*ALL)
```

5.7.3 Recovery Menu

Under certain circumstances, for example if the Subsystem CPPD is terminated *immed while sending a message, it is necessary for messages or communications lines to be 'Reset' the recovery menu provides a means of doing this. This can be found from the [Cobwebb Fax & Email Menu - System Maintenance - Option 3](#).

Option Description

1. [Check active faxes](#)
2. [Check active lines](#)
3. [Check active emails](#)
4. [Rebuild API data queue](#)
5. [Rebuild email API data queue](#)

To view the Help for a specific option simply click on one of the above links.

Check active faxes

Run this option if you have an 'Active' fax on the queue which appears to be holding up the sending of other messages.

Notes:

- You should stop the CPPD subsystem before running this option otherwise any 'Active' faxes i.e. currently being sent, will also be reset.
- All the 'Active' faxes will be reset back to queued and they will all be resent.
- Cobwebb Fax will not attempt to send a message to a fax number to which a fax is already 'Active'.

Check active lines

Run this option to reset a communication line which is 'Active' on the Work with Communication Lines display. Do not run while subsystem CPPD is active.

Note: Stopping & starting the CPPD subsystem will also run this program.

Check active emails

Run this option if you have an 'Active' email on the queue which appears to be holding up the sending of other messages.

Notes:

- You should stop the CPPD subsystem before running this option otherwise any 'Active' emails i.e. currently being sent, will also be reset.
- All the 'Active' emails will be reset back to queued and they will all be resent.

Rebuild API data queue

The API data queue is defined in the data area APIDTAQ and is normally left as QCOBWEBB. This is used by jobs in the subsystem CPPD and if the IBM i has an abnormal failure e.g. a power failure the data queues are the first objects to be damaged. If this occurs this option will rebuild data queue.

Note: Stopping & starting the CPPD subsystem will rebuild the data queue if it cannot be found.

Rebuild email API data queue

The email API data queue is defined in the data area APIEML and is normally left as APIEML. This is used by jobs in the subsystem CPPD and if the IBM i has an abnormal failure e.g. a power failure the data queues are the first objects to be damaged. If this occurs this option will rebuild data queue.

Note: Stopping & starting the CPPD subsystem will rebuild the data queue if it cannot be found.

6 Cobwebb Tools Menu

To see the **Cobwebb Tools** menu select **Option 85** from the [Cobwebb Main Menu](#). Prior to v6.2.82 you need to 'ADDLIBLE CPPD' and enter 'GO CTOOLS'. (From version 6.2.68 of the Server software only.)

The **Cobwebb Tools** menu has the following options: -

Option	Description	Command
1.	Work with Spooled Files Housekeeping	WRKSPLH
2.	Work with Cobwebb Job Scheduler	WRKCSCH
3.	Scan Spooled Files for Text	SCANSPLF
4.	Retrieve Printer File Details	RTVPRTF
5.	Change Spooled Files Status	CHGSPLFS
6.	Delete Spooled Files	DLTSPLFS
7.	Move Spooled Files	MOVSPLFS
8.	Merge Spooled Files	MRGSPPLFS
9.	Duplicate Spooled File	DUPSPLF
10.	Change Test Mode	CHGTSTMOD
12.	Work with Folder Housekeeping	WRKFLRH

To view the Help for a specific option simply click on one of the above links.

6.1 Work with Spooled Files Housekeeping

(From version 6.2.68 of the Server software only.) The **Work with Spooled Files Housekeeping** [WRKSPLH] allows you to specify a list of Spooled File tasks that you wish to be performed to help tidy up your Spooled Files. Once you have created an entry and set it to *Online*

it will be processed by the **SPOOLTIDY** job that runs in the **Cobwebb Job Scheduler** (*unless you have removed this entry*). See [Activating the Spooled File Housekeeping](#) for details.

For each entry you can specify an **Action** to perform and a **Number of Days** after which the spooled file will be selected for processing.

The **Work with Spooled Files Housekeeping** can be found from the [Cobwebb Tools Menu - Option 1](#).

Type in your choices and then press **Enter**, this will take you to a second screen. Highlighted entries are those that are *Online*. Each *Online* entry will be run the next time the **SPOOLTIDY** job is scheduled to run.

Position to

Enter the **Output Queue Name** where you wish to position the list and cursor.

Options

Select one of the following options:

- 1=Create** Allows you to create a new entry. This option is only valid on the top (entry) line of the display.
- 2=Revise** Use this option to revise an existing entry.
- 3=Copy** Copy an existing entry.
- 4=Delete** Delete an existing entry.
- 5=View** View the details of an existing entry.
- 7=Offline/Online** Toggle between **Offline** and **Online** for an existing entry. Entries which are **Online** will be highlighted.
- 9=Run** Run the selected entry

Entries

Output Queue

The Output Queue from which the spooled files will be selected.

Library

The Library Name where the above Output Queue resides.

File

The Spool File Name used to select the spool files. Use ***ALL** to select spooled files regardless of their file name.

User Data

The User specified data used to select the spool files. If you leave the default of ***ALL** then the User Data of the selected spool files will not be checked, otherwise you may enter the User Data that you wish to be used for selecting the spool files. **Note:** This must be an exact match including case.

User Name

The User Id used to select the spool files. ***ALL** if you wish to select all spooled files regardless of their owner.

Spool Status

The spool file status used to select the spool files. If you leave the default of ***ALL** then the status of the selected spool files will not be checked, otherwise you may enter one of the other valid options ***READY**, ***HELD** or ***SAVED**.

Action Type

This is where you decide what you want to do with your selected Spooled Files. Your choices are:

***HL** To change the status of the selected spooled files to ***HELD**.

D

***M** To **Move** the selected spooled files. You will be prompted to enter the **Output queue**

OV name and **Library** for the Output Queue to which you wish to move your selected spooled files.

***RL** To change the status of the selected spooled files to ***READY**.

S

***MR** To **Merge** the selected spooled files. You will be prompted to enter the destination **Output queue name** and **Library** for the generated spooled file.

***DL** To **Delete** the selected spooled files.

T

Action after days

This option will allow you to specify how old a spool file needs to be before being included in the selection for processing. Say you want to move all invoices from the previous days output you would enter a **1** here and this would pick up any matching spool file of one day or older. Entering a **0** will not check the age of the spool file. If you leave the default of **999** then nothing will happen unless you have spool files more than 999 days old.

Function keys

F3=Exit Exits the Work with Spooled File Housekeeping screen and returns to the Cobwebb Tools menu, without updating.

F5=Refre Refreshes the list of entries

sh

F12=Prev Exits the Work with Spooled File Housekeeping screen and returns to the Cobwebb Tools menu, without updating.

Page Up Scrolls up through the list

Page Scrolls down through the list

Down

6.1.1 Spooled File Housekeeping Details

The **Spooled File Housekeeping** details screen displays the information entered on the first screen, in addition you can specify an **Action Type** and **Action after days**. This screen also allows the **Active Status** to be changed, use the **F7** function key to toggle between **Online** and **Offline** status.

Entries

Output Queue

The Output Queue from which the spooled files will be selected.

Library

The Library Name where the above Output Queue resides.

Spooled file name

The Spool File Name used to select the spool files. Use *ALL to select spooled files regardless of their file name.

User data

The User specified data used to select the spool files. If you leave the default of *ALL then the User Data of the selected spool files will not be checked, otherwise you may enter the User Data that you wish to be used for selecting the spool files. **Note:** This must be an exact match including case.

User name

The User Id used to select the spool files. *ALL if you wish to select all spooled files regardless of their owner.

Spool Status

The spool file status used to select the spool files. If you leave the default of *ALL then the status of the selected spool files will not be checked, otherwise you may enter one of the other valid options *READY, *HELD or *SAVED.

Action Type

This is where you decide what you want to do with your selected Spooled Files. Your choices are:

***HL** To change the status of the selected spooled files to ***HELD**.

D

***M** To **Move** the selected spooled files. You will be prompted to enter the **Output queue**

OV name and **Library** for the Output Queue to which you wish to move your selected spooled files.

***RL** To change the status of the selected spooled files to ***READY**.

S

***MR** To **Merge** the selected spooled files. You will be prompted to enter the destination **Output Queue name** and **Library** for the generated spooled file.

***DL** To **Delete** the selected spooled files.

T

Action after days

This option will allow you to specify how old a spool file needs to be before being included in the selection for processing. Say you want to move all invoices from the previous days output you would enter a **1** here and this would pick up any matching spool file of one day or older. Entering a **0** will not check the age of the spool file. If you leave the default of **999** then nothing will happen unless you have spool files more than 999 days old.

Active Status

This displays whether the entry is **Online** or **Offline**. If the entry is **Online** then it will be picked up and processed by the **SPOOLTIDY** job running in the Cobwebb Job Scheduler the next time it runs.

Function keys

F3=Exit Exits the Work with Spooled File Housekeeping details screen and returns to the Work with Spooled File Housekeeping list, without updating.

F5=Refresh Refresh current entries with their original values.

F7=Online/Offline Switches the status of the entry between **Online** and **Offline**.

F12=Previous Cancels the Work with Spooled File Housekeeping details screen and returns to the Work with Spooled File Housekeeping list, without updating.

6.1.2 Activating the Spooled File Housekeeping

When the [Cobwebb Job Scheduler](#) is installed you will see a **SPOOLTIDY** entry. **Note:** If you should have removed this entry then create a new entry of the same name and enter the details as per the following screenshots.

The **Work with Cobwebb Job Scheduler** [WRKCSCH] can be found from the [Cobwebb Tools Menu](#) > 2. Work with Cobwebb Job Scheduler.

Once you have configured the **SPOOLTIDY** job to run all you need to do is to add the individual Spooled File Housekeeping entries via the [Work with Spooled File Housekeeping](#).

```

Session A - [24 x 80]
File Edit View Communication Actions Window Help
Work with Cobwebb Job Schedules S65DC3A3
Position to . . . (Job Name)
Type choices, press Enter.
  1=Create  2=Revise  3=Copy  4=Delete  5=View  9=View Log
Job      Library/Program  JobD  JobD  <Days >< > Schedule
Opt Name or Command Name  Library  MTWTFSSmqy Time
-----
FOLDERTIDY CALL CPPD/STRFLRH  STRFLRH  CPPD  00.00.00
SPOOLTIDY CALL CPPD/STRSPLH  STRSPLH  CPPD  00.00.00
F3=Exit  F5=Refresh  F12=Previous  Bottom
MA a 10/002
1902 - Session successfully started

```

All you need to do to activate this is to set the Day(s) of the week you wish the job to be run. Select **2=Revise** and press enter.


```

Session A - [24 x 80]
File Edit View Communication Actions Window Help
Change Cobwebb Scheduled Job entry S65DC3A3

Type choices, press Enter.

Job Name . . . . . SPOOLTIDY
Program Name . . . . STRSPLH
Program Library . . . CPPD (Name, *LIBL)
OR
Command to call . . .

Press F4 to Prompt for Command

Schedule days . . . . M T W T F S S m q y (1 = Run, blank = No Run)
Schedule Time . . . . 00.00.00 (00.00.00 = Submit at Day Start)
Submit if time past . _ (blank = No, Y = Yes)

Job Description . . . STRSPLH
JobD Library . . . . CPPD (Name, *LIBL)

F3=Exit F5=Refresh F12=Previous
MA a 06/026
1902 - Session successfully started

```

Select the **Schedule days** to run the job and a **Schedule Time** if required. You can also change the **Submit it time past** entry if required. All the other details should be left.

For details on all of the above entries please see [Cobwebb Job Scheduler details](#).

6.2 Work with Cobwebb Job Scheduler

(From version 6.2.68 of the Server software only.) The **Cobwebb Job Scheduler** allows you to schedule jobs to be submitted on a specified day at a specified time. The **Cobwebb Job Scheduler** runs in the CPPD subsystem (**JOBDS**) but the individual Jobs to be scheduled may run in any sub system as you may specify a Job Description when you add the entry to the list. A job may only be submitted once each day but you may schedule it to be submitted every day if required. There are also options to run on the first day of the Month, Quarter or Year if required. If you leave the **Schedule Time** as **00:00:00** then the job will be submitted at the Start of the day or when the CPPD subsystem starts up, whichever is the first.

If you specify a **Schedule Time** i.e. not **00:00:00** and the CPPD subsystem is not running at that time, then the Job will not be submitted unless you opt to **Submit it Time Past**.

The **Work with Cobwebb Job Scheduler** [WRKCSCH] can be found from the [Cobwebb Tools Menu](#) - Option 2.

Type in your choices and then press **Enter**, this will take you to a second screen.

Note: At present you may only submit Programs that do not require any parameters.

Position to

Enter the **Job Name** where you wish to position the list and cursor.

Options

Select one of the following options:

1=Create Allows you to create a new entry. This option is only valid on the top (entry) line of the display.

2=Revise Use this option to revise an existing entry.

3=Copy Copy an existing entry.

4=Delete Delete an existing entry.

5=View View the details of an existing entry.

9=View View the Log for the Job.

[Log](#)

Entries

Job Name

The name that you wish to give this job when it runs.

Library/Program or Command

The name of the program or command that you wish to run.

JobD Name

The name of the Job Description that you wish to be used when running this job. This controls information such as the Job Queue, Library List, User etc.

JobD Library

The Library Name where the above JobD Name resides.

Days

This displays when the Job is run. **MTWTFSS** represent the days of the week and **m** Monthly, **q** Quarterly or **Y** Yearly. A "1" denotes to run the job.

Schedule Time

The time the job is to be submitted on the selected days. If this is **00:00:00** then the job will be submitted at the Start of the day or when the **CPPD** subsystem starts up, whichever is the first.

Notes:

- If you have specified a **Schedule Time** for a Job and this falls within the sleep period for the **Cobwebb Job Scheduler** ([Job Scheduler delay time](#)) then it will be submitted when the job wakes up.
- If the **CPPD** subsystem is not running at the time when a job has been scheduled then the job will not be submitted that day, unless the **Schedule Time** is set to 00:00:00 or the **Submit it Time Past** has been set to "Y".

Function keys

F3=Exit Exits the Work with Cobwebb Job Scheduler screen and returns to the Cobwebb Tools menu, without updating.

F5=Refre Refreshes the list of entries
sh

F12=Prev Exits the Work with Cobwebb Job Scheduler screen and returns to the Cobwebb Tools menu, without updating.
ious

Page Up Scrolls up through the list
Page Down Scrolls down through the list

6.2.1 Cobwebb Job Scheduler Details

The **Cobwebb Job Scheduler** details screen displays the information entered on the first screen, in addition you can specify an **Action Type** and **Action after days**.

Entries

Job Name

The name that you wish to give this job when it runs.

Program Name

The name of the program you wish to run.

Program Library

The Library Name where the above Program Name resides or ***LIBL** to find it in the Library List for the Job Description.

Command to call

Here you can specify a command to call. If you enter the command name and press F4 you will be able to enter any parameters for the command - *from version 6.2.70*.

M T W T F S S m q y

This displays when the Job is run. **MTWTFSS** represent the days of the week and **m q y** Monthly, Quarterly or Yearly. Enter a "1" under the entry for each day you wish the job to be run. If you pick Monthly, **Quarterly** or **Yearly** then the job will be run on the first day of the Month, Quarter or Year respectively. **Note:** A job will only ever be run once on a particular day i.e. if you have selected to run the job on a **Monday** and **Monthly** and the start of the month is a Monday it won't run twice.

Schedule Time

Enter the time when you wish the job to be submitted on the selected days. If you leave this as **00:00:00** then the job will be submitted at the Start of the day or when the CPPD subsystem starts up, whichever is the first.

Notes:

- If you have specified a **Schedule Time** for a Job and this falls within the sleep period for the **Cobwebb Job Scheduler** ([Job Scheduler delay time](#)) then it will be submitted when the job wakes up.
- If the **CPPD** subsystem is not running at the time when a job has been scheduled then the job will not be submitted that day, unless the **Schedule Time** is set to 00:00:00 or the **Submit it Time Past** has been set to "Y".

Submit if Time Past

This entry is used to let the **Cobwebb Job Scheduler** know whether or not to submit the job even though the **Schedule Time** has passed. This would only be required for jobs where you don't wish to set the **Schedule Time** to **00:00:00** and for some reason the **CPPD** subsystem is not running at the time that the **Schedule Time** has been set to. There may be some jobs that

you wish to be run regardless of the time. If this is the case then you would set this entry to "Y" to make sure that the job is run when the CPPD subsystem is started.

Job Description

The Job Description that you wish to be used when running this job. This controls information such as the Job Queue, Library List, User etc.

JobD Library

The Library Name where the above Job Description resides or ***LIBL** to find it in the current Library List.

Function keys

F3=Exit Exits the Work with Cobwebb Job Scheduler without updating.

F5=Refre Returns the entries to their previous values.

sh

F12=Prev Cancels the Work with Cobwebb Job Scheduler details screen and returns to the Work ious with Cobwebb Job Scheduler list, without updating.

6.2.2 Cobwebb Job Scheduler Log

If you select **9=View Log** for an entry in the [Work with Cobwebb Job Scheduler](#) you will see the log displaying the details of when the selected job was run together with the **Job Status**. The **Job Status** will remain at **Submitted**, and the **Completed Time Date** will not be updated, unless:

- From version 6.2.70 - the [Job Scheduler Job Monitor](#) entry has been set to **Y** in the [Work with PPD Parameters](#).
- Prior to version 6.2.70 of the Server software - you have added a call to the **JOBSCDLOG** program immediately before the scheduled program ends e.g.

```

*
* Write Completed message to Scheduler Log
C      Call      'JOBSCDLOG'
* End Program...
C      Move      *ON      *INLR
C      Return

```

```

Session A - [24 x 80]
File Edit View Communication Actions Window Help
Display Cobwebb Job Scheduler Log S65DC3A3
Job Name . . : SPOOLTIDY
Program      Program      < Scheduled      > Job      < Completed      >
Name         Library          Time Date      Status    Time Date
STRSPLH     CPPD              00.04.01 2016-04-20 Completed 00.04.02 2016-04-20
STRSPLH     CPPD              00.01.09 2016-04-19 Completed 00.01.10 2016-04-19
STRSPLH     CPPD              00.13.18 2016-04-18 Completed 00.13.18 2016-04-18
STRSPLH     CPPD              00.10.27 2016-04-17 Completed 00.10.27 2016-04-17
STRSPLH     CPPD              00.07.35 2016-04-16 Completed 00.07.35 2016-04-16
STRSPLH     CPPD              00.04.43 2016-04-15 Completed 00.04.44 2016-04-15
STRSPLH     CPPD              09.12.48 2016-04-14 Completed 09.12.48 2016-04-14
STRSPLH     CPPD              09.38.21 2016-04-13 Completed 09.38.21 2016-04-13
STRSPLH     CPPD              00.03.56 2016-04-12 Completed 00.03.56 2016-04-12
STRSPLH     CPPD              00.01.04 2016-04-11 Completed 00.01.04 2016-04-11
STRSPLH     CPPD              00.13.14 2016-04-10 Completed 00.13.14 2016-04-10
STRSPLH     CPPD              00.10.22 2016-04-09 Completed 00.10.23 2016-04-09
STRSPLH     CPPD              00.07.31 2016-04-08 Completed 00.07.31 2016-04-08
STRSPLH     CPPD              16.51.39 2016-04-07 Completed 16.51.39 2016-04-07
F3=Exit    F12=Previous
Bottom
MA a 01/001
|902 - Session successfully started

```

6.2.3 Cobwebb Job Scheduler Job Monitor

From version 6.2.70 of the Server software only. The **Job Scheduler Job Monitor** is a job that runs in the [CPPD subsystem](#) monitoring any of the jobs that have been configured to run by the [Cobwebb Job Scheduler](#). This job only runs if the [Job Scheduler Job Monitor](#) entry has been set to **Y** in the [Work with PPD Parameters](#).

This information is then used to update the **Job Status** when displaying the [Cobwebb Job Scheduler Log](#).

```

Session A - [24 x 80]
File Edit View Communication Actions Window Help
Display Cobwebb Job Scheduler Log S65DC3A3
Job Name . . : SPOOLTIDY
Program      Program      < Scheduled      > Job      < Completed      >
Name         Library          Time Date      Status    Time Date
STRSPLH     CPPD              00.04.01 2016-04-20 Completed 00.04.02 2016-04-20
STRSPLH     CPPD              00.01.09 2016-04-19 Completed 00.01.10 2016-04-19
STRSPLH     CPPD              00.13.18 2016-04-18 Completed 00.13.18 2016-04-18
STRSPLH     CPPD              00.10.27 2016-04-17 Completed 00.10.27 2016-04-17
STRSPLH     CPPD              00.07.35 2016-04-16 Completed 00.07.35 2016-04-16
STRSPLH     CPPD              00.04.43 2016-04-15 Completed 00.04.44 2016-04-15
STRSPLH     CPPD              09.12.48 2016-04-14 Completed 09.12.48 2016-04-14
STRSPLH     CPPD              09.38.21 2016-04-13 Completed 09.38.21 2016-04-13
STRSPLH     CPPD              00.03.56 2016-04-12 Completed 00.03.56 2016-04-12
STRSPLH     CPPD              00.01.04 2016-04-11 Completed 00.01.04 2016-04-11
STRSPLH     CPPD              00.13.14 2016-04-10 Completed 00.13.14 2016-04-10
STRSPLH     CPPD              00.10.22 2016-04-09 Completed 00.10.23 2016-04-09
STRSPLH     CPPD              00.07.31 2016-04-08 Completed 00.07.31 2016-04-08
STRSPLH     CPPD              16.51.39 2016-04-07 Completed 16.51.39 2016-04-07
F3=Exit    F12=Previous
Bottom
MA a 01/001
|902 - Session successfully started

```

It also replaces the need to add a call to the program **JOBSCDLOG** in library **CPPD** from the program scheduled to run.

6.3 Work with Folder Housekeeping

From version 6.2.76 of the Server software only. The **Work with Folder Housekeeping** [WRKFLRH] allows you to specify a list of Folders that you wish to housekeep. Once you have created an entry and set it to *Online* it will be processed by the **FOLDERTIDY** job that runs in the [Cobwebb Job Scheduler](#) (unless you have removed this entry). See [Activating the Folder Housekeeping](#) for details.

For each entry you can specify a **Date Type** to check against and a **Days to Retain** after which the files in the Folder will be selected for processing. We have also provided a command [FLRTIDY](#) to run the Folder Housekeeping over any specified folder if you need to add this to any in-house process.

Note: The Folder Housekeeping only runs at the **root** folder entries (i.e. not sub folders) and will only process ***STMF** files.

The **Work with Folder Housekeeping** can be found from the [Cobwebb Tools Menu - Option 12](#).

Type in your choices and then press **Enter**, this will take you to a second screen. Highlighted entries are those that are *Online*. Each *Online* entry will be run the next time the **FOLDERTIDY** job is scheduled to run.

Position to

Enter the **Output Queue Name** where you wish to position the list and cursor.

Options

Select one of the following options:

- 1=Create** Allows you to create a new entry. This option is only valid on the top (entry) line of the display.
- 2=Revise** Use this option to revise an existing entry.
- 3=Copy** Copy an existing entry.
- 4=Delete** Delete an existing entry.
- 5=View** View the details of an existing entry.
- 7=Offline/Online** Toggle between **Offline** and **Online** for an existing entry. Entries which are **Online** will be highlighted.
- 9=Run** Run the selected entry.

Entries

Folder Path

The Folder path from which the files will be selected for deletion.

Date Type

The type of date for the file you wish to be used for comparison. **M**=Last Modified date, **A**=Last Accessed date and **C**=Last Status Changed date. If you right click on a file in your folder and select **Properties** you will see the different dates.

Retain Days

This option will allow you to specify how old a file needs to be before being included for deletion. Say you want to delete all files from the previous days output you would enter a **1** here and this would pick up any matching file of one day or older. Entering a **0** will not check the age of the file i.e delete ALL files. If you leave the default of **999** then nothing will happen unless you have files more than 999 days old.

Status

This entry displays the status of the entry. **Online** means that this folder will be monitored when the **FOLDERTIDY** runs in the [Cobwebb Job Scheduler](#); **Offline** entries will not be monitored.

Function keys

F3=Exit Exits the Work with Folder Housekeeping screen and returns to the Cobwebb Tools menu, without updating.

F5=Refre sh Refreshes the list of entries

F12=Prev ious Exits the Work with Folder Housekeeping screen and returns to the Cobwebb Tools menu, without updating.

Page Up Scrolls up through the list

Page Down Scrolls down through the list

6.3.1 Folder Housekeeping Details

The **Folder Housekeeping** details screen displays the information entered on the first screen, in addition you can specify a **Date Type** and **Days to retain**. This screen also allows the **Status** to be changed, use the **F7** function key to toggle between **Online** and **Offline** status.

Entries

Date Type

The type of date for the file you wish to be used for comparison.

M=Last Modified date

A=Last Accessed date

C=Last Status Changed date

If you right click on a file in your folder and select **Properties** you will see the different dates.

Days to retain

This option will allow you to specify how old a file needs to be before being included for deletion. Say you want to delete all files from the previous days output you would enter a **1** here and this would pick up any matching file of one day or older. Entering a **0** will not check the age of the file i.e delete ALL files. If you leave the default of **999** then nothing will happen unless you have files more than 999 days old.

Status

This displays whether the entry is **Online** or **Offline**. If the entry is **Online** then it will be picked up and processed by the **FOLDERTIDY** job running in the Cobwebb Job Scheduler the next time it runs.

Function keys

F3=Exit Exits the Work with Folder Housekeeping details screen and returns to the Work with Spooled File Housekeeping list, without updating.

F5=Refresh Refresh current entries with their original values.

F7=Online/Offline Switches the status of the entry between **Online** and **Offline**.

F12=Previous Cancels the Work with Folder Housekeeping details screen and returns to the Work with Folder Housekeeping list, without updating.

6.3.2 Activating the Folder Housekeeping

The [Cobwebb Job Scheduler](#) allows you to schedule jobs to be submitted on a specified day at a specified time. In order to automatically process the online entries in the [Work with Folder Housekeeping](#) you need to add an entry to the **Cobwebb Job Scheduler**. Here you can choose when and how often you wish to run the folder tidy job.

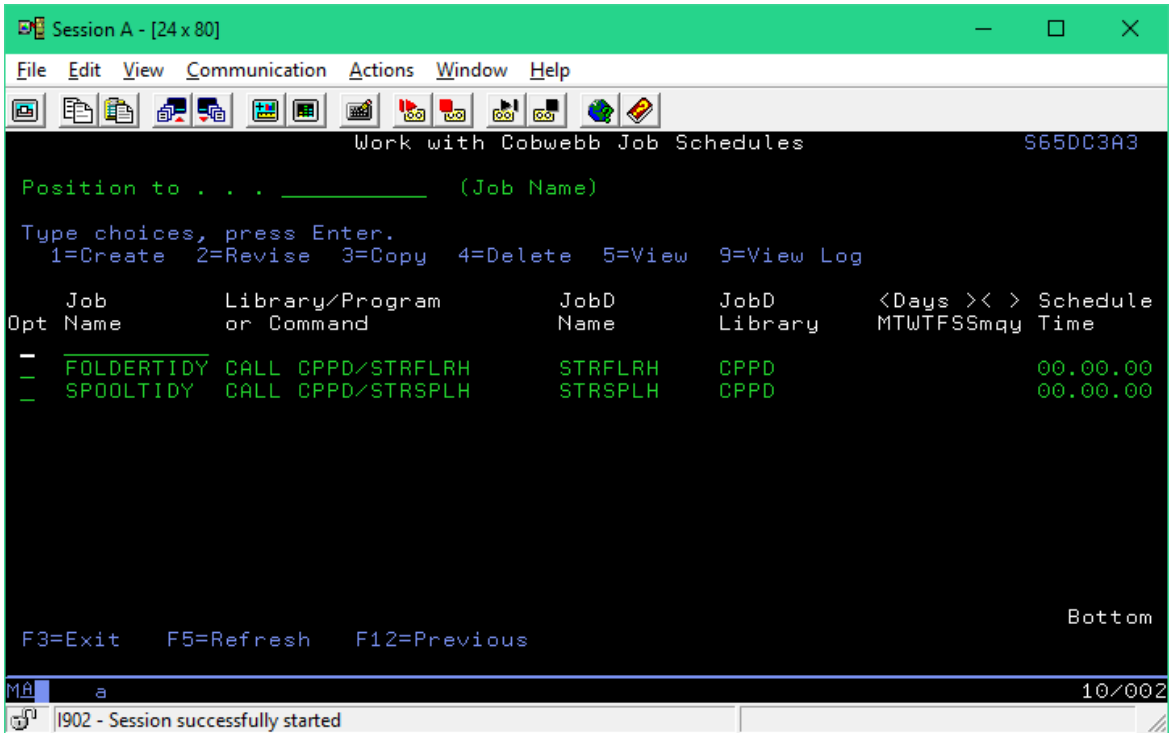
What the program will do is to read through the list of Folder Housekeeping entries and for each Online entry housekeep the folder. If you are using the [Cobwebb Folder Monitor](#) this can be useful to keep your Success folders tidy or you may have other non Cobwebb related folders that you wish to tidy up on a regular basis.

Note: The Folder Housekeeping suite is included in the Cobwebb Server software from version 6.2.76 only.

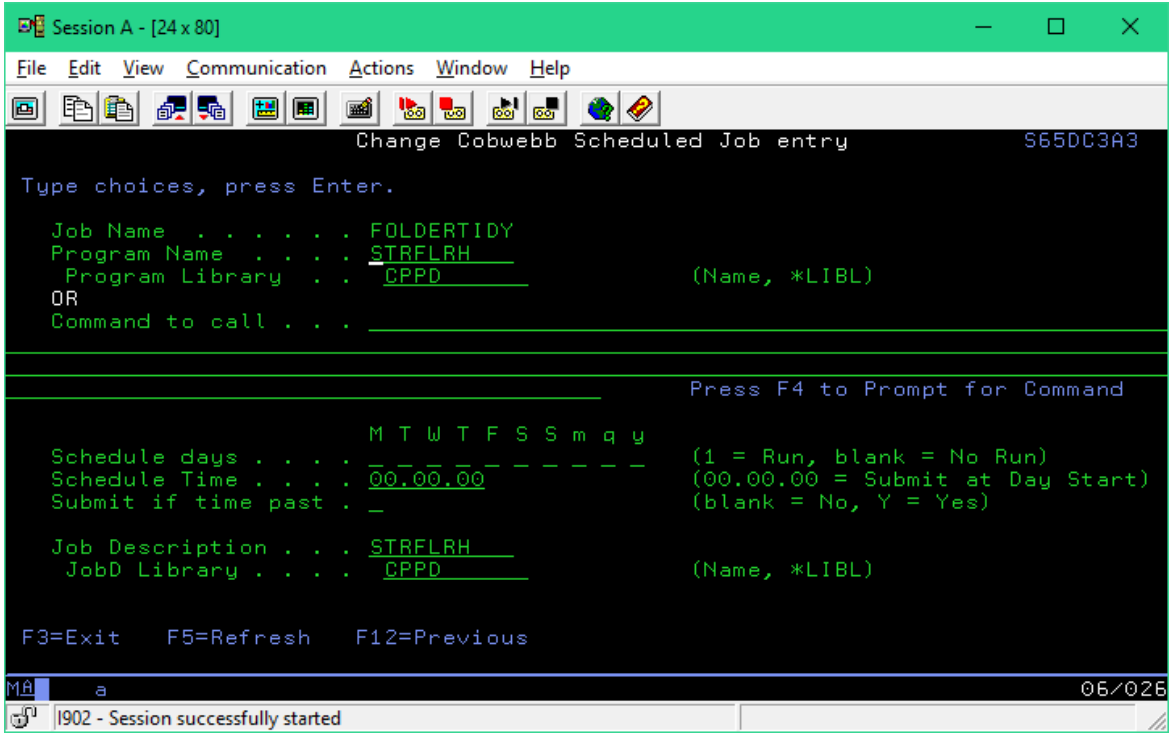
The **Work with Cobwebb Job Scheduler** [WRKCSCH] can be found from the [Cobwebb Tools Menu](#) > **2. Work with Cobwebb Job Scheduler**.

You may already have a **FOLDERTIDY** entry. **Note:** If not then create a new entry of the same name and enter the details as per the following screenshots.

Once you have configured the **FOLDERTIDY** job to run all you need to do is to add the individual Folder Housekeeping entries via the [Work with Folder Housekeeping](#).



All you need to do to activate this is to set the Day(s) of the week you wish the job to be run. Select **2=Revise** and press enter.



Select the **Schedule days** to run the job and a **Schedule Time** if required. You can also change the **Submit it time past** entry if required. All the other details should be left.

For details on all of the above entries please see [Cobwebb Job Scheduler details](#).

7 Cobwebb Hot Keys Menu

To see the **Cobwebb Hot Keys** menu select **Option 86** from the [Cobwebb Main Menu](#) or 'ADDLIBLE CPPD' and enter 'GO CHOTKEYS'. (From version 6.2.82 of the Server software only.)

The **Cobwebb Hot Keys** menu has the following options: -

Option	Description	Command
--------	-------------	---------

- | | | |
|----|---|----------|
| 1. | Work with Docstore Hot Keys | WRKDOCHK |
| 2. | Execute a Docstore Hot Key | EXCDOCHK |

[Cobweb Web Server Home](#) - The following built in functions all use the [5250 System Defaults](#) configured via **F8** from [Work with Docstore Hot Keys](#).

- | | | |
|----|--------------------------------------|--|
| 5. | Message Queue | Displays the Cobwebb Message Queue |
| 6. | Docstore | Displays the list of available Docstores |
| 7. | Server Configuration | Displays the Cobwebb Web Server Configuration - <i>Web Server Administrators only.</i> |
| 8. | Diagnostics | Displays the Web Server diagnostics - <i>Web Server Administrators only.</i> |

80. [CPPD menu](#)

Overview

Using Cobwebb Hot Keys allows 5250 users, who do not have a GUI Interface (e.g. Infor Workspace), to access their **Cobwebb Docstore** documents from their applications. Whilst this requires no extra software or scripts to be installed onto the users PC, you will need to add a Function Key and Call to the [Docstore Hot Key program](#) to any application from which you wish to access the Cobwebb Docstore.

Compatible Browsers

The following web browsers have been successfully tested:

- Mozilla Firefox
- Google Chrome
- Microsoft Internet Explorer

Limitations

- Microsoft (MS) Edge is not supported as it does not allow for passing the URL as a parameter.
- Due to the IBM i only supporting up to 123 Characters for the PC command, thought must be taken when designing the Docstore environment and keeping Key Names short.
- To be able to use Docstore Hot Keys you will need access to the program source code and corresponding display files in order to modify these to add the required information - see [Calling the Docstore Hot Key program](#) for details.

How it Works

When a configured Function Key is pressed on a screen it will build a URL, based on the supplied information configured via [Work with Docstore Hot Keys](#), and then invoke the selected web browser. The URL can be configured to select data from the program, such as an Invoice or Customer number, or non program data such as the LDA (Local Data Area) that may hold information such as the Company Number. You can also select which of the compatible browsers you wish to use. Client Access will then run a DOS command on the PC that in turn will open the browser and display the matching Docstore records.

7.1 Work with Docstore Hot Keys

The **Work with Docstore Hot Keys** [WRKDOCHK] allows you to specify any Docstore Hot Keys you wish to add to your existing software in order to display the relevant document(s) in Cobwebb Docstore. *(From version 6.2.82 of the Server software only.)*

The **Work with Docstore Hot Keys** can be found from the [Cobwebb Hot Keys Menu](#) > 1. **Work with Docstore Hot Keys.**

Type in your choices and then press **Enter**, this will take you to a second screen. Cobwebb have supplied three entries (prefixed with #), one for each of the supported browsers, to show the **PC Program** entry for each browser type. You can copy the relevant entry when you want to create a new Hot Key to save having to enter this information.

Options

Select one of the following options:

- 2=Change** Use this option to revise an existing entry.
- 3=Copy** Copy an existing entry.
- 4=Delete** Delete an existing entry.
- 5=View** View the details of an existing entry.

Entries

Program Name

This can be anything you like but could be the name of the program you are going to change to use this entry.

Key ID

Again this can be any two digit ID and together with the Program Name make the entry unique. This could be the indicator for the Function Key you are going to use in the program e.g. 09.

Document Description

A description for the entry.

Doc Type ID

If you have more than one **Document Type** in the Docstore and you want to limit the search to a single Document Type then you need to specify the **Document Type ID** here. This information can be found in the [Document Metadata](#).

Feel Lucky

If you set this to a **Y** and only one result is returned then the document will be opened in the browser.

Function keys

F3=Exit	Exits the Cobwebb Docstore Hot Keys.
F6=Create Hot Key	Allows you to create a new Hot Key.
F8=Set System Default Values	Allows you to set the default PC Program (e.g. start chrome.exe) and System URL (the URL to the Cobwebb Web Server).
Page Up	Scrolls up through the list
Page Down	Scrolls down through the list

7.1.1 Cobwebb Web Server 5250 System Defaults

These are the default values for 5250 access to the [Cobwebb Web Server](#) and this online Help. These values may be changed by pressing **F8=Set System Default Values** from the [Work with Docstore Hot Keys](#).

These values will be used by the built-in functions i.e. [Cobwebb Hot Key Menu](#) options **5-8**, and as the defaults when you create a new Hot Key.

PC Program

This is the PC program that is called by the server and must be one of the following depending on which browser you wish to use:

- **start chrome.exe** - to use **Google Chrome**
- **start firefox.exe** - to use **Mozilla Firefox**
- **start iexplorer.exe** - to use **Microsoft Internet Explorer**

From version 6.2.88 - This program is also used to allow 5250 users direct access to the correct topic in the online Help when pressing **F1**, instead of having to click a URL to the Help home page in a pop-up window.

System URL

The URL to the [Cobwebb Web Server](#) e.g. https://server name.local:6443/) where the **server name** is the DNS or IP address of the IBM i followed by **:6443** (the Port for HTTPS) or **:6440** (the Port for HTTP).

Note: The Ports may can be changed in the [Web Server Configuration](#).)

7.1.2 Docstore Hot Key Details

This information is displayed when creating or amending a Doctore Hot Key.

Program Name

This can be anything you like but could be the name of the program you are going to change to use this entry. This is used in **Parameter 1 (P1)** when [calling the Docstore Hot Key program](#).

Key ID

Again this can be any two digit ID and together with the Program Name make the entry unique. This could be the indicator for the Function Key you are going to use in the program e.g. 09. This is used in **Parameter 2 (P2)** when [calling the Docstore Hot Key program](#).

Document Description

A description for the entry.

PC Program

This is the PC program that is called by the server and must be one of the following depending on which browser you wish to use:

- **start chrome.exe** - to use **Google Chrome**
- **start firefox.exe** - to use **Mozilla Firefox**
- **start iexplorer.exe** - to use **Microsoft Internet Explorer**

Doc Type ID

If you have more than one **Document Type** in the Docstore and you want to limit the search to a single Document Type then you need to specify the **Document Type ID** here. This information can be found in the [Document Metadata](#).

Feel Lucky

If you set this to a **Y** and only one result is returned then the document will be opened in the browser.

System URL

This is just to show you the configured System URL which makes up the beginning of the URL passed in the PC Command.

Continue URL

This is the rest of the URL to point to the Docstore you wish this Hot Key to query e.g.

docStore/store/**DocstoreName**/document/

where **DocstoreName** is the name of your Docstore. **Note:** If your Docstore Name contains spaces then these need to be escaped e.g. "Docstore%20Name"

Docstore Key Parameters

Local Data Area


If you need to pass information from the Local Data Area (LDA), such as a Company Number, then you need to enter the **Start Position (Posn)** (1-1024) and **Length (Len)** of the data in the LDA and the **Docstore Key (Label)** that holds this information.

Field Number

This information is passed in **Parameters 3-6 (P3-P6)** when [calling the Docstore Hot Key program](#). Here you need to enter the **Length (Len)** of the data to be passed and the **Docstore Key (Label)** that holds this information. You may specify up to four fields.

NOTE: Make sure you press **F11** to **Test the URL** to make sure that you haven't gone over the 123 character limit for the PC Command.

Function Keys

- F3=Exit** Exits the Work with graphics file details screen and returns to the Work with graphics file list, without updating. Press Enter to Update.
- F11-Show/Test URL** This will display the **PC Command** that will be used, including the parameter information. If the Command is greater than 123 then you will see the following:
. This means you need to reduce the length of the command.
Note: Pressing F11 will first update the details as these are required to format the PC Command.
- F12=Previous** Cancels the Work with graphics file details screen and returns to the Work with graphics file list, without updating. Press Enter to Update.

7.2 Execute a Docstore Hot Key

This command allows you to test that you have your Docstore Hot Key configured correctly before making changes to your program. *This command has been included from version 6.2.82.*

The **Execute a Docstore Hot Key** command can be found from the [Cobwebb Hot Keys Menu](#) > **2. Execute a Docstore Hot Key** or, with library **CPPD** in your Library List, enter **EXCDOCHK** on a command line and press **F4=Prompt**.

Note: If the Hot Key has been configure to retrieve information from the **Local Data Area (LDA)** then you will need to make sure that this is populated with the correct information before calling this command.

Command Parameters

Program Name (PROGRAM)

The **Program Name** to match the [Docstore Hot Key](#) entry.

Key ID (FKEY)

The **Key ID** to match the Docstore Hot Key entry.

Field Data 1 (DATA1)

Data from the screen or program to match the Docstore Key configured for the **P3** field for the [Docstore Hot Key](#) entry e.g. Invoice Number

Field Data 2 (DATA2)

Data from the screen or program to match the Docstore Key configured for the **P4** field for the [Docstore Hot Key](#) entry.

Field Data 3 (DATA3)

Data from the screen or program to match the Docstore Key configured for the **P5** field for the [Docstore Hot Key](#) entry.

Field Data 4 (DATA4)

Data from the screen or program to match the Docstore Key configured for the **P6** field for the [Docstore Hot Key](#) entry.

7.3 Calling the Docstore Hot Key program

In order to use the configured **Docstore Hot Keys** you will need to modify your program to add a **Function Key** to the Display File and a call to the **EXCDOCHK** program in the Program.

The **EXCDOCHK** program has 6 Parameters and an Error code, the same as Cobwebb Standard Exit Programs, which should be populated as follows:

Program Parameters

Parameter	Attribute	Description
Parm1	A (132)	The Program Name to match the Docstore Hot Key entry.
Parm2	A (132)	The Key ID to match the Docstore Hot Key entry.
Parm3	A (132)	Data from the program to match the Docstore Key (Label) configured for the P3 field for the Docstore Hot Key entry.
Parm4	A (132)	Data from the program to match the Docstore Key (Label) configured for the P4 field for the Docstore Hot Key entry.
Parm5	A (132)	Data from the program to match the Docstore Key (Label) configured for the P5 field for the Docstore Hot Key entry.
Parm6	A (132)	Data from the program to match the Docstore Key (Label) configured for the P6 field for the Docstore Hot Key entry.
Error	Z (1,0)	Error code to return to calling program. For your use if you wish to cater for errors. 0 = Success 1 = Failure

Example

The following example is for an Invoice to be retrieved and assumes that a Docstore Hot Key has been configured with a **Program Name = OE345** and a **Key ID = 08**.

Display File Changes

Change the Display File source as follows to add a Function Key e.g. F8 in this example.

```
A                               CF08(08 'Docstore
Invoice')
A                               23  5 'F8=Docstore'
A                               COLOR(BLU)
```

Program Changes

In the program after the **EXFMT** command you will need to check for the use of the Function Key and call the **EXCDOCHK** program passing in the relevant parameters. In this case the **Invoice Number** is coming from the **INVNO** field in the existing program e.g.

RPGLE - Old Style*C spec*

```

C          If          *in08 = *on
C          Call        'EXCDOCHK'
C          Parm        'OE345'      P1          132
C          Parm        '08'         P2          132
C          Parm        INVNO         P3          132
C          Parm        ' '          P4          132
C          Parm        ' '          P5          132
C          Parm        ' '          P6          132
C          Parm        0             ErrCod     1 0
C          EndIf

```

RPGLE - Free*Additional D spec*

```

* Execute Docstore Hot Key Program
D EXCDOCHK          PR          ExtPgm('EXCDOCHK')
D P1                132A      Const
D P2                132A      Const
D P3                132A      Const
D P4                132A      Const
D P5                132A      Const
D P6                132A      Const
D ErrCod            1 0      Const

```

C spec

```

If *in08 = *on;
  CallP EXCDOCHK('OE345':'08':InvNo:' ':' ':' ':' :0);
EndIf;

```

8 Using the Cobwebb Designer

Questions to ask yourself before you start

(Depending upon which modules you have installed)

- Have you loaded the **Cobwebb Designer** onto your PC? (See [Installing the Cobwebb Designer](#).)
- Do you have a test spool file that you can use with continuation pages and all the possible combinations of data? It also helps if your test data maximises all the field sizes so that you do not miss data when mapping to your output page. E.g. Maximum size Name and Address fields, Numeric data to its highest value etc.
- Decide whether you wish to map your spooled file to **Print/Fax/Email/File** output or an **XML** schema.
- Have you agreed on the final layout of your document and do you wish to use a form overlay? Decide if you wish the document to be portrait or landscape. The orientation of your output may depend upon the number of characters that you wish in a line. See the topic [Setting up your Output](#) page for details.
- Design your form; find a logo (if required). See the topic on [Creating your overlay](#) for instructions on how to do this.

- Print the overlay, if you wish to use one, on the printer that you wish to print the finished document. This will help you to determine whether your spooled file data will fit onto your layout.
- What type of printer(s) are you going to use? Do you support **Advanced Function Printing** (AFP) or should **Host Print Transform** (HPT) be used to create a Printer Control Language (PCL) file? How are they attached to the IBM i?
- Do you wish to **Fax** or **Email** your output?
- Do you wish to create a **File** / document from your output in order to archive / FTP the information?

Output Design Considerations

- The data from two spool file pages cannot be combined onto one final output page unless you use the **Advanced Reformatting Utility** which reformats the spool file. (See [Using the Advanced Reformatting Utility](#).)
- Output may be [conditional](#) based upon information in your spooled file.
- [Variable](#) information (up to six parameters at a time) may be retrieved from the IBM i database via an [Exit program](#) (API).
- Any number of [output devices](#) may be specified for each spooled file page. E.g. two printer devices or a fax and printer device. You may even re-design the output for two different devices.
- Different overlays may be used conditional upon Page Number or information in your spooled file.
- Spooled files can be [split up](#) by, for example, Customer Number.

Naming Conventions

Your PPD file consists of three primary elements as follows:-

- PPD file
- Image element(s)
- Output device(s)

To avoid confusion we suggest that you maintain a generic naming convention as this makes keeping track of each PPD file easier. For example, for an invoice you could use the following names:-

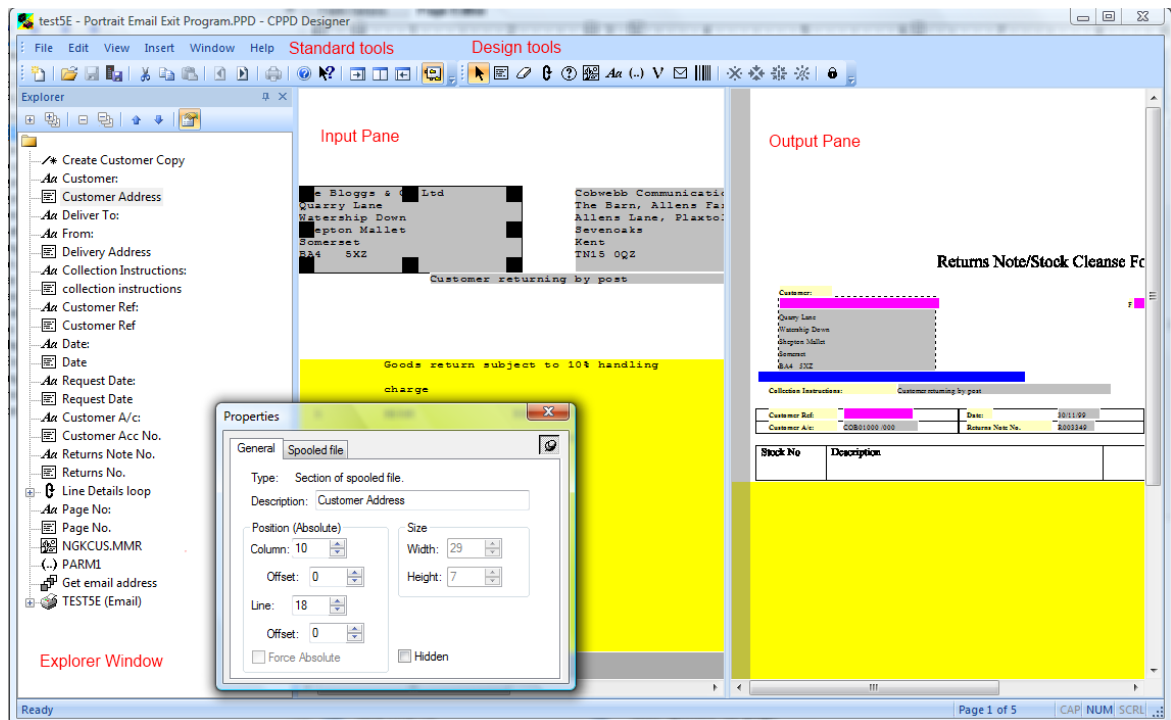
Element	Name
PPD file	COBINV
Image overlay	COBINV
Additional image	COBINV1
Output device	COBINVPT say for Print
Additional output device	COBINVFX say for Fax

When you export your PPD file to the IBM i you should leave the default name in order for this naming convention to be carried forward to the IBM i.

Keep the PPD file, image and output device names to eight characters or less. This is mandatory as the IBM i export can only accept a maximum eight characters.

8.1 The Cobwebb Designer Interface


From the **Start** menu on your PC select **Programs | Cobwebb Document Management | CPPD Designer**.



Right clicking within the **Cobwebb Designer** will display a [Context menu](#).

Note: You may also wish to see the topic [Cobwebb Designer Tips and Tricks](#) for more information on how to make the best use of the tools.

Input Pane

Displays the [imported spooled file](#). Use the **Spooled file** tool  to copy sections of the spooled file to the output pane. Other tools such as [Conditional elements](#) and [Loops](#) are also inserted in the Input pane determining the look of the final output.

Output Pane

Displays the result of using the **Cobwebb Designer** on the spooled file. [Images](#), [Static text](#), [Barcodes](#) and sections of the original spooled file are displayed in the new layout.

Use the **View Input pane** , **View Output pane**  or **View Both panes**  to maximise the viewing area for individual panes.

Use the **View | Zoom** menu option to instantly resize the views within each pane.


Explorer Window

The Explorer Window allows the browsing of elements and element hierarchy within a document. This is essential when viewing the elements contained within [Conditional elements](#) and [Loops](#).

Drag elements to different branches of the hierarchy by left clicking on the element and moving the mouse cursor to the new branch whilst still holding down the left mouse button.

Move elements up and down the tree using **Shift+Up Arrow** and **Shift+Down Arrow** or dragging and dropping using the mouse.

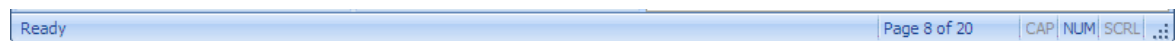
Properties

The [Properties](#) are displayed if you double click on an element or select **Properties** from the [Context menu](#). If you wish the **Properties** to remain displayed use the **Pin** .

Design Tools

All of the design tools are accessible from the [Menus and Toolbars](#) and often both.

Status Bar



The **Status Bar** is displayed at the bottom of the **Cobwebb Designer** window. To display or hide the status bar, use the **Status Bar** option from the [View](#) menu.

The left area of the status bar describes actions of menu items as you use the arrow keys to navigate through menus. This area similarly shows messages that describe the actions of toolbar buttons as you depress them, before releasing them. If after viewing the description of the toolbar button command you wish not to execute the command, then release the mouse button while the pointer is off the toolbar button.

To the right is the page indicator.

The far right areas of the status bar indicate which of the following keys are latched down:

Indicator	Description
CAP	The Caps Lock key is latched down.
NUM	The Num Lock key is latched down.
SCRL	The Scroll Lock key is latched down.

8.1.1 Menus and Toolbars

Menus

Menus provide access to all the functions within the **Cobwebb Designer**. Clicking on a menu item will bring down its associated menu.

Any menu item with an arrow head (>) to the right contains a further sub-menu. Any menu item with three dots (...) to the right will bring up a dialog box. Menu items are also accessible via the keyboard by holding down the **Alt** key and pressing the underlined letter of the menu item.

The **Cobwebb Designer** has the following menus:

[File menu](#)

[Edit menu](#)

[View menu](#)

[Insert menu](#)

[Window menu](#)

[Help menu](#)

Context menus appear when you right click on an element in either the **Input** or **Output panes** or in the **Explorer Window**. The options that you see depend upon which pane you were focused on when clicking the right mouse button.

Toolbars

Toolbars allow one-click access to many of the key functions. They can be added or removed by using the **View | Toolbars...** sub-menu, or by right clicking anywhere on a visible toolbar. Their position can be adjusted by left clicking on a border and dragging to a new position.

The following are the main toolbars in the **Cobwebb Designer**.






[Standard Toolbar](#)





[Tools Toolbar](#)

[Explorer Toolbar](#)

8.1.1.1 File Menu

The **File** menu offers the following commands some of which may also be accessed via the **Toolbars**:











Icon	Menu Option	Description	Shortcut
	New Window	This opens a new Cobwebb Designer window	Ctrl+Shift+N
	New PPD	Creates a new PPD document. You can open an existing document with the Open command.	Ctrl+N
	New XML	Creates a new XML document.	
	Open	Opens an existing document in a new window. You can open multiple documents at once. Use the Window menu to switch between the multiple open documents.	Ctrl+O
	Close	Closes the current window.	Ctrl+W
	Save	Saves an opened document using the same file name to its current folder. When you save a document for the first time, Cobwebb Designer displays the Save As dialog box so you can name your document. If you want to change the name and folder of an existing document before you save it, choose the Save As command.	Ctrl+S


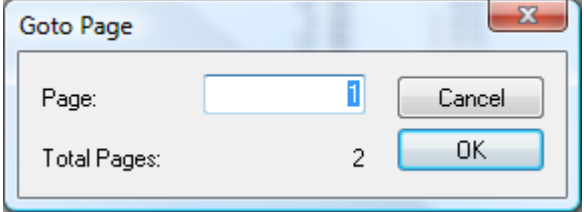



	Save As	Use this command to save and name the active document. Cobwebb Designer displays the Save As dialog box so you can name your document. To save a document with its existing name and folder, use the Save command.	
	Import PPD	Imports an .XPD file from the IBM i CPPD/PCIN folder into the current document.	
	Export PPD	Exports the current document to the IBM i as an .XPD file.	Ctrl+E
	Send	Zips the PPD file and associated images and opens your default browser.	
	Send to Cobwebb	Zips the PPD file and associated images and opens your default browser with Cobwebb's email address in the "Send To" box.	
	Page Setup	Displays the Page Setup dialog box. Please click on the link for further details.	
	Print	Prints a copy of your Output pane or Explorer Window depending upon the active window. This command presents a Print dialog box, where you may specify the range of pages to be printed, the number of copies, the destination printer, and other printer setup options.	Ctrl+P
	Print Preview	Displays the active document as it would appear when printed. When you choose this command, the main window will be replaced with a Print Preview window in which one or two pages will be displayed in their printed format. The Print Preview toolbar offers you options to view either one or two pages at a time; move back and forth through the document; zoom in and out of pages; and initiate a print job.	
	Print Setup...	Selects a printer and a printer connection. This command displays a Print Setup dialog box, where you specify the printer and its connection details.	
	Spooled File Tools >	This item is a sub menu of spool file tools click link for details.	
	Execute a PPD	Displays the Execute a PPD dialog to allow you to test your PPD.	Ctrl+R
	Exit	Use this command to Exit your Cobwebb Designer session. You can also use the Close command on the	ALT+F4

		application Control menu. Cobwebb Designer prompts you to save documents with unsaved changes.	
--	--	--	--

8.1.1.2 Edit Menu





The **Edit** menu offers the following commands some of which may also be accessed via the **Toolbars**:




Icon	Menu Option	Description	Shortcut
	Undo	Undo the last editing action you performed.	Ctrl+Z
	Redo	Reverse the last Undo operation.	Ctrl+Y
	Cut	Deletes the currently selected elements from the document and moves it to the clipboard. This command is unavailable if there are no elements currently selected. Cutting data to the clipboard replaces the contents previously stored there.	Ctrl+X
	Copy	Copies the selected elements from the document to the clipboard.	Ctrl+C
	Paste	Pastes the selected elements from the clipboard into the document. This command is unavailable if the clipboard is empty.	Ctrl+V
	Find/Replace...	Search for and replace text in the Explorer Window .	Ctrl+F
	Select All	Selects all elements in the currently active pane. These elements can then be manipulated as a group.	Ctrl+A
	Select None	Deselects all elements in the currently active window.	
	Bring to Front	Brings the selected Item to the top of the display order.	Ctrl+J
	Bring All to Front	This is only enabled if you have selected a Conditional element in the Explorer and will bring all elements under the selected condition to the top of the display order.	Ctrl+Shift+J
	Send to Back	Sends the selected Item to the bottom of the display order.	Ctrl+K
	Send All to Back	This is only enabled if you have selected a Conditional element in the Explorer and will send all elements under the selected condition to the bottom of the display order.	Ctrl+Shift+K
	Hidden	Selecting this option will hide the selected element in the Explorer Window and the Output pane. Selecting again	

		will re-display the element. If you select to hide a condition / loop etc. then all nested elements will also be hidden.	
	Import Spooled File...	Imports a spooled file from the IBM i into the input window. Brings up the Select Spooled File dialog enabling you to browse for the required spooled file to be placed in the Input pane .	
	Export Spooled File...	Displays the Export Spooled File dialog allowing you to upload the current spooled file to the IBM i.	
	Go To Page...	If you have Imported a Spooled file into your design then you display a specific page of the spooled file by selecting this option e.g. 	Ctrl+G
	Import an XML File...	Imports an existing XML file or XML schema into the Explorer Window of your XML document.	
	Move Up	Moves the selection up the Explorer Window .	Shift+Up
	Move Down	Moves the selection down the Explorer Window .	Shift+Down
	Properties...	Displays the selected element in the Properties dialog.	

8.1.1.3 View Menu

The **View** menu offers the following commands some of which may also be accessed via the **Toolbars**:



Icon	Menu Option	Description	Shortcut
	Input Pane	Displays only the Input pane (left).	Ctrl+Right
	Output Pane	Displays only the Output pane (right).	Ctrl+Left
	Both Panes	Displays both panes.	Ctrl+Down
	Full Screen	Displays the Cobweb Designer in Full Screen mode.	F11




	Explorer Window	Displays the Explorer Window .	Ctrl+E
	Next Spooled File Page	Displays the next page of the spooled file (if any).	Page Down
	Previous Spooled File Page	Displays the previous page of the spooled file (if any).	Page Up
	Spooled File Info...	Displays the Spooled File Info dialog which shows the attributes of the last spooled file retrieved from the IBM i.	
	Zoom	<p>The Zoom menu allows you to change the level of zoom of the currently selected pane.</p> <p>The percentage options zoom the pane view by the chosen amount, 100% being full size.</p> <p>Width zooms the view so that the whole width of the page can be seen.</p> <p>Height zooms the view so that the whole height of the page can be seen.</p> <p>Page zooms the view so that the whole of the page can be seen.</p> <p>You may also set the zoom level by right clicking in either pane to bring up the Context menu.</p>	<p><i>Zoom in</i> Ctrl+Page Down.</p> <p><i>Zoom Out</i> Ctrl+Page Up.</p>
	Toolbars and Docking Windows	Displays and hides the Tools & Standard Toolbars and the Explorer Window . A tick is displayed beside an entry when it is displayed.	
	Application Look	Allows you to select the way in which you wish the Cobwebb Designer to be displayed e.g. Windows 2000, Office XP, Office 2007 etc. Simply select a look from one of the available options.	
	Status Bar	Displays and hides the Status Bar , which describes the action to be executed by the selected menu item or depressed toolbar button, and keyboard latch state.	
	Language	Use this command to change the language of the menus and screens within the Cobwebb Designer.	
	Options	Shows the Options dialog box allowing you to set the default behaviour of Cobwebb Designer.	

8.1.1.4 Insert Menu

The **Insert** menu allows you to add **Elements** to your PPD some of which may also be accessed via the **Toolbars**:

Elements are the basic building blocks of Cobwebb Designer.

Icon	Menu Option	Description	Shortcut
	Spooled File Element	Selects an area of the spooled file from the Input pane and position it on the Output pane. Only available if you are focused on the Input pane.	2
	Eraser Element	Inserts an Eraser element into the output pane. Only available if you are focused on the Output pane.	3
	Loop Element	Inserts a Loop element into the Input and Output pane.	4
	Conditional Element	Inserts a Conditional element into the Input pane.	5
	Image Element	Inserts an Image element into the Output pane.	6
	Static Text Element	Inserts Static text into the Output pane. Only available if you are focused on the Output pane.	7
	Output Device Element	Inserts an Output Device element into the Explorer Window.	
	Exit Program Element	Inserts a Exit Program element into the Explorer Window.	
	Exit Parameter Element	Inserts an Exit Program parameter element into the input pane and optionally the Output pane.	8
	Variable Element	Inserts a Variable into the Input pane.	9
	Address Element	Inserts an Output device Address element into the output pane. Only available if you are focused on the Output pane.	0
	Remark Element	Inserts a Remark element into the Explorer Window.	
	Trace Element	Inserts a Trace element into the Explorer Window	
	Barcode Element	Inserts a Barcode into the output pane.	-
	Resource Element	Inserts an Image resource into the output pane.	
	XML Element	Inserts an XML element into the input pane.	Q

	XML Attribute	Inserts an XML attribute element into the input pane.	W
	XML Instruction	Inserts an XML Processing Instruction element into the input pane.	
	XML Comment	Inserts an XML Comment element into the input pane.	E
	XML Text	Inserts XML Text element into the input pane.	R
	Import Text File...	This will allow you to import a text file as Static Text Elements into your PPD. This can be extremely useful when trying to set up Thermal Label instructions.	

8.1.1.5 Window Menu



The **Window** menu offers the following commands, which enable you to arrange multiple views of multiple documents in the application window:

Menu Item	Description
New Window	Opens a new window with the same contents as the active window. You can open multiple document windows to display different parts or views of a document at the same time. If you change the contents in one window, all other windows containing the same document reflect those changes. When you open a new window, it becomes the active window and is displayed on top of all other open windows.
Cascade	Arranges multiple opened windows in an overlapped fashion.
Tile	Arranges multiple opened windows in a non-overlapped fashion.
Arrange Icons	Arranges the icons for minimized windows at the bottom of the main window. If there is an open document window at the bottom of the main window, then some or all of the icons may not be visible because they will be underneath this document window.
Split	Split the active window into panes. You may then use the mouse or the keyboard arrows to move the splitter bars. When you are finished, press the mouse button or enter to leave the splitter bars in their new location. Pressing escape keeps the splitter bars in their original location.

8.1.1.6 Help Menu




The **Help** menu offers the following commands, which provide you assistance with this application:











Icon	Menu Item	Description	Shortcut
------	-----------	-------------	----------


	Help Topics	Use this command to display the opening screen of Help. From the opening screen, you can jump to step-by-step instructions for using Cobwebb Designer and various types of reference information. Once you open the Help, you can click the Contents button whenever you want to return to the opening screen.	F1
	Tutorial	Displays the Tutorial topics in this Help file.	
	Check for updates...	First use the About CPPD Designer to check your current version and then select this option to take you to the CPPD Designer PC Software Download page where the <i>Description</i> will let you know the latest version number for downloading.	
	About Cobwebb Designer...	Use this command to display the copyright notice and version number of your copy of Cobwebb Designer e.g. 	

8.1.1.7 Context Menus

The **Context** menus appear when you right click on an element in either the **Input** or **Output panes** or in the **Explorer Window**. The options that you see depend upon which pane you were focused on when clicking the right mouse button.

Icon	Menu Item	Description	Shortcut
	Cut	Deletes the selected element from the document and moves it to the clipboard.	Ctrl+X
	Copy	Copies the selected element from the document to the clipboard.	Ctrl+C
	Paste	Pastes the selected element from the clipboard into the document.	Ctrl+V










	Delete	Deletes the selected elements.	Delete
	Bring to Front	Brings the selected Item to the top of the display order.	Ctrl+J
	Bring All to Front	This is only enabled if you have selected a Conditional element in the Explorer and will bring all elements under the selected condition to the top of the display order.	Ctrl+Shift+J
	Send to Back	Sends the selected Item to the bottom of the display order.	Ctrl+K
	Send All to Back	This is only enabled if you have selected a Conditional element in the Explorer and will send all elements under the selected condition to the bottom of the display order.	Ctrl+Shift+K
	Hidden	Selecting this option will hide the selected element in the Explorer Window and the Output pane . Selecting again will re-display the element. If you select to hide a condition / loop etc. then all nested elements will also be hidden.	
	Move Up	Moves the selection up the Explorer Window .	Shift+Up
	Move Down	Moves the selection down the Explorer Window .	Shift+Down
	Expand Branch	Displays all element in the selected branch of the tree in the Explorer Window .	Ctrl+Shift+Alt+Right
	Expand All	Displays all elements of the tree in the Explorer Window .	
	Collapse Branch	Hides all element in the selected branch of the tree in the Explorer Window .	
	Collapse All	Hides all elements of the tree in the Explorer Window .	
	Zoom	The Zoom menu allows you to change the level of zoom of the currently selected Explorer Window pane. The percentage options zoom the pane view by the chosen amount, 100% being full size. Width zooms the view so that the whole width of the page can be seen. Height zooms the view so that the whole height of the page can be seen. Page zooms the view so that the whole of the page can be seen.	








	Properties	Displays the properties of the selected element in the Properties dialog.	
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8.1.1.8 Standard Toolbar

The **Standard Toolbar** offers the following functions some of which may also be accessed via the [Menus](#).

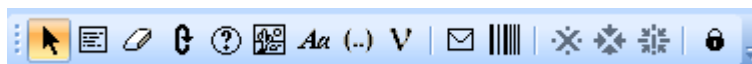



Icon	Tool	Description	Shortcut
	New PPD	Creates a new PPD document. You can open an existing document with the Open command.	Ctrl+N
	Open	Opens an existing document in a new window. You can open multiple documents at once. Use the Window menu to switch among the multiple open documents.	Ctrl+O
	Save	Saves an opened document using the same file name. save the active document to its current name and directory. When you save a document for the first time, Cobwebb Designer displays the Save As dialog box so you can name your document. If you want to change the name and directory of an existing document before you save it, choose the Save As command.	Ctrl+S
	Export PPD	Exports the current PPD to the Server	Ctrl+E
	Cut	Deletes the currently selected elements from the document and moves it to the clipboard. This command is unavailable if there are no elements currently selected. Cutting data to the clipboard replaces the contents previously stored there.	Ctrl+X
	Copy	Copies the selected elements from the document to the clipboard.	Ctrl+C
	Paste	Pastes the selected elements from the clipboard into the document. This command is unavailable if the clipboard is empty.	Ctrl+V
	Previous Spooled File Page	Displays the Previous page of the spooled file (if any)	Page Up
	Next Spooled File Page	Displays the Next page of the spooled file (if any)	Page Down















	Print	Prints a copy of your Output or Explorer windows depending upon the active window. This command presents a Print dialog box, where you may specify the range of pages to be printed, the number of copies, the destination printer, and other printer setup options.	Ctrl+P
	Help	Displays the opening screen of Help. From the opening screen, you can jump to step-by-step instructions for using Cobwebb Designer and various types of reference information. Once you open the Help, you can click the Contents button whenever you want to return to the opening screen.	F1
	Help Context	Use the Context Help command to obtain help on some portion of the Cobwebb Designer. When you choose the Toolbar's Context Help button, the mouse pointer will change to an arrow and question mark. Then click somewhere in the Cobwebb Designer window, such as another Toolbar button. The Help topic will be shown for the item you clicked.	Shift + F1
	View Input Pane	Displays only the Input pane (left).	Ctrl+Right
	View Both Panes	Displays both panes.	Ctrl+Down
	View Output Pane	Displays only the Output pane (right).	Ctrl+Left
	Explorer Window	Use this to show / hide the Explorer Window which allows the browsing of elements and element hierarchy within a document.	

8.1.1.9 Tools Toolbar

The **Tools** toolbar offers the following functions some of which may also be accessed via the [Insert](#) menu.




Icon	Tool	Description	Shortcut
	Select	This is used for selecting, moving, resizing and examining elements.	1







	Spooled File	This enables the copying of sections of the spooled file from the Input to Output panes.	2
	Eraser	This erases the selected data on the Output pane.	3
	Loop	This enables looping through the input spooled file.	4
	Condition	This enables If/Then attributes to be added to elements.	5
	Image	This adds a new image to the Output pane.	6
	Static Text	This adds static (fixed) text to the Output pane.	7
	Exit Program Parameter	This adds exit program parameters.	8
	Variable	This adds variables to the Input pane.	9
	Address	This allows you to select data from the Output pane for addressing your Print, Fax, Email or File output.	0
	Barcode	This allows you to add a barcode to your Output pane. This may either be created from data selected from your spooled file or entered as specific text.	-
	XML Element	This allows you to add an XML element.	Q
	XML Attribute	This allows you to add an XML attribute.	W
	XML Comment	This allows you to add an XML Comment.	E
	Tool Lock	This changes the style of the other tool buttons. When the lock button is pressed in, the other tool buttons will remain selected after use rather than reverting to the Select tool which is the normal style of operation.	=

8.1.1.10 Explorer Toolbar

The **Explorer Toolbar** offers the following functions all of which may also be accessed via the Explorer [Context menu](#).



Icon	Tool	Description	Shortcut
	Expand Branch	Displays all element in the selected branch of the tree	Ctrl+Shift+Alt+Right

	Expand All	Displays all elements of the tree	
	Collapse Branch	Hides all element in the selected branch of the tree.	
	Collapse All	Hides all elements of the tree	
	Move Up	Move the element up the tree	Shift+Up
	Move Down	Move the element down the tree	Shift+Down
	Properties	Displays the properties of the selected element in the Properties dialog.	

8.2 Creating your Overlay

To create your overlay you need to have installed the **Cobwebb PPD Printer** Driver onto your PC. You need to create your form overlay before embarking on mapping your spool file. The overlay may be created in MS Word or any other imaging package that supports standard Windows print drivers.

Once you have designed your overlay, as you would like it, you then need to select to **Print** from the **File** menu (Ctrl P) and select to print to the **Cobwebb PPD Printer** driver. This will convert the document into an image of the correct format to be included within your PPD design i.e. **.png**.

Make sure that you use a maximum of eight characters for the name as then the PPD can keep the same name when the image is uploaded to the Server. **Note:** Depending upon which version of Windows you are using you may need to change the file extension to **.png**.

You may find that you need to make some minor adjustments later on but this is easy as you just change your original document and re-print it using the **Cobwebb PPD Printer** driver. For more details see the topic [Creating an Overlay Image with the Cobwebb PPD Printer driver](#).

Colour Images

Colour Images are supported in the following output devices:

Print PDF DataStream only PDF DataStream can only be used if your version of SPLAMATIC is V2R3M0 or higher. You will also need to make sure that the PDF image process blending includes *PREBLEND32 - see [Configuring SPLAMATIC for PDF Direct printing](#) for details.

Email PDF only

File PDF only

Hints for designing your overlay

- Include your company logo into your document overlay
- Draw boxes around Name & Address information

- Insert a signature - *unless it changes depending upon data in the spool file.*

Note: Addition of text to your overlay is better included as **Static Text** when designing your PPD file.

8.3 Setting your Options

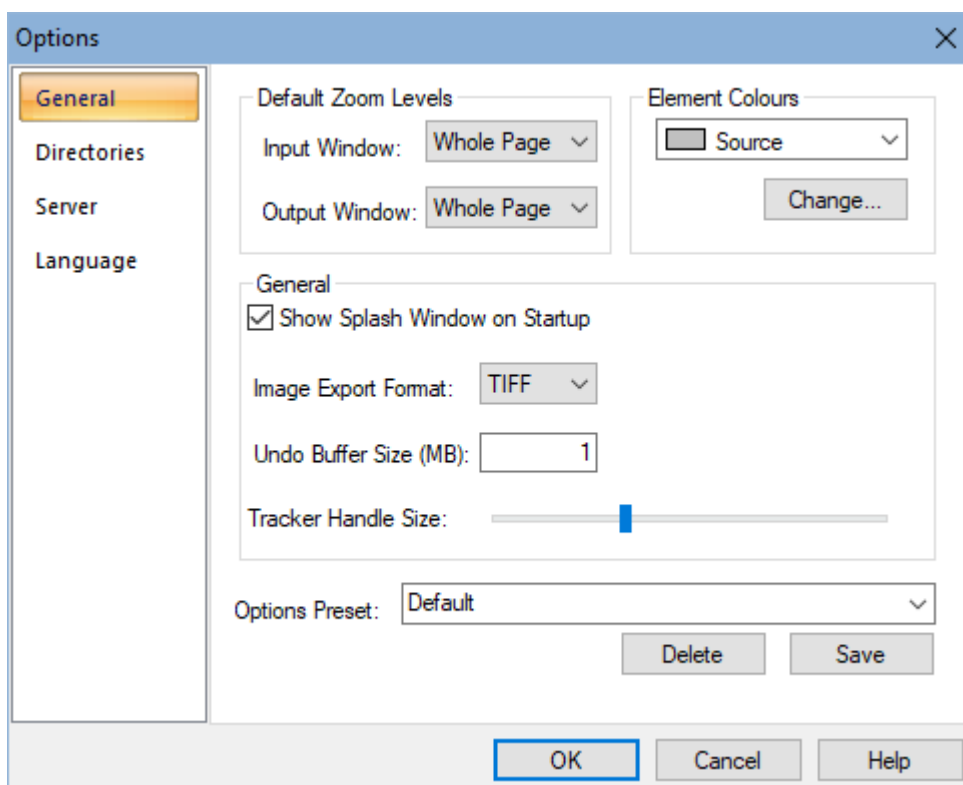
From the **View** menu select **Options**. This will allow you to change the look of your Cobwebb Designer screen, set the default directories and decide the fonts to be used.

Depending upon the tab you select you may configure the following:

- The [General](#) tab you may change the look of your Cobwebb Designer.
- The [Directories](#) tab allows you to change the default directories used by the Cobwebb Designer.
- The [Server](#) tab allows you to change your Server defaults.
- The [Language](#) tab allows you to change your Language defaults these should only need to be changed if English is not the language in which you wish to work.

8.3.1 General Options

From the **General** tab you may change the look of your Cobwebb Designer.

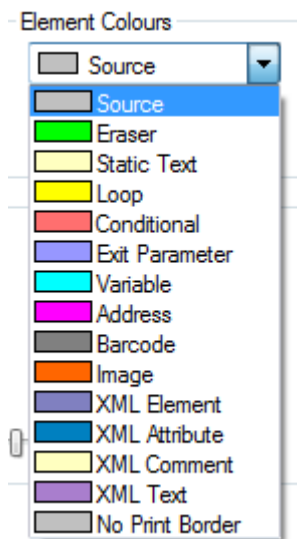


Default Zoom Levels

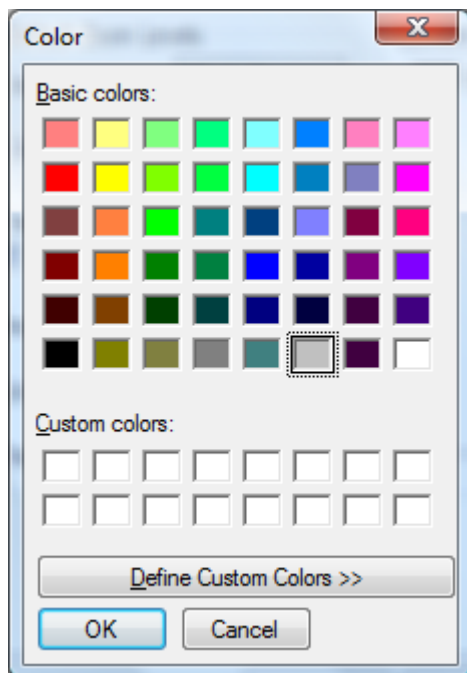
These entries control the default zoom for both your **Input** and **Output** windows (panes) when you open the Cobwebb Designer. These may be altered later by using the **View > Zoom** menu options or holding down the **Ctrl** key and using the **Page Up** and **Page Down** buttons on your keyboard.

Element Colours

You may change the **colours** of the elements by clicking on the arrow to the right of the **Source** element e.g.



Select the element colour that you wish to change and then click on the **Change** button. This will display the Color pallet from which you may select your colour. Click **OK** to change or **Cancel** to return without changing.



General

Show splash window on Startup

This allows you to remove the designer splash when starting Cobwebb Designer.

Image Export Format

The **Image export format** should be left as the default of **TIF**. The alternatives of **MMR** and **JPEG** can be used. The **MMR** format created by the printer driver may be used if your IBM i printer driver does not accept TIF. The **JPEG** format has been added to support colour.

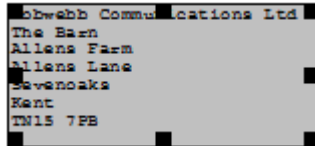
If only some of your images are colour then leave the default of TIFF and change the properties of the individual colour images when you add them to a PPD file. **N.B.** If you wish to send PDF email attachments using Cobwebb Email then you must use the TIF or JPEG format, as the MMR format is not supported.

Undo Buffer Size

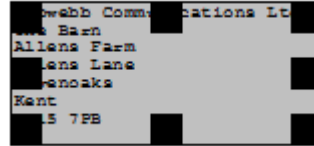
This controls the size, in megabytes, of the buffer for holding edits in order to be able to “undo” a previous edit. This should never need to be altered.

Tracker Handle Size

This determines the size of the handles on the elements in the Input and Output panes e.g.



Smaller Tracker Handle size



Larger Tracker Handle size

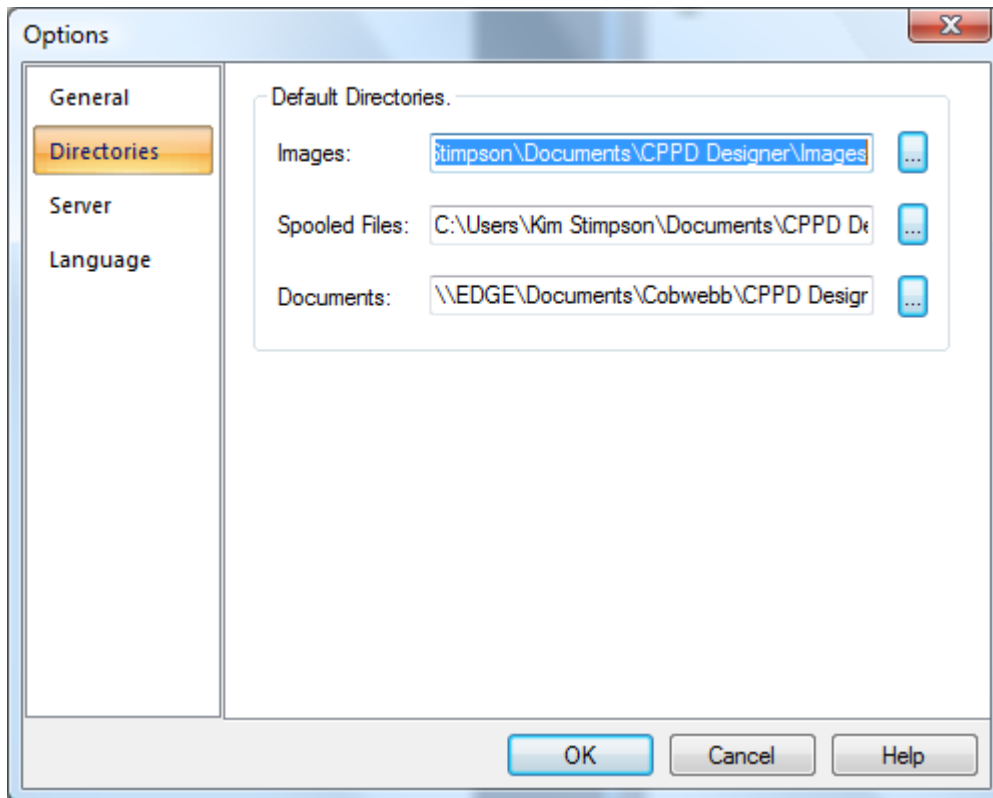
Options Preset

This is where you can save all of the entries under the **View > Options** in the Cobwebb Designer. This can be useful if you have say a **TEST** and **LIVE** server and you wish to be able to quickly switch between them to upload a PPD. To save a new entry simply enter a new name in the **Options Preset** box and click **Save**. You will then see this new entry in the drop down selection.

Note: If you save changes to the **Default** entry then these cannot be reverted. *Requires Cobwebb Designer Version 8 (Build 11) or above.*

8.3.2 Directory Options

The **Directories** tab allows you to change the default directories that will be displayed.



Images

This entry specifies the default path for finding images to be included into PPD files and should be the same as the directory that you are using when creating your form overlays using the Cobwebb PPD Printer driver.

Spooled Files

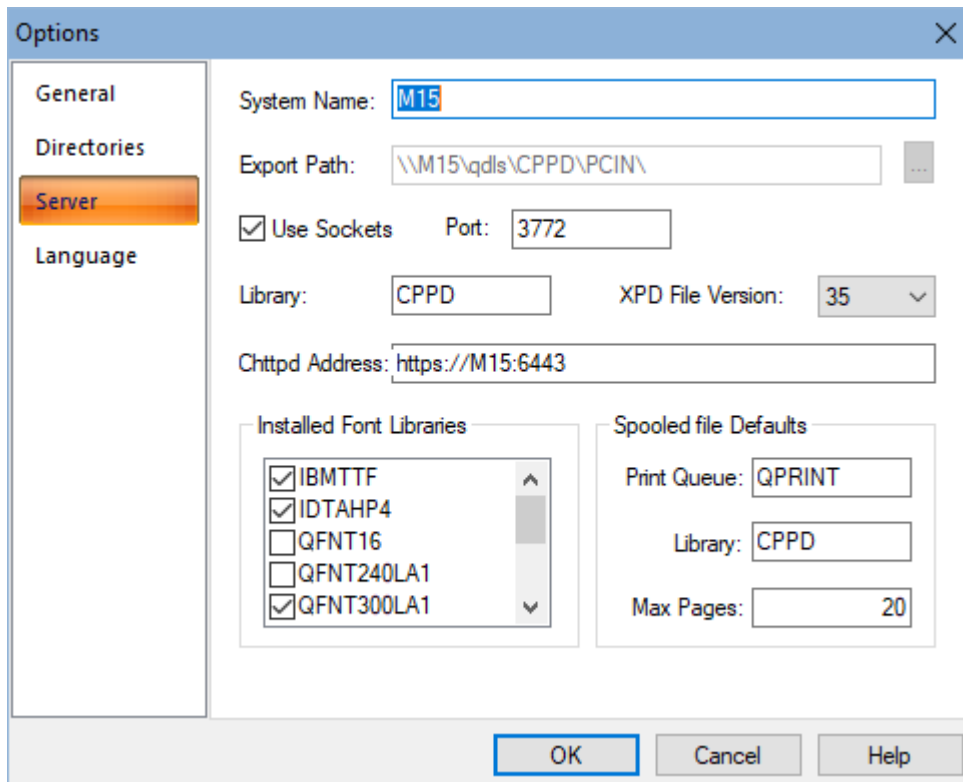
This entry is no longer used.

Documents

The folder specified here will be used as the default when you **Open** or **Save** a PPD file.

8.3.3 Server Options

The **Server** tab allows you to change your IBM i defaults.



The screenshot shows the 'Options' dialog box with the 'Server' tab selected. The 'System Name' field contains 'M15'. The 'Export Path' field contains '\\M15\qdlis\CPPD\PCIN\'. The 'Use Sockets' checkbox is checked, and the 'Port' field contains '3772'. The 'Library' field contains 'CPPD' and the 'XPD File Version' dropdown is set to '35'. The 'Chttpd Address' field contains 'https://M15:6443'. The 'Installed Font Libraries' list includes 'IBMTTF', 'IDTAHP4', 'QFNT16', 'QFNT240LA1', and 'QFNT300LA1', with 'IBMTTF', 'IDTAHP4', and 'QFNT300LA1' checked. The 'Spooled file Defaults' section includes 'Print Queue' set to 'QPRINT', 'Library' set to 'CPPD', and 'Max Pages' set to '20'. The dialog has 'OK', 'Cancel', and 'Help' buttons at the bottom.

System Name

This should have been entered when the Cobwebb Designer was installed, but it may be changed here. This should be the IP Address or Name of your IBM i.

Export Path

If you wish to use TCP/IP to export your CPPD files from the PC to the IBM i then you do not need to enter a path here. If you are using Client Access Express then the **Export Path** must contain the path to the PCIN directory in the folder CPPD on your IBM i. To find this path click on **Browse**.

Use Sockets

This entry should be checked if you wish to use the TCP/IP interface to export your PPD files from the PC to the IBM i. This does away with the need for Client Access and Shared Folders. The **Port** entry should be left as 3772 unless you have been asked to change this by Cobwebb Support.

Library

This entry should contain the name of the CPPD library on your IBM i. This should normally be CPPD unless you have renamed this.

XPD File Version

The XPD file version is used for backward compatibility. If the version of your PC software is newer than your IBM i software then you can set this to the version number of your IBM i software.

Chttpd Address

This is the path to the [Cobwebb Web Server](#) used for the [Cobwebb Docstore](#) module and the [Cobwebb Message Queue](#) web interface. This should be in the following format:

https://XXXXXXX:6443

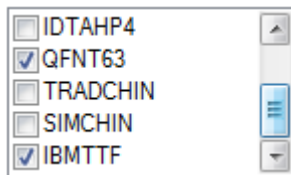
where XXXXXXX is the IBM i name or IP address. This will default to the same as the *System Name* above. **Note:** if using HTTP then this will be http://XXXXXXX:6440.

If you do not specify a correct address here you will not be able to see the list of available Docstores or Document Types for selection in the Docstore Output Device.

Note: The port is defaulted to 6400 if you change this here you will also have to change it, via the web service in the chttpd [Configuration](#).

Installed Font Libraries

Here you may select the relevant font files on your IBM i. **QFNTCPL** comes as standard with every IBM i and should be selected. The other font tables should only be selected if you have purchased them from IBM. If you scroll down you should see further entries e.g.



Notes:

From v6.2.30 of the Cobwebb Server software and v6.95 of the Cobwebb Designer, if you selected to **Update Cobwebb Designer Font Library** when installing the Cobwebb Designer, you should see the **IBM True Type Fonts [IBMTTF]**.

From v7.10 of the Cobwebb Designer you will be able to select **QFNT16** which supports the following languages:

- Arabic
- Cyrillic - for Bulgarian, Byelorussian, Macedonian, Russian, Serbian, Ukrainian, and English
- Greek
- Hebrew

Note: All of the above fonts also support the Latin characters.

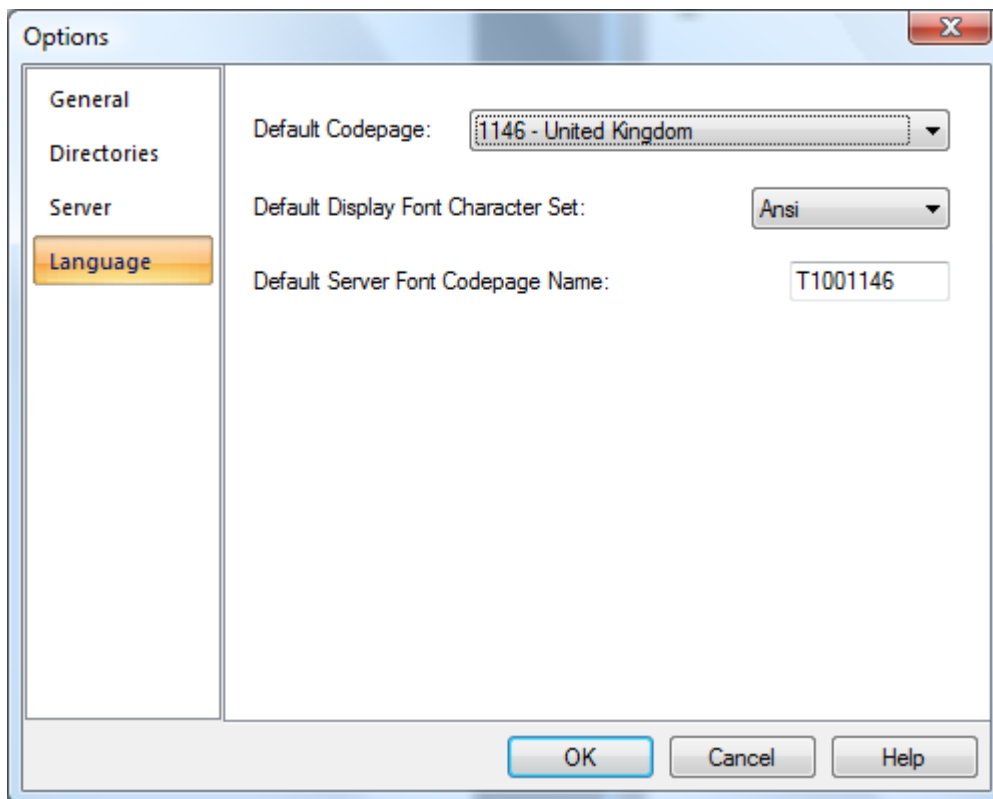
If you require further fonts then please contact [Cobwebb Support](#) and they will supply you with an FEF (Font Exchange File) file which you can [Import](#) into the Cobwebb Designer.

Spooled File Defaults

This is where you may set the defaults for the 'Import Spooled file' option. The **Print Queue** and **Library** is used as the default Output queue, the **Max pages** should be set to the number of pages that you wish to copy from the IBM i. All of these may be overridden when you select to [Import your Spooled File](#).

8.3.4 Language Options

The **Language** tab allows you to change your Language defaults but these should only need to be changed if English is not the language in which you wish to work. These are the defaults that are used when creating a new PPD but may be overridden in the [Output Page Setup](#) for a design.



Default Codepage

This entry should match your IBM i code page (System Value **QCHRID**). **Note:** If there is more than one code page for a country then, in general, go for the biggest number codepage that matches the country. It's probably the newest with the most characters.

Default Display Font Character Set

This entry determines the display of the text within the Cobwebb Designer.

Default Server Font Codepage Name

This entry is used to find the correct font groups on the IBM i.

See [QFNTCPL Codepages](#) for a list of codepages supported by QFNTCPL.

8.3.4.1 QFNTCPL Codepages

Below is a table of codepages which are found in the standard QFNTCPL library on the Server.

The two codepages for the United Kingdom have been highlighted in green below.

Note: T1001146 codepage contains the Euro sign €.

Server Font Codepage Name	Codepage	Description
T1V10037	37	USA/Canada - CECP
T1V10273	273	Germany F.R./Austria- CECP
T1V10274	274	Belgium - CECP
T1V10275	275	Brazil - CECP
T1V10277	277	Denmark/Norway - CECP

T1V10278	278	Finland/Sweden- CECP
T1V10280	280	Italy- CECP
T1V10281	281	Japan (Latin) - CECP
T1V10282	282	Portugal - CECP
T1V10284	284	Spain/Latin America - CECP
T1V10285	285	United Kingdom - CECP
T1V10290	290	Japan (Katakana)
T1V10297	297	France - CECP
T1V10500	500	International #5
T1V10871	871	Iceland - CECP
T1000259	259	Symbols, Set 7
T1000437	437	Personal Computer
T1000836	836	Peoples Republic of China
T1000850	850	PC Multilingual
T1000860	860	Portugal - Personal Computer
T1000863	863	Canadian French - PC
T1000865	865	Nordic - Personal Computer
T1001027	1027	Japanese (Latin1) Extended
T1001068	1068	Text with Numeric Spacing
T1001140	1140	USA/Canada - CECP
T1001141	1141	Austria/Germany - CECP
T1001142	1142	Denmark/Norway - ECECP
T1001143	1143	Finland/Sweden - ECECP
T1001144	1144	Italy - ECECP
T1001145	1145	Spain/Latin America - ECECP
T1001146	1146	United Kingdom - ECECP
T1001147	1147	France - ECECP
T1001148	1148	International - ECECP
T1001149	1149	Iceland - ECECP

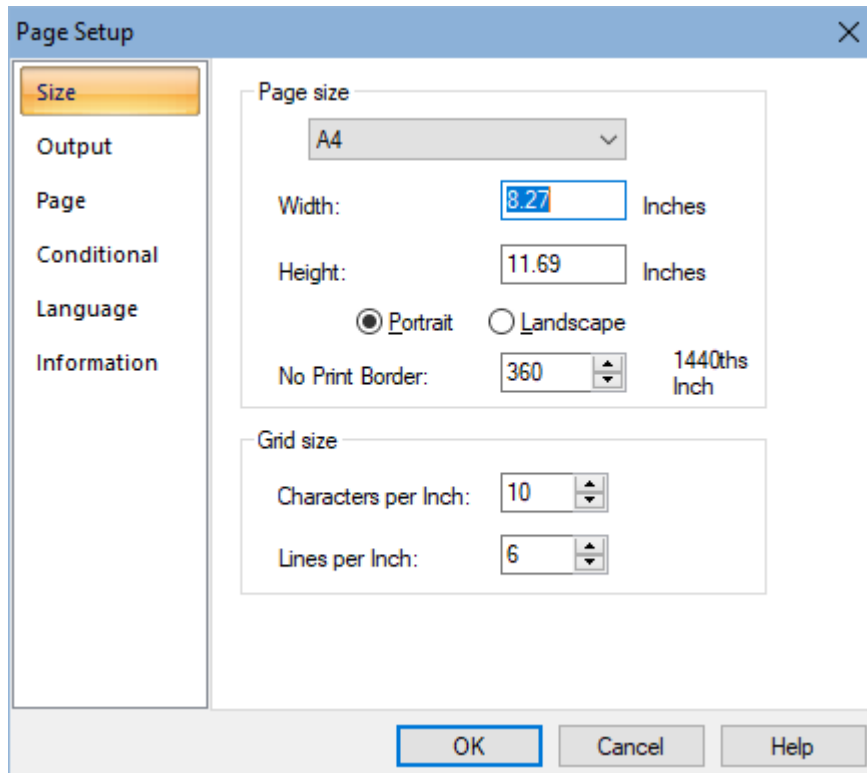
8.4 Setting up your Output page

Before you start to design your document output you need to first define the Output requirements. From the **File** menu select **Page Setup**. This dialog is split up into several tabs for configuring the different areas e.g.

- **Size** - [Page Size and Orientation](#)
- **Output** - Default Output - no longer used
- **Page** - [Description and Page Selection](#)
- **Conditional** - Conditions for [Start of new Document](#)
- **Language** - [Font and Language Selection](#)
- **Information** - [PPD Upload information and Build ID](#)

8.4.1 Page Size and Orientation

From the **File** menu select **Page Setup**, then select the **Size** tab to set up the Page size, orientation and Grid size of your page.



You need to set your characters per inch and lines per inch here, before starting to design your document. This sets up the **grid** for your output pane. You need to calculate the maximum number of characters across the width of your document and select the **Characters per inch** accordingly. The same applies to **Lines per inch** (vertical or Y). The grid then defines the left most position for data on your output pane, regardless of the size of font that you might select, thus lining up your data. It also allows you to line up numeric data even when using variable pitched fonts by selecting the “align to grid” function.

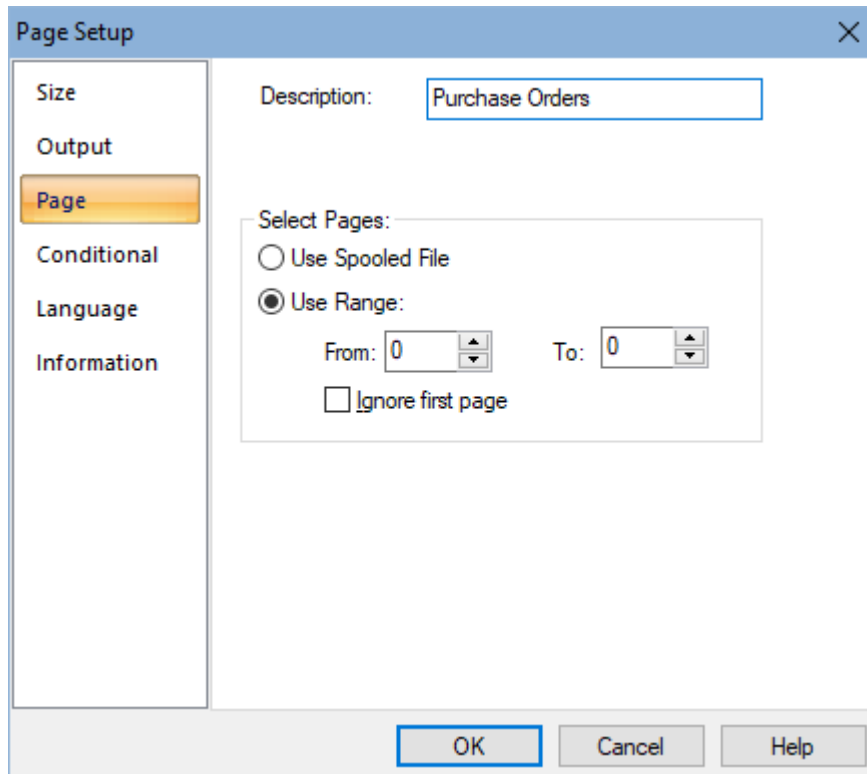
Note: You may need to re-visit these setting if your selected spooled file data does not fit on your output page.

The 'No print border' parameter is ignored for all but HPT output devices. The default value is correct for the majority of IBM compatible network printers and should only be changed if your printer's "no print border" differs from this. The "no print border" is defined on your Output pane by the grey shaded area down the left hand side of the page in portrait mode or along the bottom in landscape.

Note: If any of your selected output overlaps this grey area it will not be printed.

8.4.2 Description and Page Selection

From the **File** menu select **Page Setup**, then select the **Page** tab.



Here you can enter a **Description** for your PPD file (*this is displayed in the [Work with PPD](#) option after you have exported your PPD file*).

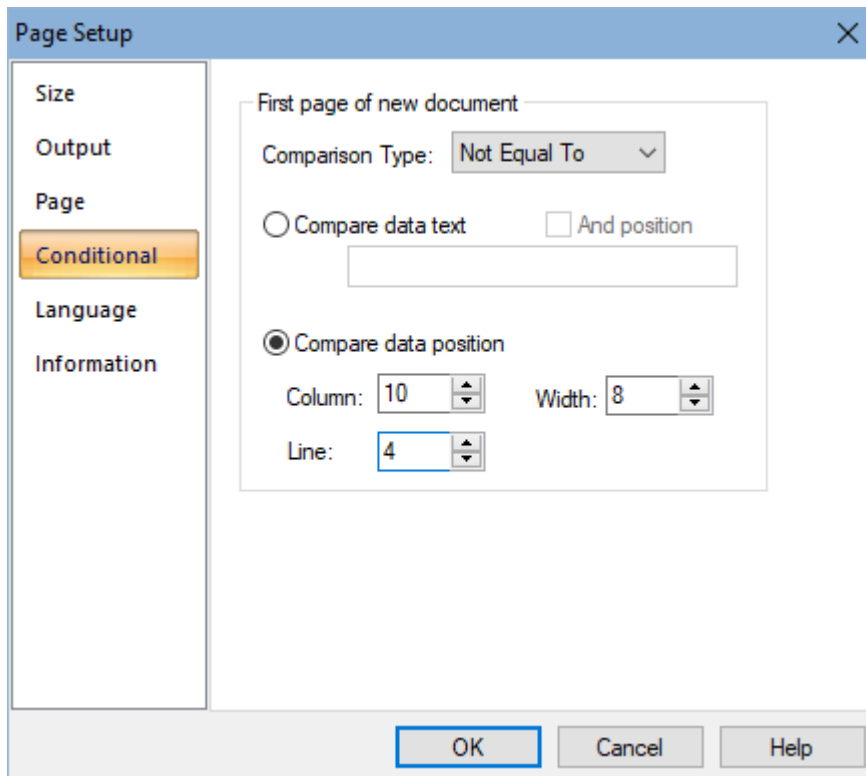
Select Pages. Here you can select to use the "Page range to print" from the spooled file by clicking the **Use Spooled File** radio button. This will mean that if the Starting and Ending pages for the spooled file have been overridden then these are the pages that will be included in your output. If you have selected this option then it is extremely easy to re-run specific pages from your spooled file by simply changing the Start and End pages for the actual spooled file attributes.

Otherwise leave the **Use Range** radio button selected and provided that you leave the **From** and **To** entries as zero then the entire spooled file will be included in your output. If you wish to pick specific pages then you can select them here.

Ignore first page. Decides whether the first page of the input spooled file will be excluded from your output. This is often useful if the first page of your spooled file is a line-up page. **Note:** If you have a page range selected that does not include page 1 then this option will be ignored.

8.4.3 Start of new Document Definition

From the **File** menu select **Page Setup**, then select the **Conditional** tab to split your spooled file into separate documents.



You may wish to be able to condition output upon the first or last page of a document, for example, a multi-page purchase order having a final page with a different layout. To be able to do this you will need to set-up the document breaks. There are two ways to set this up: -

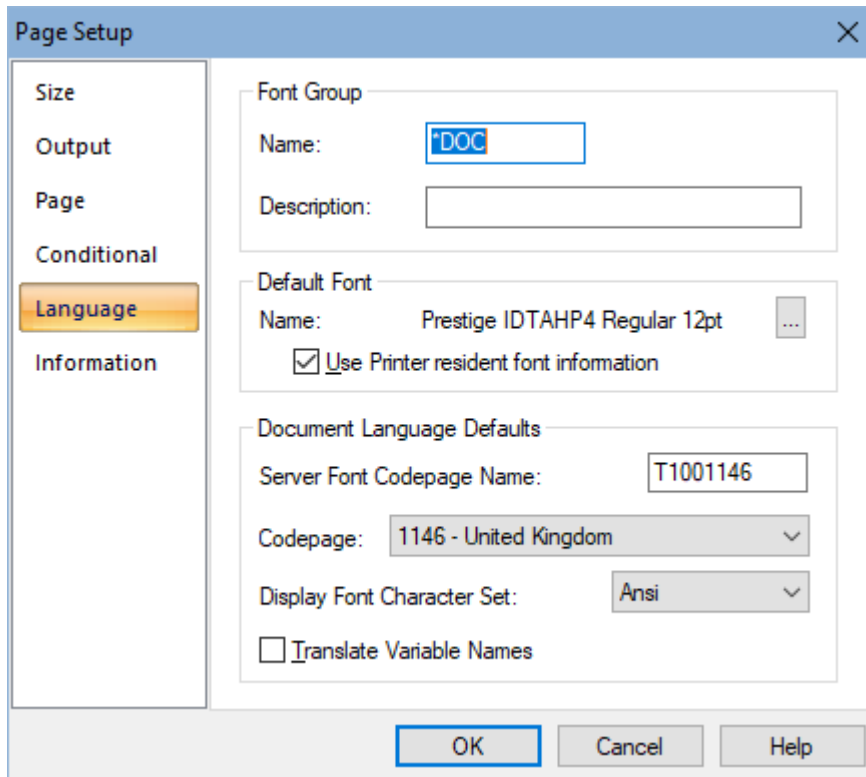
Compare data position. You may wish to control the start of new document based upon the change in Customer Number or Purchase Order number. You should then select “**Compare data position**”. The best way of working out the column, line and width information is to use the Spooled file (S) tool to select the Customer Number, for example, and then right click on the box created and select **Properties**. This shows you the position of the selected entry, which you may then copy into the “Compare data position” on the Page Setup Conditional tab. In this case the **Comparison Type** should be *Not Equal To*.

Compare data text. If you select this option then you will need to enter the “compare data text” in the box provided. The application will then search the input page for any occurrence of the entered data, and when found, assume that this is the start of a new document. **Note:** This entry is case sensitive. In this case the **Comparison Type** is ignored. Checking the **And Position** check box limits the search to the column specified.

Please refer to [Configuring Page Selection](#) for a more detailed explanation.

8.4.4 Font and Language Selection

From the **File** menu select **Page Setup**, then select the **Language** tab and select the default font.



Default Font

You may change the font by clicking on the **Browse** button and selecting from the list of available fonts. The default selection is to “**Use Printer Resident Font information**” where the fonts are stored in your printer. If this is not checked then the IBM i downloadable fonts will be used.

Note: Faxed output requires you to use IBM i downloadable fonts and therefore you must untick the box to “Use Printer Resident Font information”.

Document Language Defaults

If you wish to change the **Document Language Defaults** for this document then this is where you would change them. Here you may change the **Codepage** to match the codepage of the data in the Spooled File if this is different.

For a definition of each of the language entries please refer to the previous topic on [Setting your Language Options](#) **Language** tab.

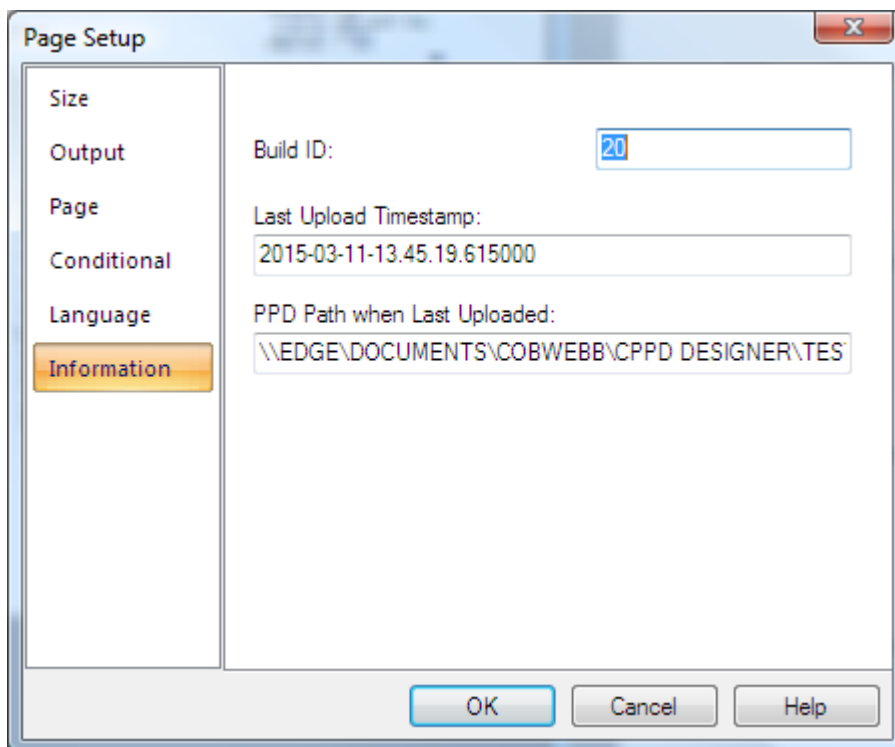
There is only one scenario when you might want to enable **Translate Variable Names** (*from Cobwebb Designer V8 build 13 onwards*)

- Your **Codepage** is not **1146** - United Kingdom
- AND you are using Variable names with odd characters (e.g. **@G_** [Global Variables](#))
- AND you are using Variable replacement to output the values of these Variables (see [Multiple Variable & Parameter substitution](#)) OR you are comparing Variables to Variables.

With **Translate Variable Names** unticked the Cobwebb Designer behaves just as it always has, ticked and all Variable names will be translated. **Note:** This will mean that Variable replacement and Variable comparison will start working with unusual named variables, however, [@G_Global Variables](#) will only persist across documents in Cobwebb Server Versions > 6.2.82 .

8.4.5 PPD Information

From the **File** menu select **Page Setup**, then select the **Information** tab to set display information about the PPD such as PPD Upload information and Build ID. This helps to see if the version of the PPD uploaded to the Cobwebb Server matches your .ppd file. To view the same information on the server select option **1. Work with PPD** from the main CPPD menu, select **2 to Revise** and then press [F10=More parameters](#)



8.5 Importing your Spooled File

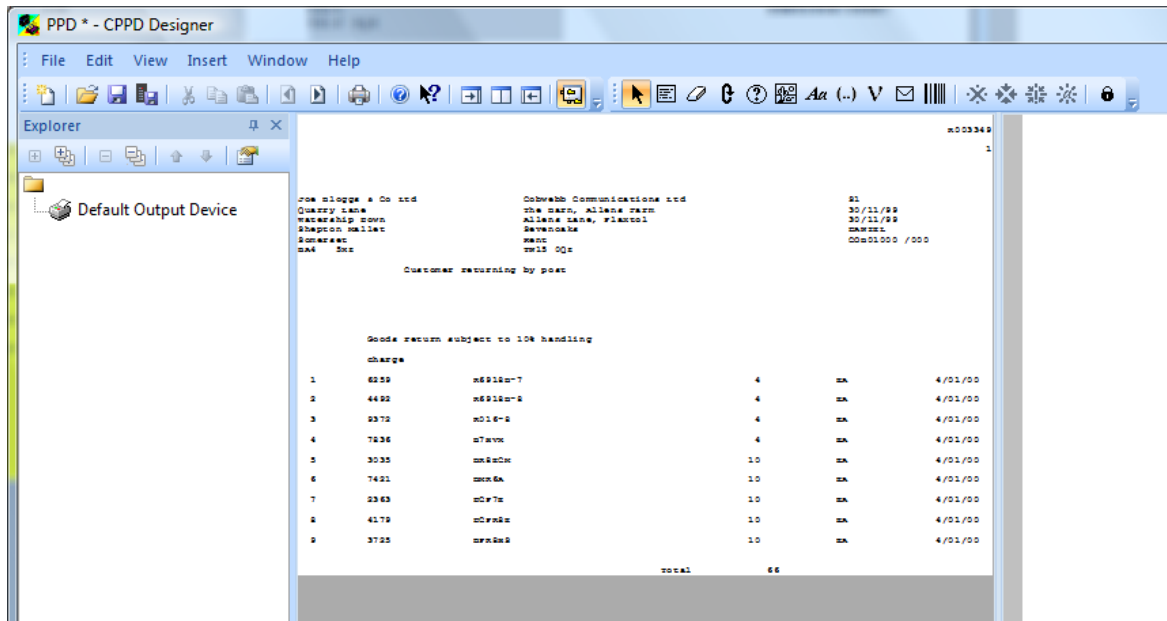
From the **Edit** menu select **Import Spooled File**.

File	User	User Data	Pages	Date
TEST10	QPGMR	TEST10	5	23/09/09
TEST11	QPGMR	TEST11	2	23/09/09
TEST12	QPGMR	TEST70	2	23/09/09
TEST8	QPGMR	TEST8	1	23/09/09
TEST9	QPGMR	TEST9	1	23/09/09
TEST16	QPGMR	TEST16	5	23/09/09
TEST19	QPGMR	TEST19	2	23/09/09
TEST20	QPGMR	TEST20	5	23/09/09
TEST17	QPGMR	TEST17	5	23/09/09
TEST14	QPGMR	TEST14	1	23/09/09


Enter the name of the **Output Queue** and **Library** where you know the spooled file resides. You may also be more selective by entering **User** and **User Data** information if you like. Then click the **Refresh** button. You should see a list of all the spooled files matching your selection. **Note:** You may be asked for user credentials for the Server when you click the Refresh button.

Now find the spool file that you wish to use and select it. Decide if you are happy with the page selection at the bottom of the dialog and click **OK** to import the spooled file. Now you should see it appear in the left-hand panel [Input Pane] of your Cobwebb Designer screen.

Note: By default pages 1 - 20 of a spooled file will be imported unless you change this BEFORE importing your spooled file.



If your PPD file already has spooled file information you will be asked if you wish to replace the existing information or just add it to the end of the existing spooled file data. This can be useful if you wish to use one PPD file to process slightly different spooled files.

You may page through your spooled file using the  and  buttons or go to a specific page by using from **Go to page** the **Edit** menu or pressing **Ctrl G** and typing the page number. The **status bar** of the application displays the **current page** and the **total number of pages**.

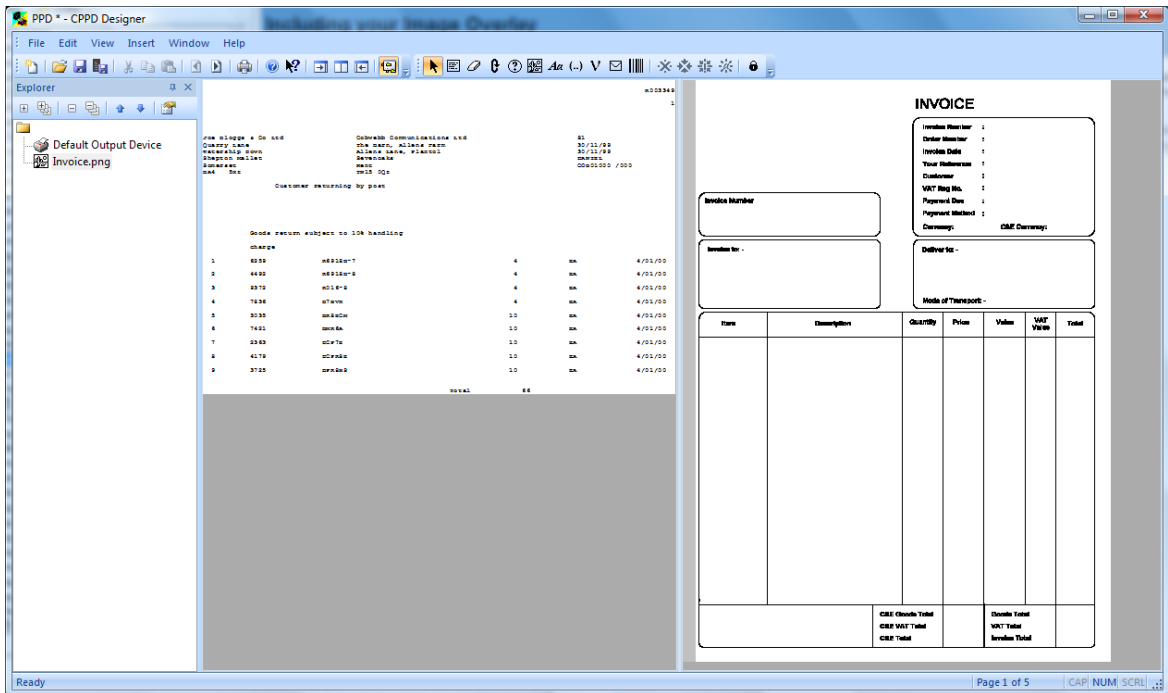
If you need to view the spooled file attributes, select **Spooled File Info** from the **View** menu.

When designing your output select a page of your spool file that most represents a typical page. You need to take care to find a page with the maximum amount of data displayed. This will help to prevent pages that have say, longer address lines, being truncated. CPPD copies the data as specified using the **Select** tool.

8.6 Including your Image Overlay

Select **Image Element** from the **Insert** menu and then find the image overlay that you created - see [Creating your Overlay](#) for details. If you used the defaults when creating the overlay using the **Cobwebb PPD Printer** driver then you will find the image in **c:\Program Files\CPPD Designer\Images**. Once selected you will see your overlay in the right hand panel [Output Pane] of your Cobwebb Designer screen. Now you are ready to map your spooled file data onto your **Output pane**.

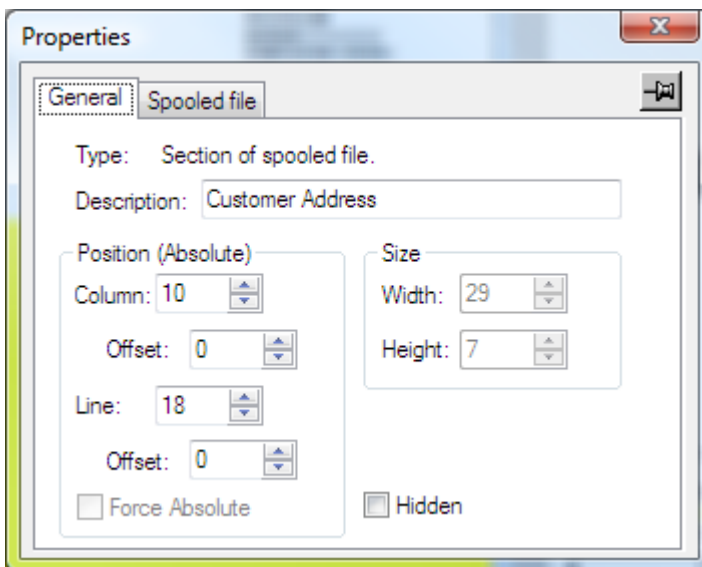
For details on all of the **Image Properties** please see [Inserting an Image](#).



8.7 General Properties

All elements within a CPPD Document share some common properties which are displayed in this dialog on the **General** tab. Changes are reflected immediately within the document.

Use the **Pin** button to secure the dialog to the screen.



Type

Displays the type of element whose properties are being examined.

Description

Used to provide an arbitrary description of the element. This will be displayed in the Explorer Window.

Position (Absolute)

Column / Offset

The horizontal position of the element in the output document. If you wish to make very small changes in the positioning of your data, images etc. on the Output pane you may do this by using the Column and Line offsets on the element properties dialog. Each unit represents 1440th of an inch. You may also use the mouse to make these minor adjustments by holding down the ALT key whilst dragging the element with the mouse.

Line / Offset

The vertical position of the element in the output document. If you wish to make very small changes in the positioning of your data, images etc. on the Output pane you may do this by using the Column and Line offsets on the element properties dialog. Each unit represents 1440th of an inch. You may also use the mouse to make these minor adjustments by holding down the ALT key whilst dragging the element with the mouse.

Force Absolute

When checked, forces the element to be positioned absolutely in the output document. This is only available if the element exists within a Loop element. See [Absolute and Relative positioning](#) for further details.

Size

Width

The width of the element in the output document in [grid size](#) units.

Height

The height of the element in the output document in [grid size](#) units.

Hidden

Checking this option will hide the selected element in the [Explorer Window](#) and the [Output pane](#). Unchecking will re-display the element. If you select to hide a condition / loop etc. then all nested elements will also be hidden.

8.7.1 Absolute and Relative positioning

The position of an element in the output document can be absolute or relative:


Absolute

Absolute positioning places the element exactly where you positioned it, so if you positioned it at Column=1, Row=1, it would appear in the top left hand corner of the output document no matter what.

Relative


Relative positioning is only possible within a [Loop](#). Relative positioning places the element in relation to the current position of the loop. Thus on the first cycle of the loop starting at row 30, an element positioned at Column=1, Row=1 will be placed at Column=1, Row=30. The second cycle of the loop will place the same element at Column=1, Row=31 because the loop is now on row 31.

8.8 Select Spooled File Data to Output

Click on the **Spooled file** icon  or press **2**. Now use the mouse to select the first piece of information that you wish to copy to your output page. This might be the Name and Address details. If you wish to change the layout of your Name and Address then you might have to select one line at a time. If you are happy to copy this over in a block then select the whole address. Once you let go of the mouse you will see that the information has been copied to the output page (the right-hand screen panel). It will be copied into the same place as it was found on the input page. If you wish to move this then you may do this in one of three ways:

1. Highlight the box (on the output page) by clicking on it with your mouse and dragging it to wherever you wish.
2. Highlight the box by clicking on it and then use your keyboard arrows to move the data.
3. Right click on the data and select **Properties** and enter the **Row** and **Column** details. You can also choose to use a different [Font](#) and [Font Colour](#).

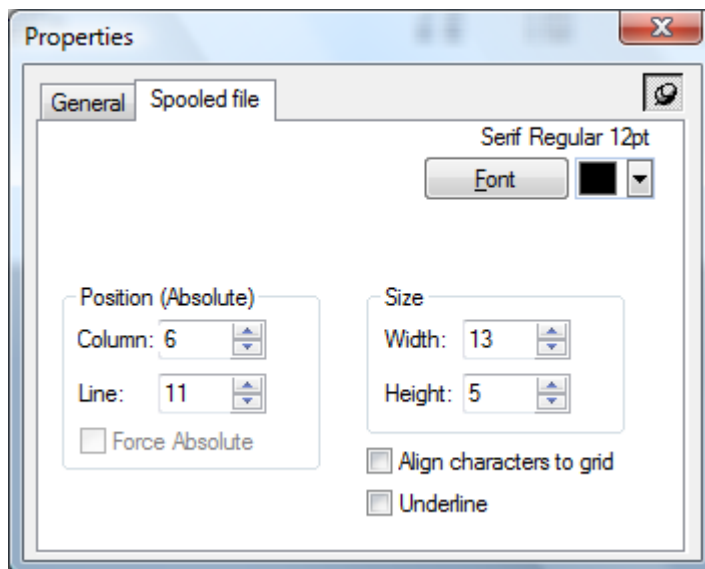
If you are using a Typographic font (e.g. Times Roman) with numeric data and you wish to make sure that the numbers line up then you need to select **Align characters to grid** on the **Spooled file** tab of the **Properties** box. It is a good idea to record the name of each field as it is created in the properties box.

A useful tip is to click on the data and select **Properties** and then click on the drawing pin  (top right of the properties box) as this will leave this dialog open.

You can also add a Spooled File element by selecting **Spooled File Element** from the **Insert** menu.

Spooled File Properties

See [General Properties](#) for details on the **General** tab.



Font

Enables altering the font for the spooled file data in the output document by bringing up the [Font](#) dialog box. You may also select a colour for your data if you are producing .pdf output. Click on the **Colour** drop down to bring up the [Font Colour](#) selection.

Position (Absolute)

Column

The horizontal position of the element in the input document.

Line

The vertical position of the element in the input document.

Force Absolute

When checked, forces the element to be positioned absolutely in the input document. See [Absolute and Relative positioning](#) for further details.

Size

Width

The width of the element in the input document in [grid size](#) units.

Height

The height of the element in the input document in [grid size](#) units.

Align characters to grid

When checked, forces each character to be positioned on the grid. This is most useful when a variable pitched font is used but you require columns to line up say for numeric entries.

Underline

Checking this entry will underline the data from the spool file on the output.

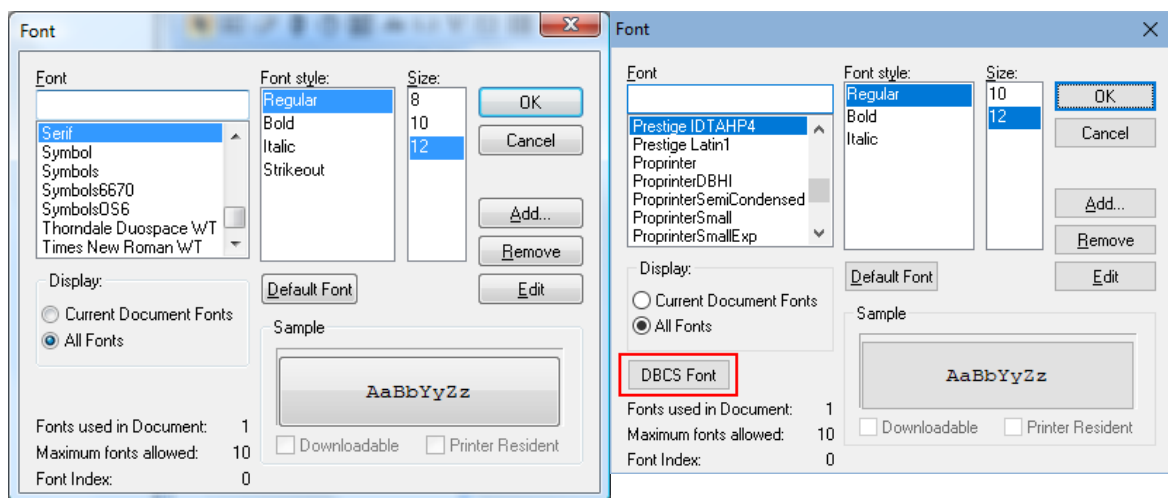
8.8.1 Changing the Font

The **Font** dialog box allows you to select a font for the element you are editing. It should be noted that the fonts displayed are IBM i fonts.

Only fonts contained within the [Installed Font Libraries](#) selected in the [Server Options \(View | Options | Server tab\)](#) will be displayed.

Standard codepage fonts

DBCS codepage fonts



Note: If the codepage you have selected for your [Document Language Defaults](#) includes DBCS fonts then you will see the **DBCS Font** button which allows you to select the DBCS font for any double byte data in the selected element. Click the button and pick the font in the usual way.

Font

Displays a list of the family names of the fonts. Those ending WT are usually the IBM True Type fonts.

Font style

Displays the various styles available for the selected font family.

Size

Displays the various sizes available for the selected font family and style.

Display

Limits the list of fonts displayed to those already in use in the document (**Current Document Fonts**) or to all fonts (**All Fonts**).

Default Font Button

Sets the selected font to the default font for the document.

Sample

Displays sample text in the selected font.

Fonts used in document

Displays the total number of fonts currently in use in the document.

Maximum fonts allowed

Displays the maximum number of fonts allowed in the document.

Font Index

This is only really relevant if you have clicked the radio button to display **Current document fonts** and then if you click on each of the fonts in turn you will see this value change.

Downloadable

Displays whether the font is downloadable from the IBM i to the Printer or not.

Printer Resident

Displays whether the font is resident in the Printer or not.

Add... Button

Displays the [Add Font](#) dialog box enabling the addition of individual IBM i fonts to the displayed list.

Remove Button

Removes the font from all font lists.

Warning: Removing a font will remove it completely from Cobwebb Designer NOT just the current PPD file.

Edit Button

Displays the [Edit Font](#) dialog box enabling the editing of the currently selected font.

If you are happy, click on **OK** to update the font information with your changes or **Cancel** to ignore any changes.

8.8.1.1 Add / Edit a Font

The **Add/Edit Font** dialog box allows you to add individual IBM i fonts to the list of fonts displayed in the Font dialog box.

The dialog box is titled "Edit Font" and contains the following fields and controls:

- General:**
 - Family Name:
 - Server Library or group:
 - DBCS Font Truetype
- Downloadable Font Data:**
 - IBM Character Set ID:
 - IBM Coded Font ID:
 - IBM Code Page:
- PC Emulation:**
 - Height:
 - Style:
 - Attributes: Bold Underline Italic Strikethrough
- Printer Resident Font Data:**
 - Font Group ID:
 - Character ID:
 - Code Page ID:
 - Width:

Buttons at the bottom:

The dialog is split into four parts:

General

Basic font information.

Family Name

The family name of the font. Eg: Roman.

Server Library or group

The library on the Server where the font is stored.

DBCS Font

Whether or not this font is a Double Byte Character Set font.

Truetype

This indicates whether or not this is a True Type font.

Downloadable Font Data

Information required to send the font to the printer.

IBM Character Set ID

The unique IBM supplied Character Set ID of the font. Eg: CODOST10

IBM Code Page

The IBM supplied Code page to use with this font. Eg: T1V10285

Printer Resident Font Data

Information required to identify the font held in the printer

Font Group ID

The printer defined Font Group ID of the font. Eg: 0042

Character ID

The printer defined character ID to use with this font. Eg: 697

Code Page ID

The printer defined code page ID to use with this font. Eg: 285

Width

The width of the font in points. Eg: 140

PC Emulation

Information required to emulate the font on the PC.

Height

The height of the font in points. Eg: 120

Style

The Style (or family name) of the font.

Attributes

The attributes of the font including: Bold, Italic, Underline and Strikethrough.

If you are happy, click on **OK** to update the font information with your changes or **Cancel** to ignore any changes.

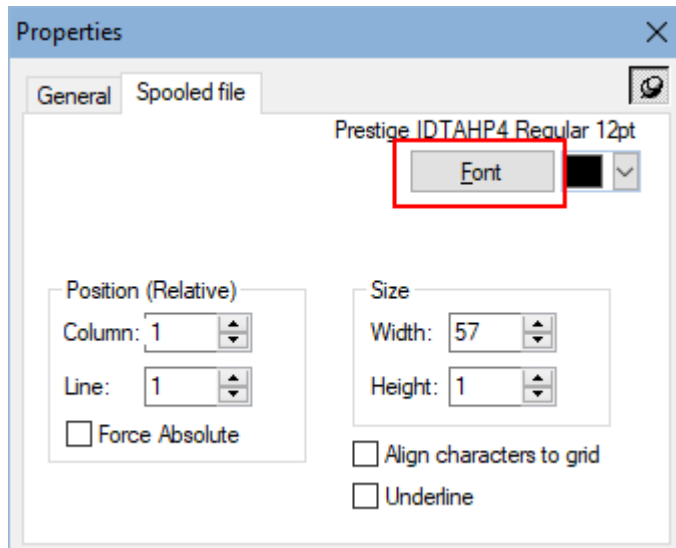
Import / Export

These buttons allow you to Import and Export fonts. The **Export** will create a text file of all the font definitions in CPPD. The **Import** allows for importing a new selection of fonts, in the form of an FEF (Font Exchange File) file; please contact [Cobwebb Support](#) if you require new font definitions and they will supply the relevant FEF file for you to Import. Once you have the FEF file please follow the steps in [Import a Font File](#).

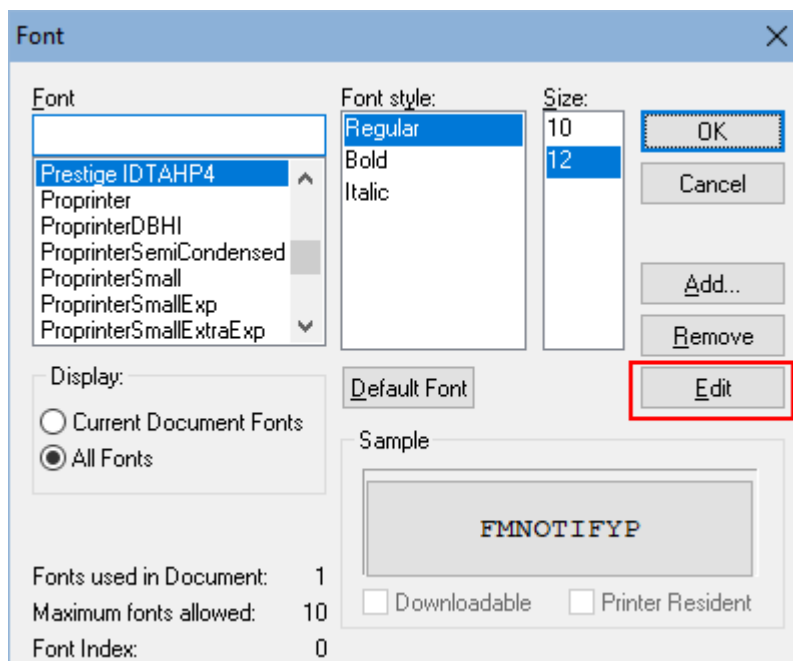
8.8.1.2 Import a Font File

If you have been supplied an **FEF** (Font Exchange File) file then you may import this into your Cobwebb Designer using the following steps:

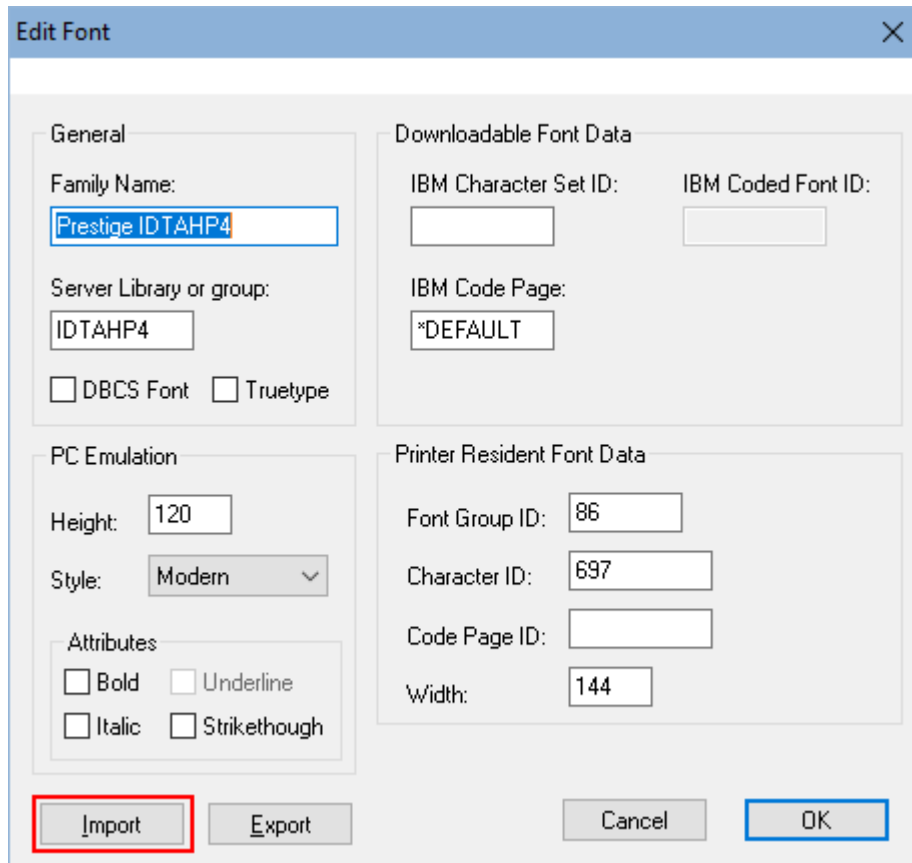
- Open an existing Cobwebb Design (PPD) in the Cobwebb Designer
- Right click on a **Spooled File** element,
- Click on the **Spooled File** tab
- Click the **Font** button e.g.



- A list of all the fonts is displayed, Click the **Edit** button (you don't have to pick an actual font) e.g.



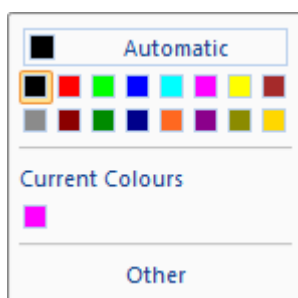
- The **Edit Font** dialog is displayed. Select the **Import** button e.g.



- Select the **FEF** file you have been supplied and import. **Note:** If you get an error "Error reading file: CSDEF.FNT." when importing your FEF file, just click **OK** as this can be ignored.
- Once imported from the **View** menu select **Options** and select the **Server** tab and make sure the new font library is ticked under [Installed Font Libraries](#).

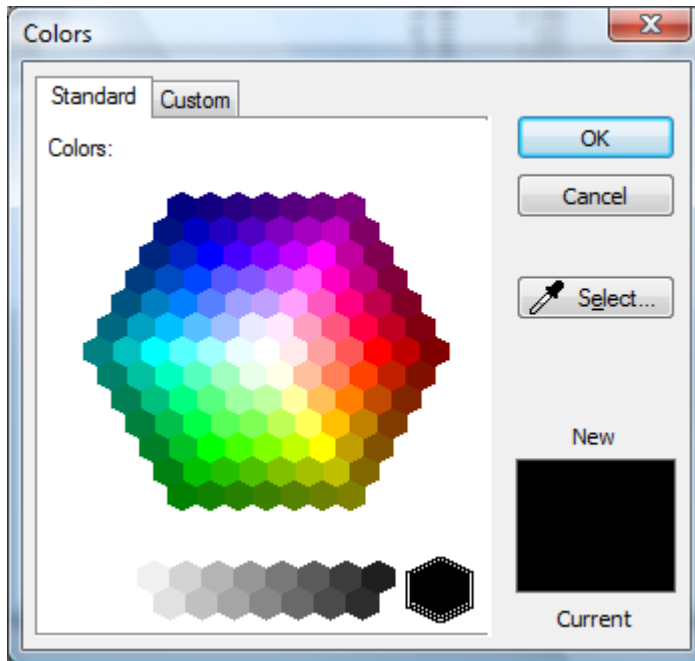
8.8.2 Changing the Font Colour

When you click on the drop down colour selection you will see a dialog similar to the following:

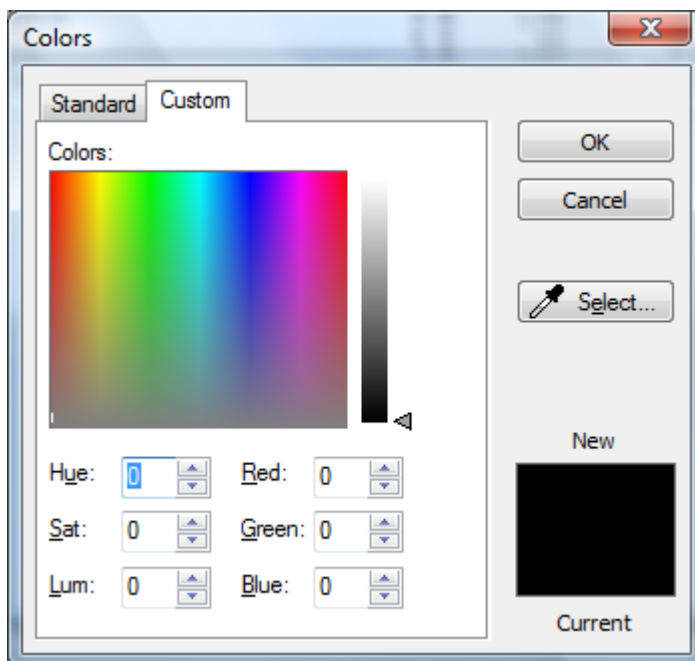


The colours that have already been used in the current PPD will be displayed in the **Current Colours** section. If you see the colour you want simply pick it from the pallet. **Note:** If you are selecting colour for text to be printed to **HPT** or **AFP Print** output then you can only pick from the top row; any other selection will be printed as black.

If not then click **Other** and you will be given a wider choice e.g.



Use the colour picker to select a colour from the pallet or click the **Custom** tab where you can specify the RGB.




Click **OK** once you have made your selection or **Cancel** to exit without selecting a colour. If you select a non standard colour then this will appear in the **Other** list.

Note: Colour Selection requires Cobwebb Server v6.0.25 or above.

8.9 Adding Static Text

If you wish to add text to your output document it is better to add it when you are creating your PPD file than to include it with your image overlay. There are several reasons for this. The image file size is smaller, it is easier to edit the text and it is much easier to line up the text with the

information selected from the spooled file due to the grid set up. (See [Setting up your Output page](#) for grid definition.)

To add text you need to select the **Static Text** icon  or press **7**. Then you need to click on your Output pane at the position that you wish to add the text. You will be presented with the **Properties** box. Click the **Text** tab. Enter the text that you wish to appear on the form and select the font that you would like to use. You can also choose to use a different [Font](#) and [Font Colour](#).

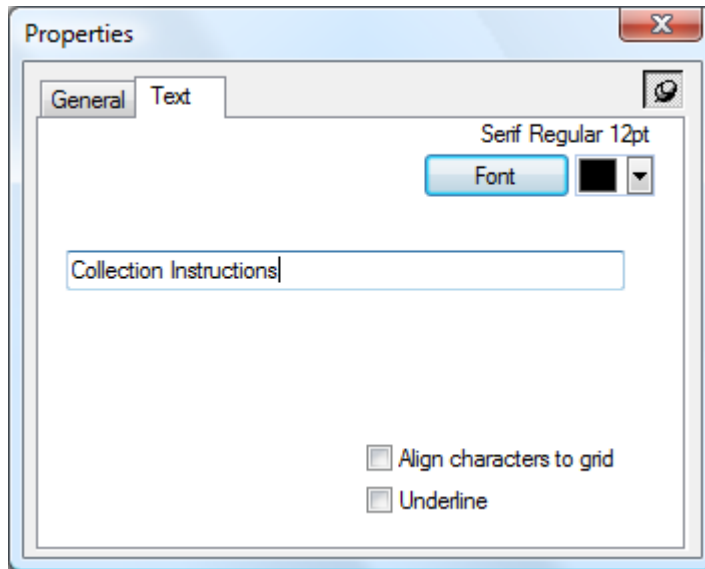
Now click on the [General](#) tab of the **Properties** box and give the text a description. This description is not compulsory but it makes the “Explorer View” much easier to read.

You may output the contents of either a variable or a parameter using this tool by entering **?VAR1** (where VAR1 is the name of your variable) or **?PARAM1** where PARAM1 is the parameter you wish to output. For more information please refer to the topic [Multiple Variable & Parameter substitution](#).

Selecting **Static Text Element** from the **Insert** menu will also bring up this dialog.

Static Text Properties

See [General Properties](#) for details on the **General** tab.



Font

Enables altering of the font for the text by bringing up the [Font](#) dialog box. You may also select a colour for your text if you are producing .pdf output. Click on the **Colour** drop down to bring up the [Colour Selection](#).

Text

The text that will be displayed in the output document. If you wish to print the contents of a Parameter or Variable then you can enter a **?** before the name of the Parameter or Variable e.g. ?PARAM1

Align characters to grid

When checked, forces each character to be positioned on the grid. This is most useful when a variable pitched font is used but you require columns to line up say for numeric entries.

Underline

Checking this entry will underline the static text on the output.

8.9.1 Import Text File

Selecting **Import Text File** from the **Insert** menu will allow you to import a text file as [Static Text Elements](#) into your PPD. This can be extremely useful when trying to set up **ZPL** code for **Thermal Label** instructions.


If you first select an element in the [Explorer Window](#) then the text will be positioned with the same x coordinate but the next line down and incremented for each line in your text file. If the element that you select is a [Condition](#) then the Static Text will be created in that condition.

8.10 Creating a Loop

Say you have a spooled file full of purchase orders, each purchase order consisting of an amount of fixed text (Date, Customer Number, Delivery address, Standard terms etc) followed by a variable number of items making up the order. The fixed text is easily copied across to the output document using the spooled file tool after all, it's always going to be in the same position.

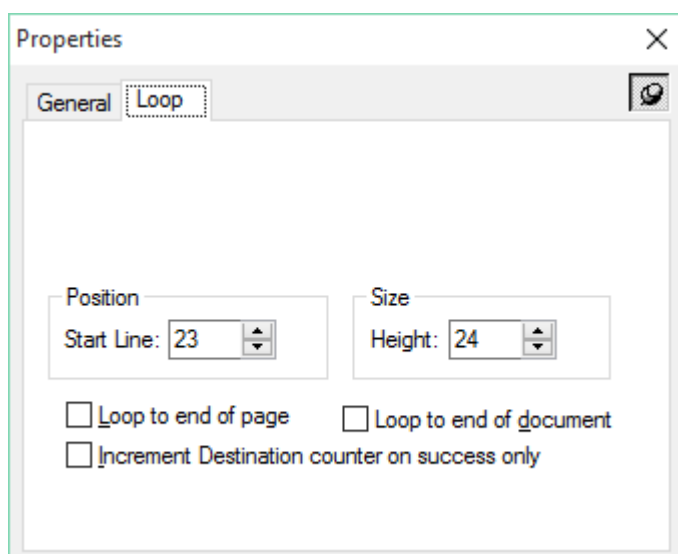
The list of items is more difficult. You probably won't know how many items there will be, and maybe not even how many lines each item will take up. This is where looping comes in. Set up a [Conditional element](#) to be true each time there is a change of item (Item number for example), place it in a loop that covers the area that may have items in it (all the way to the end of the page if necessary) then place within it the conditional elements and spooled file elements to copy the required text relatively.

There is a [Loop Tool Tutorial](#) video which may help you better understand the concept of Looping.

To do this you first select the **Loop** icon  or press **4**. Then select, using your mouse, all the lines from the Input pane that you wish to include in this loop. When you release your mouse button you will see that the selected lines will appear in yellow. You will also see, if you click on the Explorer Window that the **Loop** element has been added. Add a description for the loop using the **General** tab in the **Properties** box.

Loop Properties

See [General Properties](#) for details on the **General** tab.

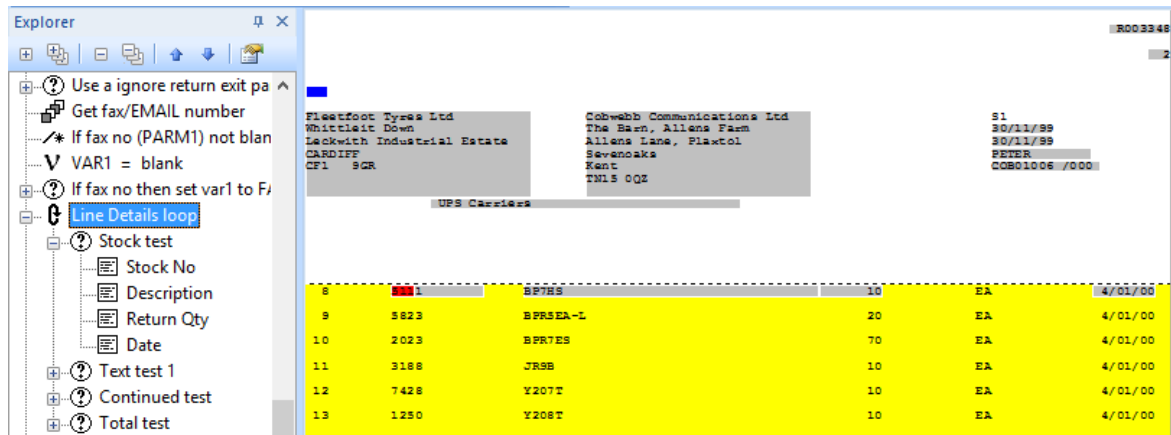


The **Loop** tab allows you to specify the **Position & Size** or the Loop (*these will already have been completed using your previous selection*) as well as options to select to override the number of lines in a Loop by using either **Loop to end of page** or **Loop to end of document**. The **Loop to end of page** is useful if the number of lines vary on each page; this to loop to the end of the spooled file page regardless of the number of lines. The **Loop to end of document** options allows you to process every page from the same Start Line until the last page in the document; this is often useful when you wish to output XML or perhaps label output instructions.

The **Increment destination counter on success only** option is to allow you to edit out unwelcome lines from your loop. If the condition within the loop is not met then it will not print a line on the output document. For example, you may have a blank line between items on your original Purchase Order but wish to leave them out of your final document.

Positioning your Elements in the Loop

Now you need to decide which data you want selected within the loop and what, if any, conditions you wish to apply to the data. As the same function is going to be applied to every line of the spooled file in the loop you only need to add your conditions based upon the first line in your Loop.



In the above screenshot you can see that the **Stock test** condition (in red) is being performed on the first line of the Loop, on the Input pane, and then the Spooled File output of **Stock No, Description, Return Qty** and **Date** are all also being selected from the first line. You may select data from the row below to be output but you will need to remember that this will be selected relative to the current line i.e if you have selected from the second line in the loop, when it reads the next line this will be selected from the third line, and so on.

You should also position the start of the Loop on the Output pane (the top of the yellow) where you wish to start outputting the data (see screenshot below) and then position the information that you wish to be output on the same line (unless you wish the information to appear on the line below for every line in the loop).

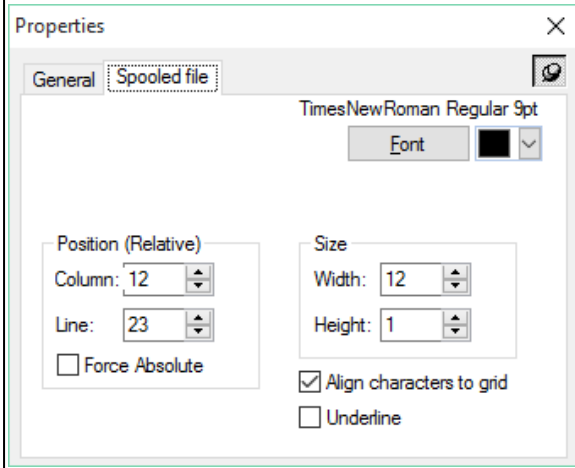
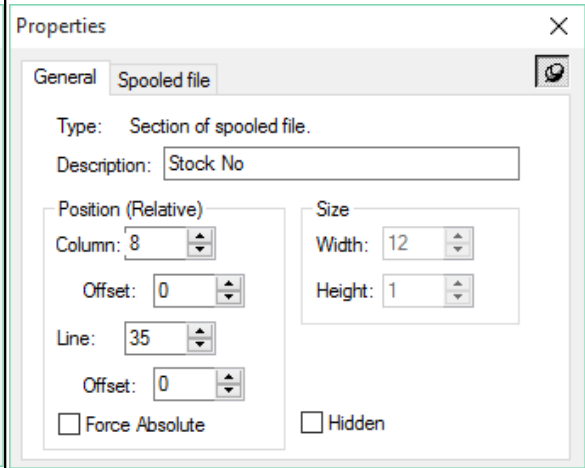
Collection Instructions: UPS Custom

Customer Ref: PETER	Date:	Request Date: 30/11/99
Customer A/c: COB01006/000	Returns Note No. R003348	

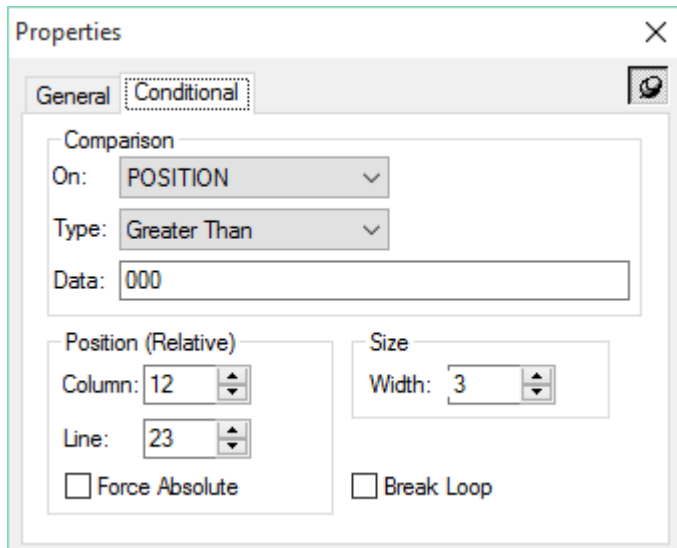
Stock No	Description	Returns Quantity	Returns Date
5111	BPTMS	10	4/01/00

Additional Element Properties when in a Loop

When you look at the **Properties** on your output pane for any output contained within the loop, such as a **Conditional** or **Spooled file** data, you will see an additional option - **Force Absolute**. Normally the input and output position would be dependent upon the line number increment of the loop.


<p>Force Absolute for your Output pane - will allow you to position the output from a Loop in a specific fixed position on your Output pane - unrelated to the line of the loop being processed.</p>	<p>Force Absolute for your Input pane is on the General tab and allows you to select from a fixed position on the Input pane - unrelated to the line of the loop being processed.</p>
	

For a **Conditional** element within a **Loop** there is the extra Property of **Break Loop**, this will allow you to jump to the end of the loop ignoring any further data when a certain Condition is met e.g. Totals.



Note: You must take care to include all possibilities that might occur within the loop. For instance you may have both credits and debits. You may have to check if there is a Brought Forward balance on page two that might cause a problem etc.

8.11 Conditioning Output Data

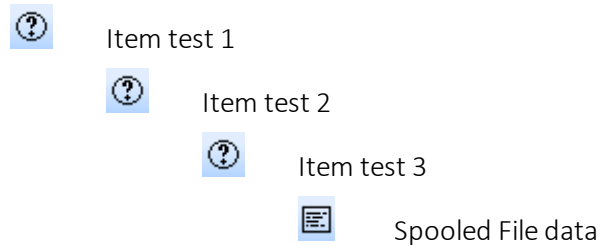
Conditional operations are a powerful part of the Cobwebb Designer. They allow you to alter the layout the spooled file depending on the contents of the spooled file itself. You may wish to condition your output data depending upon certain criteria, perhaps the page number or maybe a company number printed on your spooled file for example, select the **Conditional** icon  or press **5**. If you wish to condition on data within your spooled file then select that data from the input pane with your mouse. If you wish to condition upon page number or a variable or parameter then you will need to select a small blank part of your input pane so that you can then change the conditional type in the Properties box. The data selected from the input panel will show up in red. If you look at the Conditional tab of the Properties box then you will see the default of **POSITION** as the **Comparison On** type. To change this you just need to click on the arrow to the right of the box and select the type of comparison that you require. The default for the **Comparison Type** is **Equal to**. Again you may change this by clicking on the arrow to the right of the entry. If you are comparing to a given text then you will need to key this into the Data entry on the Properties box. Once again click on the Description tab and enter a description for this condition. You will see that the default description will be the data that you selected from the input pane, please change this to something useful so that you will be able to easily find this condition if you need to change it via the Explorer View.

If you now look in the **Explorer View** you will see the Conditional element entry. You now want to perhaps select data from your spooled file or enter Static Text relating to this condition. Click off the Explorer View and select the spooled file data or enter the Static text as previously described, then click back into the Explorer View (Ctrl E) and you will see the entry underneath the Conditional element. Next you need to click on the Spooled file or Static text element and drag it into the Conditional element, just as if you were moving a document between folders. You will see that the Spooled file or Static text element is nested under the Conditional element. You may, in this same way, nest actual Conditional elements. If you need to perform more than one test before adding text or spooled file data then select the first Conditional element, then the second. Once you have completed the second go to the explorer view and drag the second Conditional

element into the first and so on. Once you have entered all your Conditional elements you may then drag the text or spooled file data into the last Conditional element.

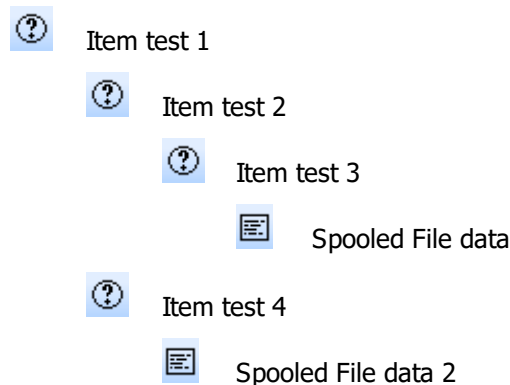
It is important to remember that if you are nesting your Conditional elements then each subsequent condition will only be performed if the previous condition has been satisfied.

Example 1



In **Example 1** all **Item test** conditions would have to be satisfied before the Spooled File data would be output. With later versions of the Cobweb Server software it is possible to nest following conditions at any level required.

Example 2



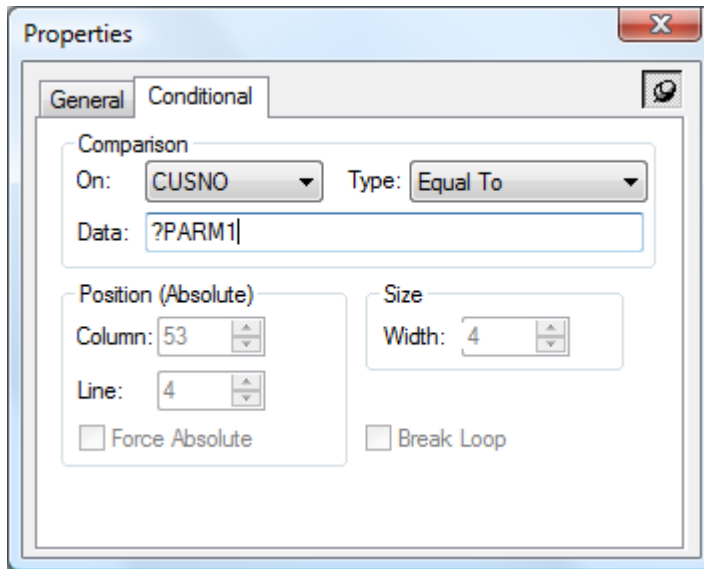
In **Example 2** Item tests 1, 2 and 3 will be performed before outputting Spooled File data 1. Then with Item test 1 still being in force (but not Item tests 2 and 3), Item test 4 will be performed and if satisfied Spooled File data 2 will be output. It is therefore important, with later versions of the software (4.2.01 and above), that you drag and drop your conditional elements into the correct level.

Note: It is often useful to have the Explorer View along side the Input and Output panes. To do this please refer to the [Useful tips](#) topic.

You may also compare the contents of one variable with another, a variable with a parameter or a parameter with another by e.g.

Conditional Properties

See [General Properties](#) for details on the **General** tab.



This is comparing to see if the variable CUSNO is Equal to PARM1. The ? at the beginning of the Data string indicates either a Variable name or a Parameter.

Comparison

On

Displays the item that the comparison is based on. Choose from **PAGE**, **POSITION** or one of the six **parameters** or a predefined [variable](#).

Type

Displays the type of conditional operation. Choose one from the list that matches the type of comparison that you wish to perform.

Data

The data that will be used in the conditional operation. You may also compare to the value of a **Parameter** or **Variable** by entering a ? followed by the Parameter or Variable name e.g. ? PARM1.

When comparing on **PAGE** you may either enter the actual page number here or use one of the following entries:

Data	Description
*START	The very first page of the spooled file.
*FIRST	The first page of a new document as determined by the Page Setup .
*LAST	The last page of a document as determined by the Page Setup .
*END	The very last page of the spooled file.

Position (Relative)

Column

The horizontal position of the element in the input document

Line

The vertical position of the element in the input document

Force Absolute

When checked, forces the element to be positioned absolutely in the input document. See [Absolute and Relative positioning](#) for further details.

Size


Width

The width of the element in the input document.

Break Loop

Forces the Loop that this conditional element resides in to end if the condition is met.

8.12 Inserting an Image

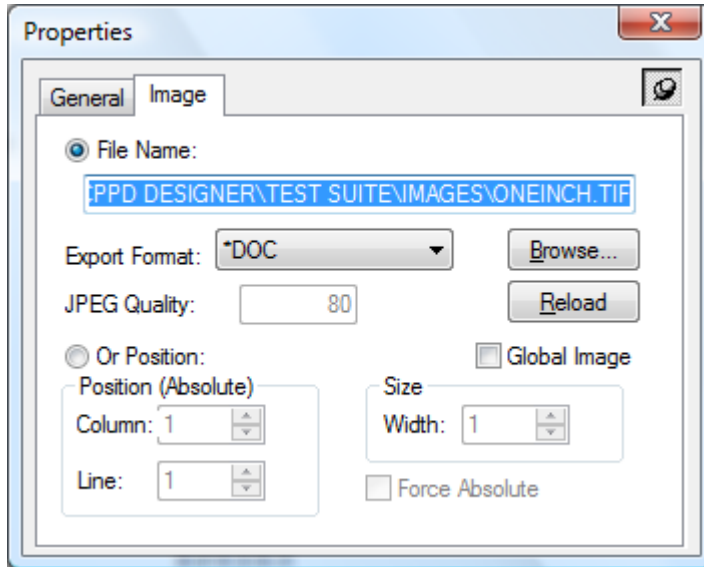
Sometimes a logo or signature is required to be inserted dependent upon a condition. To do this you would first select the [Conditional element](#) and then click on the **Image** icon  or press **6**. Then on the **Output pane** using your mouse draw a small box. Next you will need to select the image that you would like to include. If you then look at the **Explorer View** you will need to drag the Image element into the previous Conditional element.

Notes:

- If you wish to include a colour image and you have not set your default image export format to **JPEG** then you will need to change the image properties to select the JPEG format. Click on the **Image** tab of the Properties box to change the format. The **JPEG Quality** value can be 0-100 where 0 is the worst quality. The better the quality the larger the size of the image.
- You may also specify data from the input spooled file which is the name of the graphic that you wish to use. This graphic must have been previously uploaded to the IBM i. To do this you select the **Or position** radio button on the **Image** tab and select the area of the input spooled file which holds the name of the graphic you wish to insert.
- If you wish to include an image of **Terms and Conditions** then please see the [Adding Terms & Conditions](#) topic.
- If you have images that frequently change you may wish to consider the following:
 - [Using Dynamic Images](#)
 - [Using Global Images](#)

Image Properties

See [General Properties](#) for details on the **General** tab.



File Name

Select this radio button select an image to upload. This displays the name of the image file when selected.

Format

MMR This is purely for backward compatibility and is no longer used

TIFF This is the recommend format for **Black & White** images used in any output

Colour JPEG JPEG uses [Lossy Compression](#) which is good for Photos, Shading, Drawings etc. This format can be selected if you wish to use a Colour image for either PDF Email or PDF File output. **Note:** This is the format that must be used when using PDF Datastream for colour images.

Colour TIFF(LZW) TIFF(LZW) uses [Lossless Compression](#) which is good for Lines, Blocks etc. This format can be selected if you wish to use a **Colour** image for PDF Email or PDF File output.

) **Note:** This format is not compatible with PDF Datastream for colour images. Requires SPLAMATIC V2R3M0 or higher.

***DOC** Leaving this default will use the default image export format in [View | Options | General](#)

Quality

This is only available if you have select the format to be JPEG. The JPEG **Quality** value can be 0-100 where 0 is the worst quality. The better the quality the larger the size of the image.

Browse

This button displays the **File Open** dialog box for selecting the image file.

Reload

This button will reload the image into the Cobwebb Designer. This can be useful if you have changed the image since opening the PPD document.

Global Image

This should only be used if you wish to upload the image to the server for use by any PPD file. When this image is uploaded it the PPD Member name will be blank. See [Using Global Images](#) for details.

Or Position

If the name of your graphic is variable then you can pick up this variable name from the input spooled file. If you are going to be using this method then the graphics must already have been upload to the IBM i.

Position (Absolute)

This is only available if the **Or Position** radio button has been selected.

Column

The horizontal position of the graphic name in the input document

Line

The vertical position of the graphic name in the input document

Size

This is only available if the **Or Position** radio button has been selected.

Width

The width of the graphic name in the input document

Force Absolute

When checked, forces the element to be positioned absolutely in the input document. See [Absolute and Relative positioning](#) for further details.

8.12.1 Using Dynamic Images

Overview

Dynamic Images are images that are created at the time of running your Cobwebb Design, which can be useful if you have images that change on a regular basis and you don't want to have to keep updating your Cobwebb Design to import the latest changes. In order to use Dynamic Images in your Cobwebb Design the PPD has to:

1. Include a call to the [IMG2CRG](#) Cobwebb Exit Program. This will import the selected image into the [Cobwebb Image Library](#).
2. Use the return value from PARM4 of the IMG2CRG as the **Image Name**.

Limitations

Whilst this can be extremely useful there are some limitations that you may wish to consider before using Dynamic Images.

- If you do specify a **CPPD Image Library Entry Name** in PARM4 then, if you are outputting to Fax or Email and the message is waiting on the Cobwebb Queue to be sent, potentially the next time that the same Cobwebb Design is run a different image could be imported (if you had changed the original image passed in PARM1) and when the Fax or Email is eventually sent it may go with a different image. Also if the same Cobwebb Design was archiving the document the image in the Fax/EMail could potentially be different to the one stored in the Archive if it is waiting on the Cobwebb Queue for a while.
- If you don't specify a **CPPD Image Library Entry Name** in PARM4 then a unique name is generated each time the Cobwebb Design is run and you could end up with hundreds of

images for that PPD left in the Cobwebb Image Library. The way to remove them all in one go is to re-upload your Cobwebb Design to the Server.

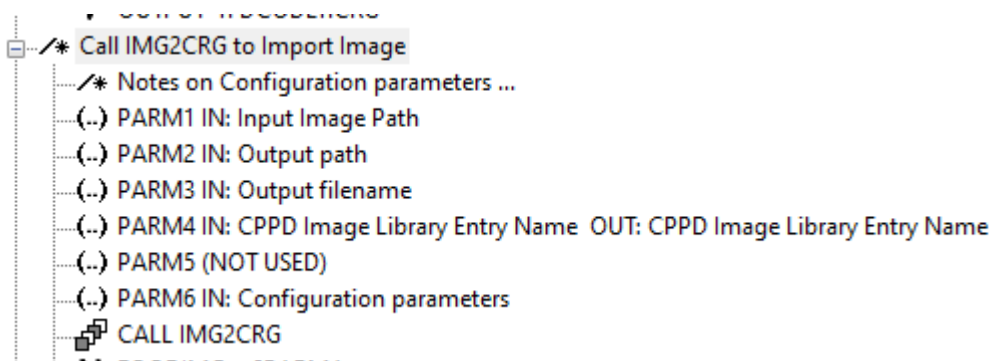
Dynamic versus Global Images

Before using **Dynamic Images** you may wish to consider using [Global Images](#) which are images that are to be exported to the server for use by any PPD file. **Global Images** can be used in multiple PPD files such as Header or Footer images which are the same for all your documents. These can be added to one single Global PPD which is exported to the Server and then referenced in all of your other PPDs. In this way if your Header or Footer images need to change you only need to change them once in your Global PPD and export that one PPD to the Server for the changes to take effect.

Designing your Cobwebb PPD

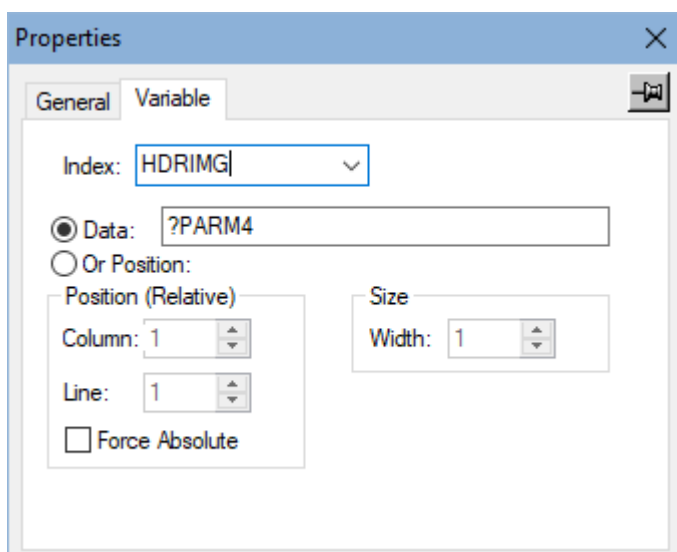
Step 1 - Add the call to IMG2CRG

The first step is to add the call to the **IMG2CRG** Exit Program where you specify the location of the image you wish to import together with other configuration options. Please see the topic on [IMG2CRG](#) for a definition of all of the parameters.



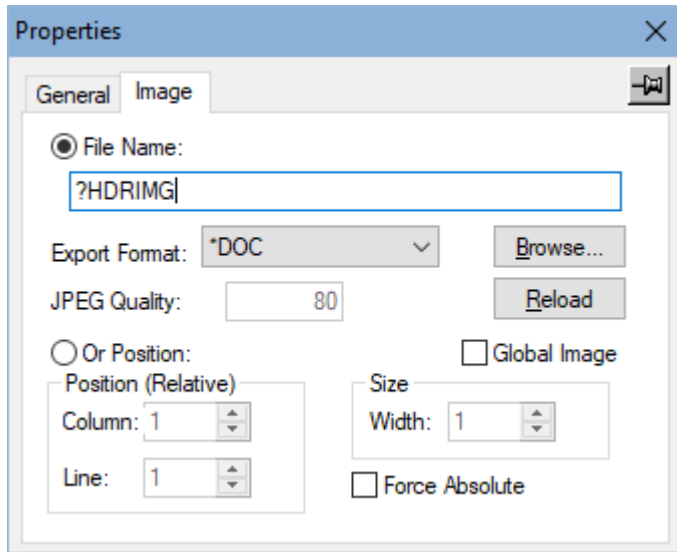
Step 2 - Add the return parameter PARM4 to a Variable

Next it is a good idea to store the value returned in **PARM4** as a **Variable** in case you need to call another Exit Program before you define the Image.



Step 3 - Use the Variable as the Image Name

Lastly, when you add the Image to the page, you need to specify the **File Name** as the **CPPD Image Library Entry Name** you have stored in your variable.



8.12.1.1 IMG2CRG

This program allows for the use of [Dynamic Images](#) in your Cobweb Design. You specify an image input path which could be on your IFS and then when the PPD is run it imports the image into the [CPPD Image Library](#) which is then used in the output. This can be useful if your images change on a regular basis. **Note:** IMG2CRG generates 32bit full colour images which may result in a larger image size than the input image.

Parameter	In	Example	Notes
PARAM1	Input Image Path	/test/image01.png	From v0.30 this can be an SQL select statement with the image data in the first cell of the first row returned.
PARAM2	Output Path	/test/output/	
PARAM3	Output File name	image01.crg	If this parameter is blank on input, then the input file name will be used with a "crg" extension in place of the original extension. If this parameter is not blank then any existing file will be deleted.
PARAM4	CPPD Image Library Entry Name	IMAGE01	If this parameter is blank on input, then a unique library entry name will be generated. The first 10 characters of the input image file will be preferred. If this parameter is not blank then any existing entry will be deleted.

			<p><i>On success</i>, PARM4 contains the image library entry name</p> <p><i>On Failure</i>, PARM4 will be blank</p>
PAR M5	From v0.32 - The Code page to use for translating input and output variables		<p>If not specified, the Code page in the System Value QCHRID is used, use DSPSYSVAL QCHRID to check.</p> <p>It is recommended that you set this to the national Code page e.g. for the UK 285 or 1146.</p>
PAR M6	Configuration Parameters	TESTPPD, CPPD, 0, 2880, 0, JPG, 80, 16, YES	

Configuration Parameters

This is a list of comma separated values as follows:

Description	Default	Notes
PPD Name	blank	This entry <u>MUST</u> be in UPPERCASE
CPPD Library Name	CPPD	
PPD Orientation	0	0=Portrait, 90=Landscape
Output Image Width	2880	This must be specified in 1440ths of an inch. Changing this value does not change the file size of the image. If you want an image of 1 inch then you would specify 1440, for 2 inches 2880 etc.
Output Image Rotation	0	Options are (0, 90, 180, 270) rotating clockwise.
Output Image Encoding	JPG	Options are (JPG, LZW). JPG uses Lossy Compression which is good for Photos, Shading, Drawings etc. This format can be selected if you wish to use a Colour image for either PDF Email or PDF File output. Note: This is the format that must be used when using PDF Datastream for colour images. LZW uses Lossless Compression which is good for Lines, Blocks etc. This format can be selected if you wish to use a Colour image for PDF Email or PDF File output. Note: This format is not compatible with PDF Datastream for colour images. Requires SPLAMATIC V2R3M0 or higher.
Output Image JPG Quality	80	Options are (0-100). Where 0 is the worst quality. The better the quality the larger the size of the image.

Output Image Quantize Width	16	Options are (0-99). The value of quantize width is a number that the output width of the image must be divisible by. For example, If you pass in an image with a width of 15 and a quantize width of 16, then the output image width will be rounded up to 16. We believe JPG image widths have to be divisible by 16, which is why we have the parameter. It defaults to 16 and is best left at that value.
Base64 Decode SQL Data	YES	Options are (YES, NO). If you are using SQL in PARM1 to return the image data and the SQL is Base64 encoded then you will need to decode it to use it in IMG2CRG, so leave this option as YES.

8.12.2 Using Global Images

Global Images can be used in multiple PPD files such as Header or Footer images which are the same for all your documents. These can be added to one single Global PPD, by ticking the **Global Image** entry, and exported to the Server and then referenced in all of your other PPDs . In this way if your Header or Footer images need to change you only need to change them once in your Global PPD and upload that one PPD to the Server for the changes to take effect.

Limitations

There is one limitation to using Global Images in this way and that is if you wish to use the same image but with a different size or format. Currently the size and format in the Global Image PPD is used, i.e. overriding anything you may have specified in the other PPDs.

Global versus Dynamic Images

Before using **Global Images** you may wish to consider using [Dynamic Images](#) which are created at the time of running your Cobwebb Design. **Dynamic Images** can be useful if you have images that change on a regular basis and you don't want to have to keep updating your Cobwebb Design to import the latest changes.

Creating your Global Images

Use the following steps to help create any Global Images that you wish to use in several PPDs.

Step 1 - Create all your Global Images

Create all of the images that you wish to use globally throughout your PPD and store them all in one location accessible to all PPDs.

Step 2 - Add the images to your Global Image PPD

Include all of the Global Images into a **Global Image PPD** using the normal [Image element](#) and ticking the **Global Image** entry. This means that when it is exported to the Server the **PPD Name** is not included when it creates the entry in the [Cobwebb Image Library](#). By adding all of the Global Images to one PPD this will be the only PPD that you will have to Export to the Server when an image changes.

Step 3 - Upload the Global PPD to the Server

Export your **Global Image PPD** to the Server. If you look in the [Work with Graphic file](#) you will see the new entries for your images with a blank PPD Member.

Step 4 - Add the Global Image to a PPD

When you add the **Global Image** to your other PPDs make sure you pick the image from the place where you created the images in **Step 1**. Again tick the **Global Image** entry so that it doesn't create an entry in the [Cobwebb Image Library](#) for these PPDs. When the PPD is run it will first look for an image specific to the actual PPD and then, if it cannot find one, check for a **Global Image**.

8.13 Inserting a Resource

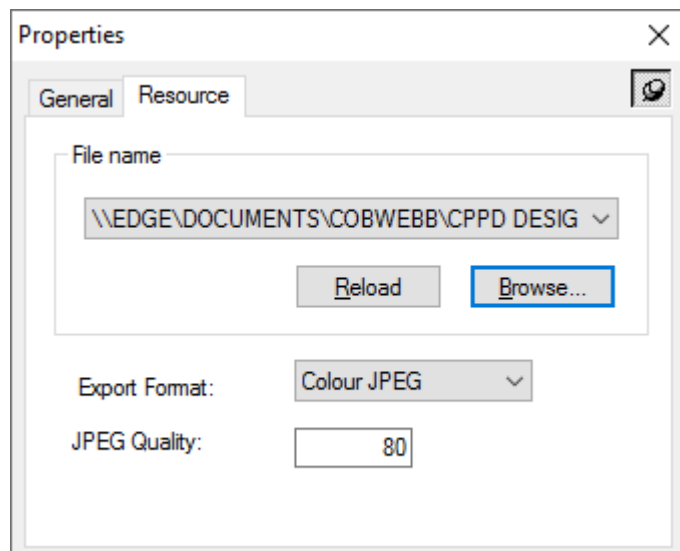
A resource element is similar to the image element except that it will only be downloaded to the printer once. To insert a resource you need to click on the **Output pane** and select **Insert Resource** from the **Insert** menu.

Note 1: If you wish to include a colour image and you have not set your default image export format to JPEG then you will need to change the image properties to select the **JPEG** format. Click on the **Image** tab of the Properties box to change the format. The **JPEG Quality** value can be 0-100 where 0 is the worst quality. The better the quality the larger the size of the image.

Note 2: Resources cannot be used for faxing documents.

Resource Properties

See [General Properties](#) for details on the **General** tab.



File Name

Select this radio button select a resource to upload. This displays the name of the resource file when selected.

Reload

This button will reload the resource into the Cobwebb Designer. This can be useful if you have changed the resource since opening the PPD document.

Browse

This button displays the **File Open** dialog box for selecting the resource file.

Export Format

MMR This is purely for backward compatibility and is no longer used

TIFF This is the recommend format for Black & White images used in any output

JPEG This format can be selected if you wish to use a Colour image for either Email or File PDF output but produces a large file than using **TIFF(LZW)**

TIFF(LZW) This is the recommend format if you wish to use a Colour image for PDF email or PDF file output or for AFP print output using the PDF datastream


***DOC** Leaving this default will use the default image export format in [View | Options | General](#)

Note: If you wish to include a colour image and you have not set your default image export format to JPEG then you will need to change the image properties to select the JPEG format. Click on the Image tab of the Properties box to change the format. The JPEG Quality value can be 0-100 where 0 is the worst quality. The better the quality the larger the size of the image.

Quality

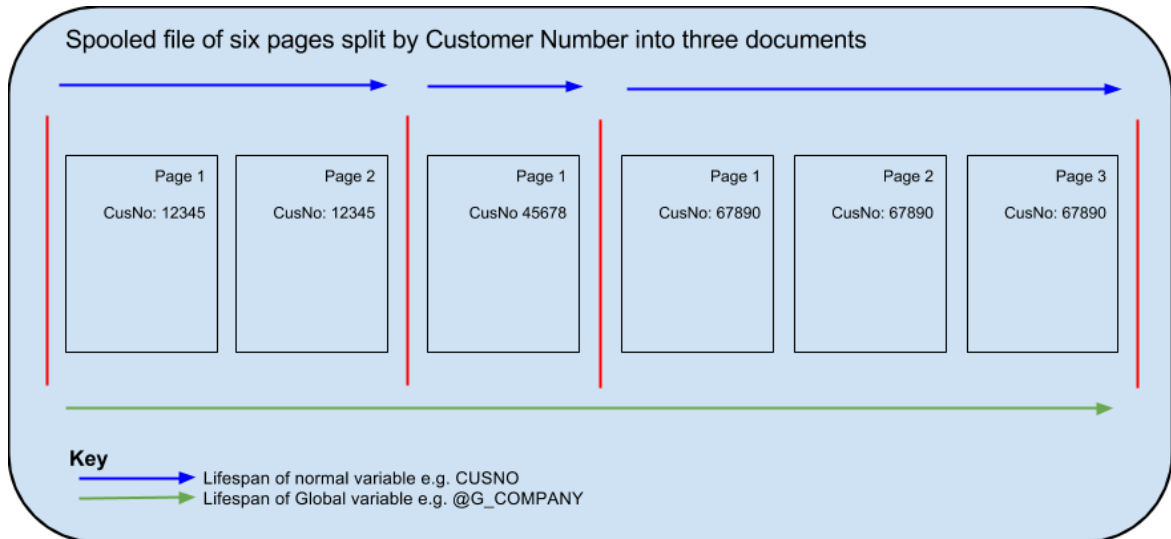
This is only available if you have select the format to be JPEG. The JPEG **Quality** value can be 0-100 where 0 is the worst quality. The better the quality the larger the size of the image.

8.14 Storing Variables

Variables provide a powerful way of storing and testing values. For example if a document within the spooled file contains a fax number, the word FAX could be stored in a variable. This could then be tested at the end of the document to decide whether to fax or print the document. You may store up to 999 pieces of variable data. To do this you will need to select the **Variable** icon  or press **9**. Using your mouse on the Input pane, select or enter the data that you wish to contain in a variable and type the name that you wish to give the variable (up to 10 characters) in the **Index** entry on the **Variable** tab. You may also select **Variable Element** from the **Insert** menu.

How Variables work

Variables are cleared when the first page of a new document is reached unless you wish to define a **Global Variable** which will not be cleared. To define a **Global Variable** it must be prefixed “@G_” e.g. @G_COMPANY.



If you wish to create a static text variable then you need to click on the **Data** button and enter the static text in the entry to the right.

Remember to click on the **General** tab of the **Properties** box and give the variable a recognisable description. Having stored the variables that you require you may use them together with the Conditional element.

If you wish to output the content of your variable then you would use the [Static Text](#) tool to position your output and enter **?ABC123** where **ABC123** was the name that you gave your variable. For more information please refer to the topic [Multiple Variable & Parameter substitution](#).

If you need to use paper from a different drawer of your printer, for instance letterhead for the first page, or change the number of copies depending upon variable data then you may do this by setting up your conditional element and then setting the **'Drawer'** or **'Copies'** variables respectively.

Note: You must make sure that you define your variables before trying to use them. They must appear higher up the Explorer View than the Conditional element(s) where they are being used, and all the variables are initialised at the start of each new input spooled file document. This means that if you have set up the 'Conditional' tab in your 'Page Set-up' to split your input spooled file into documents the variables will be cleared at the end of each document. If you have not set the 'Conditional' tab the variables will not be cleared and you will need to do this if required.

Variable Properties

See [General Properties](#) for details on the **General** tab.

The screenshot shows a 'Properties' dialog box with two tabs: 'General' and 'Variable'. The 'Variable' tab is active. It contains the following fields and controls:

- Index:** A dropdown menu showing 'VAR1'.
- Data:** A radio button that is selected, followed by an empty text input field.
- Or Position:** An unselected radio button.
- Position (Absolute):** A sub-section containing:
 - Column:** A spinner box set to '15'.
 - Line:** A spinner box set to '42'.
 - Force Absolute:** An unchecked checkbox.
- Size:** A sub-section containing:
 - Width:** A spinner box set to '5'.

Index

Either select an existing variable from the list or type in your variable name (max. 10 chars). Variables are cleared when the first page of a new document is reached unless you wish to define a **Global Variable** which will not be cleared. To define a **Global Variable** it must be prefixed "@G_" e.g. @G_FAX.

Data

If you wish to simply store static data as a variable select this **Data** radio button and enter the required data in the box provided.

Position (Absolute)

If you wish to pass in data from the spooled file then select the **Or Position** radio button and the following entries will be enabled.

Column

The horizontal position of the element in the input document.

Line

The vertical position of the element in the input document.

Force Absolute

When checked, forces the element to be positioned absolutely in the input document. This is only available if the element exists within a Loop element. See [Absolute and Relative positioning](#) for further details.

Size

Width

The width of the element in the input document in [grid size](#) units.

8.15 Calling an Exit Program

CPPD can call user created **Exit Programs** passing and receiving parameters. This is a very powerful feature of CPPD enabling, for example, the looking up of detailed product descriptions or stock levels.

Exit Programs are called with six parameters each 132 characters in length plus an error indicator, which is a numeric parameter of length one. You do not have to use all the parameters but they must be included in your program. **Note:** You must define your parameters before calling your exit program. I.e. your parameters must be defined higher up the [Explorer Window](#) than the call to the exit program.

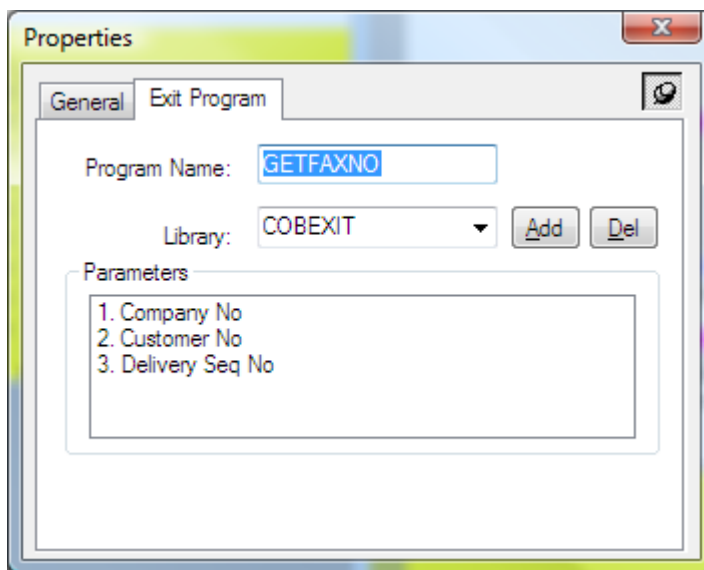
See [Defining your Exit Program Parameters](#).

Exit Program Properties

See [General Properties](#) for details on the **General** tab.

Once you have defined your parameters you need to insert an **Exit Program element** to call your program to retrieve the data. To do this you need to select the **Exit Program element** from the **Insert** menu. On the **Exit program** tab of the Properties box you may enter the name of your program and the library where it may be found. You will see that the parameters that you have previously defined appear under the parameters heading.

If you wish to add a list of libraries to be used when running your exit program you will need to enter the Library name in the box and click on **Add**. You need to do this for each library up to five. Extra libraries are only needed if you are referencing files in a library that does not exist in the CPPD library list. Now please click on the **General** tab and type in a description for the Exit program element.



Program Name

The name of your exit program (max. 10 chars)

Library

The name of the library where the exit program resides (max. 10 chars). If you wish to add a list of libraries to be used when running your exit program you will need to enter the Library name in the box and click on Add. You need to do this for each library up to five. Extra libraries are only needed if you are referencing files in a library that does not exist in the CPPD library list.


To remove a library name from the list first select it and then click on the **Del** button.

Parameters

The list of up to six parameters that may be passed into your exit program. These Exit Program Parameters must be defined before the Exit Program in the [Explorer Window](#) and then you will see them in this list.

Note: If you need to add more than five libraries then you can either call a dummy PPD Exit program with another 5 libraries or add the required libraries to a previous call to an exit program, as they are cumulative. The maximum number of libraries that can be added is 255.

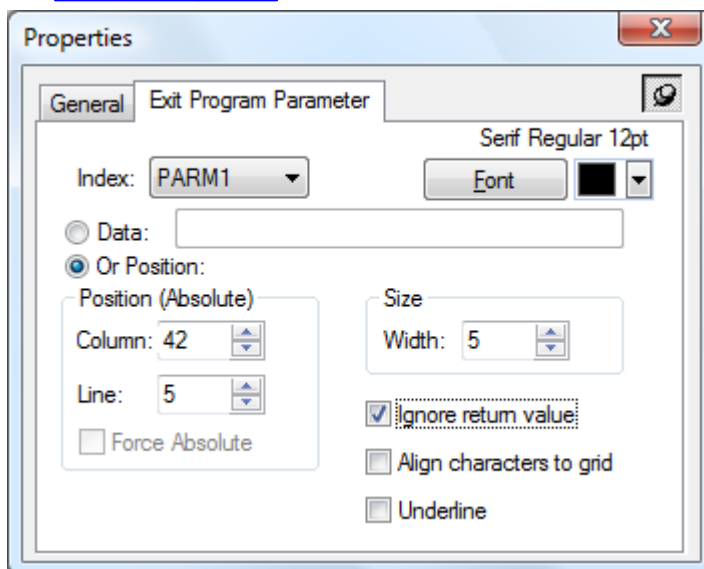
8.16 Defining your Exit Program Parameters

To define your **Exit Program Parameters** you need to select the **Exit Program Parameter** icon  or press **8**. Using your mouse you then need to select the data, from the Input pane, that you wish to use for your parameter. If you want to include static text you just need to select a blank area of the Input pane. On the Exit Program Parameter tab of the Properties box select the parameter number from 1 to 6 or click on the Data button and enter the text in the box to the right. You may need to pass several parameters to your exit program but only receive back one. This is why the default on the Exit Program Parameter tab of the Properties box for '**Ignore return value**' is ticked. You will need to un-check this box for each parameter that you are returning from your program. You can also choose to use a different [Font](#) and [Font Colour](#) for the returned parameter.

Note: - When returning a parameter you must return the data starting in position 1 of the returned parameter (move left in RPG), as when you specify the length of your returned parameter it will start counting positions from the left and then truncate anything after the required length.

Exit Program Parameter Properties

See [General Properties](#) for details on the **General** tab.



Index

Select the relevant parameter from the list. The entries PARM1 - PARM6 represent the six parameters that may be input / returned in the Exit Program with PARM1 being the first parameter passed etc.

Font

Enables altering of the parameter's font in the output document by bringing up the [Font](#) dialog box. You may also select a colour for your text if you are producing .pdf output. Click on the **Colour** drop down to bring up the [Colour Selection](#).

Data

If you wish to simply pass static data in as a parameter select this Data radio button and enter the required data in the box provided.

Position (Absolute)

If you wish to pass in data from the spooled file then select the Or Position radio button and the following entries will be enabled.

Column

The horizontal position of the element in the input document.

Line

The vertical position of the element in the input document.

Force Absolute

When checked, forces the element to be positioned absolutely in the input document. This is only available if the element exists within a Loop element. See [Absolute and Relative positioning](#) for further details.

Size**Width**

The width of the element in the input document in [grid size](#) units.

Ignore return value

If you do not need the returned parameter to be displayed in your output then leave this entry checked. If you wish the data to be output then uncheck this entry and alter the length of the returned information on the [General](#) tab.

Align characters to grid

When checked, forces each character to be positioned on the grid. This is most useful when a variable pitched font is used but you require columns to line up say for numeric entries.

Underline

Checking this entry will underline the parameter data on the output.

More about Parameters

If you need to pass the results of your parameters from one exit program into another exit program then, if the parameter numbers are the same this will happen automatically, if not the best way forward is to store PARM1 – 6 in [Variables](#) e.g.

STRPRM1 = ?PARM1 (where STRPRM1 is a variable name)

STRPRM2 = ?PARM2

etc.

then assign the variables to their new parameters e.g.

PARM1 = ?STRPRM2

PARM2 = ?STRPRM1

If you wish the returned parameter to be output more than once then you can use the Static Text tool and specify ?PARM1 etc. in the Text entry. For more information please refer to the topic [Multiple Variable & Parameter substitution](#).

Note: You must define your parameters before calling your exit program. I.e. your parameters must be defined higher up the [Explorer Window](#) than the call to the exit program.

8.17 Adding a Barcode

There are two ways of creating a Barcode. You may wish to convert data from your spooled file page into a barcode or add a static barcode to your output. In both cases you need to select the

Barcode icon , or press -.

If you wish to select data from your spooled file then select the data from the input pane that you wish to include in your barcode. Click on the barcode on your Output pane and drag it to the required position. Now right click on the barcode and select **Properties**. On the **General** tab enter a description for your barcode, and then select the **Barcode** tab and [Settings](#).

To create a static barcode (one that is not generated from data on your spooled file) select the **Barcode** tool, click on the Output pane and, using your mouse, drag the tool to the required size. Now enter a description on the Description tab and select the **Barcode** tab. Click on the radio button 'Data' and enter the value for the barcode in the box provided. The [Settings](#) for the type of barcode required are selected in the same way as when creating a barcode from data on your spooled file.

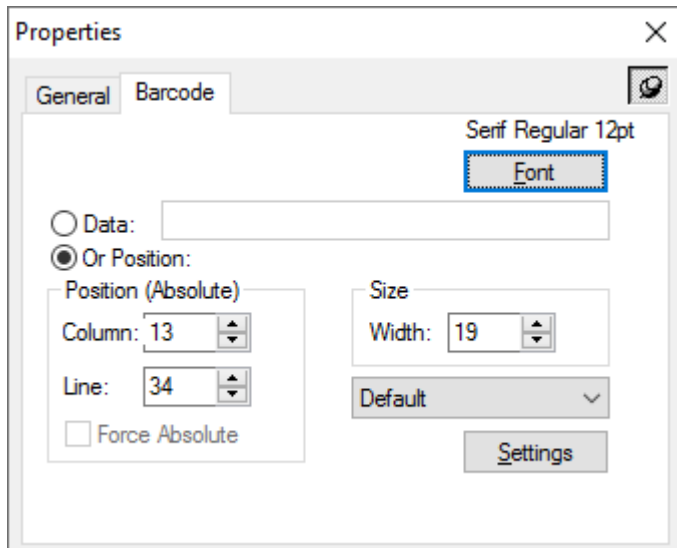
You may also select **Barcode Element** from the **Insert** menu.

Notes:

- The data in CPPD on the IBM i is EBCDIC but the data in the barcode is ASCII; so a translation is required. IBM converts the EBCDIC data to ASCII when it creates the barcode and it uses this table <https://www.ibm.com/docs/en/iis/11.7?topic=tables-ebcdic-ascii>. If you need to add a specific ASCII character to your barcode, look up the EBCDIC equivalent in the table and use [COBHEX](#) to generate the correct EBCDIC character. This will then be converted to the desired ASCII in the barcode.
- When adding the [barcode](#) output in the Cobwebb Designer it is recommended to set the barcode length to the maximum length required and tick "Trim trailing blanks" in the barcode [Settings](#).

Barcode Properties

See [General Properties](#) for details on the **General** tab.



Font

Enables altering of the elements font in the output document by bringing up the [Font](#) dialog box. This font will be applied to the barcode text if you have checked the **Print Text** entry in the [Barcode Settings](#).

Data

If you wish to enter static data to generate your barcode then select the **Data** radio button and enter the information in the box provided. Please note that there is a limit of 132 characters in this **Data** entry; if you require more i.e. for a 2D barcode, then please refer to the topic [Populating 2D barcode with more than 132 characters](#) for details.

Position (Absolute)

If you wish to select data from your spooled file then select the **Or Position** radio button and the following entries are enabled.

Column

The horizontal position of the element in the input document.

Line

The vertical position of the element in the input document.

Force Absolute

When checked, forces the element to be positioned absolutely in the input document. See [Absolute and Relative positioning](#) for further details.

Size

Width

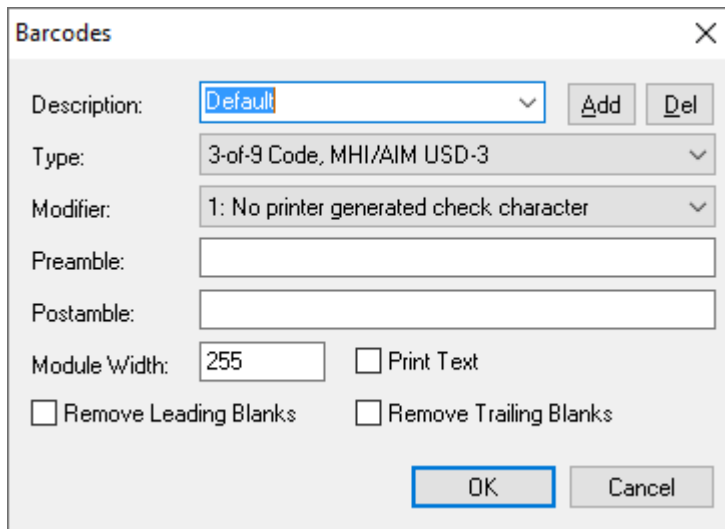
The width of the element in the input document in [grid size](#) units.

Settings

If you have already created a Barcode Settings entry then select it from the list or click on the **Settings** button to define a new set of [Barcode Settings](#).

8.17.1 Barcode Settings

The **Barcode Settings** define the type of barcode that you wish to use. This dialog is accessed from the [Barcode properties](#) by clicking the **Settings** button.



If you are creating a barcode for the first time enter the details and click on the **Add** button. (Once you have created your type of barcode you will then be able to select this from the description drop down list or add a new one if required.) To remove an entry select it from the list and click the **Del** button. The **Remove Leading Blanks** and **Remove Trailing Blanks** should only be selected if you do not wish the blanks to be encoded within the barcode.

Description

Enter a brief description for your barcode so that you will recognise it for later selection.

Type / Modifier

Select the barcode **Type** that you wish to use and once you have selected the type you will be able to select a valid **Modifier**. For the list of supported barcode Types please see the topic [Barcode Types supported by CPPD](#).

Note: From *Cobwebb Designer 7 (build 23)* & *Cobwebb Server 6.2.64* 2D Barcodes are supported e.g. Data Matrix, MaxiCode, PDF417 and QR Code. In order for these to be correctly displayed you will need to add the correct **Preamble** which specifies the IBM 2D Special Function Parameters. Please see the topic [Special Function Parameters for 2D Barcodes](#) for details on how to configure these.

Preamble / Postamble

The **Preamble** and **Postamble** settings are only required if you wish to add static data to the beginning or the end of your barcode respectively, OR if you have selected to produce a **2D Barcode Type** in which case, this need to hold the IBM 2D Special Function Parameters. Please see the topic [Special Function Parameters for 2D Barcodes](#) for details on how to configure these..

Module Width

This is the width, in 1440th of an inch, of the smallest barcode element. **Note:** The value 255 is a special value that causes the barcode to print at a default size. If you wish to change the width of the barcode experiment with values of 10, 20, 40 etc.

To change the height of a **1D barcode** you should adjust the **Height** property of the element on the [General](#) tab. The height of a **2D barcode** is relative to the **Width** and cannot be set independently.

Print Text

This entry is only valid when printing to a *AFP output device and this will output the text of the barcode underneath the actual barcode. If you wish to perform this function when using a *HPT output device then you will need to select the text using the Spooled file Select tool and include it on your Output pane.

Remove Leading Blanks

Check to remove any leading blanks from the barcode data.

Remove Trailing Blanks

Check to remove any trailing blanks from the barcode data.

8.17.2 Special Function Parameters for 2D Barcodes

The following barcode symbologies require **Special Function Parameters**:

- [Data Matrix](#)
- [MaxiCode](#)
- [PDF417](#)
- [QR Code](#)

This should be set in the [Preamble](#) field of the barcode as a text-hex string, e.g.

```
8010FF020000
```

Please see the [IBM AFP - BCOCA Reference \(AFPC-0005\)](#) for a detailed explanation of the **Special Function Parameters** for each barcode symbology. The following is a brief overview.

Data Matrix

(IBM AFP - BCOCA Reference v6 p75)

10 bytes - e.g. 800000000000000010100 - this is the value that will be used as the default if no **Preamble** is specified.

Value	Description
80	Control Flag (bit 1 = convert to EBCDIC)
00 00	Row size
00 00	Row count
00	Sequence indicator
00	Number of structured append symbols
01	File ID 1st byte
01	File ID 2nd Byte
00	Special function flags

Row size

For a Data Matrix symbol, this parameter specifies the desired number of modules in each row including the finder pattern. There must be an even number of modules per row and an even number of rows. There are square symbols with sizes from 10x10 to 144x144, and rectangular symbols with sizes from 8x18 to 16x48 not including quiet zones. The following table lists the complete set of supported sizes. Exception condition EC-0F00 exists if an unsupported size value is specified. If X'0000' is specified for this parameter, an appropriate row size

Row Count

For a Data Matrix symbol, this parameter specifies the desired number of rows including the finder pattern. Exception condition EC-0F00 exists if an unsupported size value is specified. If X'0000' is specified for this parameter, an appropriate number of rows will be used based on the amount of symbol data will be used based on the amount of symbol data.

MaxiCode

(IBM AFP - BCOCA Reference v6 p80)

5 bytes -- e.g. 8002000000 - this is the value that will be used as the default if no **Preamble** is specified.

Value	Description
80	Control Flag (bit 1 = convert to EBCDIC)
02	Symbol mode
00	Sequence indicator
00	Total symbols
00	Special-function flags

Note: MaxiCode requires the encoded barcode data to be in specific formats.

PDF417

(IBM AFP - BCOCA Reference v6 p86)

Variable number of bytes - e.g. 8010FF020000 - this is the value that will be used as the default if no **Preamble** is specified.

Value	Description
80	Control Flag (bit 1 = convert to EBCDIC)
10	Data symbol characters per row (1 to 30)
FF	Desired number of rows
02	Security
00 00	Macro length
00 - nn	Macro data (<i>only if Macro length > 0</i>)

Data symbol characters per row

This parameter specifies the number of data symbol characters per row. Each row consists of a start pattern, a left row indicator codeword, 1 to 30 data symbol characters, a right row indicator codeword (omitted in a truncated symbol), and a stop pattern. The aspect ratio of the barcode symbol is determined by the number of data symbol characters and the number of rows.

Exception condition EC-0F06 exists if an invalid number of data symbol characters per row is specified. Because of the Error Checking and Correction (ECC) algorithm and the data compaction method used by the printer when the symbol is built, the number of data symbol characters is not necessarily the same as the number of characters in the barcode data.

Desired number of rows

This parameter specifies the desired number of rows in the barcode symbol. From 3 to 90 rows can be specified or X'FF' can be specified to instruct the printer to generate the minimum number of rows necessary. The number of rows times the number of data symbol characters per row cannot exceed 928. Exception condition EC-0F07 exists if an invalid number of rows is specified. The actual number of rows generated depends on the amount of data to be encoded and on the security level selected. If more rows than necessary are specified, the symbol is padded to fill the requested number of rows. If not enough rows are specified, enough extra rows will be inserted by the printer to produce the symbol. If too much data is specified to fit in the barcode symbol, exception condition EC-0F08 exists.

QR Code

(IBM AFP - BCOCA Reference v6 p92)

9 bytes - e.g. 80010C000000000000 - this is the value that will be used as the default if no **Preamble** is specified.


Note: QR Code barcodes are not currently supported in **Spool-a-matic** PDF; you need to use the default **AFP2PDF** module which is supported from 6.2 of the Server software. See [Work with PPD parameters](#) for details.

Value	Description
80	Control Flag (bit 1 = convert to EBCDIC)
01	Conversion
04	Size of the symbol
00	Error correction level
00	Structured Append Sequence indicator
00	Structured Append Total symbols
00	Special function flags
00	Application indicator

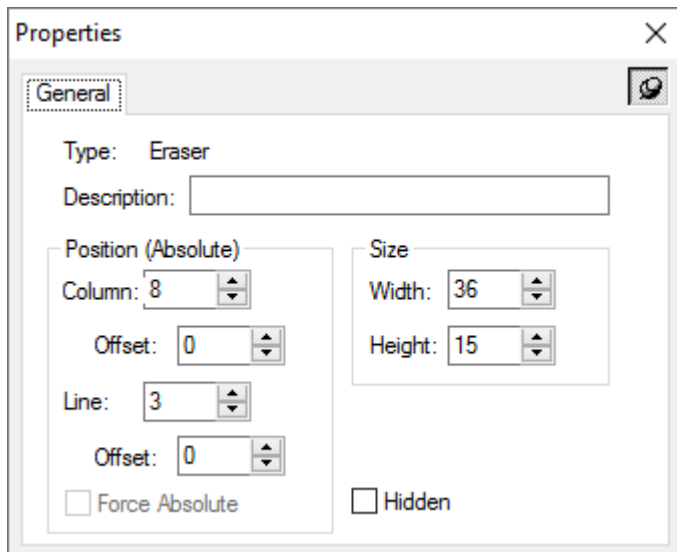
Size of the symbol

This parameter specifies the desired size of the symbol; each version specifies a particular number of modules per row and column. See the table in the [BCOCA Reference](#) for further information.

8.18 Erasing Output Data

You may wish to print the output of a spooled file page to more than one output device and, if each device requires a different layout, you would need to create the output page for the first device and write it, use the Erase element to effectively blank the page and start all over again for the second output layout. To do this you need to select the **Eraser** icon , or press **3**, from the tool bar, move to the Output pane and select the portion of the Output pane that you wish to erase. You may also select the **Eraser Element** from the **Insert** menu.


Eraser Properties



The screenshot shows a 'Properties' dialog box for an 'Eraser' element. The 'General' tab is active. The 'Type' is set to 'Eraser'. There is a 'Description' text box. The 'Position (Absolute)' section includes spinners for 'Column: 8', 'Offset: 0', and 'Line: 3', with another 'Offset: 0' spinner below. The 'Size' section includes spinners for 'Width: 36' and 'Height: 15'. At the bottom, there are checkboxes for 'Force Absolute' and 'Hidden'.

This element does not have any input information. Please refer to the [General Properties](#) for the output details.

8.19 Locking the Selected Tool

If you wish for your selected tool to remain selected you can click on the **Tool lock** icon , or press **=**, from the tool bar. Once the Tool lock is selected then the other tool buttons will remain selected after use rather than reverting to the select tool, which is the normal style of operation.

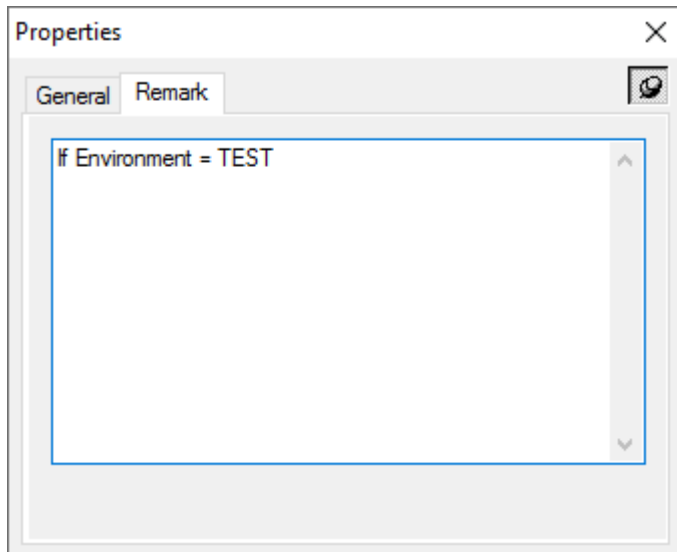
8.20 Adding a Remark

If you are making changes to a PPD file and you wish to add a comment to come back to something later for instance, then you may, from the **Insert** menu, select **Remark** element. On the **Remark** tab of the properties box for this element you may enter anything you like. You should then add a description on the **Description** tab. This remark will only appear in the Explorer View of the PPD file and will not be exported to the IBM i.

Remark elements can also be useful for grouping elements in the Explorer. First create your Remark element and then you can add other elements under the Remark element as you would for a **Loop** or **Condition** element. One of the main reason for grouping elements would be if you wish to copy a group of elements rather than having to copy each element individually.

Remark Properties

See [General Properties](#) for details on the **General** tab.



On the **Remark** tab of the properties box for this element you may enter anything you like. This remark will only appear in the Explorer Window of the PPD file and will not be exported to the IBM i.

8.21 Adding an Output Device

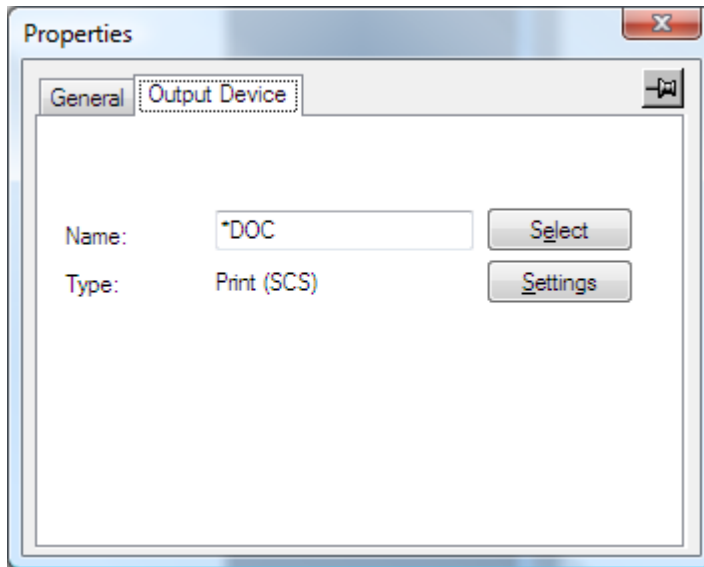
Output Devices are the method by which CDD delivers its output. A single PPD file can contain many Output Devices enabling a great deal of flexibility.

When you are creating a new PPD file you will find that a “**Default Output Device**” element has already been included. You can see this when you open the Explorer View of your PPD file. You will need a separate output device for each type of output you require, for example printing, faxing, emailing or filing. If you wish to direct your printed output to more than one printer you will need a separate output device for each printer.

If you wish to use a Fax, Email or File Output device then once you have created the required element you may use the [Address tool](#) to select data from the **Output Page** for use in the addressing of your fax or email, or for the path and parameters for your file output. The address tool may also be used to add other information to your fax or email e.g. Attention for fax or Subject for email. Once you have created the Address elements you will need to drag them into the relevant Output Device element. For more information on all of the Address elements please refer to the following topics.

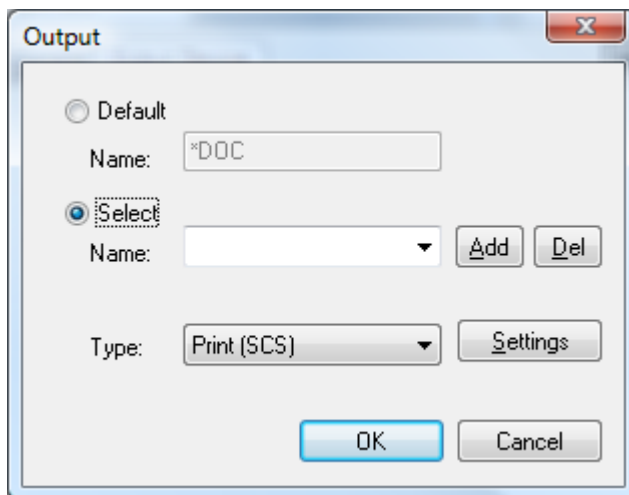
- [Print Destination Addressing](#)
- [Fax & Email Destination Addressing](#)
- [File Destination Addressing](#)
- [Docstore Destination Addressing](#)

To select your first type of output, right click on the **Default Output Device** element in the **Explorer View** and click **Properties**.

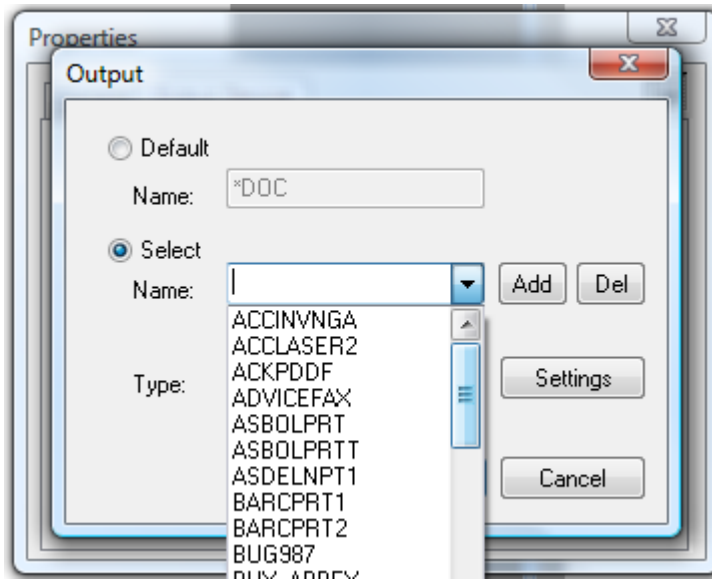


Click on the [General](#) tab and enter a description for this device. Now select the **Output Device** tab and then click **Select**.

Output Device Properties



Click on the **Select** radio button and enter the name of your Output Device if it is not already defined in the drop down list of names.



(To make things simple enter the same name as the PPD file name, or if using more than one output device perhaps add the output type, or a number, to the end of the name to make it unique. Remember that a maximum of eight characters only is allowed).

Select the **Type** of Output Device you require and click on **Add** to add this to your list of Output Devices. To remove an entry from the list, first select the entry and then click on the **Del** button.

You now need to select the settings for the type of output device that you require. Click on the **Settings** button. These settings are different depending upon the type of Output Device selected.

- [Print Destination Addressing](#)
- [Fax & Email Destination Addressing](#)
- [File Destination Addressing](#)
- [Docstore Destination Addressing](#)

If you wish to add another Output Device to your PPD file you do this by clicking on the Output pane and from the **Insert** menu selecting **Output Device element**. This will add another Output Device to your PPD file and you change it to the required type as previously described.

Note: If you are using more than one type of output device you must give them a unique name, otherwise when you change the details of one it will change the details of the other. The only time that you would have two output devices of the same name in a PPD file would be if you wished to print the output twice to the same printer.

8.21.1 Print Output Device Settings

CPPD currently supports three types of Print output. If you wish to send your output to a Printer then select one of the following **Print** types from the list.

Print (SCS) SNA Character Stream Printer, a simple text printer.

Print (AFP) Advanced Function Printer; Feature rich printing including fonts, images and barcodes. Requires an AFP compatible printer. If you have an AFP FS45 or [PDF Direct](#) capable printer, then you may produce colour output.

Print (HPT) Host Print Transform; similar to AFP but with an additional transformation to create an output compatible with a wide range of printers. If you have IBM V7R1 or V7R2 with the latest PTFs then you may produce colour output.

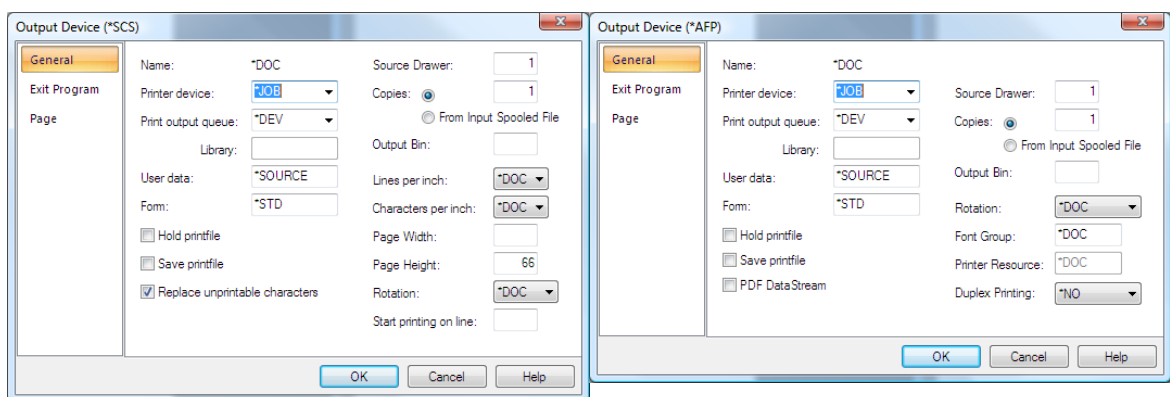
The **Print Output Device Properties** are split into three tabs:

[General](#)

[Exit Program](#)

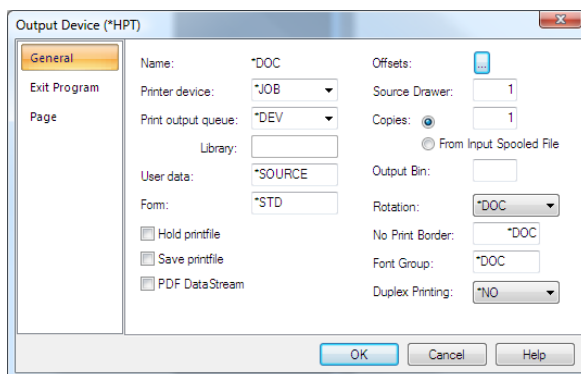
[Page](#)

General Settings



Print SCS Settings

Print AFP Settings



Print HPT Settings

The General settings (on the **General** tab) are similar for each type of Printer Output Device, where a setting is specific to a particular type of output device the type is specified in brackets.

Printer Device/ Output queue & Library

You either need to enter a Printer Device name or an Output queue name together with the library name where it may be found.

If using an **Output queue** just blank out the ***JOB** from the Printer device and enter an Output queue name; this will then allow you to enter a library name.

You may specify ***USR** in the Output queue name. This will allow printing to different Output queues dependent upon user. If you specify ***USR** you must then set up your PPD users within

CPPD on the IBM i (refer to [Work with PPD Users](#)). If this is not done the print will be directed to the users' default Output queue. Using ***DEV** will print to the users' default Output queue, the user being the owner of the spooled file.

When using ***JOB** in the Printer Device the output will be directed to the jobs' default device.

User Data

This entry will allow you to carry forward the User Data from the input spooled file by leaving the default of ***SOURCE** or to enter your own User Data.

Form

If you wish to change the Forms Type of your generated print file then enter the required name here.

Hold print file/Save print file

These entries relate to the generated print file. If these are not selected then the print will be written in the Ready state.

PDF DataStream (AFP HPT)

If you check this box then your output will be generated as a PDF data stream. This enables colour printing and can only be used if you have a PDF Direct capable printer.

Note: Your PDF Direct capable printer is configured on the IBM i in the same way as a [LAN attached printer device](#) for Host Print Transform only specifying ***NO** as the transformation. PDF direct can only be used if your version of SPLAMATIC is V2R3M0 or higher. You will also need to make sure that the PDF image process blending includes ***PREBLEND32** - see [Configuring SPLAMATIC for PDF Direct printing](#) for details. If you are adding images to your output then you will need to define the Image Format as **JPEG** if you are using PDF direct capability as TIFF LZW does not work correctly.

Offsets.. (HPT)

These offsets enable you to separately move your selected images and/or text on your printed page. If your printed output does not match the data positioned on your output pane (i.e. your text does not line up with your image) then you need to create your own offsets for your printer. Highlight the Preset name (Bottom left hand field) and re-name it for your own printer type, then alter the parameters and click on Add to create your own default offsets. You may need to create a separate preset file for each of your different printer types.

Replace unprintable characters (SCS)

Select this option if you wish to replace any unprintable characters with a space.

Source Drawer

Here you can specify the source drawer used when single-cut sheets are semi-automatically fed into the printer.

1 – The printer paper drawer to be selected (default 0001)

225

***E1** The envelopes are fed from the envelope drawer on the sheet-feed paper handler

Copies

If you wish for more than one copy of each print then enter the number here, alternatively you may select to use the number of copies based upon the number of copies of your input spooled file by clicking the **From Input Spooled File** radio button.

Output bin

Here you can specify the destination of the output on printers capable of multiple output bins. Valid entries are:

1-65535 Specify the output bin for the destination of the output.

***DEV D** The destination of the output is the device default output bin.

Lines and Characters per inch (SCS)

These are best left as *DOC as the lpi and cpi for the document should have been selected when you defined your Page Set-up.

Page Width (SCS)

If left blank then the width of the generated SCS output will be 374 characters per line. If you wish you can specify your own page width but this must obviously be greater than or equal to the number of characters that you wish to fit on one line.

Page Height (SCS)

This should only be adjusted if the number of lines per page is not fitting.

Rotation

This again should already have been selected when you defined your Page Setup.

Start printing on line (SCS)

If you wish to move your spooled file data down the page to allow for a pre-printed logo then enter a start line number here.

Font Group (AFP, HPT)

The default of *DOC should be left as you will have defined your Font Group in your Page Setup.

Printer Resource (AFP)

Please leave as *DOC. Printer Resources were used prior to Version 4.2 in the native AFP environment to speed up the printing process.

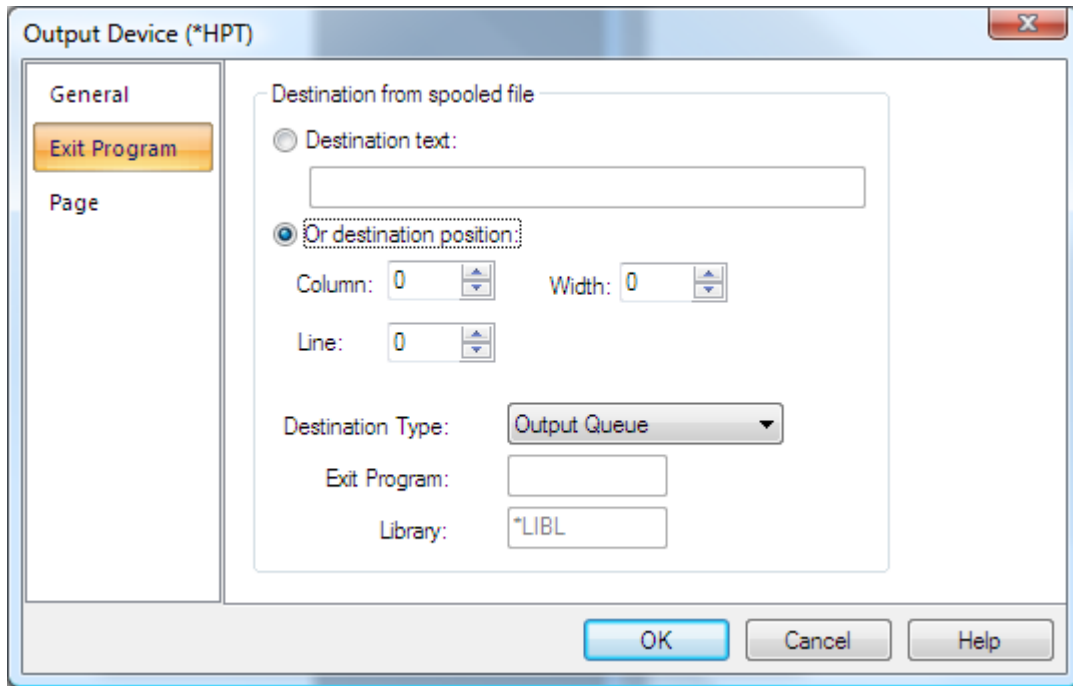
No Print Border (HPT)

The default of *DOC should again be left as this is defined in your Page Setup.

Duplex (AFP HPT)

If your printer is capable of printing duplex then you may select this facility. Using duplex printing causes the printer to print pages alternately on the Front and Back of the paper. It may be necessary to print a blank page to ensure the next page is printed as required. **Note: PDF Datastream** does not honour the duplex flag. This is because the "printer device type" is *USERASCII. The only way to print a pdf datastream file in duplex is to set the printer to print duplex by default. Documents printed from a PC or through *HPT will specify simplex or duplex and will print correctly. PDF Datastream documents will not specify simplex or duplex and will thus default to duplex. If you also want to print simplex pdf datastream documents you'll have to output a blank page in between each page to emulate it.

Exit Program Settings



On the **Exit Program** tab you will see the following entries:-

Destination Text

The **Destination text** is only used if you wish to hard code an Output Queue or Destination string to be passed into your Print Exit program. .

Destination Position

This has been replaced by the [Print Destination Address tool](#), which will complete these entries.

Destination Type

The default **Destination Type** of **Output Queue** is used for normal printing, but if you wish to override the output queue dependent upon data on the page then you can call an Exit Program. Select **Exit Program** as the Destination type and enter a valid program name and library where it resides.

Note: If you wish to remove the data you have selected to define your Print Destination, from the Output, select the relevant entry suffixed with **(Delete)**.

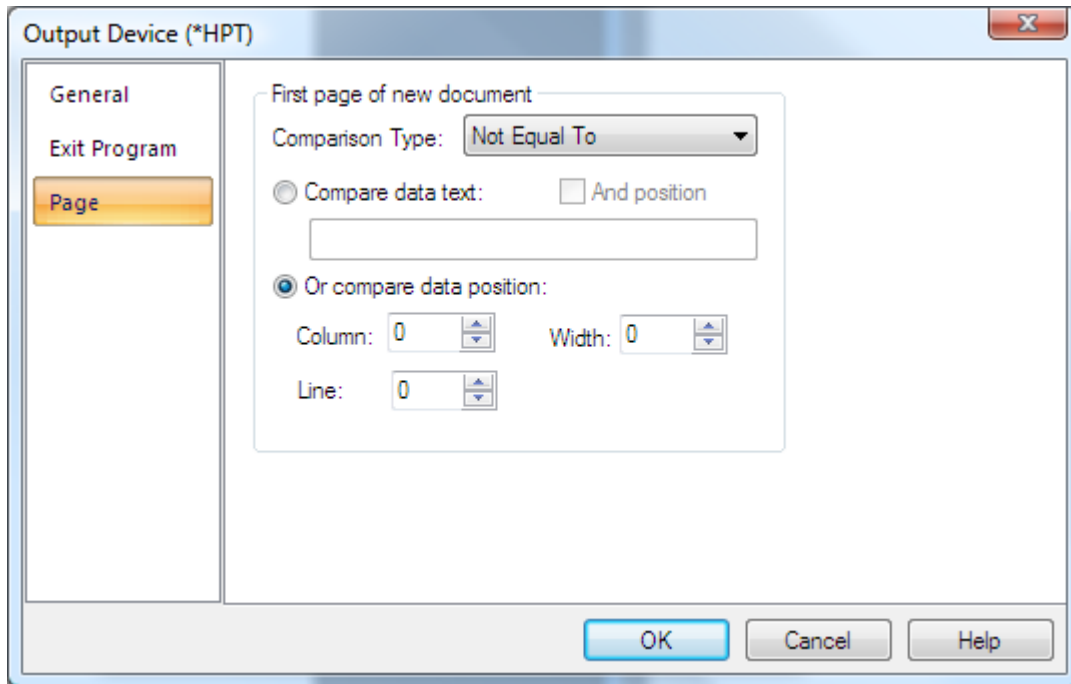
Exit Program / Library

If you have specified Exit Program as your Destination Type then you need to specify the name of the Exit Program and the Library. The parameters may be passed into the **Exit program** using the [Address tool](#) to select data from the Output pane of your CPPD document. Please see [Cobwebb Print Exit Program](#) topic for more details.

Note 1: If you wish to pass back an Output queue and library then the Printer Device must be ***JOB**. The parameters passed back must be valid entries as when using the OVRPRTF command.

Note 2: If you need to add more than one library to your library list, because the files used in the program reside in another library, then you will need to add them in your program.

Page Settings



The **Page** tab is where you may set up the splitting up of your output pages into individual print files. If, for example, you are sending a Purchase Order print to a number of different Output queues you would need to split the original spooled, some may only be one page whilst others may be more. You need to select some data from your output pane, say Purchase Order Number, which appears on every page. You then need to select 'Not equal to' as the comparison type and on change of Purchase Order Number a new spooled file will be generated. This has been replaced by the *First Page Address Tool*.

Please refer to [Configuring Page Selection](#) for a more detailed explanation.

Comparison Type

Displays the type of comparison operation required to distinguish the first page of a new document in the output file. The most commonly used entry is **Not equal To** as you would normally want to split up your documents when the area of the spooled file selected (using **Compare data position**) is *not equal to* that of the previous page e.g. Purchase Order Number.

Note: If you wish to remove the data written to the output to define your page selection then you need to use one of the entries with **(Delete)** on the end.

Compare data text

Displays the text string that is to be used in the comparison operation. Each page is scanned in turn for this text. Every page that this text is found on is considered the first page of a new document. If you only wish to check for this text in a particular position on the spooled then tick the **And position** box and enter **Column, Line & Width**. If you are using **Compare data text** then you would usually have the **Comparison Type** set to **Equal To** e.g. Page 1.

Compare data position

Displays the area from the output spool file that is to be used in the comparison operation.

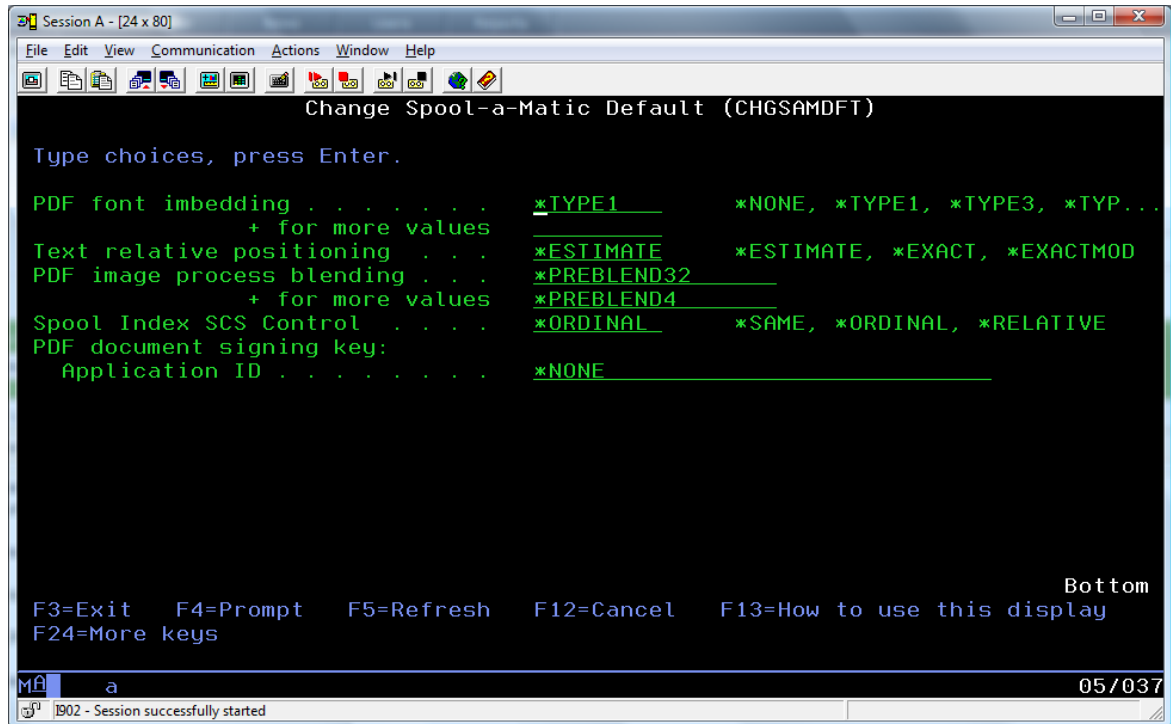
This position is checked on each page. Whenever there is a difference between the text at this position, the page on which the change took place is considered the first page of a new document.

8.21.1.1 Configure SPLAMATIC for PDF Direct printing

In order to use **PDF Direct** printing your version of SPLAMATIC must be V2R3M0 or higher. You must also make sure that SPLAMATIC is configured to allow for PDF Direct printing. You can change the SPLAMATIC defaults from a command line on your IBM i by entering the following and pressing F4:

CPPD/CHGSAMDFT

Now page down to the second screen e.g.



Make sure that you have ***PREBLEND32** as one of the values for **PDF image process blending**. If it is not displayed then please add the entry to the list.

8.21.2 Fax Output Device Settings

If you wish to fax your output then select the **Fax** type from the list. The **Fax Output Device Properties** are split into four tabs:

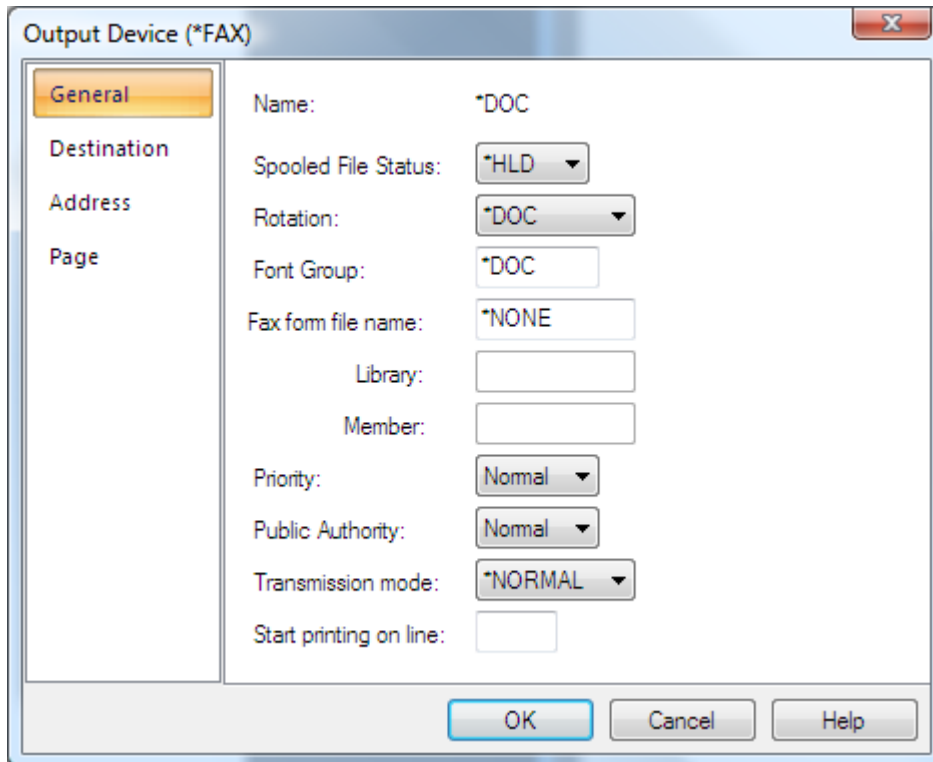
[General](#)

[Destination](#)

[Address](#)

[Page](#)

General Settings



On the **General** tab you will see the following entries:-

Spoiled File Status

This indicates the status of the input spooled file after it has been processed. The choices are to Hold the file (*HLD), Delete it (*DLT) or Save it (*SAV)

Rotation

You would normally leave this as *DOC as you should have set up the output orientation in the Page setup. If you wish to override this you may select either Portrait or Landscape.

Priority

This parameter allows you to set the priority of the generated fax on the Cobwebb queue. You may wish to hold your faxes whilst you are testing your design.

Public Authority

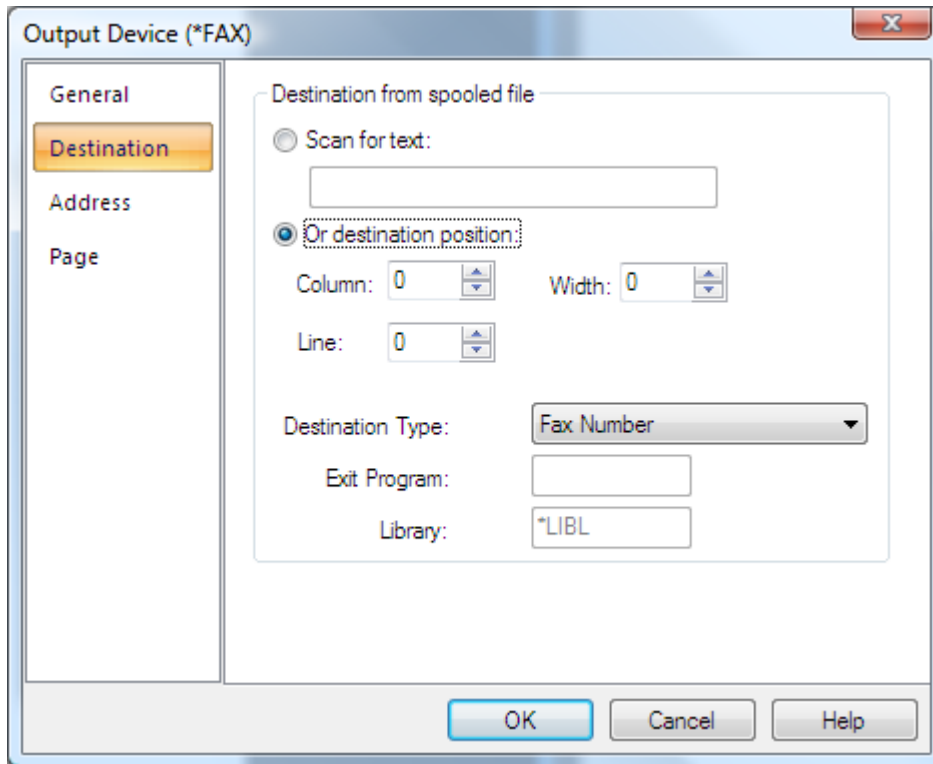
Again this relates to the fax entry on the Cobwebb queue. The default of Normal is the suggested entry and then the authority depends upon how each user has been set up within Cobwebb Fax.

Transmission mode

If you wish to send the fax at a higher quality then you will need to select *FINE, but this will slow down the process of actually sending the fax.

All the other entries should be ignored as these are only used when Cobwebb Fax is used without the CPPD interface.

Destination Settings



This is where you decide how you are going to address your Fax.

Scan for text

If you wish to scan each line in the Output pane for the first occurrence of some specific text e.g. FAX select this radio button and then you will be able to also enter a **Column** and **Width** for actually retrieving the fax number information from the line where the text occurred.

Or destination position

This has been replaced by the [Address Destination](#) tool and allows you to specify data from the output pane as the destination for the fax.

Destination Type

The default Destination type of **Fax Number** is usually used, as you will have previously retrieved the fax number either from the spooled file or by using an Exit Program.

The destination type of **Directory entry** and **Fax Number (RAlign)** are both for retrieving fax numbers from the Cobwebb Fax directory. The **Fax Number (RAlign)** is only used if the data that you are using to lookup the directory entry (e.g. Customer name) is right aligned in the Cobwebb Fax directory file.

The other type of **Exit Program** refers to the Exit program used within Cobwebb Fax in which the destination text is passed into the program (20 characters) and the fax number and reference fields are passed back. This has been included for any users who have previously used Cobwebb fax before installing CPPD and already have this type of exit program written.

Note 2: If you wish to remove the data you have selected to define your Fax Destination, from the Output, select the relevant entry suffixed with **(Delete)**.

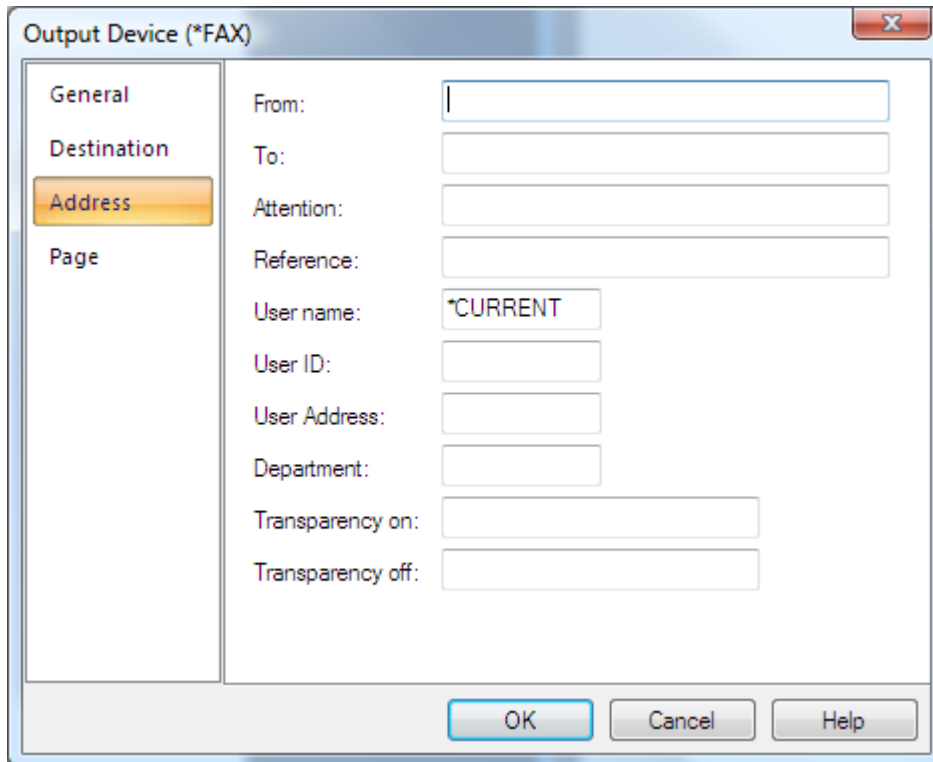
Exit Program / Library

If you have specified Exit Program as your **Destination Type** then you need to specify the name of the Exit Program and the Library. The parameters may be passed into the **Exit program** using

the [Address tool](#) to select data from the Output pane of your CPPD document. Please see [Cobwebb Fax Exit Program](#) topic for more details.

Note: If you need to add more than one library to your library list, because the files used in the program reside in another library, then you will need to add them in your program.

Address Settings



The screenshot shows a dialog box titled "Output Device (*FAX)" with a close button (X) in the top right corner. On the left side, there is a vertical list of tabs: "General", "Destination", "Address" (which is highlighted in orange), and "Page". The main area of the dialog contains several input fields and a dropdown menu:

- From:** An empty text input field.
- To:** An empty text input field.
- Attention:** An empty text input field.
- Reference:** An empty text input field.
- User name:** A dropdown menu with the text "*CURRENT" selected.
- User ID:** An empty text input field.
- User Address:** An empty text input field.
- Department:** An empty text input field.
- Transparency on:** An empty text input field.
- Transparency off:** An empty text input field.

At the bottom of the dialog, there are three buttons: "OK", "Cancel", and "Help".

The **Address** tab is where you specify the addressing information for your email and has been largely replaced by the [Address tool](#).

From

This is the name of the person that the fax is from.

To

This is the name of the person or Company receiving the fax.

Attention

The attention name, of up to 30 characters.

Reference

A reference of up to 30 characters.

User Name

The **User name** is usually left as *CURRENT, which will mean that the owner of the input spooled file will be the owner of the email on the Cobwebb queue. If you wish to change the owner of the email message on the Cobwebb queue then you may enter a specific user id here.

User ID & Address

The **User Id** and **Address** entries are only required if you wish for notification of the success or failure of your email to send. If you enter **NFYAPI** in the User Id, then a record will be written to

the **NFYMSGQ** data queue. You can then monitor this data queue with your own [Notify API](#) program. If you wish for notification via SNADS of the failure of your generated email to reach its destination, the entry should be the SNADS User Id and Address of the person wishing to monitor the message queue.

Department

This is purely for enabling analysis of the Cobwebb queue if you wish to do so.

Transparency on

Not used at present

Transparency off

Not used at present

Page Settings

The **Page** tab is where you may set up the splitting up of your output pages into individual faxes. If, for example, you are faxing a Purchase Order print to a number of different Customers you would need to split the input spooled file into different faxes, some may only be one page whilst others may be more. You need to select some data from your output pane, say Purchase Order Number, which appears on every page. You then need to select 'Not equal to' as the comparison type and on change of Purchase Order Number a new fax entry will be generated. This has been replaced by the *First Page* [Address Tool](#).

For more details please refer to the **Start of new document definition** section in the topic [Setting up your Output page](#).

Comparison Type

Displays the type of comparison operation required to distinguish the first page of a new document in the output file. The most commonly used entry is **Not equal To** as you would normally want to split up your documents when the area of the spooled file selected (using **Compare data position**) is *not equal to* that of the previous page e.g. Purchase Order Number.

Note: If you wish to remove the data written to the output to define your page selection then you need to use one of the entries with **(Delete)** on the end.

Compare data text

Displays the text string that is to be used in the comparison operation. Each page is scanned in turn for this text. Every page that this text is found on is considered the first page of a new document. If you only wish to check for this text in a particular position on the spooled then tick the **And position** box and enter **Column, Line & Width**. If you are using **Compare data text** then you would usually have the **Comparison Type** set to **Equal To** e.g. Page 1.

Compare data position

Displays the area from the output spool file that is to be used in the comparison operation.

This position is checked on each page. Whenever there is a difference between the text at this position, the page on which the change took place is considered the first page of a new document.

Cover page

If you wish to include a Cover page **Logo** or **Signature** then you may either enter ***USRPRF** to pick up the Cobwebb Fax user defaults or enter the member name of the previously defined logo or signature within Cobwebb Fax.

8.21.3 Email Output Device Settings

If you wish to Email your output then select the **Email** type from the list. The **Email Output Device Properties** are split into five tabs:

[General](#)

[Destination](#)

[Address](#)

[Page](#)

[PDF Options](#)

General Settings

The screenshot shows a dialog box titled "Output Device (*EML)". On the left is a vertical tab bar with five tabs: "General" (selected), "Destination", "Address", "Page", and "PDF Options". The main area contains the following settings:

- Name: *DOC
- Spoiled File Status: *HLD (dropdown)
- Rotation: *DOC (dropdown)
- Priority: Normal (dropdown)
- Public Authority: Normal (dropdown)
- Attachment File section:
 - Name: ATTACH
 - Format: TXT (dropdown)
 - Extension: TXT
 - CCSID/Codepage: (empty text box)
- Start printing on line: (checkbox)

At the bottom are three buttons: "OK", "Cancel", and "Help".

On the **General** tab you will see the following entries:-

Spoiled File Status

This indicates the status of the input spooled file after it has been processed. The choices are to Hold the file (*HLD), Delete it (*DLT) or Save it (*SAV)

Rotation

You would normally leave this as *DOC as you should have set up the output orientation in the Page Set-up. If you wish to override this you may select either Portrait or Landscape.

Font Group

Leave the default as *DOC as this will have been defined in your Page Set-up.

Priority

This parameter allows you to set the priority of the generated email on the Cobwebb queue. You may wish to hold your emails whilst you are testing your design. (This parameter is only used if you have selected to “Enable email queue” in your Cobwebb Email system parameters.)

Public Authority

Again this relates to the email entry on the Cobwebb queue. The default of Normal is the suggested entry and then the authority depends upon how each user has been set up within Cobwebb Email. (This parameter is only used if you have selected to “**Enable email queue**” in your Cobwebb [Email system parameters](#).)

Attachment File Name

Enter the name that you wish to be given to your attachment. This name must not be more than eight characters in length.

Attachment File Format

This is where you select the type of attachment you wish to create. Please see the topic [File Formats](#) for details. For XML output please select either SCS or TXT as this defines the format of the generated XML attachment.

Attachment Extension

This will change automatically depending upon which file format you choose. You may change this extension if you wish.

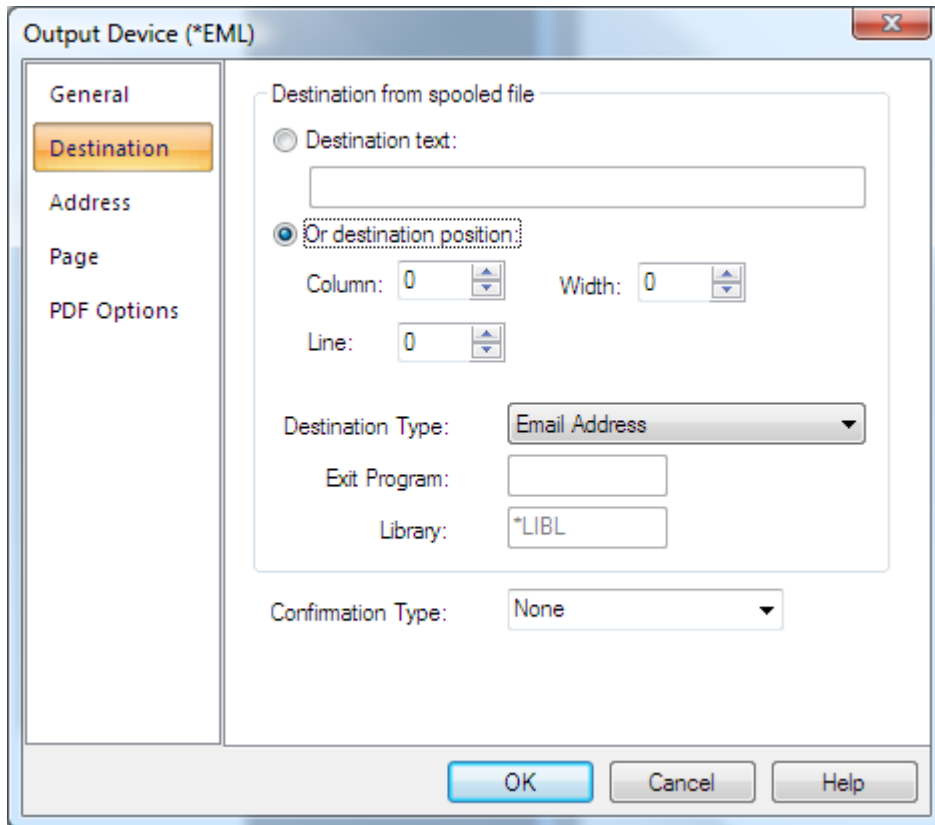
CCSID / Codepage

This entry affects the translation of the attachment and will be different for *SCS and *PDF.

Start printing on line

Not used.

Destination Settings



The **Destination** tab is where you decide how you are going to address your email.

Destination Text

This only used if you wish to hard code an email address.

Destination Position

This has been replaced by the [Email Destination Address tool](#), which will complete these entries.

Destination Type

The default **Destination type** of **Email Address** is usually used, as you will have previously retrieved the Email Address either from the spooled file or by using an Exit Program.

Note: If you wish to remove the data you have selected to define your Email Destination, from the Output, select the relevant entry suffixed with **(Delete)**.

The destination type of **Directory entry** is for retrieving email addresses from the Email directory within CPPD.

The other type of **Exit Program** allows you to call an Email Exit program to retrieve the email address parameters from a Server database.

Exit Program / Library

If you have specified Exit Program as your Destination Type then you need to specify the name of the Exit Program and the Library. The parameters may be passed into the **Exit program** using the [Address tool](#) to select data from the Output pane of your CPPD document. Please see [Cobwebb Email Exit Program](#) topic for more details.

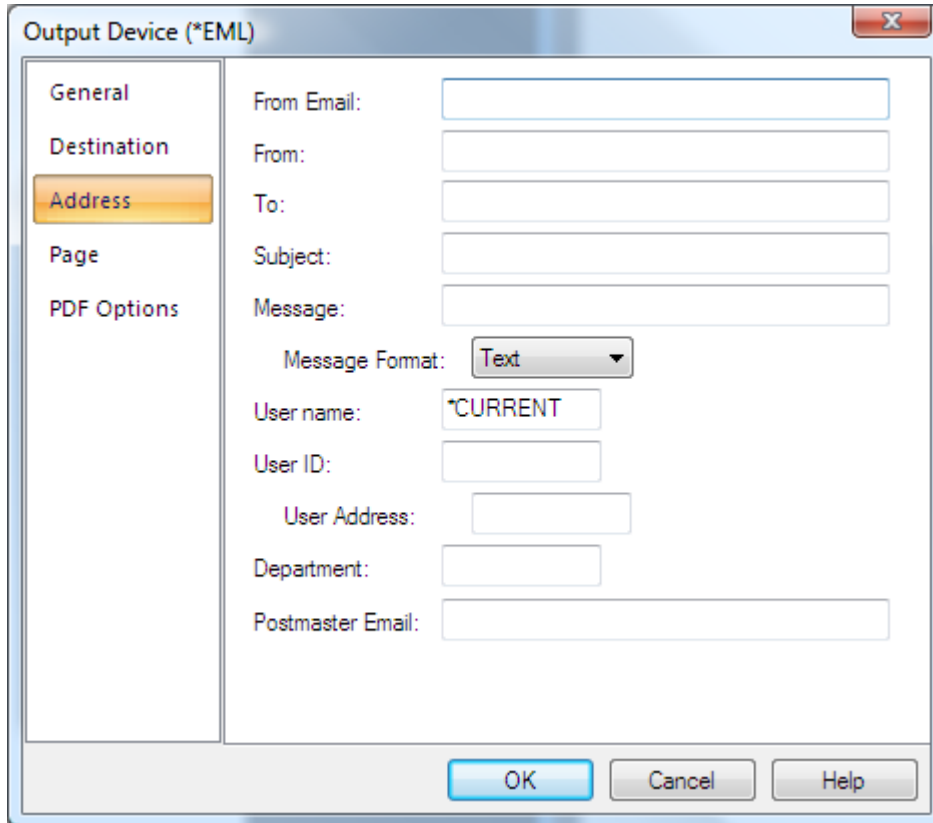
Note: If you need to add more than one library to your library list, because the files used in the program reside in another library, then you will need to add them in your program.

Confirmation Type

This determines whether you wish to receive confirmation of your email having reached its destination. If you do not require confirmation then leave the entry of **None** or select the type of confirmation that you require.

Note: You must set up the confirmation [Email parameters](#) within the [System Parameters](#) on the [Cobwebb Fax & Email menu](#) in order to monitor for confirmation.

Address Settings



The screenshot shows a dialog box titled "Output Device (*EML)" with a close button (X) in the top right corner. On the left side, there is a vertical list of tabs: "General", "Destination", "Address" (which is highlighted in orange), "Page", and "PDF Options". The main area of the dialog contains several input fields and a dropdown menu:

- From Email:
- From:
- To:
- Subject:
- Message:
- Message Format:
- User name:
- User ID:
- User Address:
- Department:
- Postmaster Email:

At the bottom of the dialog, there are three buttons: "OK", "Cancel", and "Help".

The **Address** tab is where you specify the addressing information for your email and has been largely replaced by the [Address tool](#).

From Email

This is the From email address you wish to appear on your email.

From

This is the From email name you wish to appear on your email. *From version 6.2.87* - You may also use this entry, together with the [Job Launcher](#), to schedule the release of your email by using the **Date** and **Time** variables - see [Release Scheduled Email](#) for details.

To

This is the email address to which you wish to send your email.

Subject

This is the Subject you wish to appear on your email. *From version 6.2.87* - You may also use this entry, together with the [Job Launcher](#), to schedule the release of your email by using the **Date** and **Time** variables - see [Release Scheduled Email](#) for details.

Message

The message text that you wish to send along with the email attachment.

From version 6.2.84 - you can choose to use the **XML Module** to [Import HTML](#) and then use this to design your output and include this in the message body rather than adding it as an attachment. To then include the output in the message body you need to enter **%ATTACHMENT** (*must be uppercase*) in this **Message** entry. You may also use this functionality, without the XML Module, to output .TXT as the Message body; just specify **TXT** as the **Attachment File Format** on the [General Settings](#).

From version 6.0.30 - If you wish to include more than 1024 bytes of data in your Message text or to include carriage returns, then you may specify an HTML or TXT file to use as the message text. You do this by specifying a **%FILE** parameter in this **Message** entry e.g.

%FILE"/test/message.htm" where **/test/message.htm** is the path to the document you wish to use. **Note** the **%FILE** must be uppercase.

Note: If using **%FILE** then the file must always be encoded as **UTF-8**. Please see the topic [Specifying File Paths](#) for more information on how to configure the path to your file. You need to include the file extension e.g. **.htm**, **.txt**.

You can also include data from the spooled file in the message body - please see [Create Dynamic HTML Email Message Body](#) for details.

Message Format

The **Message Format** may be in **Text** or **HTML**. Please select from the drop down list provided.

User Name

The **User name** is usually left as ***CURRENT**, which will mean that the owner of the input spooled file will be the owner of the email on the Cobweb queue. If you wish to change the owner of the email message on the Cobweb queue then you may enter a specific user id here.

User ID & Address

The **User Id** and **Address** entries are only required if you wish for notification of the success or failure of your email to send. If you enter **NFYAPI** in the User Id, then a record will be written to the **NFYMSGQ** data queue. You can then monitor this data queue with your own [Notify API](#) program. If you wish for notification via SNADS of the failure of your generated email to reach its destination, the entry should be the SNADS User Id and Address of the person wishing to monitor the message queue.

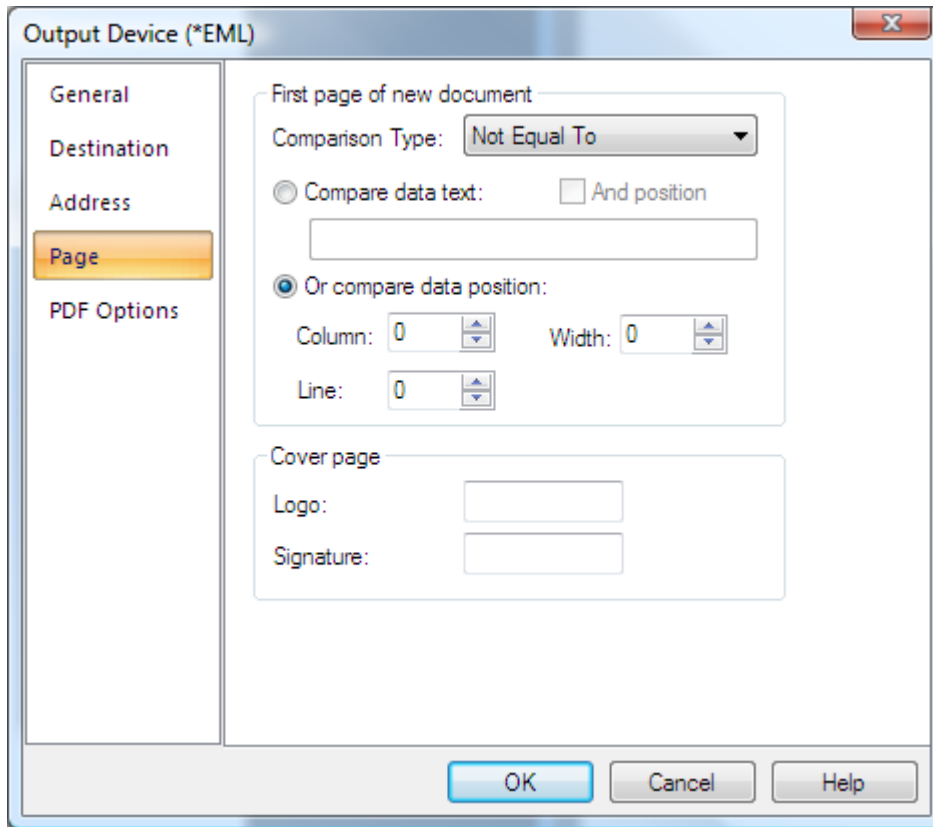
Department

This is purely for enabling analysis of the Cobweb queue if you wish to do so.

Postmaster Email

This should be the email address of the person monitoring your emails, as all error messages will be sent to this address.

Page Settings



The **Page** tab is where you may set up the splitting up of your output pages into individual messages. If, for example, you are sending a Purchase Order print to a number of different Customers you would need to split the input spooled file into different messages, some may only be one page whilst others may be more. You need to select some data from your output pane, say Purchase Order Number, which appears on every page. You then need to select 'Not equal to' as the comparison type and on change of Purchase Order Number a new email entry will be generated. This has been replaced by the *First Page* [Address Tool](#).

Please refer to [Configuring Page Selection](#) for a more detailed explanation.

Comparison Type

Displays the type of comparison operation required to distinguish the first page of a new document in the output file. The most commonly used entry is **Not equal To** as you would normally want to split up your documents when the area of the spooled file selected (using **Compare data position**) is *not equal to* that of the previous page e.g. Purchase Order Number.

Note: If you wish to remove the data written to the output to define your page selection then you need to use one of the entries with **(Delete)** on the end.

Compare data text

Displays the text string that is to be used in the comparison operation. Each page is scanned in turn for this text. Every page that this text is found on is considered the first page of a new document. If you only wish to check for this text in a particular position on the spooled then tick the **And position** box and enter **Column, Line & Width**. If you are using **Compare data text** then you would usually have the **Comparison Type** set to **Equal To** e.g. Page 1.

Compare data position

Displays the area from the output spool file that is to be used in the comparison operation.

This position is checked on each page. Whenever there is a difference between the text at this position, the page on which the change took place is considered the first page of a new document.

Cover page

If you wish to include a Cover page **Logo** or **Signature** then you may either enter ***USRPRF** to pick up the Cobwebb Email user defaults or enter the member name of the previously defined logo or signature within Cobwebb Email.

PDF Options

If you have selected **PDF** output you can specify certain options on the [PDF Options](#) tab.

8.21.4 File Output Device Settings

If you wish to file your output in a specific location then select the **File** type from the list. The **File Output Device Properties** are split into five tabs:

[General](#)

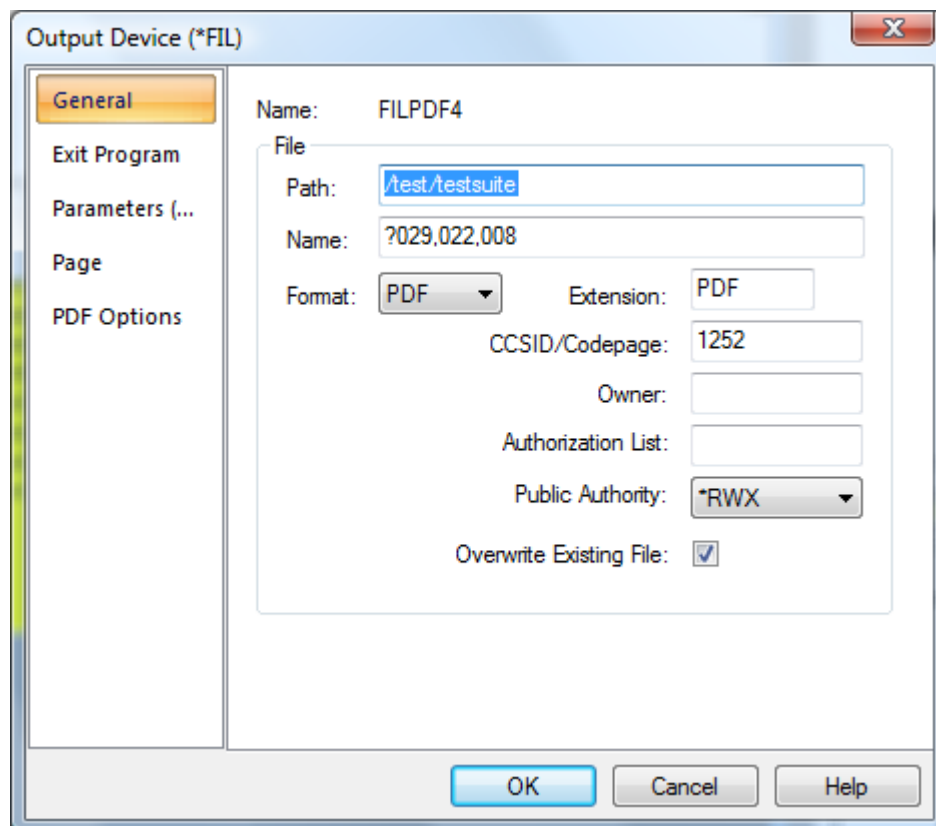
[Exit Program](#)

[Parameters \(Short\)](#)

[Page](#)

[PDF Options](#)

General Settings



On the **General** tab you will see the following entries:-

Spooled File Status

This indicates the status of the input spooled file after it has been processed. The choices are to Hold the file (*HLD), Delete it (*DLT) or Save it (*SAV).

Rotation

You would normally leave this as *DOC as you should have set up the output orientation in the Page Set-up. If you wish to override this you may select either Portrait or Landscape.

Font Group

Leave the default as *DOC as this will have been defined in your Page Set-up.

Path & Name

Here you need to specify the path and name for your output file. This data may be retrieved from the Output pane using the [Address tool](#) or entered here. Please see the topic [Specifying File Paths](#) for more information on how to configure the **Path** and file **Name** as this differs depending upon where you wish to store your file.

Note: If you are using the page tab to split your output into more than one document then you must obviously use a different file name for each output. To do this you may either use the [Address tool](#) to retrieve say, the Purchase Order Number, from your output to use as the file name or move/rename your file in your Exit program.

Format

This is where you select the type of output you wish to create. Please see the topic [File Formats](#) for details. For XML output please select either SCS or TXT as this defines the format of the generated XML attachment.

Extension

This will change automatically depending upon which file format you choose. You may change this extension if you wish.

Start printing on line

Not used.

CCSID/Codepage

PDF output uses the CCSID which specifies the ASCII coded character set identifier (CCSID) that is used to map data in the generated file. If left blank this will default to *WINANSI. Other valid entries are:

1-65533	*GBK	*ISO88598	*ISO-8859-5
*UNICODE	*ISO88591	*ISO88599	*ISO-8859-7
*WINANSI	*ISO88592	*USASCII	*ISO-8859-8
*UTF8	*ISO88595	*ISO-8859-1	*ISO-8859-9
*BIG5	*ISO88597	*ISO-8859-2	*US-ASCII

SCS or **TXT** output uses the stream file Codepage which specifies the method of obtaining the stream file code page and the CCSID equivalent of the code page that is used for data conversion. If left blank this will default to 1252. Other valid entries are:

1-32767
 *STMF
 *PCASCII

*STDASCII

Owner

This must be a valid Server User Id and will be used as the owner of the generated file output.

Authorization List

This must be a valid Server Authorization List and will be used for the generated file output.

Public Authority

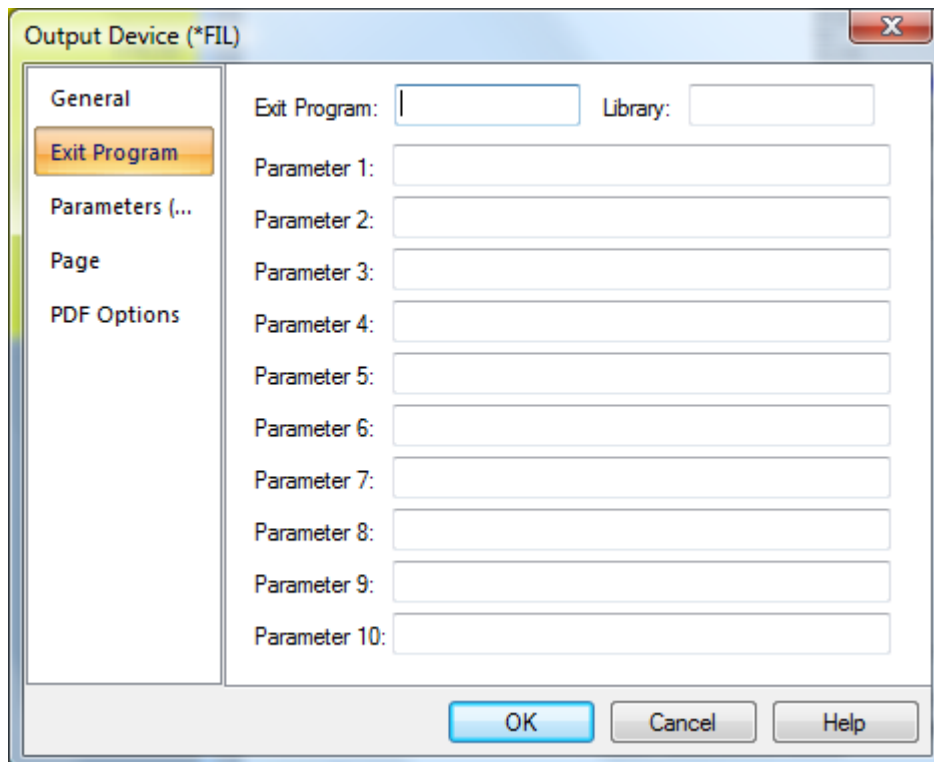
This is used to define the public authority for the generated file output. Valid entries are:

*NONE, *RWX, *RX, *RW, *WX, *R, *W, *X, *EXCLUDE, *AUTL

Overwrite Existing File

By default this option will be ticked. If you do not want to overwrite an existing file of the same name then you will need to uncheck this option.

Exit Program Settings



The screenshot shows a dialog box titled "Output Device (*FIL)" with a close button (X) in the top right corner. On the left side, there is a vertical list of tabs: "General", "Exit Program" (which is selected and highlighted in orange), "Parameters (...)", "Page", and "PDF Options". The main area of the dialog is divided into two sections. The top section contains two text input fields: "Exit Program:" followed by an empty text box, and "Library:" followed by an empty text box. Below this, there are ten rows, each labeled "Parameter 1:" through "Parameter 10:", each followed by an empty text box. At the bottom of the dialog, there are three buttons: "OK" (highlighted in blue), "Cancel", and "Help".

You can use the **Exit Program** to write a record to your own archive software. As well as passing the File path, name and extension you may define up to ten Long parameters (132 characters) and ten Short parameters (64 characters). These parameters may be passed into the Exit program using the Address tool to select data from the Output pane of your CPPD document and could be used as key fields for retrieving your file.

Exit Program/Library:

Enter the name of your Exit program and the library where it may be found. This program must already exist.

Notes:

1. The Exit program will be called after the file has been created.

2. If you need to add more than one library to your library list, because the files used in the program reside in another library, then you will need to add them in your program.

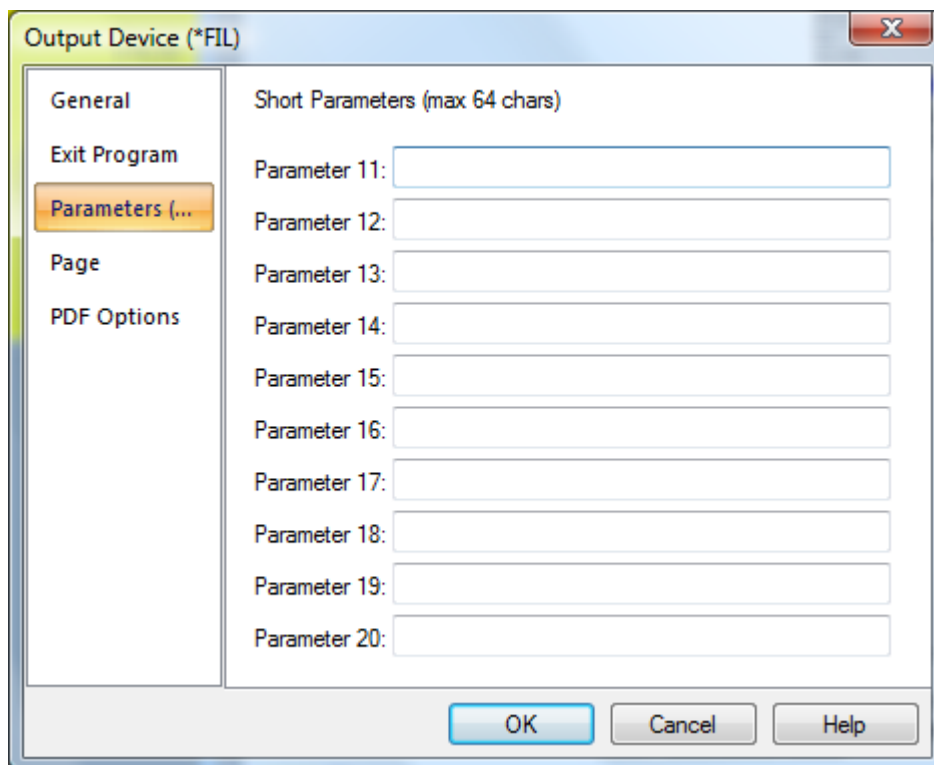
Parameters 1 – 10:

These parameters are all 132 characters long and may either contain data retrieved from the Output pane using the Address tool or data entered into the relevant parameter entry.

If you wish to use **FTP** to send your file across your TCP/IP Network then a sample exit program **ARCHIVEFTP** has been provided in **QSRTOOLLE** in library **CPPD** which will call the [Cobwebb FTP](#) programs. We also supply a standard FTP exit program called [COBFILEFTP](#) (from version 6.2.57) which will allow you to FTP your File output.

Please also see the topic [Cobwebb File Exit Program](#) for details on the parameters required if you wish to create your own program.

Parameters Short Settings

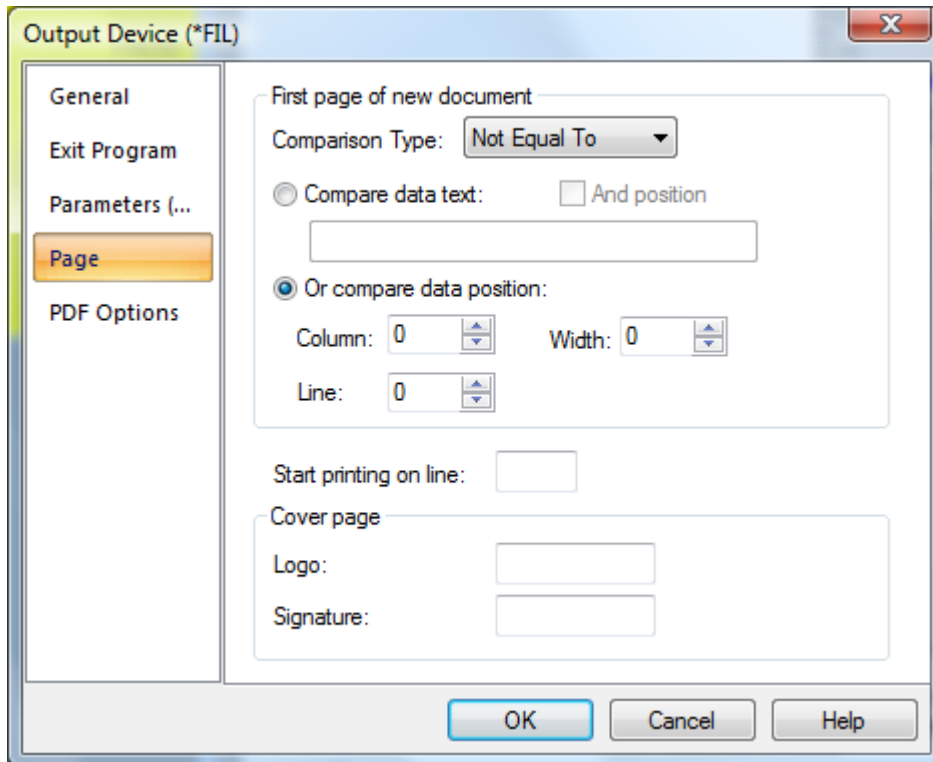


The **Parameters (Short)** tab is used if you wish to pass up to 10 parameters each of 64 characters in length.

Parameters 11 – 20:

These parameters are all 64 characters long and may either contain data retrieved from the Output pane using the [Address tool](#) or data entered into the relevant parameter entry.

Page Settings



The **Page** tab is where you may set up the splitting up of your output pages into individual documents. If, for example, you are sending a Purchase Order print to a number of different Customers you would need to split the input spooled file into different documents, some may only be one page whilst others may be more. You need to select some data from your output pane, say Purchase Order Number, which appears on every page. You then need to select '**Not equal to**' as the comparison type and on change of Purchase Order Number a new document will be generated. This has been replaced by the *First Page* [Address Tool](#).

Please refer to [Configuring Page Selection](#) for a more detailed explanation.

Comparison Type

Displays the type of comparison operation required to distinguish the first page of a new document in the output file. The most commonly used entry is **Not equal To** as you would normally want to split up your documents when the area of the spooled file selected (using **Compare data position**) is *not equal to* that of the previous page e.g. Purchase Order Number.

Note: If you wish to remove the data written to the output to define your page selection then you need to use one of the entries with **(Delete)** on the end.

Compare data text

Displays the text string that is to be used in the comparison operation. Each page is scanned in turn for this text. Every page that this text is found on is considered the first page of a new document. If you only wish to check for this text in a particular position on the spooled then tick the **And position** box and enter **Column, Line & Width**. If you are using **Compare data text** then you would usually have the **Comparison Type** set to **Equal To** e.g. Page 1.

Compare data position

Displays the area from the output spool file that is to be used in the comparison operation.

This position is checked on each page. Whenever there is a difference between the text at this position, the page on which the change took place is considered the first page of a new document.

Cover Page

If you wish to include a Cover page **Logo** or **Signature** then you may either enter *USRPRF to pick up the Cobwebb File user defaults or enter the member name of the previously defined logo or signature within Cobwebb File.

PDF Options

If you have selected **PDF** output you can specify certain options on the [PDF Options](#) tab..

8.21.4.1 File Formats

Cobwebb **Email**, **File** and **Docstore** Output Devices allow you to configure your output in the following file formats:

PDF PDF output can include colour images.

PDF/A This is similar to PDF and is often used for archiving but unlike PDF doesn't allow passwords - see <http://en.wikipedia.org/wiki/PDF/A>.

Requires:

- *IBM i V5R3M0 or above*
- *Cobwebb Server v6.2.34 or above*
- *SPLAMATIC module v2R1M0 or above*

Does not support:

- **Colour TIFF(LZW) Images** - images need to be either **TIFF** (which is Black & White) or **Colour JPEG**

TXT Select **SCS** or **TXT** if you do not wish to include any overlays or graphics and then Notepad or any other product that reads plain text may read the resulting document. These should also be used if you wish to generate XML output.

or

SCS

The difference between **SCS** and **TXT** is that for SCS output, when CPPD generates a .TXT file that continues over one page it puts an end of page byte after the last character on the page and an end of file byte after the last character in the document.

TIFF This type of output can include images but not in colour. Requires SPLAMATIC module to be installed.

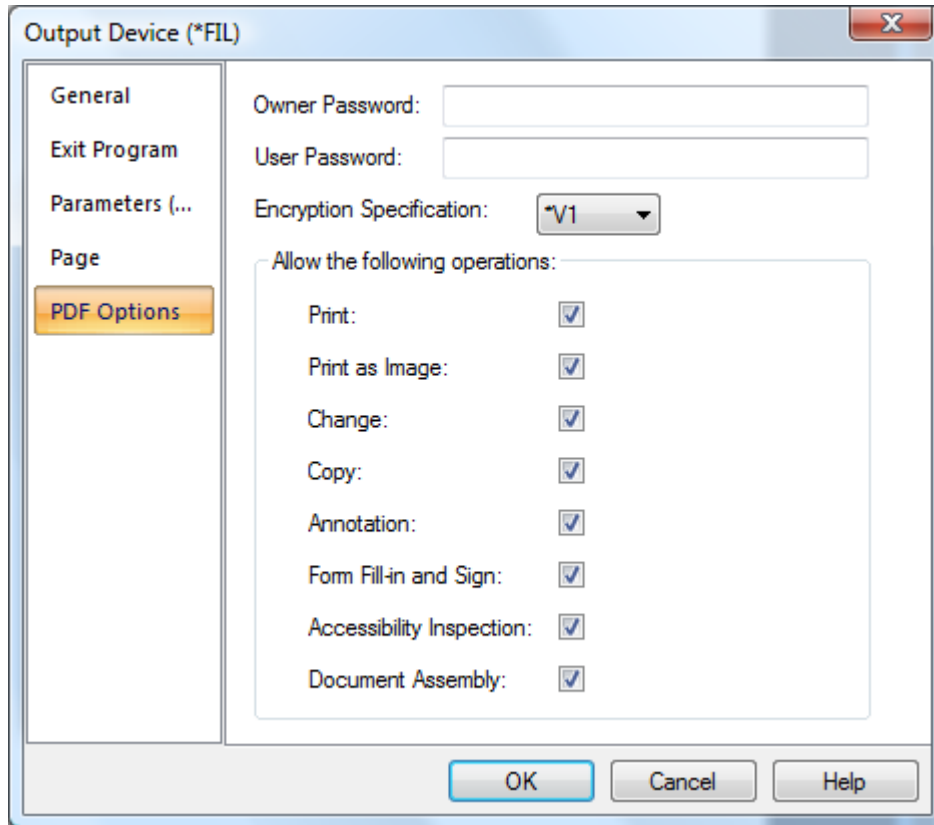
Postscript This type of output can include images but not in colour. Requires SPLAMATIC module to be installed.

8.21.4.2 PDF Options

The **PDF Options** tab allows you to set the PDF document restrictions.

PDF documents can be encrypted to protect their contents from unauthorized access. An encrypted PDF document has two passwords: an owner password and a user password. The PDF document also specifies operations that should be restricted even when the PDF document is decrypted. When opening an encrypted PDF document, Adobe's Acrobat Reader prompts for a

password, if one is required. When the correct user password is supplied, the PDF document is opened and decrypted but operations are restricted; when the owner password is supplied, all operations are allowed. The owner password is required to change these passwords and restrictions. A PDF document is encrypted whenever a user or owner password or restrictions are supplied for the PDF document. However, a user is prompted for a password on opening a PDF document only if the PDF document has a user password.



Owner Password

Specify the password required to perform owner functions for the PDF document (case sensitive). If you leave this as blank then ***NONE** will be assumed.

User Password

Specify the password required to open the PDF document (case sensitive). If you leave this as blank then ***NONE** will be assumed.

Encryption Specification

***V1** - Version 1 encryption, which uses a 40 bit key length, and is compatible with Acrobat Reader 4.0 and lower.

Note: Version 1 only implements the first four permissions: "Allow print", "Allow change", "Allow copy", and "Allow annotation". Other permissions are ignored and readers treat them as if ***YES** was specified.

***V2** - Version 2 encryption using a key length 128 bits. Version 2 encryption requires Acrobat Reader 5.0 or higher.

Allow the following operations:

Print

Check this entry if printing of the PDF document is allowed.

Print as Image

Check this entry if you wish to allow the document to be printed if "print as image" is selected.

Change

Check this entry if changing the PDF document is allowed.

Copy

Check this entry if copying from the PDF document is allowed.

Annotation

Check this entry if annotation of the PDF document is allowed.

Form Fill-in and Sign

Check this entry if form fill-in and document signing operations are allowed.

Accessibility Inspection

Check this entry if text and graphics can be extracted from the document for the sole purpose of making the contents accessible through assistive technologies such as screen readers or Braille output.

Document Assembly

Check this entry if document assembly operations, including insertion, rotation, deletion of pages and creation of bookmarks and thumbnails, are allowed.

8.21.5 Docstore Output Device Settings

If you wish to send your output to Docstore then select the **Docstore** type from the list. The **Docstore Output Device Properties** are split into five tabs:

[General](#)

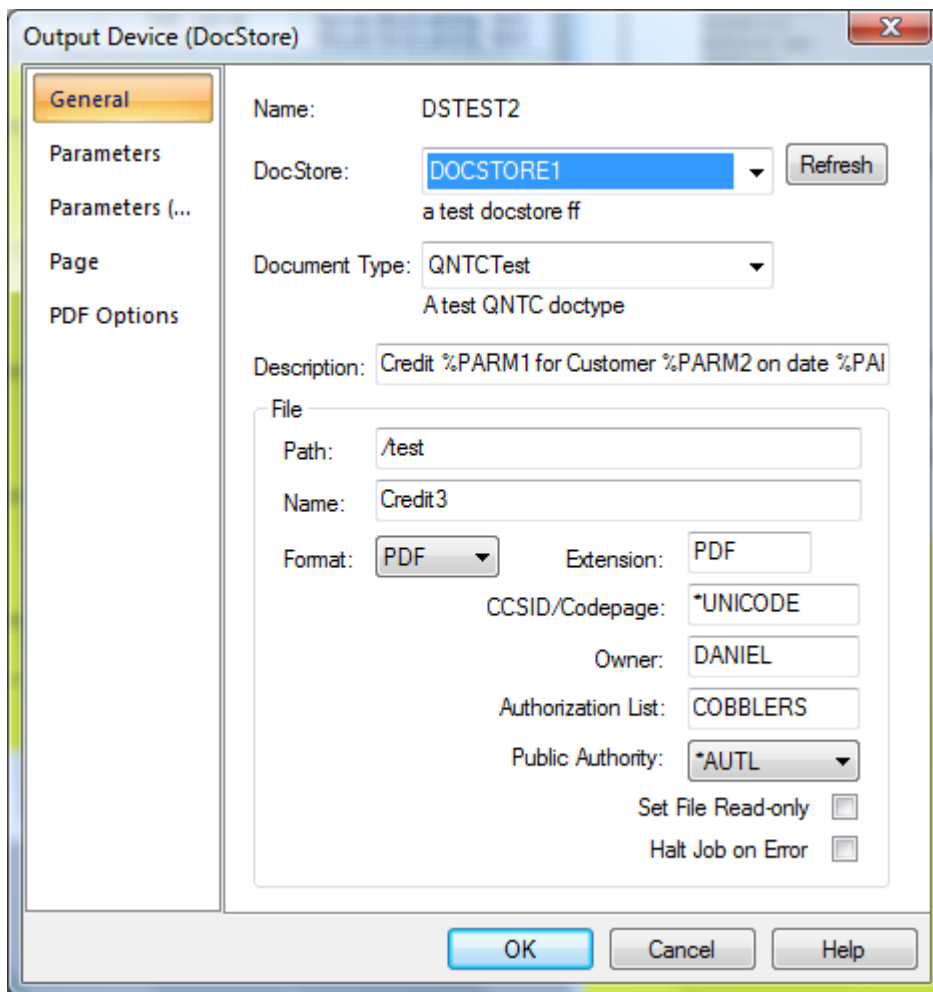
[Parameters](#)

[Parameters \(Short\)](#)

[Page](#)

[PDF Options](#)

General Settings



On the **General** tab you will see the following entries:-

Refresh

If you change your Docstore entries then clicking Refresh will retrieve the latest information.

Docstore

Select the name of the Document Store that you wish to use to store this output. If you do not see any entries in the list then either you have not set up any Document Stores or you have not completed the `chttpd` Address entry on the View | Options | Server menu option.

From *Cobwebb Designer 7.20.75.35* & *Cobwebb Server 6.2.64* you will be able to select any of the parameters i.e. PARM1 - PARM18 as your Docstore Name. You will need to either manually enter details, or use the Address element, to populate the selected parameter.

Document Type

Select the name of the Document Type that you wish to use to store this output. If you do not see any entries in the list then either you have not set up any Document Types for your Selected Document Store or you have not completed the `chttpd` Address entry on the View | Options | Server menu option.

From *Cobwebb Designer 7.20.75.35* & *Cobwebb Server 6.2.64* you will be able to select any of the parameters i.e. %PARAM1 - %PARAM18 as your Document Type. You will need to either manually enter details, or use the Address element, to populate the selected parameter.

Description

This is the document description, and can use parameter replacement to make the description variable. **%PARM1** refers to the first parameter on the Parameters tab etc.

E.g. Invoice %PARM1 for Customer %PARM2 on date %PARM3

The description is the field used for basic searching in Cobwebb Docstore, so it's a good idea to try and get it to contain all the key information of the file that people will generally be searching on.

Path & Name

Here you need to specify the path and name for your output file. This is a temporary area for storing the document before it is uploaded into Docstore. This data may be retrieved from the Output pane using the [Address tool](#) or entered here. Please see the topic [Specifying File Paths](#) for more information on how to configure the **Path** and file **Name** as this differs depending upon where you wish to store your file.

Note: If you are using the page tab to split your output into more than one document then you must obviously use a different file name for each output. To do this you may either use the [Address tool](#) to retrieve say, the Purchase Order Number, from your output to use as the file name or move/rename your file in your Exit program.

File Format

This is where you select the type of output you wish to create. Please see the topic [File Formats](#) for details.

Extension

This will change automatically depending upon which file format you choose. You may change this extension if you wish.

Start printing on line

Not used.

CCSID/Codepage

PDF output uses the CCSID which specifies the ASCII coded character set identifier (CCSID) that is used to map data in the generated file. If left blank this will default to *WINANSI. Other valid entries are:

1-65533	*GBK	*ISO88598	*ISO-8859-5
*UNICODE	*ISO88591	*ISO88599	*ISO-8859-7
*WINANSI	*ISO88592	*USASCII	*ISO-8859-8
*UTF8	*ISO88595	*ISO-8859-1	*ISO-8859-9
*BIG5	*ISO88597	*ISO-8859-2	*US-ASCII

SCS or **TXT** output uses the stream file Codepage which specifies the method of obtaining the stream file code page and the CCSID equivalent of the code page that is used for data conversion. If left blank this will default to 1252. Other valid entries are:

1-32767
 *STMF
 *PCASCII
 *STDASCII

Owner

This must be a valid Server User Id or Group ID and will be used as the **File Owner / Document Creator** in Docstore. **Note:** If this is not specified then the **File Owner** will be set to the owner of the job e.g. CPPDMM for the Spool File Monitor.

Authorization List

This must be a valid Server Authorization List and will be used for the generated file output.

Public Authority

Please select an entry from the drop down list to be used to define the public authority for the generated file output.

Set File Read-only

Selecting this option will set the Read-only flag for the file.

Halt Job on Error

Selecting this option will display an inquiry message in QSYSOPR message queue requiring a response when certain Docstore failures are encountered; such as moving the file into the Docstore and the folder does exist or cannot be accessed. This message is sent by the Spooled File Monitor job.

Parameters Settings

The **Parameters** tab is used if you wish to pass up to 10 parameters each of 132 characters in length to Cobwebb Docstore.

The screenshot shows a dialog box titled "Output Device (DocStore)" with a close button (X) in the top right corner. The dialog has a left-hand sidebar with three tabs: "General", "Parameters" (which is selected and highlighted in orange), and "Parameters (...)" with a truncated label. Below the tabs is a "Page" label. The main area of the dialog contains ten text input fields, each with a label to its left: "Invoice Number:" (containing "?007,100,008"), "Customer Number:" (containing "?011,100,010"), "Customer Location:" (containing "?031,098,010"), "Order Number:", "Customer Reference:", "Currency:", "Invoice Total:", "Invoice Date:", "Payment Date:", and "Parameter10:". At the bottom of the dialog are three buttons: "OK", "Cancel", and "Help".

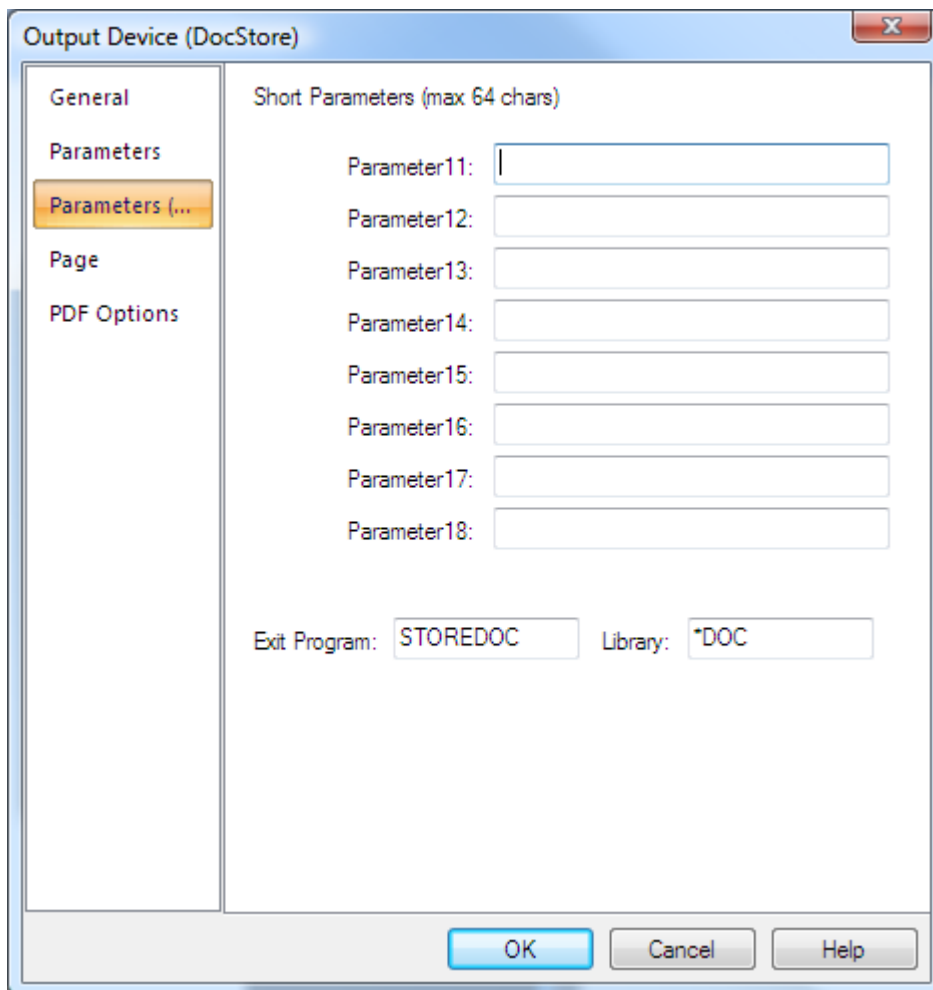
Note: Cobwebb Docstore requires any date parameters to be in the format YYYY-MM-DD; there is a Cobwebb supplied Exit program [COBCVTDAT](#) which you may use to convert any dates into this format.

Parameters 1 - 10:

These are the keys to your document output as defined in Cobwebb Docstore for your chosen Docstore and Document Type. If they have already been defined in Cobwebb Docstore then you will see the actual Document Key names displayed instead of Parameter 1 etc.

These parameters are all 132 characters long and may either contain data retrieved from the Output pane using the [Address tool](#) or data entered into the relevant parameter entry.

Parameters Short Settings



The screenshot shows a dialog box titled "Output Device (DocStore)". On the left is a sidebar with tabs: "General", "Parameters", "Parameters (...)", "Page", and "PDF Options". The "Parameters (...)" tab is selected. The main area is titled "Short Parameters (max 64 chars)" and contains eight text input fields labeled "Parameter11:" through "Parameter18:". Below these fields are two more input fields: "Exit Program:" with the text "STOREDOC" and "Library:" with the text "*DOC". At the bottom of the dialog are three buttons: "OK", "Cancel", and "Help".

The **Parameters (Short)** tab is used if you wish to pass up to 8 parameters each of 64 characters in length to Cobwebb Docstore

Parameters 11 – 18:

Again these are the keys to your document output as defined in Cobwebb Docstore for your chosen Docstore and Document Type. If they have already been defined in Cobwebb Docstore then you will see the actual Document Key names displayed instead of Parameter 11 etc.

These parameters are all 64 characters long and may either contain data retrieved from the Output pane using the [Address tool](#) or data entered into the relevant parameter entry.

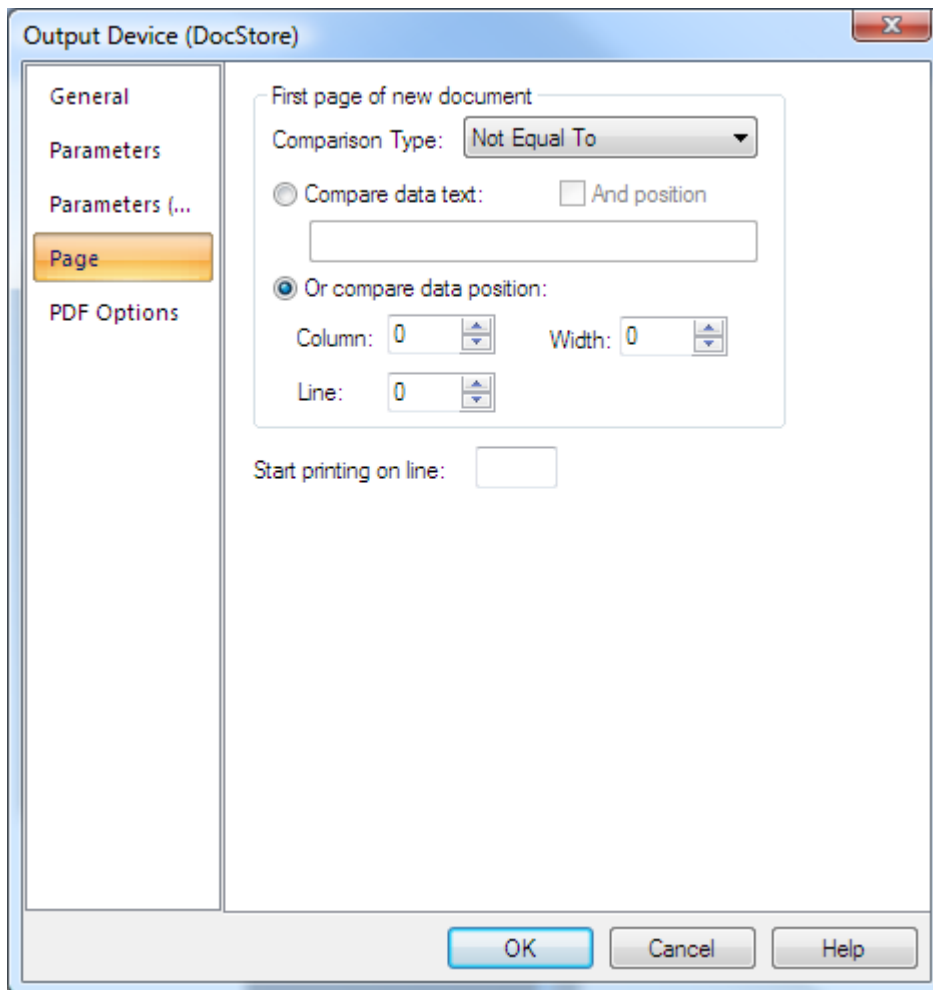
Exit Program

This should be left as **STOREDOC** if you wish this output to be stored in Cobwebb Docstore.

Library

This should be the library where the Exit Program is to be found. Leave this as *DOC and it will retrieve the library that has been defined in your [View | Options | Server](#) tab; normally CPPD.

Page Settings



The **Page** tab is where you may set up the splitting up of your output pages into individual documents. If, for example, you are sending a Purchase Order print to a number of different Customers you would need to split the input spooled file into different documents, some may only be one page whilst others may be more. You need to select some data from your output pane, say Purchase Order Number, which appears on every page. You then need to select 'Not equal to' as the comparison type and on change of Purchase Order Number a new document will be generated. This has been replaced by the *First Page* [Address Tool](#).

Please refer to [Configuring Page Selection](#) for a more detailed explanation.

Comparison Type

Displays the type of comparison operation required to distinguish the first page of a new document in the output file. The most commonly used entry is **Not equal To** as you would

normally want to split up your documents when the area of the spooled file selected (using **Compare data position**) is *not equal to* that of the previous page e.g. Purchase Order Number.

Note: If you wish to remove the data written to the output to define your page selection then you need to use one of the entries with **(Delete)** on the end.

Compare data text

Displays the text string that is to be used in the comparison operation. Each page is scanned in turn for this text. Every page that this text is found on is considered the first page of a new document. If you only wish to check for this text in a particular position on the spooled then tick the **And position** box and enter **Column, Line & Width**. If you are using **Compare data text** then you would usually have the **Comparison Type** set to **Equal To** e.g. Page 1.

Compare data position

Displays the area from the output spool file that is to be used in the comparison operation.

This position is checked on each page. Whenever there is a difference between the text at this position, the page on which the change took place is considered the first page of a new document.

Start printing on line

Not used.

PDF Options

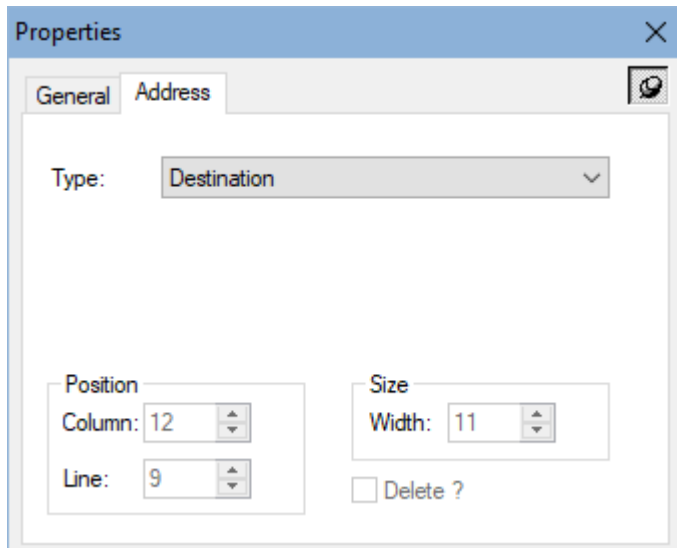
If you have selected **PDF** output you can specify certain options on the [PDF Options](#) tab.

8.22 Defining Destination Address Details

Before you define your destination **Address** details you first need to have added and configured the Output Device type(s) you require. Please refer to the topic on adding an Output Device for details. Once you have defined your Output Device(s) then you can use the **Address** tool to configure the destination etc.

- Addressing the output to a [Print destination](#)
- Addressing the output to a [Fax/Email destination](#)
- Addressing the output to a [File destination](#)
- Addressing the output to a [Docstore destination](#)

Address Properties



Type

The list of available entries will differ depending upon the type of output device. You should therefore drag your Address element into the correct Output device entry in the Explorer Window before selecting this entry.

Position

Column

The horizontal position of the element in the output document.

Line

The vertical position of the element in the output document.

Size

Width

The width of the element in the output document in [grid size](#) units.

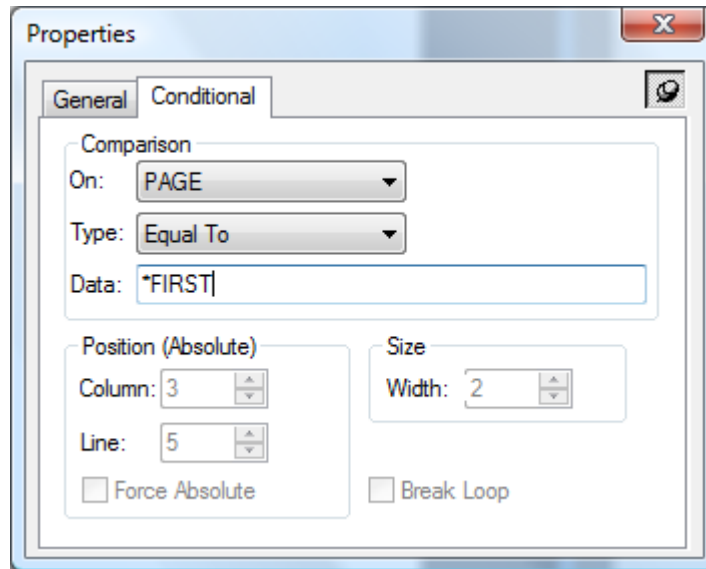
Removing text required for destination information from your Output page

Sometimes you may require information purely for defining your Output destination information such as an email address, fax number etc., and you may not wish this to be included in your actual document. If this is the case then for:

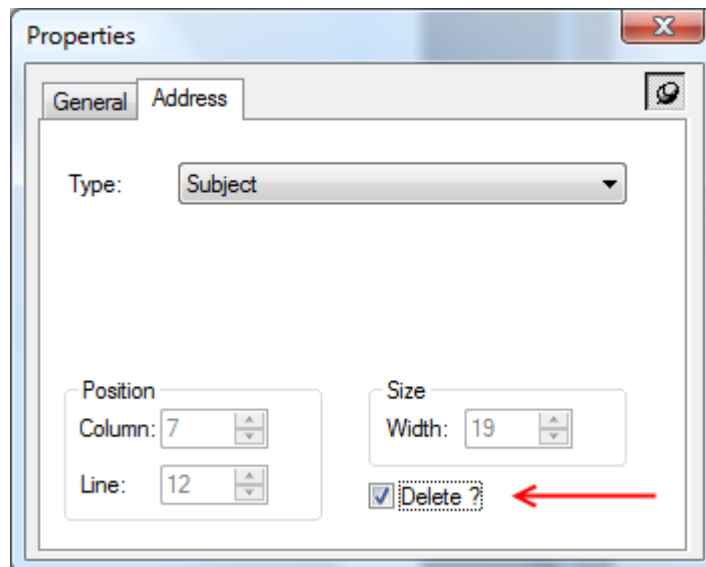
- all **Address** elements, except for *Destination* and *First Page*, there is an Address Element "**Delete?**" check box
- *Destination* Address elements there is a specific Output Device **Destination Type** suffixed with "(Delete)".
- *First Page* Address elements there is a specific Output Device **Comparison Type** suffixed with "(Delete)".

PLEASE NOTE: This information is only removed from the **First page** of each document that is output so, in order to correctly remove the information from all pages, you need to do the following when creating your PPD:

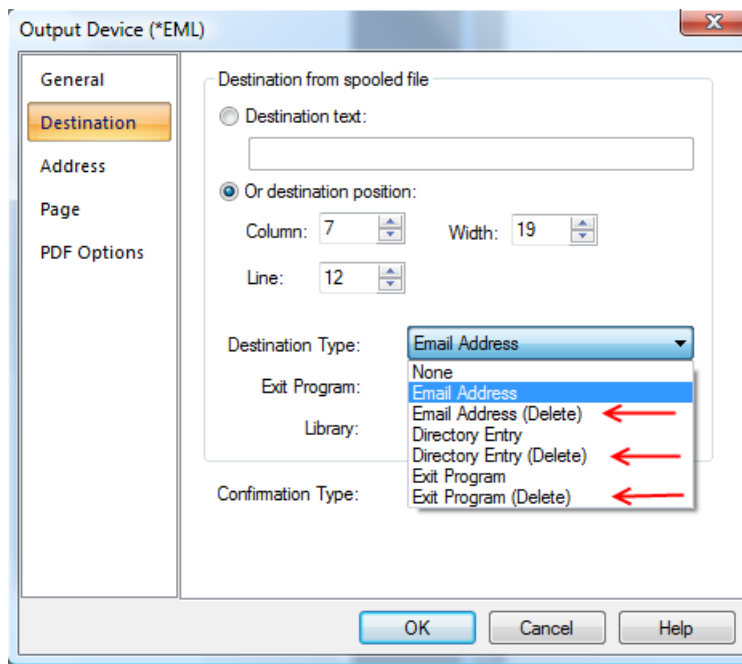
1. Only include the information on the **First Page** of your Output i.e. inside a "PAGE Equal To *FIRST" Condition e.g.



2. For all **Address** elements, apart from Destination, you can check the **Delete?** box e.g.

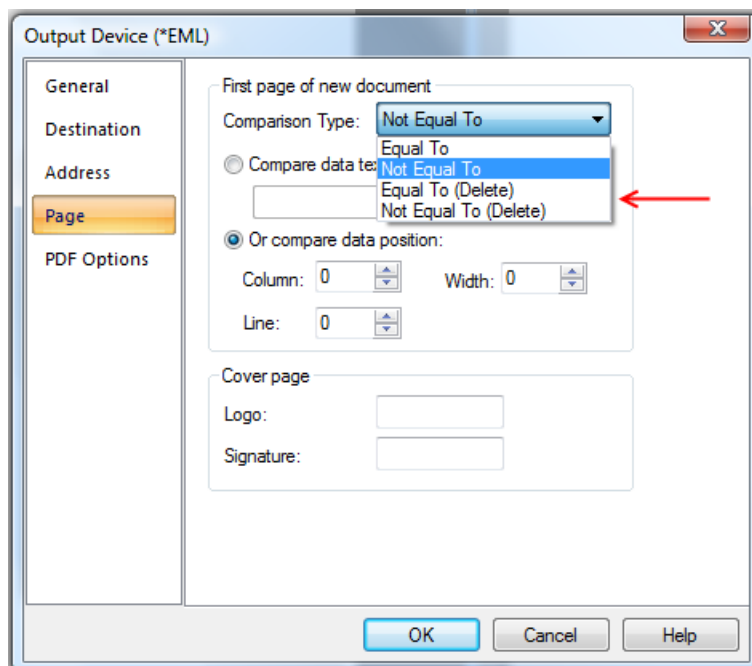


3. For **Destination** elements select one of the **Output Device Destination Type** options, on the **Destination** tab, that include **(Delete)** in the entry such as "**Email Address (Delete)**" e.g.




Note: Destination Type is only available on Print, Fax or Email Output Devices.

- For **First page** elements select one of the **Output Device Comparison Type** options, on the **Page** tab, that include **(Delete)** in the entry such as "**Not Equal To (Delete)**" e.g.



8.22.1 Print Destination Addressing

If you wish to retrieve information from the Output pane to determine the Output Queue for your print then you would use the Address tool. Select the **Address** icon  or press **0**. Select the data from the Output pane using your mouse. If you open the Explorer view you will see the Address Element, you need to select this element and drag it into your Print Output Device. Now select Properties for this element and on the Address tab you will see that **Destination** is the


default type. If you click on the arrow to the right of the type entry you will see that there are several other options.

Valid print address elements are: -

Element name	Description
Destination	<p>Destination for your file output.</p> <p>Note: An Exit program may be defined in your Print Output Device if you wish to retrieve the required output device; in this case you would pass the information to the Exit program using the Destination.</p> <p>For more information on Print Exit programs please refer to the topic Cobwebb Print Exit Program.</p> <p>Note: The Delete box is not enabled for this type of Address element but you can do this by going to the Destination tab for your Output Device and change the Destination Type to be one of the entries suffixed (Delete).</p>
First Page	<p>This element is for you to select data to breakdown your print output into individual spool files. This information is copied to the Page tab for your Output Device. For further explanation please refer to the topic on Print Output Device Settings.</p> <p>Note: The Delete box is not enabled for this type of Address element but you can do this by going to the Page tab for your Output Device and change the Comparison Type to be one of the entries suffixed (Delete).</p>

8.22.2 Fax & Email Destination Addressing

The first step that you need to take is to create a Fax or Email Output Device. See [Adding an output Device](#).

If the fax/email number does not appear on your Output pane then you will need to retrieve the destination from an IBM i database using an Exit program and place the returned parameter containing the destination on your Output pane. Now select the **Address** icon  or press **0**. Select the fax/email number on your Output pane using your mouse. If you open the Explorer view you will see the new Address Element, you need to select this element and drag it into your Fax/Email Output Device. Now select Properties for this element and on the address tab you will see that **Destination** is the default type. If you click on the arrow to the right of the type entry you will see that there are several other options. For fax, these options enable you to select information from the Output pane to appear on the queue entry within the Cobwebb queue, for email they make up other information that may be sent with your email e.g. Subject. You may repeat the above for each element that you require. When the destination is email the output document is sent as either a .TXT or .PDF attachment and you may either enter the attachment name in the Output Device (default is ATTACH) or use the Attach address tool.

Note: A Cobwebb Fax or Email Exit program may be defined in your Fax or Email Output Device respectively to retrieve a fax or email number.

Fax Address elements

Valid fax address elements are: -

Element name	Cobwebb queue	Description
Destination	Destination	Fax number Note: The Delete box is not enabled for this type of Address element but you can do this by going to the Destination tab for your Output Device and change the Destination Type to be one of the entries suffixed (Delete).
From	From	Name of the sender
To	To	Name of the recipient
Attention	Attention	Attention name
Reference	Reference	A reference say PO number for the fax
First Page	N/A	This element is for you to select data to breakdown your fax output into individual messages. This information is copied to the Page tab for your Output Device. Note: The Delete box is not enabled for this type of Address element but you can do this by going to the Page tab for your Output Device and change the Comparison Type to be one of the entries suffixed (Delete).


Email Address elements

Valid email address elements are: -

Element name	Cobwebb queue	Description
Destination	Destination	Email address Note: The Delete box is not enabled for this type of Address element but you can do this by going to the Destination tab for your Output Device and change the Destination Type to be one of the entries suffixed (Delete).
Additional Destination	(queue select screen) Email address nnn	Additional email recipients these can be To, CC or BCC entries
To	To	Name of the recipient
From email	(queue select screen)	Email address of sender

From	From	Name of the sender
Subject	Attention	Subject of the email
Message	Reference	<p>Additional message to be sent with the attachment. <i>From version 6.0.30</i> - If you wish to include more than 1024 bytes of data in your Message text or to include carriage returns, then you may specify a TXT or HTML file to use as the message text. You do this by specifying a %FILE parameter in the Message entry e.g.</p> <p>%FILE"/test/message.htm" where /test/message.htm is the path to the document you wish to use.</p> <p>Note: If using %FILE then the file must always be encoded as UTF-8. Please see the topic Specifying File Paths for more information on how to configure the path to your file. You need to include the file extension e.g. .htm, .txt.</p> <p>You can also include data from the spooled file in the message body - please see Create Dynamic HTML Email Message Body for details.</p>
Attachment name	(queue select screen)	Attachment name for the document.
First Page	N/A	<p>This element is for you to select data to breakdown your email output into individual messages. This information is copied to the Page tab for your Output Device.</p> <p>Note: The Delete box is not enabled for this type of Address element but you can do this by going to the Page tab for your Output Device and change the Comparison Type to be one of the entries suffixed (Delete).</p>
PDF Owner Password	N/A	Specify the password required to perform owner functions for the PDF document (case sensitive). If you leave this as blank then *NONE will be assumed.
PDF User Password	N/A	Specify the password required to open the PDF document (case sensitive). If you leave this as blank then *NONE will be assumed.


8.22.3 File Destination Addressing

If you wish to retrieve information from the Output pane to say, name your file using the PO number for instance then you would use the Address tool. Select the **Address** icon  or press 0. Select the PO number or similar entry on your Output pane using your mouse. If you open the Explorer view you will see the Address Element, you need to select this element and drag it into your File Output Device. Now select Properties for this element and on the Address tab you will see that **File Path** is the default type, change this to **File Name**. If you click on the arrow to the right of the type entry you will see that there are several other options. For the File output device they make up the destination and name for your output and twenty parameters that may be passed into an Exit program. You may repeat the above for each element that you require.

Valid file address elements are: -

Element name	Description
File Path	Destination for your file output.
File Name	Name of your file output.
First Page	This is for you to select data to breakdown your file output into individual files. This information is copied to the Page tab for your Output Device. For further explanation please refer to File Output Device Settings . Note: The Delete box is not enabled for this type of Address element but you can do this by going to the Page tab for your Output Device and change the Comparison Type to be one of the entries suffixed (Delete).
File Owner	Specify a valid Server User Id to be used as the owner of the generated file output.
File Authorization List	Specify a valid Server Authorization List to be used for the generated file output.
File Public Authority	This is used to define the public authority for the generated file output. Valid entries are: *NONE, *RWX, *RX, *RW, *WX, *R, *W, *X, *EXCLUDE, *AUTL
PDF Owner Password	Specify the password required to perform owner functions for the PDF document (case sensitive). If you leave this as blank then *NONE will be assumed.
PDF User Password	Specify the password required to open the PDF document (case sensitive). If you leave this as blank then *NONE will be assumed.
Parameter 1 - 20	Information to be passed to your file exit program. Note: An Exit program may be defined in your File Output Device if you wish to add information for say archiving software. This program requires a different set of parameters as defined in the Cobwebb File Exit Program topic.

8.22.4 Docstore Destination Addressing

If you are directing your output to Docstore then you may wish to retrieve information from the Output pane to pass to your Docstore key fields. To do this you would use the Address tool. Select the **Address** icon  or press 0. Select the information that you wish to include as a key field from your Output pane using your mouse. If you open the Explorer view you will see the Address Element, you need to select this element and drag it into your Docstore Output Device. Now select **Properties** for this element and on the **Address** tab you will see the list of defined key fields for the Docstore and Document Type you have selected. For all available entries see below. If you click on the arrow to the right of the type entry you will see that there are several other options. You may repeat the above for each element that you require.

Valid Docstore address elements are: -

Element name	Description
File Path	Destination for your file output.
File Name	Name of your file output.
First Page	This is for you to select data to breakdown your file output into individual files for storing in Docstore. This information is copied to the Page tab for your Output Device. For further explanation please refer to File Output Device Settings . Note: The Delete box is not enabled for this type of Address element but you can do this by going to the Page tab for your Output Device and change the Comparison Type to be one of the entries suffixed (Delete).
File Owner	Specify a valid Server User Id to be used as the owner of the generated file output.
File Authorization List	Specify a valid Server Authorization List to be used for the generated file output.
File Public Authority	This is used to define the public authority for the generated file output. Valid entries are: *NONE, *RWX, *RX, *RW, *WX, *R, *W, *X, *EXCLUDE, *AUTL
PDF Owner Password	Specify the password required to perform owner functions for the PDF document (case sensitive). If you leave this as blank then *NONE will be assumed.
PDF User Password	Specify the password required to open the PDF document (case sensitive). If you leave this as blank then *NONE will be assumed.
Description	The document description
Parameter 1 - 18	Document Keys to be passed to the STOREDOC exit program.

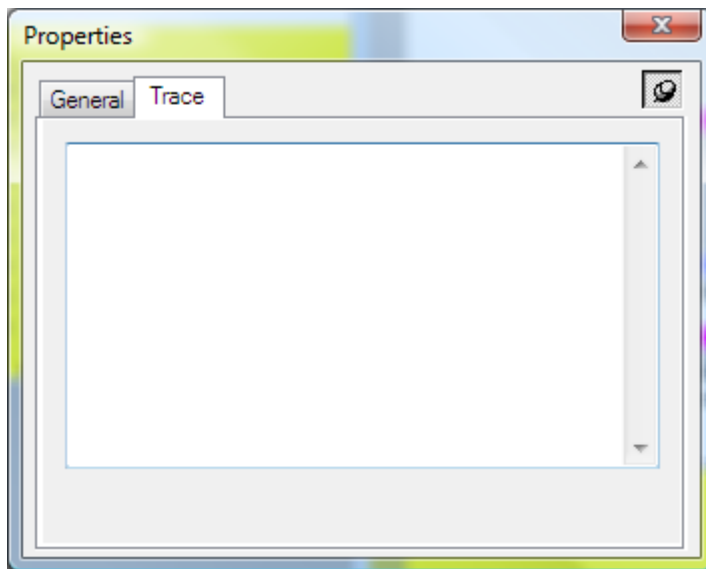
8.23 Using Trace to Troubleshoot your Design Flow

In order to be able to use the **Trace** element in one of your designs you need to be on Cobwebb Designer v7.4.74.34 or greater and Cobwebb Server v6.2.50 or greater.

The wonderful thing about **Trace** elements is that you can add them to your design wherever you wish to check the flow but they will only be output in the joblog when you **Enable Trace Mode** for the **Spooled File Monitor**. (See [Enable Trace Mode](#).) This means that they can stay in your design and you only need to switch on debugging if you find you have a problem.

Select **Trace Element** from the **Insert** menu.

Trace Properties



You can basically add whatever text you like in the box provided and this will be output to the **Spooled File Monitor** joblog at the position that you have added the element in your design.

You may also output the value of any **Variable** or **Parameter** by using [Variable or Parameter substitution](#). This is done by adding a "?" to the front of the **Variable** or **Parameter** name e.g.

Variable Values: Invoice No: ?INVNO for Customer No: ?CUSNO on date ?INVDTE

or


Parameter Values: PARM1=?PARM1 PARM2=?PARM2 PARM3=?PARM3 PARM4=?PARM4
PARM5=?PARM5 PARM6=?PARM6

Where the entries in red represent the Variable and Parameter names respectively.

8.24 Saving & Exporting your PPD


Save your PPD file

Now you have finished designing your output you must save your PPD file. Select either **Save** or

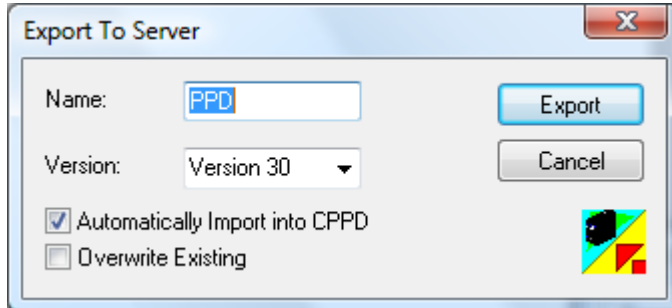
Save As from the **File** menu or click on the Save icon . Remember the naming conventions and keep to eight characters or less for the file name.

Exporting your PPD file

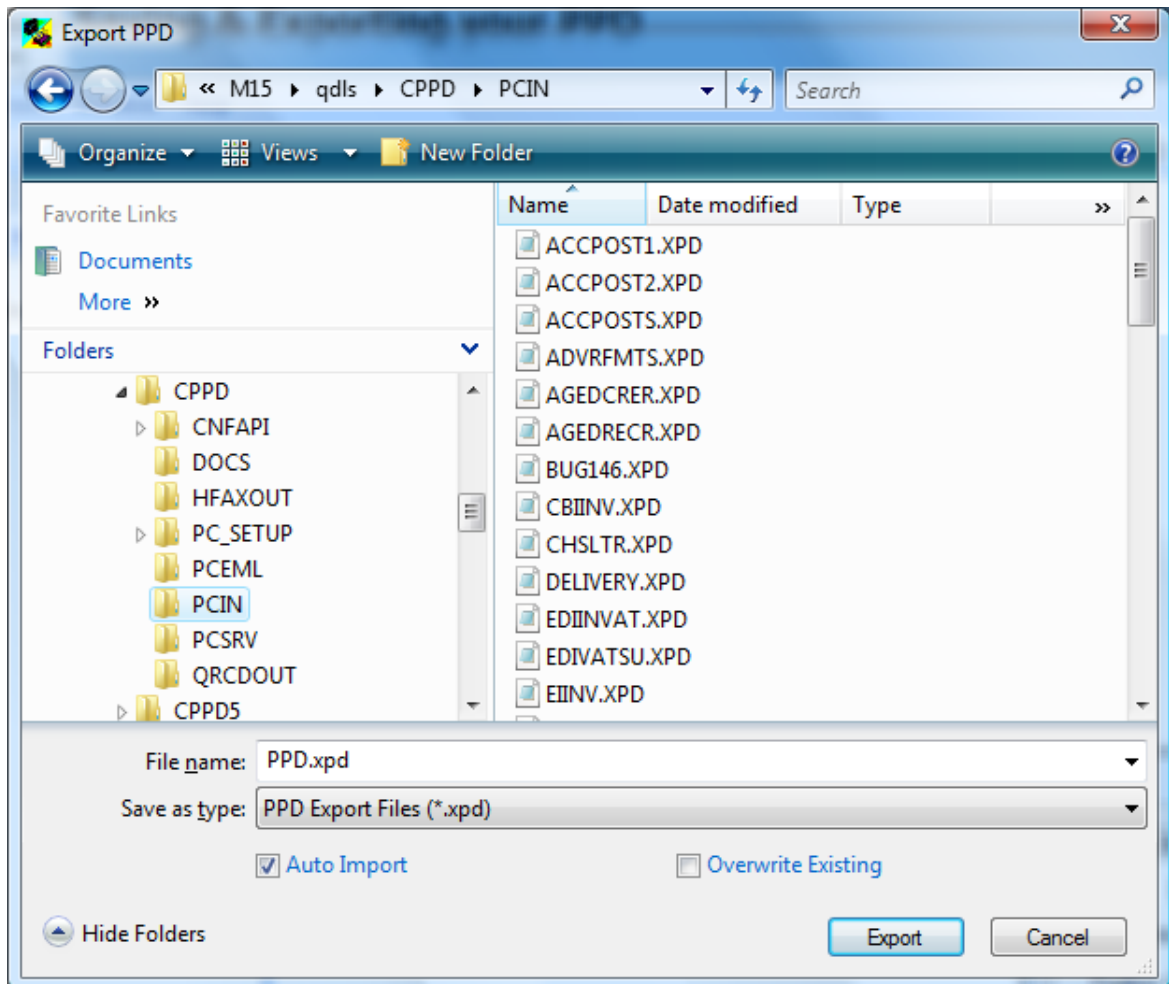
When you think that you are happy with your PPD file then you need to send it to your IBM i. This must be the IBM i where your relevant spooled files reside. To do this you need to click on the

Export PPD icon , press **Ctrl E** or select the **Export PPD** option in the **File** menu.

If you have selected to **Use Sockets** in your [View | Options | Server](#) entries you see the following:



If not then your PPD will be exported using **Shared Folders** and your dialog will look like this:



You must leave the default path of **qdls/cppd/pcin** as this is where the Import PPD expects to find the .xpd file. If you do not see this as the default path you will need to check that you have shared folder support and that you have the relevant authority to the directory. Go to [View | Options | Server](#) and check that the **Export Path** on the **Server** tab has been entered correctly.

Name / File Name

It is best to leave the file name (see **Naming conventions** in [Using the Cobwebb Designer](#)) but you may change it if you wish. Leave the 'Save As' type as 'PPD Export File' as the other options are only for backward compatibility and then click on Export. This will upload the PPD file to the IBM i as an XPD file together with the form overlay(s) if used.

Automatically Import into CPPD / Auto Import

Leave this option checked and, as well as copying the PPD file to the shared folder on the IBM i, it will Import it creating the necessary objects. If you un-check this box the export will only place the PPD file in the shared folder. You will then have to take Option 3 '[Import PC PPD file](#)' from the Cobwebb Main menu on the IBM i and enter the PC file name (the name of your PC PPD file), in order to be able to run your application.

Note: If you have changed your form overlay just for testing and you are already running live, change the name of your new overlay to prevent over-writing the old one until you are ready to go live.

Overwrite Existing

If you tick this entry then any existing PPD on the Server will be overwritten. If left unchecked and a PPD of the same name already exists you will be asked if you wish to overwrite the existing file.

8.25 Creating XML Output

From the **Start** menu on your PC select **Programs | Cobwebb Document Management | CPPD Designer**. Firstly you should maximise the Cobwebb Designer screen, then select **New XML** from the **File** menu. This option can also be used to create **HTML output**.

If you wish to split your spooled file up into different XML files then you will need to set-up the page counting using the **Conditional** tab in **Page Setup**. Please refer to the '**Start of new page definition**' entry in [Setting up your Output page](#).

Getting your spooled file

The process for retrieving your spooled file for your XML document is an identical process as for a normal PPD file. See [Importing your Spooled File](#).

Import your XML schema or file



From the **Edit** menu select [Import an XML file](#). Select the schema or existing XML file that you wish to use to map your spooled file data. It is better to use a schema if possible, if you use an existing XML file it will import it without the attached data but you may be missing some of the elements/attributes that exist in the schema.

Mapping your Data


Not all printing tools are available to you when defining XML output. The ones that are not available will be greyed out. The [loop element](#) is available but you must take care to select **loop to end of document** if you wish end up with one XML output file per document. The mapping of the spooled file data to your XML schema is achieved in a totally different way from the mapping of data for printing. Here we are starting with a schema and we need to map the spooled file into the relevant elements/attributes of the schema.

Open the **Explorer View**, right click on the view and select '**Expand All**' to show you all the elements and attributes in your selected schema. You now need to decide which of the elements


and attributes you require for your XML output. Right click on the first element and select 'Properties', then click on the **pin** in the top right hand corner to keep the properties box open. In this way you can check if an element or attribute is required. You will see 'Required = yes' in the properties box. Anything that is a required attribute should not be deleted.

Starting from the top of your explorer view work out if you need the [XML Element](#)  or [XML Attribute](#)  in your schema. If you do not then, provided that it is not 'required' you may delete it. If you do require the information then click on the element/attribute on the Explorer View. Find where the box has been placed on your spooled file (elements are lilac and attributes are blue) and drag it to the spooled file text that it represents. You may need to make the box larger or smaller depending upon the length of your data. Do not forget to allow for data that might be longer on another print file.


You may include [Loops](#) and [Conditions](#) in your XML PPD file and these work in the same way as for creating documents.

If you need to add **multiple text selections** these can be done via the [XML Text](#)  element.

If you wish to add **instructions** to your XML Output then select **XML Instruction** from the **Insert** Menu. These instructions may be used to specify a **Style Sheet** that is associated with the XML data for example. An [XML instruction](#) may also contain one or more **XML**

attributes. If you need to add an attribute then select the **XML Attribute (X)** tool  to define it and then drag and drop it into the relevant **XML instruction**.

XML Comments

There is a tool icon to add comments to your XML data. Select the [XML Comment](#) icon  or press **E** and then either pick the data from the spooled file or add the static comment.

Creating an Output Device

Normally for XML you would configure either a [File](#) or [Email](#) Output Device for XML but you can select any other type of Output Device.

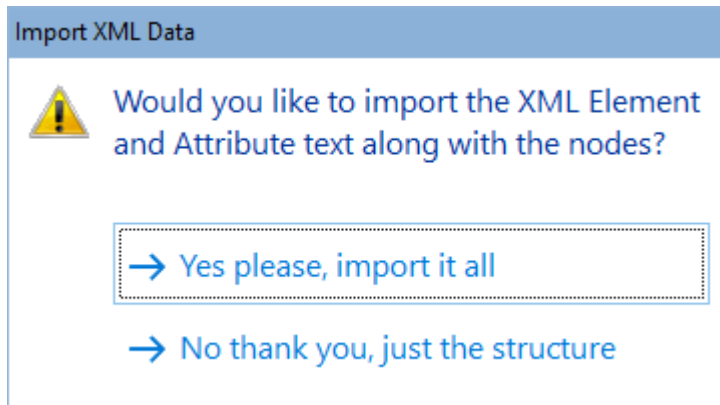
Save & Export your XML PPD file

This process is exactly the same as for your printed PPD output see [Saving & Exporting your PPD](#) for details.

8.25.1 Import an XML schema or file

This function may be found on the **Edit** menu and is only available if you are creating an XML PPD file. It is used for importing an **XML schema** or **HTML** into your PPD. The dialog displayed will be the same as for the **File | Open** only with the **Files of Type** being *XML*.

Find the **schema** or existing **XML/HTML** file that you wish to import and click **Open** or click **Cancel** to return without selecting a file. From Cobwebb Designer (*v8 build 14 onwards*), when importing HTML you will be asked if you wish to also import the XML Element and Attribute text e.g.




For XML it is better to use a schema if possible, if you use an existing XML file it will import it without the attached data but you may be missing some of the elements/attributes that exist in the schema.

Not all printing tools are available to you when defining XML output. The ones that are not available will be grayed out. The **Loop** element is available but you must take care to select **Loop to end of document** if you wish end up with one XML output file per document. The mapping of the spooled file data to your XML schema is achieved in a totally different way from the mapping of data for printing. Here we are starting with a schema and we need to map the spooled file into the relevant elements/attributes of the schema.

Open the **Explorer View**, right click on the view and select **Expand All** to show you all the elements and attributes in your selected schema. You now need to decide which of the elements and attributes you require for your XML output.

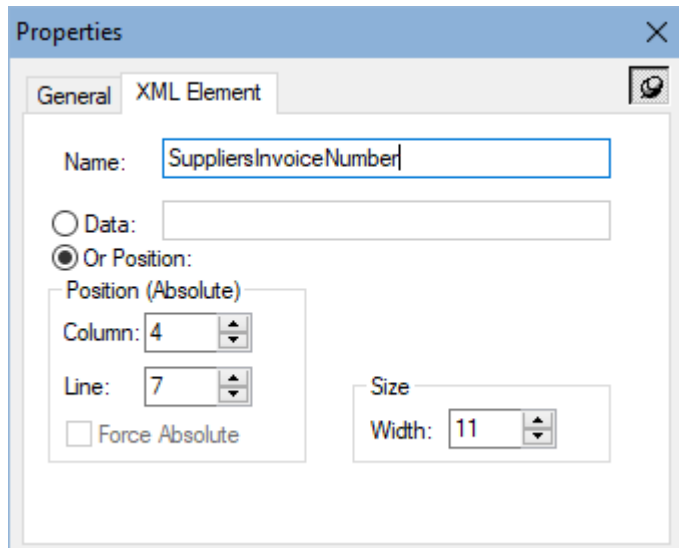
Right click on the first element and select **Properties**, then click on the **pin** in the top right hand corner to keep the properties box open. In this way you can check if an element or attribute is required. You will see **Required = yes** in the properties box. Anything that is a required attribute should not be deleted.

8.25.2 XML Element

You need to decide which of the **XML Elements** you require for your XML output. Either select the **XML Element** icon  or select **XML Element** from the **Insert** menu and then either pick the data from the spooled file or add the static element. Right click on the first element and select **Properties**, then click on the pin in the top right hand corner to keep the properties box open. In this way you can check if an element is required. You will see **Required = yes** in the properties box. Anything that is a required attribute should not be deleted.

XML Element Properties

See [General Properties](#) for details on the **General** tab.



Name

The name of the XML element as it appears in the selected schema.

Data

If you are not retrieving the data from the spooled file then select this radio button and the fixed data may be entered in the box provided.

Position (Absolute)

If you wish to pass in data from the spooled file then select the **Or Position** radio button and the following entries will be enabled.

Column

The horizontal position of the element in the input document.

Line

The vertical position of the element in the input document.

Force Absolute


When checked, forces the element to be positioned absolutely in the input document. This is only available if the element exists within a Loop element. See [Absolute and Relative positioning](#) for further details.

Size

Width

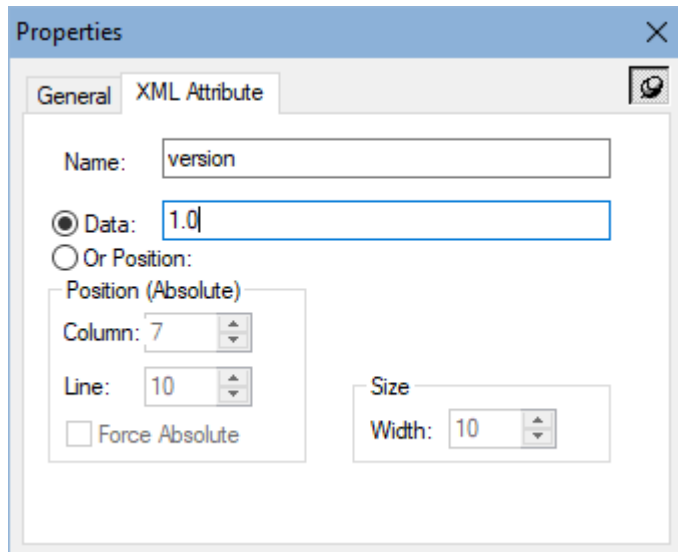
The width of the element in the input document in [grid size](#) units.

8.25.3 XML Attribute

You need to decide which of the **XML Attributes** you require for your XML output. Either select the **XML Attribute** icon  or select **XML Attribute** from the **Insert** menu and then either pick the data from the spooled file or add the static attribute. Right click on the first attribute and select **Properties**, then click on the pin in the top right hand corner to keep the properties box open. In this way you can check if an attribute is required. You will see **Required = yes** in the properties box. Anything that is a required attribute should not be deleted.

XML Element Properties

See [General Properties](#) for details on the **General** tab.



Name

The name of the XML attribute as it appears in the selected schema.

Data

If you are not retrieving the data from the spooled file then select this radio button and the fixed data may be entered in the box provided.

Position (Absolute)

If you wish to pass in data from the spooled file then select the **Or Position** radio button and the following entries will be enabled.

Column

The horizontal position of the element in the input document.

Line

The vertical position of the element in the input document.

Force Absolute

When checked, forces the element to be positioned absolutely in the input document. This is only available if the element exists within a Loop element. See [Absolute and Relative positioning](#) for further details.

Size

Width

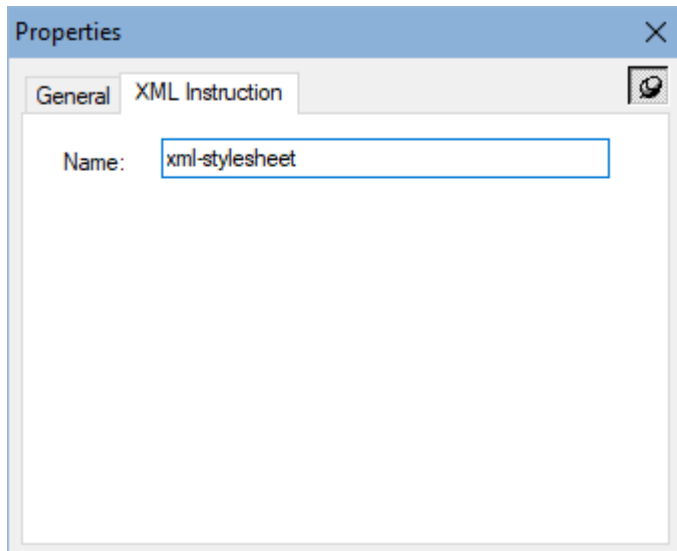
The width of the element in the input document in [grid size](#) units.

8.25.4 XML Instruction

If you wish to add instructions to your XML Output then select **XML Instruction** from the **Insert** menu. These instructions may be used to specify a Style Sheet that is associated with the XML data for example. An XML instruction may also contain one or more XML attributes. If you need to add an attribute then select the [XML Attribute](#) (X) tool to define it and then drag and drop it into the relevant XML instruction.

XML Instruction Properties


See [General Properties](#) for details on the **General** tab.



Name

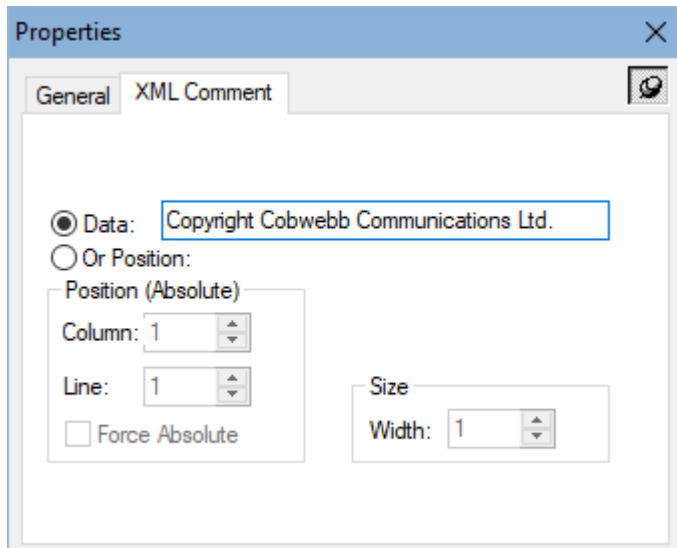
Enter the name of the XML Instruction.

8.25.5 XML Comment

You may wish to add comments to your XML data. Either select the **XML Comment** icon  or select **XML Comment** from the **Insert** menu and then either pick the data from the spooled file or add the static comment.

XML Comment Properties

See [General Properties](#) for details on the **General** tab.



Data

If you are not retrieving the data from the spooled file then select this radio button and the fixed data may be entered in the box provided.

Position (Absolute)

If you wish to pass in data from the spooled file then select the **Or Position** radio button and the following entries will be enabled.

Column

The horizontal position of the element in the input document.

Line

The vertical position of the element in the input document.

Force Absolute


When checked, forces the element to be positioned absolutely in the input document. This is only available if the element exists within a Loop element. See [Absolute and Relative positioning](#) for further details.

Size

Width

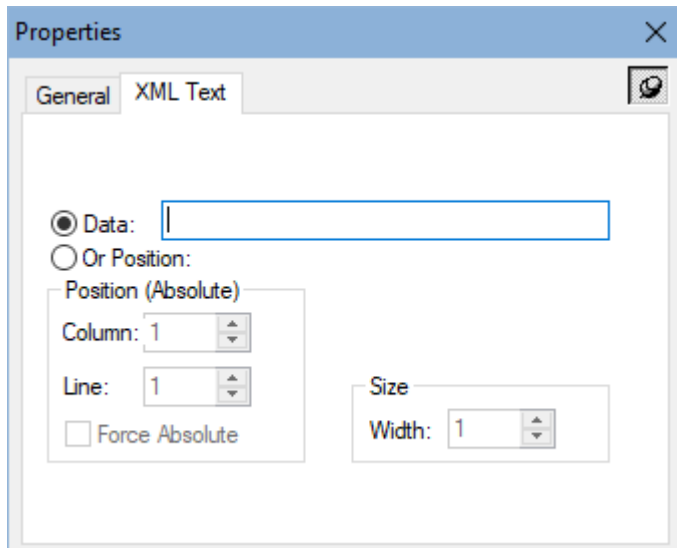
The width of the element in the input document in [grid size](#) units.

8.25.6 XML Text

You may wish to add additional text to your XML data. Either select the **XML Text** icon  or select **XML Text** from the **Insert** menu and then either pick the data from the spooled file or add the static text.

XML Text Properties

See [General Properties](#) for details on the **General** tab.



Data

If you are not retrieving the data from the spooled file then select this radio button and the fixed data may be entered in the box provided.

Position (Absolute)

If you wish to pass in data from the spooled file then select the **Or Position** radio button and the following entries will be enabled.

Column

The horizontal position of the element in the input document.

Line

The vertical position of the element in the input document.

Force Absolute

When checked, forces the element to be positioned absolutely in the input document. This is only available if the element exists within a Loop element. See [Absolute and Relative positioning](#) for further details.

Size

Width



The width of the element in the input document in [grid size](#) units.

8.26 Spooled File Tools

Exporting a Spooled file from a PPD file

If the original spooled file does not exist for testing, then you may use the **Export Spooled file** from the **Edit** menu. The System name should already be entered and be the name of your IBM i. Enter the Output queue and library names (QPRINT in library CPPD could be used, as this is the default in the View Options) together with a name for the spooled file. The User Data entry is not required but if you enter here the same name as your PPD file then it becomes easier to select the correct spooled file in the CRTPPD command. Now click on **OK** to export the file.

Go to a specific page

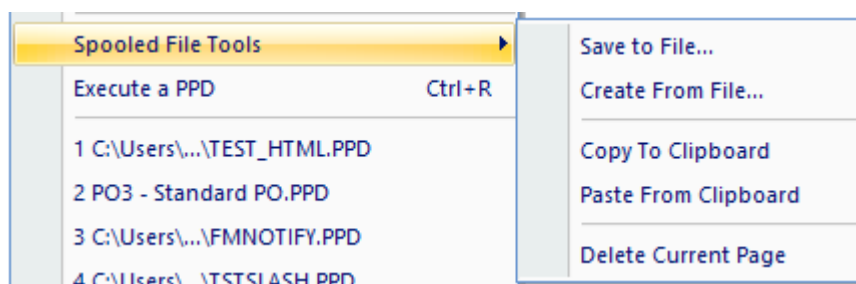
If you wish to display a particular page of your spooled file in the Cobwebb Designer then you could use the **Next**  and **Previous**  **spool file page** tools but if you have multiple pages this could take time. From the **Edit** menu select **Go to page** and this allows you to jump to a specific page in the input spooled file. Enter the page number that you wish to go to and click **OK**.

Display Spooled File Information

If you select **Spool File Info** from the **View** menu you will see the attributes for the spooled file that you last imported into your design.

Other Spooled File Tools

All of the following **Spooled File Tools** are found in the Cobwebb Designer under the [File menu](#).



Save to File

If you need to save a spooled file held on your IBM i to a file on your network then we have provided a tool for this purpose. This can be useful if you require Cobwebb Communications to create a .PPD file from your spooled file data. From the **File** menu select **Spooled File Tools | Save to File**. You will be presented with the **Select Spooled File** dialog which is identical to the dialog displayed when [Importing your Spooled File](#). Select the spooled file entry that you require from the list and click on **OK**.

You will be presented with the **Save As** dialog to enable you to pick a destination and name for your file. The file must be saved as type **Raw Spooled File Data (*.raw_splf)**.

Create from File

This is the reverse of the **Save to File** process and will allow you to restore a file which has been previously created with the above **Save to File** option. You can only use this function to restore a file which has been previously created with the above **Save to File** command. From the **File** menu select **Spooled File tools | Create from File**.

You will be presented with the **Export Spooled File** dialog. Enter the **Output queue** location and **name** of the file that you wish to create and click on **OK**. You will now see the **File Open** dialog for you to select the previously saved spooled file. Select your file and click on **Open**.

Copy To Clipboard

Copies the current spool file page to the clipboard. This can be useful if you need to change the data in order to test your PPD file. From the **File** menu select **Spooled File tools | Copy To Clipboard** and paste the page into an application such as Notepad, modify the text, copy it to the clipboard again and then you can use **Paste From Clipboard** to paste it back into your PPD.

Paste From Clipboard

You can paste information from the clipboard into the spool file in your PPD. From the **File** menu select **Spooled File tools | Paste From Clipboard**. You will be asked if you wish to replace the currently displayed page or add a new page to the end.

Delete Current Page

If you wish to remove a page of spool file information from your PPD then first display the page that you wish to delete then, from the **File** menu select **Spooled File tools | Delete Current Page**. This will delete the currently displayed page from the spool file in your PPD.

8.27 Useful Tips

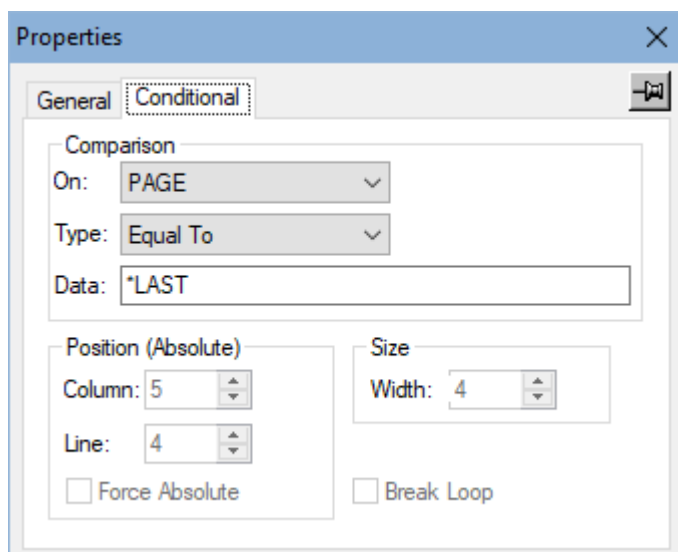
Here you will find some useful information to help you in designing your documents such as:

- [Adding Terms & Conditions](#) to your output
- [Multiple Variable & Parameter substitution](#)
- [Cobwebb Designer Tips & Tricks](#)
- [Conditional Testing - Numeric versus Character](#)
- [Specifying File Paths](#)
- [Configuring Page Selection](#)

8.27.1 Adding Terms & Conditions

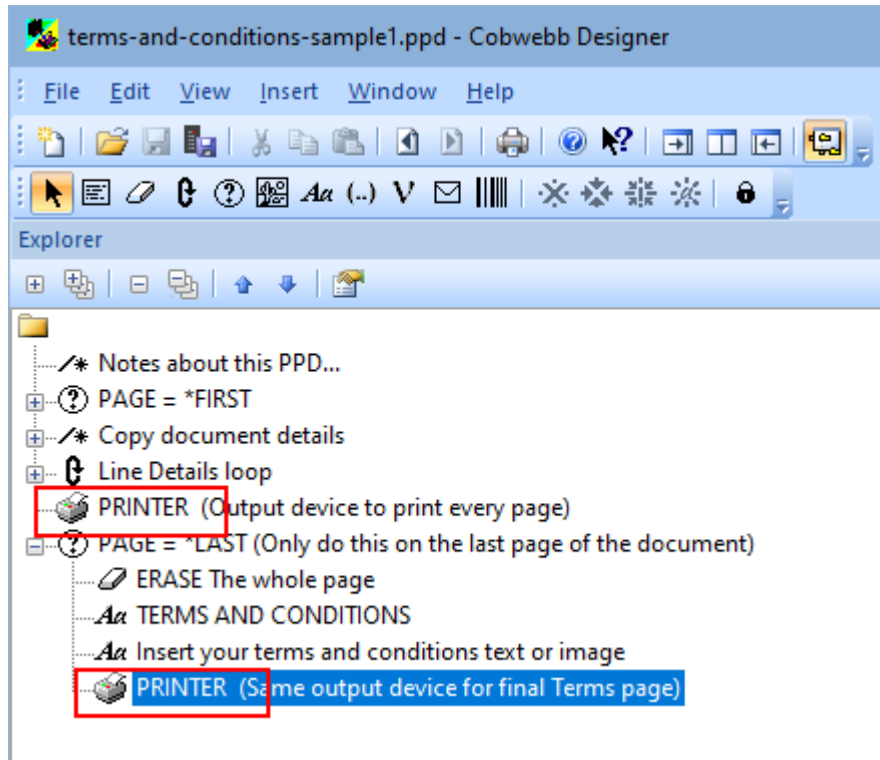
If your pre-printed stationary had your list of Terms and Conditions on the back you may wish to print these along with your output document. To do this you would need to [Configure Page Selection](#) in your [Page Setup](#) – **Conditional** tab, and then condition the output of your Terms and Conditions. You would create your Terms and Conditions image in the same way as [creating your overlay image](#) or else use the [Static Text](#) element to add the text to your page.

Set up your [Conditional element](#) to be on **PAGE** equal to either ***FIRST** or ***LAST** depending upon whether you wish the Terms and Conditions to be printed first or last and add your [Image element](#) or [Static Text](#) into the Condition.



Example PPD

There is an [Example Terms & Conditions PPD](#) that you may download from our website. Notice that the same **Output Device** is used to add the Terms and Conditions. This must be placed after your other output if you wish the Terms and Conditions to be included after your output as everything is output in the order that it appears in the Explorer.



Printed Output

If you are printing your output and your printer supports duplex you could use the Duplex function to print the Terms and Conditions on the back of your page.

Using Duplex

The printer device needs to be set up as "**Host print transform : *YES**" for this to be honoured and the spooled file "Printer Device Type" either **Print(HPT)** or **Print(AFP)**.

The Cobwebb Designer can specify the duplex option in the [Print Output Device Settings](#).

Note: PDF Datastream does not honour the duplex flag. This is because the "printer device type" is *USERASCII. The only way to print a PDF Datastream file in duplex is to set the printer to print duplex by default. Documents printed from a PC or through *HPT will specify simplex or duplex and will print correctly. PDF Datastream documents will not specify simplex or duplex and will thus default to duplex. If you also want to print simplex PDF Datastream documents you'll have to output a blank page in between each page to emulate it.

8.27.2 Multiple Variable & Parameter substitution

It is possible to populate [Variable](#), [Exit Program Parameter](#) and [Static Text](#) elements with information stored in other Variables or Exit Program Parameters; and from version v6.2.50 of the Server Software - [Trace](#) elements. For instance if you wish to pass a Parameter, which contains several Variables INVNO, CUSNO & INVDATE, to a program e.g.

Data Invoice No: ?INVNO for Customer No: ?CUSNO on date ?INVDATE
Result Invoice No: 123456 for Customer No: ABC001 on date 10/09/11

This sort of string may be used as *Data* for a **Variable** or **Exit Program Parameter** or the *Text* for **Static Text**.

If you wish to create a string without spaces then you will need to add a extra ? after the variable. In the following example we don't want a space between the value of the variable CUSNO and the quote so you need to add the ? at the end of the variable name e.g.

Data WHERE FIELD='?CUSNO?'
Result WHERE FIELD='ABC001'

If you decided to store the quote in another variable called QUOTE, then your string would be as follows; again adding the extra ? after the variable name each time:


Data WHERE FIELD=?QUOTE??CUSNO??QUOTE
Result WHERE FIELD='ABC001'

If you wish to actually include a Question Mark in your string this needs to be followed by at least one space otherwise it will assume a Variable or Parameter name. If you wish your Question Mark to immediately follow a previously stored Variable or Parameter substitution then you will need to specify two Question Marks e.g.

Data When did you send Invoice No: ?INVNO??
Result When did you send Invoice No: 1223456?

8.27.3 Cobwebb Designer Tips & Tricks

How to show Input & Output panes with the Explorer View

Click on the icon to show the **Explorer View**  and then click on the Restore Window button (the middle button at the top right hand side of your screen). This will then allow you to re-size the window. Adjust the size so that the Explorer View only takes up about one third of your screen and then move it over to the right hand side. You should then be able to see the Input and Output panes underneath. Click on these and re-size theses so that you can see all three at once. You can then keep the Explorer view on the right hand side and either show one or both of the Input and Output panes using the icons at the top of the screen.

Shortcut to storing and selecting different views

If you wish to create shortcuts between viewing say the Input pane only, the Output pane only or perhaps showing both panes and the Explorer View you need to create shortcuts. To do this, select the view for which you wish to create a short cut and press **Ctrl** (Control) and any number between **1-9**. You then select your next view and use **Ctrl** and a different number. To switch between the different views you then only need to enter the number of the view that you require.

Shortcut to zooming

Click on either the input or output panes depending upon where you require to zoom, then press **Ctrl** (Control) and either **Page Up** or **Page Down** depending upon whether you wish to Zoom In or Out respectively.

How to move elements up and down the Explorer View

If you wish to move element up and down the Explorer View then you need to click on the element that you wish to move and whilst holding down the shift key, press either the Up or Down arrows on the keyboard. It is often easier if you first right click in the Explorer window and select to collapse all branches. If the element that you wish to move exists in a branch, then just open that one to move it up or down.

Finding your elements

If you are looking at the Explorer View together with your Input and Output panes and you wish to find a particular element that is not shown on your Output pane. Right click on the element in the Explorer View and select **Bring to Front**. There is also a **Send to Back** option, which is useful in removing the yellow loop element if this has hidden the elements within your loop. Sending the loop to the back will save you having to bring all the other elements to the front. You may also right click on the element on the Output pane and select either of these options.

There is a **Find/Replace** function under the **Edit** menu. This function is case sensitive. If you select **Find Next** then the next occurrence of your find string will be highlighted in the **Explorer view**. The replace function is most useful if you have, for instance, renamed an exit program.

Minor positioning adjustments

If you wish to make very small changes in the positioning of your data, images etc. on the Output pane you may do this by using the **Column** and **Line offsets** on the element properties dialog. Each unit represents 1440th of an inch. You may also use the mouse to make these minor adjustments by holding down the ALT key whilst dragging the element with the mouse.

Useful tools on the Explorer View

There are two useful tools on the Explorer View; they are the **Expand All** and **Collapse All** tools. They provide a quick way of expanding or collapsing all the elements within the tree, to save you selecting to expand/collapse each element individually.

Printing from your PPD file

You may select to print from either the Output pane or the Explorer View of your PPD file. Click on the view that you wish to print and then select **File** and **Print**. What will be printed is exactly what is shown on the screen. If you wish to print the entire Explorer View you should first select to "Expand All" and then print. The same applies to the Output pane.

8.27.4 Conditional Testing - Numeric versus Character

The Numeric Test is only carried out if the test is **Greater Than (GT)**, **Less Than (LT)**, **Greater than or Equal to (GE)** or **Less than or Equal to (LE)**. Tests for **Equal to (EQ)** and **Not Equal to (NE)** are always assumed to be character tests. The maximum length of a numeric test is 10 characters.

Numeric Testing is used, for example, in checking the spooled file for an Item Number. The Item Number could be **'bbb1'** (b=blank) on the relevant line but the word **'TEXT'** on another line. Using the numerical test ensures that only if a number (or blank) is found will the test be satisfied.

Numeric Test (GT LT GE LE)

1. Check if **'Compare To Data'** (the fixed data) is Numeric i.e. 0-9. If this is so then the test will be treated as Numeric. **Note:** If the data contains any non-numeric characters e.g. **£,.\$** then it will no longer be assumed to be numeric.

E.g. If 10 characters of data are to be compared, 10 numbers (e.g. 0's) must be specified in the **'Compare To Data'**.
2. If the **'Compare To Data'** is numeric check the **'Compare Data'** (the variable data):-
 - a. Change **'.'** and **'.'** to **'0'**
 - b. Check if compare data is 0-9/Blank (NUMB)

If the above is true the field is numeric. This means that a **'Compare To Data'** of **'000000'** when compared to the **'Compare Data'** of **'bbb123'** will be greater (even though the character value of a blank is less than zero).

If the above test is not true, the test will be character based using the IBM collating sequence.

8.27.5 Specifying File Paths

Depending upon where in the Cobwebb Designer you are specifying a path to a file sometimes the **Path** and **Name** are separate entries e.g. in a [File](#) or [Docstore](#) Output Device and sometimes they are in a single **Path** entry as when specifying the path to an **html** file to be used as the Message body for an [Email Output Device](#).

Please Note: File Paths are relative to the Server NOT the PC where your design resides.

The file **Path** and **Name** should be formatted in one of the following ways depending upon where your file resides.

File location	Path	Name	Notes
IBM i Route folder (IFS)	/XXXXXXXXX/ <i>Where XXXXXXXX is the folder name.</i>	YYYYYYYYY <i>Where YYYYYYYY is the file name (max 64 chars).</i>	If you have subfolders then enter each subfolder must be prefixed by a "/" .
IBM i physical file member	/QSYS.LIB/XXXXX XXX.LIB/YYYYYYY Y.FILE/ <i>Where XXXXXXXX is the library name and</i>	ZZZZZZZZZ.M BR <i>Where ZZZZZZZZ is the member name (max ten</i>	In this case, if the file is in PDF format, it will be converted into EBCDIC. The resulting file needs to be stored as a member in a physical file.

	YYYYYYYY is the file name.	characters, no blanks, starting with an alpha character..	The physical file must have a record length of at least 512 bytes and the user running the job must have individual user *ALL authority to the file (not *PUBLIC). If you are running the Spooled File Monitor this is run by CPPDMM. You must specify the .MBR after the member name.
IBM i document in a folder	/QDLS/XXXXXXXX/Where XXXXXXXX is the folder name.	YYYYYYYY Where YYYYYYYY is the document name (max eight characters, no blanks, starting with an alpha character)	If you have subfolders then enter each subfolder must be prefixed by a "/".
In the QOpenSys File system	/QOpenSys/XXXXX/Where XXXXXXXX is the folder name.	YYYYYYYY Where YYYYYYYY is the file name (max 64 chars).	The QOpenSys file system is for the UNIX world. If you have subfolders then enter each subfolder must be prefixed by a "/".
On a Network File share (QNTC File System)	/QNTC/NTServer/NTFiles/Where NTServer is the name of your NT PC and NTFiles is the folder name.	YYYYYYYY Where YYYYYYYY is the file name (max 64 chars).	You need to have installed TCP/IP Connectivity Utilities for IBM i 400 (See QNTC Notes).

Testing your Path entry

If you want to test your **Path** entry you can enter the following on a command line on the Server.

```
WRKLNK OBJ( '\test ' )
```

Where **test** is the **Path** where your file resides. You can then enter **5=Display** to display the list of files in the folder.

8.27.6 Configuring Page Selection

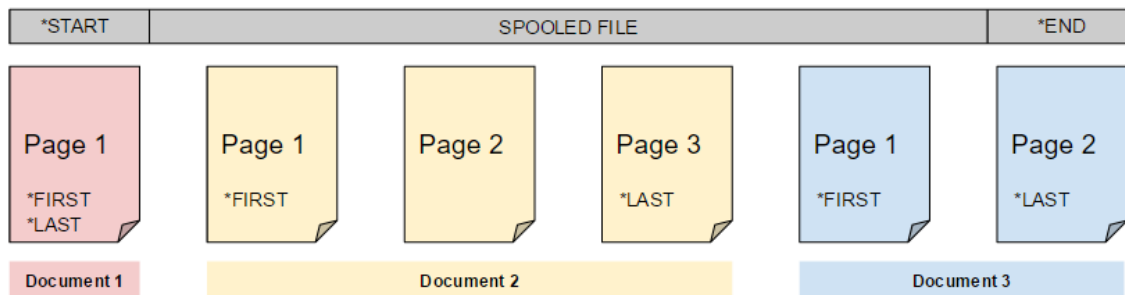
Why do you need Page Selection?

If your Spooled File just contains one document such as an Invoice or Purchase Order etc. then page splitting is unnecessary but a lot of the time a Spooled File contains several documents, each of which may have a varying number of pages, and it is useful to know, when designing your output, whether you are at the beginning or end of a particular document. For instance you may

wish to add [Terms and Conditions](#) after the last page. This is done by using the [Input Page Selection](#) in the Cobwebb Designer. You may also wish to split up your Output into individual documents, particularly if you are Emailing or Archiving your output - this is called [Output Page Selection](#).

There is a [Page Selection Tutorial](#) video which may help you better understand the concept of **Page Selection**.


Page Splitting Overview (First Page Selection)

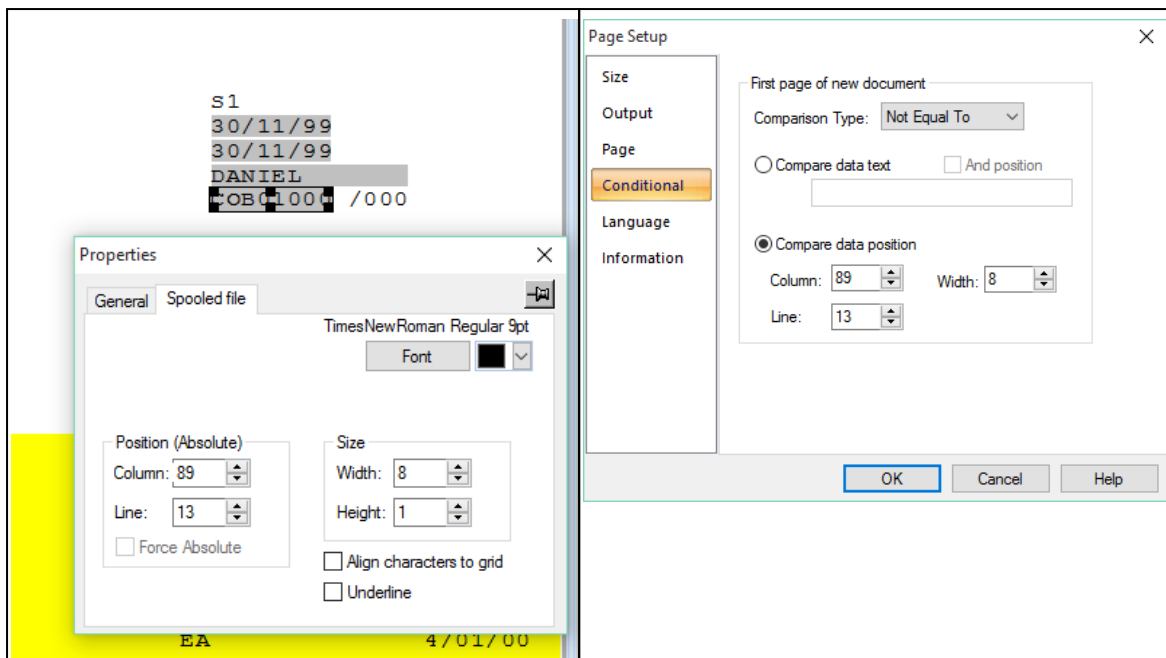


Input Page Selection

Configuring Input Page selection

The first thing to be done is to identify how the Cobwebb Designer can determine that a particular page in the Spooled File is the start of a new document. There are two ways of doing this.


Spool File Properties	Page Setup
<p>Not Equal To</p> <p>The most common is to use data from the Input Spooled File that remains the same on every page of the document such as an Invoice Number, Purchase Order Number etc.</p> <p>This works by storing the data at the position specified and as soon as it finds a page where this is different i.e. Not Equal To, then this is the start of a new document.</p>	
<p>Use the Spooled file icon  to select the data on the Input pane and display the Properties > Spooled file tab you can see the position information.</p>	<p>Now select Page Setup from the File menu and click on the Conditional tab.</p> <p>Select the Comparison Type as Not Equal To</p> <p>Click on the Compare data position radio button and enter the same Column, Width & Line information as is displayed on the Spooled file Properties.</p>

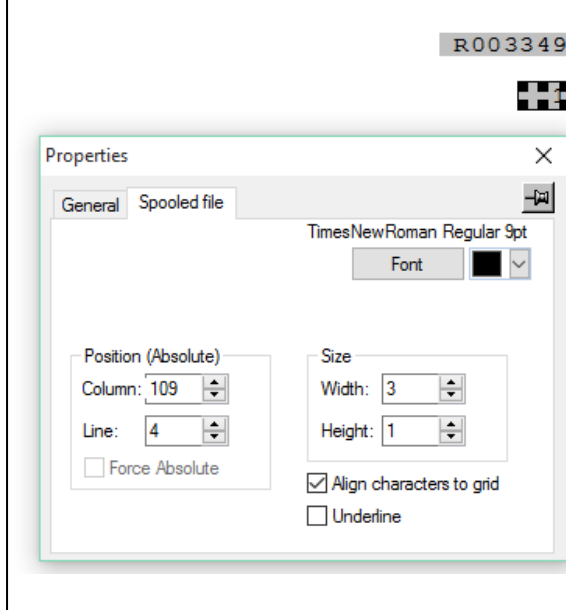


Equal To

An alternative way of splitting up your Input Spooled File is, if it contains information that is only on the first page of the document. For example "Page 1" on the first page of each new document.

This works by storing the data at the position specified from the very first page of your spooled file and then and as soon as it finds a page where this is exactly the same data in the same position i.e. Equal To, then this is the start of a new document.

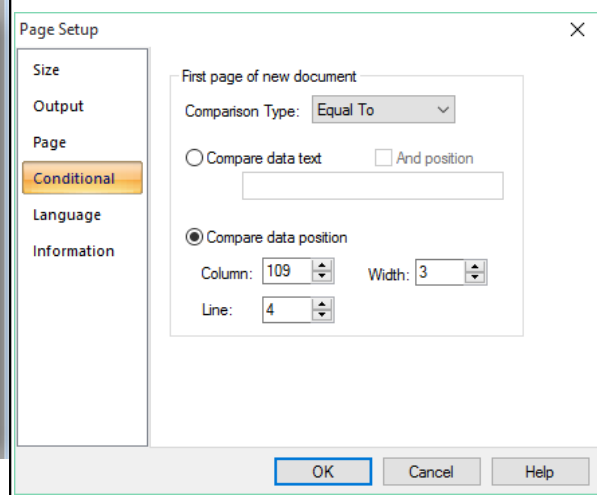
Use the **Spooled file** icon  to select the data on the Input pane and display the **Properties > Spooled file** tab you can see the position information.



Now select **Page Setup** from the **File** menu and click on the **Conditional** tab.

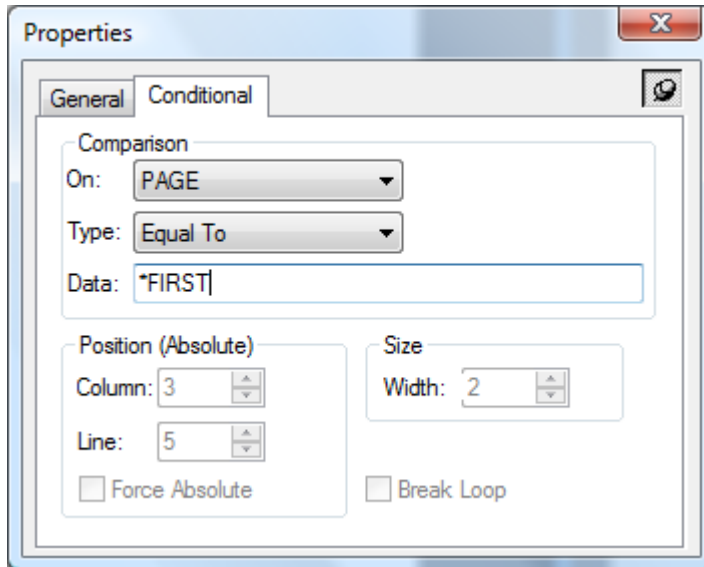
Select the **Comparison Type** as **Equal To**

Click on the **Compare data position** radio button and enter the same **Column, Width & Line** information as is displayed on the Spooled file **Properties**.



Using Input Page selection in your Design

Once **Input Page** selection has been configured you can start to use this in your design. This is done by using the [Conditional Element](#).



Select the special **PAGE** variable from the **On** drop down selection and then pick a **Type** usually **Equal To** if you are going to use one of the **Input Page selection** options. In the **Data** you have several Input page selection options which you may use (*please note that these are all case sensitive*):

***ST** This condition will only be met once in every spooled file on the very first page. Often used by **ART** the [Advanced Reformatting Utility](#) to specify the [*FIRST](#) call.

***FI** This condition will be met on the first page of a new document i.e. when an Invoice Number **RST** changes. Could be used to retrieve destination information such as an email address or fax number.

***LA** This condition will be met on the last page of a document. Could be used to add [Terms and ST Conditions](#).

***E** This condition will only be met once in every spooled file on the very last page. Often used by **ND** the [Advanced Reformatting Utility](#) to specify the [*LAST](#) call.

Output Page Selection

Output Page selection is all about splitting up your Output into individual documents whether it is Print, Fax, Email, File or Docstore. **Output Page** selection is configured using the [First Page Address](#) element in your selected **Output Device** and this information is copied to the **Page** tab for your selected Output Device. **Note: Address** elements are selected from the Output pane and only picked up from the First page of any new document.

Output Device	First Page Address element
Print	This is used to select the data to breakdown your output into individual spool files.
Fax	This is used to select the data to breakdown your output into individual fax messages.
Email	This is used to select the data to breakdown your output into individual email messages.

File	This is used to select the data to breakdown your output into individual files.
Docstore	This is used to select the data to breakdown your output into individual files for storing in Docstore.

Returns Note/Stock Cleanse Form

Whittleit Down
Leckwith Industrial Estate
CARDIFF
CF1 9GR

Collection Instructions: UPS Carrier

Customer Ref: PETER

Customer A/c: [REDACTED]

Stock No	Description

Deliver To:
Cobwebb Comm
The Barn, Allens
Allens Lane, Plas
Sevenoaks
Kent
TN15 0QZ

Request Date:

Return Quantity

Properties

General Address

Type: First Page

Position
Column: 59
Line: 11

Size
Width: 6

Delete ?

In the above example you can see that we have selected the **Customer Account** number from the **Output** pane for the **First Page Address** element.

Note: The **Delete** box is not enabled for the **First Page Address** element but you can do this by going to the **Page** tab for your Output Device and change the **Comparison Type** to be one of the entries suffixed (**Delete**) e.g.

Output Device (*FAX)

General

Destination

Address

Page

First page of new document

Comparison Type: Not Equal To

Compare data to: Not Equal To

Or compare data position:

Column: 0 Width: 0

Line: 0

Cover page

Logo:

Signature:

OK Cancel Help

8.28 Testing your Design

There are various Cobwebb tools that you can use to test your design. All of these require you to have first [Saved and Exported](#) your design to the Server.

The best way to test your design is to use the spooled file that you have used to create your PPD file. This will enable you to see your finished output. If you need to make some adjustments, just return to your original PPD file on your PC, make the changes, upload again to the IBM i and re-test.

- Using the [Execute a PPD](#) option
- Using the [Run PPD](#) command (RUNPPD)
- Using the [Create print page definition](#) command (CRTPPD)

8.28.1 Execute a PPD

Here we are going to use the **Execute a PPD** option from within the Cobwebb Designer.

From the **File** menu select the option **Execute a PPD** or press **Ctrl R**. The **Execute PPD** dialog will be displayed.

The screenshot shows a dialog box titled "Execute PPD". It has a close button (X) in the top right corner. The dialog contains the following fields and sections:

- System Name:** M15
- Input Spooled File:**
 - File Name: *ALL
 - User: *ALL
 - Output Queue: QPRINT
 - Library: CPPD
 - Form Type: *ALL
 - User Data: *ALL
- PPD:**
 - PPD: (empty)
 - Library: CPPD60
- Buttons:** Cancel and OK

System Name

This is the IBM i system name and will be defaulted from the View | Options | Server tab.

Input Spooled File

The following entries refer to the spooled file on the IBM i that you wish to use to test your PPD file.

File name

This is the File name of your spooled file. If this is left blank then *ALL will be assumed to select any file name.

User

This is the owner of your spooled file. If this is left blank then *ALL will be assumed to select any file name.

Output queue

This is the name of the Output queue where your spooled file resides.

Library

This is the library name where the above Output queue resides.

Form Type

This is the Forms type for the required spooled file. If this is left blank then *ALL will be assumed to select any file name.

User Data

This is the User Data for the required spooled file. If this is left blank then *ALL will be assumed to select any file name.

Note: If more than one spooled file entry matches the above entered information then the first matching spooled file found will be processed.

PPD

Specify the information about the PPD file that you wish to use to process the spooled file.

PPD

The PPD file name containing the PPD member to be used for converting this spooled file. This will be the name that you have entered when you exported your PPD file to the IBM i.

Library

Use the PPD library name containing the PPD file to be used for converting this spooled file. The default library name is CPPD.

Click **OK** to test your design.

8.29 Processing your Spooled Files

Since Cobwebb Document Management is a native IBM i product the selection and processing of IBM i spooled files could not be easier. You may either use the **Spooled File Monitor** to automatically select spooled files as they are produced, or you can use the **CRTPPD** command within your own CL program. The CPPD Spooled file monitor and the CRTPPD IBM i command use the same principle for selecting spooled files.

Using the Spooled File Monitor

The **Spooled File Monitor** (SPLMON) is a feature of Cobwebb Document Management that monitors one or more IBM i Output Queues for selected spooled files to be processed. The Spooled File Monitor is automatically started in the CPPD subsystem if the **Spooled file monitor** entry in [Work with PPD Parameters](#) is set to 'Y'. As a spooled file is added (or released) on any monitored output queue it is checked to see whether it is to be processed.

The Spooled file can either be specified by name, or one or more spooled files can be selected using the selection criteria (*SELECT). Any combination of the following parameters can be used to identify the spooled files to be selected from the specified output queue: - **Spooled file**

name, User, User data, and Form Type. All the spooled files matching the selection criteria are selected.

The Spooled File Monitor enables any *SCS spooled file to be automatically selected from any output queue and processed by CPPD. A spooled file being 'Released' in an output queue activates this process. CPPD detects this and compares the spooled file details with the list in [Work with spool file monitor](#). If the spooled file is selected the specified PPD file is used to create the redesigned output.

Using the CRTPPD command

The **CRTPPD** command can be included in a CL program or run in a job scheduler. If you have a program which produces a print file which is to be redesigned using CPPD the CRTPPD command should be inserted immediately after the print program, to pick up the last spooled file name and use * in the Job name. Please refer to the [CRTPPD command](#) topic for a full explanation of all the entries.

Notes to remember

If you wish to specify *USR in the **Output queue** entry on your [Print Output Device](#) then you will need to set up your users using [Work with PPD Users](#). This allows you to configure different Output Queues for each user where the user is determined by the owner of the original spooled file.

For the Spooled File Monitor process to work, the subsystem CPPD must be running with the Spooled file monitor program **SPLMON** 'Active'. The spooled file(s) to be selected must be '**online**'. If an output queue is to be monitored which was not already being monitored when the subsystem CPPD was started, stop and start the subsystem CPPD so that the new output queue will be monitored.


When starting the SPLMON program CPPD automatically assigns the data queue **SPLMON** in library CPPD for each Print Output queue for which there is an 'Online' entry in '[Work with spooled file monitor](#)'.

DO NOT specify an Output Queue for use with SPLMON which already has a data queue assigned, this is because the data queue records are deleted as soon as they are read, and are therefore not available to two systems. Instead set-up a new output queue and divert the appropriate spooled files to it

There is a separate **Spooled file Fax monitor** program (**SFFMON**) which can be used with Cobwebb Fax to send faxes if CPPD is not installed i.e for old CFAX400 users.


8.30 Import an XPD file

If you have mislaid your .PPD file and you have a copy of the **.XPD** on your IBM i in the **CPPD/PCIN** folder you may use this option to import the information and create a new .PPD file.

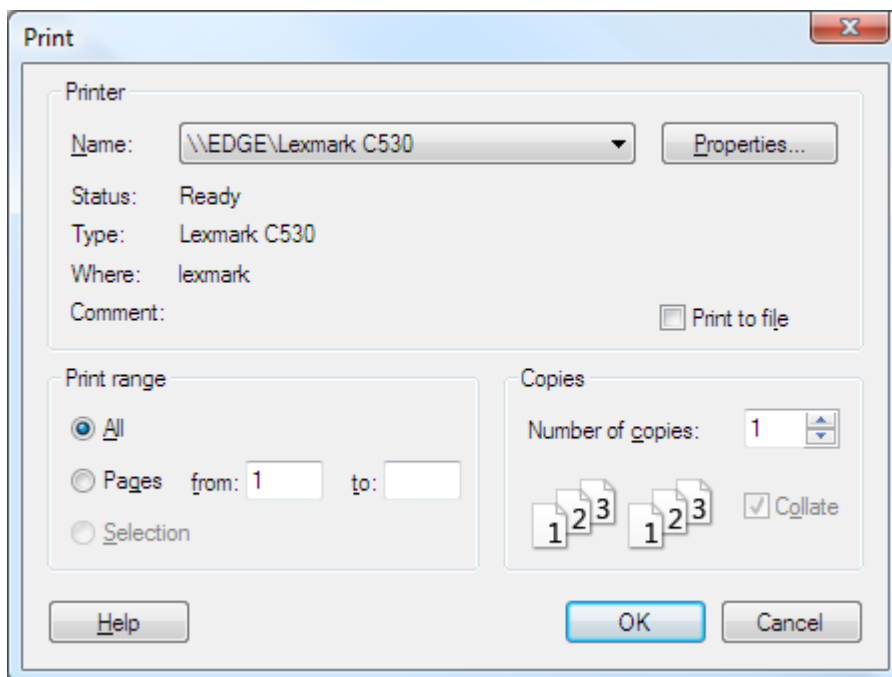
- You will first need to open a **New PPD** file using by selecting **New PPD** from the **File** menu, or clicking the **New PPD** icon  on the **Toolbar**.
- Now select **Import PPD** from the **File** menu and then pick the correct **.XPD** file from the list and click **Open** to import the details into the Cobwebb Designer. Click **Cancel** to exit the **Open** dialog.

- The details of the PPD will be displayed in the Cobwebb Designer for you to amend and **Save**.

8.31 Printing your Design

This function may be accessed by selecting **Print** from the **File** menu or clicking the **Print** icon  on the **Toolbar**. The print dialog is presented before you print. What is printed depends on which window is currently selected. You can print the **Explorer view** or the **Output pane** and you need to have clicked with your mouse in the area you wish to print before selecting to Print.

Note: You can also configure your [Print Setup](#) for printing from the Cobwebb Designer.



The following options allow you to specify how the document should be printed:

Name

This is the active printer and printer connection. Click on the dropdown arrow to select a different printer from the list.

Properties

This button allows you to select additional properties for your selected printer - the dialog that displays will be specific to the printer that you have selected.

Print Range

Specify the pages you want to print:

- All** Prints the entire document.
- Pages** Prints the range of pages you specify in the From and To boxes.
- Selection** Prints the currently selected text.

Copies

Specify the number of copies you want to print for the above page range.

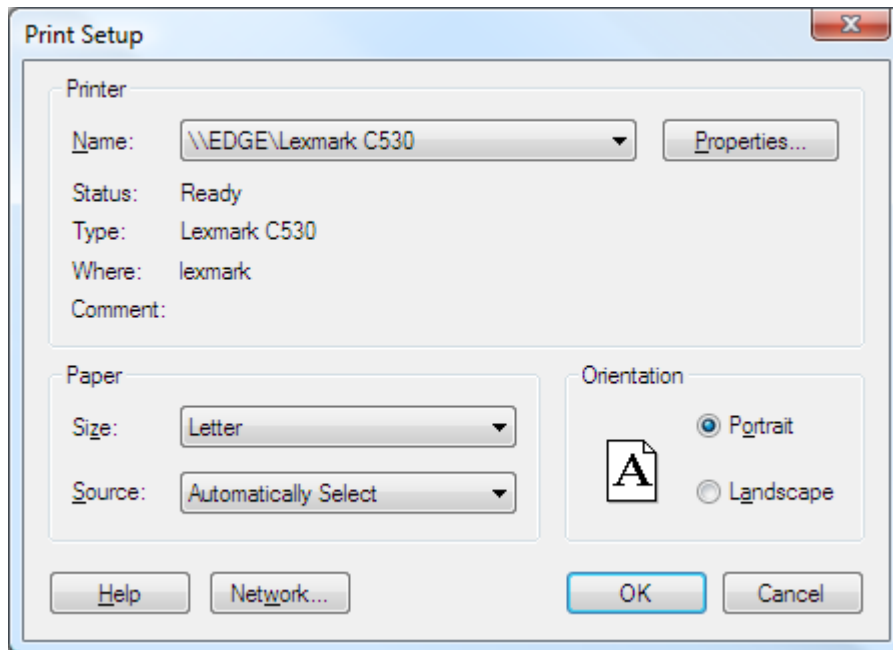
Collate

Prints copies in page number order, instead of separated multiple copies of each page.

When you are happy with your selections click **OK** to print or **Cancel** to exit without printing.

8.31.1 Print Setup

This may configure your default printer configuration by selecting **Print Setup** from the **File** menu. The following options allow you to select the destination printer and its details.



Name

Select the printer you want to use from the list of the currently installed printers shown in the box. The printer details such as Status, Type etc. will then be displayed.

Properties (button)

This button allows you to select additional properties for your selected printer - the dialog that displays will be specific to the printer that you have selected.

Paper

Size

Select the size of paper that the document is to be printed on.

Source

Some printers offer multiple trays for different paper sources. Specify the tray here.

Orientation

Choose **Portrait** or **Landscape**.

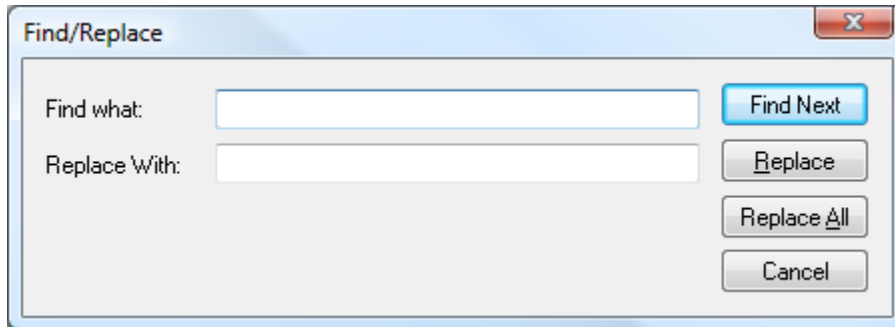
Network... (button)

Choose this button to connect to a network location, assigning it a new drive letter.

Once you are happy with your selections click **OK** to apply them or **Cancel** to exit without changing.

8.32 Finding & Replacing information in your design

There is a **Find/Replace** function under the **Edit** menu. You must first click in the **Explorer View** before you can select this option from the menu.



This function is case sensitive. If you select **Find Next** then the next occurrence of your **Find what** string will be highlighted in the Explorer Window.

The **Replace** function is most useful if you have, for instance, renamed an exit program. This will replace the currently found **Find what** string with the **Replace with** sting.

The **Replace All** will replace all occurrences, in the **Explorer View**, of the **Find what** string with the **Replace with** sting without asking.

Click **Cancel** if you wish to end the Find/Replace function.

9 The Cobwebb Web Server

Open up a browser and type in the **name/ip address** of the IBM i followed by **:6443** the Port for HTTPS or **:6440** the Port for HTTP - these can be changed in the [Web Server Configuration](#).

After entering your IBM i **Username/Password** you should be taken to the **Cobwebb Web Server** homepage. If you are an [Administrator](#) you will see the **Server Configuration** and **Diagnostics** links as well as the **Message Queue** and **Docstore** links available to all users:

Cobwebb Web Server Home

Message Queue

Docstore

Server Configuration

Diagnostics

chttpd version: v4.08 Library: CPPD

✔CHTTPD ✔Print ✔Fax ✔Email ✔File ✔PDF ✔XML ✔Docstore ✔PC Designer

Message Queue

Displays the [Cobwebb Message Queue](#) via a browser.

Docstore

Displays the list of current Docstores from where you will be able to search for your documents - see [Searching your Docstore](#).

Server Configuration

This is only available to Administrators and displays the configuration details for the Cobwebb Web Server - see [Cobwebb Web Server Configuration](#) for details.

Diagnostics

This is only available to Administrators and is purely to help Cobwebb to diagnose any problems that you may have.

9.1 Cobwebb Web Server Configuration

Browse to the [Cobwebb Web Server](#) and select **Server Configuration**. The Server configuration covers the following areas:

- [Server](#)
- [Access Log](#)
- [File Module](#)
- [Queue Module](#)
- [Docstore Module](#)

Once have made your changes click **Submit** to update the details and then **Re-start Server** to restart the Cobwebb Web Service.

Server

For the main Server configuration select the **Server** tab if not already selected.

Name

This entry is not used at present.

Administrators

Add the **User Ids** that you wish to be Administrators. **Note:** If you remove all valid entries then you will disable the web service configuration option.

HTTP Port *(Previously TCP/IP Port)*

This is the TCP port that is used by the HTTP Cobwebb Web Service. The default is 6400. To disable this enter **0**. **Note:** Recommended range is between 1024 and 65535.

HTTPS Port

v6.2.80 or above - This is the TCP port that is used by the HTTPS Cobwebb Web Service. The default is 6443. To disable this enter **0**. **Note:** Recommended range is between 1024 and 65535.

HTTPS Certificate file path

v6.2.80 or above - The path to the certificate file to use for HTTPS. The default is /cppd/chttpd/cert/default.cer. Please see [Install & Configure an SSL Certificate and Key](#) for details on how to configure the Cobwebb Web Server to use a custom SSL Certificate and Private Key.

HTTPS Key file path

v6.2.80 or above - The path to the key file to use for HTTPS. The default is /cppd/chttpd/cert/default.key. Please see [Install & Configure an SSL Certificate and Key](#) for details on how to configure the Cobwebb Web Server to use a custom SSL Certificate and Private Key.

HTTPS Key password

v6.2.88 or above - The password for the key file. This allows for private keys which are password protected. The default is blank for no password protection. Please see [Install & Configure an SSL Certificate and Key](#) for details on how to configure the Cobwebb Web Server to use a custom SSL Certificate and Private Key.

Output Log

Here you can specify where to output the Cobwebb Web Service log. The default is JOBLOG which will write to the IBM i joblog.

Client Threads

Enter the number of threads available to serve client requests. **Default:** 10.

Maximum Keep-Alive

Enter the maximum number of milliseconds that an http session can be 'kept alive'. **Default:** 300.

Authentication Key

The master key used for DES Password decryption. This has to match the Infor Workspace key.

Force Uppercase Credentials

Select the relevant radio button depending upon whether or not you wish to convert all User names and Passwords to uppercase.

Server Codepage

The default codepage to be used for translating EBCDIC data. **Default:** 1146.

Server Locale

The default Locale used for conversions. Use **WRKOBJ OBJ(QSYS/*ALL) OBJTYPE(*LOCALE)** to see currently installed locales. **Default:** Blank (EN_US Calculated from Server Codepage 37).

Document URL Filename Workaround

If enabled this appends 'filename/xxx.yyy' to document URLs where xxx.yyy is the document filename. This is a workaround for the embedded Adobe Reader application which does not honour the filename attribute of the Content-Disposition http header resulting in incorrect filenames if the document is saved. **Default:** Enabled.

Enable CORS

This determines whether or not to enable [cross-origin resource sharing](#). **Default:** Disabled.

Authentication Flood Protection

The number of seconds to wait before authenticating with the server using the same username and password combination. Failing more than the number specified in the QMAXSIGN system value can disable the user profile. **Default:** 10.

System Name

This is the system name of the server - this is only used for PC Authentication and data area access.

Access Log

If you wish to log all access to the Cobwebb Web Server then select the **Access Log** tab.

Enabled

Choose whether access logging is required. **Default:** Enabled.

File path

The path to the access log file, only required if logging has been enabled. This must be a path on the IFS e.g. /cppd/htttpd/logs/access.log.

Log Referrer

Choose whether to log the referring page information. **Default:** Disabled.

File Module

If you wish to configure file information for the Cobwebb Web Server then select the **File Module** tab.

Document Root

The path to the folder from which all files are served. This must be a path on the IFS e.g. /cppd/htttpd/httpdocs.

Custom Document Root

The path to the folder where any modified files should be stored. Files will be served from here rather than the 'Document Root' if found. See [Changing the Logo](#).

Index Directories

Choose whether to allow a directory listing to be shown when a directory is requested. **Default:** Disabled.

Use Index files

Choose whether to search a requested directory for an index file (index.html). **Default:** Enabled.

Send Last Modified

Choose whether to return to the client the last modified date for a requested file. **Default:** Enabled.

Queue Module

If you wish to configure the [Cobwebb Message Queue](#) then select the **Queue Module** tab.

Use departments

Choose whether to only allow users to see queue entries for users with the same department code or ALL messages. Disabled = ALL messages.

Records per page

Choose how many queue records to display per page. **Default:** 20.

Database Connection Name

(OPTIONAL). The name of the database to connect to. **Default:** *LOCAL.

Library

Choose whether to search a requested directory for an index file (index.html). **Default:** The library the Subsystem is running in e.g. CPPD.

Username

(OPTIONAL). The user name to use when connecting to the database **Default:** blank.

Password

(OPTIONAL). The password to use when connecting to the database. **Default:** blank.

Docstore Module

To configure the [Cobwebb Docstore](#) select the **Docstore Module** tab.

Count Results

Choose whether or not to count (and display) the total number of documents returned by a query. **Note:** Enabling this function can have some performance impact. **Default:** Enabled.

Document Retirement Rate Limit

The maximum number of Docstore documents to retire before pausing for 1 minute. **Note:** You will need to **Stop** and **Restart** the [CPPD subsystem](#) for changes to this parameter to take effect.

0 No Rate Limit i.e. don't pause between retiring documents.

1 or Set the number of documents to retire before pausing. **Default:** 10

abo

ve

For further information please see the following pages:

- [Configuring Docstore](#)

- [Creating a Docstore](#)
- [Creating a Docstore Document Type](#)
- [Creating Docstore Keys](#)
 - [Docstore Key Types](#)
- [Assigning Docstore Keys to Document Types](#)
- [Document Version Control](#)

9.1.1 Install & Configure an SSL Certificate and Key

Overview

In order access the [Cobwebb Web Server](#) using **HTTPS** you may either:

- Use the supplied default certificate and key which has been created using a Self-Signing Certificate - this is not the ideal solution as you will receive varying security errors depending upon the browser you are using e.g. "This site is not secure" or "Your connection is not private".
- Generate a Certificate for the Server using a Certificate Authority - this gives you true HTTPS security. Then follow the steps below to install and configure the **Cobwebb Web Server** to use this Certificate and Key.

Notes:

- The Private Key must have an empty passphrase.
- Please see the topic [Generate a certificate using OpenSSL and Microsoft Active Directory Services](#) for an example of how to generate an SSL Certificate and Private Key.

Installation

To install the SSL Certificate and Key for use by the Cobwebb Web Server you need to:

- Copy the **.cer** and **.key** files to the certificate folder for your CPPD installation e.g. `\m15\CPPD\httpd\cert`

Configuration

Now we need to configure the Cobwebb Web Server to use these two files.

- Log into the **HTTP** Cobwebb Web Server e.g. `http://server_name:6400/` and select the **Server Configuration**. Select the **Server** tab if not already selected.
- Configure the **HTTPS Certificate** and **Key file paths** to the new files, e.g:

HTTPS Certificate file path `/cppd/httpd/cert/server_name.cer`

HTTPS Key file path `/cppd/httpd/cert/server_name.key`

- Press **Submit** to submit the changes

- Press **Re-Start server** to Re-Start the web server

Now you should be able to Log into the **HTTPS** Cobwebb Web Server (on port 6443) e.g:
https://server_name:6443/

9.2 Configure Administrators

When the **Cobwebb Web Server** is installed the default Administrator is **QPGMR**.

If you can configure Cobwebb Web Server Administrators in one of two ways:

1. Log on to the [Cobwebb Web Server](#) as **QPGMR** then you will be able to configure other IBM i users to be **Administrators** [via the Cobwebb Web Server](#).
2. On your IBM i Server via the [Cobwebb Fax & Email Menu - Work with System Parameters - Option 7 - Cobwebb Web Server Administrators](#).

Note: If you do not have this option then you can add Administrators manually as described below.

Configuring via the Server

Alternatively you can define Administrators directly via the IBM i by editing the **CHTTPDCONF** file in library **CPPD** via the **UPDDTA** command.

You will find the following entry for **QPGMR** you need to create a new entry for each **Administrator** replacing QPGMR with the IBM i User Id for the person you wish to register as an Administrator.

```
WORK WITH DATA IN A FILE                Mode . . . . : CHANGE
Format . . . . :  CHTTPDCONF            File . . . . :  CHTTPDCONF

*RECNBR:          14
SECTION:  server
KEY:      administrator
VALUE:   QPGMR
```

Note: You will need to restart the CPPD subsystem if you make changes to the System Configuration File.

9.3 Configure Docstore Users

In order for users to access Docstore via the Cobwebb Web Server they need to have a valid **User Profile** on the Server. Authority to documents stored in Docstore may also be controlled by creating **Authorisation Lists**, see [How Docstore Authorisation Works](#) for details.

Steps for Configuring Users

1. [Create a User Profile](#) on the Server - *mandatory*
2. [Create an Authorisation List](#) on the Server - *optional*
 - a) [Adding / Removing Users](#) from an Authorisation List
 - b) [Using an Authorisation List in Docstore](#)
 - c) [Using an Authorisation List in your PPD Design](#)

Creating a User Profile on the Server

If users wish to access Docstore but have no need to access the Server for anything else then you can create a User Profile with limited access by using the following command:

```
CRTUSRPRF USRPRF(DSTEST) PASSWORD(UsrPwd) INLMNU(*SIGNOFF)
LMTCPB(*YES) TEXT('Docstore Test User Profile')
```

By using setting the initial menu (INLMNU) to *SIGNOFF and limiting the capabilities LMTCPB(*YES) the user will not be able do anything other than run Docstore.

Change the entries in red to be specific for each user:

USRPRF - This is the user profile that you are going to create

PASSWORD - This is the password for the user profile

TEXT - This is just a description for the user profile and can be anything you like.

Note: There are other parameters that can be set when creating your user; please refer to your Server documentation for details or press F1 for Help on the command.

Creating an Authorisation List on the Server

If you decide that you wish to use Authorisation Lists to control access to your documents in Docstore then these need to be created on the Server using the following command:

```
CRTAUTL AUTL(DS_REM) TEXT('View Remittance Advices')
AUT(*EXCLUDE)
```

Change the entries in red to be specific for each Authorisation List:

AUT - Specifies the authority you are giving to users who do not have specific authority for the object, who are not on an authorization list, and whose group profile or supplemental group profiles do not have specific authority for the object. We suggest that you use

***EXCLUDE** as in our example, as this will add make the *PUBLIC entry *EXCLUDE to the list.

Valid options are *CHANGE, *ALL, *USE or *EXCLUDE. **Note:** The user / group who creates the Authorisation List will be automatically given ***ALL** authority.

Adding / Removing Users from an Authorisation List

Once you have created an Authorisation List you can then **Add** or **Remove** Users from the list. Enter the following to display all existing Authorisation lists on the Server.

```
WRKAUTL AUTL(*ALL)
```

You can be more specific by replacing ***ALL** by the name of the List you wish to change or a more generic entry e.g. **DS***

Enter a **2=Edit** beside the entry that you wish to change.


```

Session A - [24 x 80]
File Edit View Communication Actions Window Help
[Icons]
Edit Authorization List
Object . . . . . : DS_REM      Owner . . . . . : COBBLERS
Library . . . . . : QSYS        Primary group . . . . . : *NONE
Type changes to current authorities, press Enter.
User      Object Authority  List Mgt
*PUBLIC   *EXCLUDE
COBBLERS  *ALL
Bottom
F3=Exit  F5=Refresh  F6=Add new users
F11=Display detail object authorities  F12=Cancel  F24=More keys
MA a 11/026
1902 - Session successfully started

```

If you wish to be more specific with your authorisation then press **F11** and you will be able to tweak entries further e.g.

```

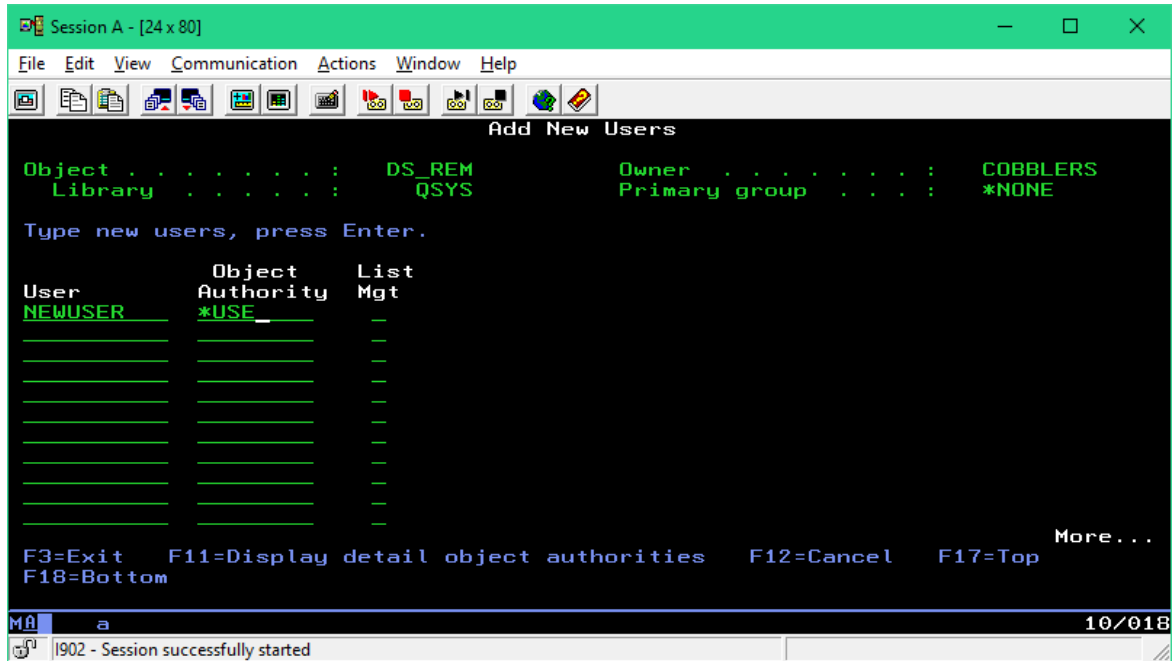
Session A - [24 x 80]
File Edit View Communication Actions Window Help
[Icons]
Edit Authorization List
Object . . . . . : DS_REM      Owner . . . . . : COBBLERS
Library . . . . . : QSYS        Primary group . . . . . : *NONE
Type changes to current authorities, press Enter.
User      Object Authority  List Mgt  -----Object-----
          *EXCLUDE      Opr  Mgt  Exist  Alter  Ref
COBBLERS  *ALL          X   X   X   X   X
Bottom
F3=Exit  F5=Refresh  F6=Add new users  F11=Display data authorities
F12=Cancel  F15=Display authorization list objects  F17=Top  F18=Bottom
MA a 11/014
1902 - Session successfully started

```

Note: Only the User / Group that has an "X" under **List Mgt** will be allowed to edit the list.

Adding New Users

Now you can **Add** new Users / Groups to the list by using **F6 to Add new users**. Enter the User and specify ***USE** as the Object Authority.



Removing Users

To **Remove** a User / Group from the list simply blank out the **Object Authority**, and any other entries that are not blank, and the entry will be removed,

Using the Authorisation List in Docstore

Once you have created an Authorisation List this can then be used when [Creating a Docstore Document Type](#) by specifying it as the **Default Authorisation List**.

Create a new Document Type

Name:

Description:

Document Folder: Default Custom

Create Unique Document Names:

Hide Unauthorised Documents:
(Hide Search results that the user is not authorised to view)

Document Life Span: Days.
(The number of days before a document is deleted. 0=Never)

Proxy Authority Object Path:
(File used to check document access permissions in place of the actual document.)

Default Authorisation List:
(The authorisation list used to check document access permissions in place of any set on the actual document.)

Document Handling Username:
(Read/Write credentials to use for this Document Type. Blank - use Logged in user credentials)

Using the Authorisation List in your PPD Design

An **Authorisation List** may be used in a [Docstore Output Device](#) in your PPD as shown in the image below. **Note:** The **Public Authority** also has to be changed to ***AUTL**.

Output Device (DocStore)

General

Name: NBDCOA

DocStore: WE Docstore
WE Company Code Docstore

Document Type: ORDACK
Order Acknowledgement

Description: OA: %PARM1 Dated: %PARM2 For Account: %PARM

File

Path: /CPPD/pickup

Name: ?032,084,007

Format: PDF Extension: PDF

CCSID/Codepage:

Owner:

Authorization List: DS_REM

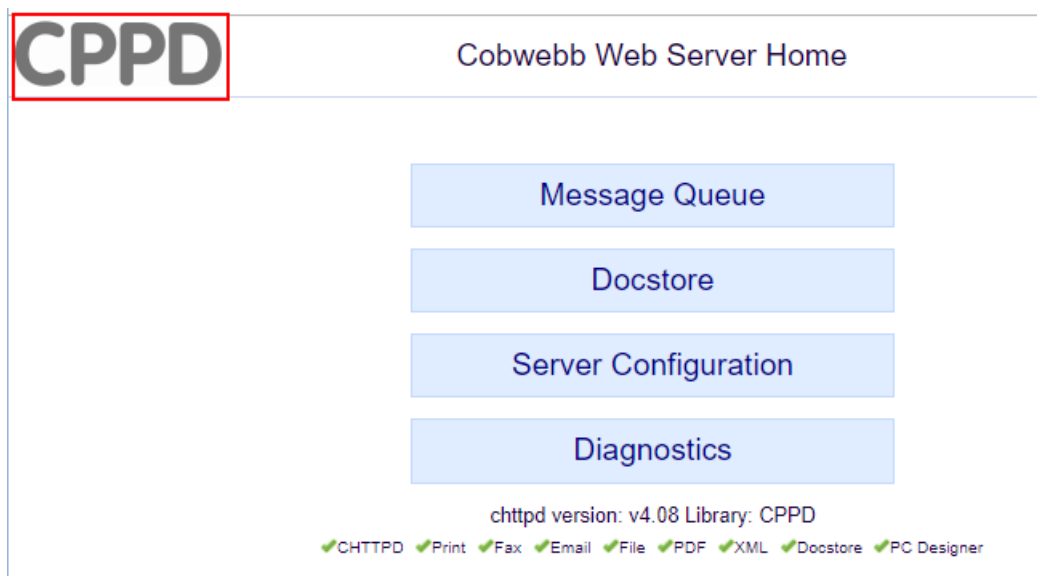
Public Authority: AUTL

Set File Read-only

Halt Job on Error

9.4 Changing the Logo

To change the logo displayed in the web browser from CPPD (as outlined in red in the screenshot below) you need to copy a logo named **logo.gif** to the **Custom Document Root** folder.



To make sure that the **Custom Document Root** folder has been set you need to browse to the [Cobwebb Web Server](#) and select **Server Configuration**. Now click on the **File Module** tab under **Server Configuration**.

The screenshot shows the 'File Module' configuration page. At the top, there are tabs for 'Server', 'Access Log', 'File Module', 'Queue Module', and 'Docstore Module'. The 'File Module' tab is selected. Below the tabs, there are several configuration options:

- Document Root:** /CPPD/chttd/httdocs. Description: The path to the folder from which all files are served.
- Custom Document Root:** /CPPD/chttd/httdocs_custom. Description: The path to the folder where any modified files should be stored. Files will be served from here rather than the 'Document Root' if found. Default: Blank.
- Index Directories:** Enabled Disabled. Description: Choose whether to allow a directory listing to be shown when a directory is requested. Default: Disabled.
- Use index files:** Enabled Disabled. Description: Choose whether to search a requested directory for an index file (index.html). Default: Enabled.
- Send Last Modified:** Enabled Disabled. Description: Choose whether to return to the client the last modified date for a requested file. Default: Enabled.

At the bottom of the page, there are two buttons: 'Submit' and 'Re-start Server'.

Custom Document Root

Enter the path to the folder where any modified files should reside, as per above screenshot, and then click the **Re-start Server** button to apply the changes.

Now you can place your new **logo.gif** into the folder.

9.5 Configuring Docstore

Running the Docstore Jobs

Before you can start configuring Docstore you must make sure that the relevant Docstore jobs are running the CPPD subsystem:

Opt	Job	User	Type	-----Status-----	Function
—	CHTTPD	QPGMR	BATCH	ACTIVE	
—	DOCSTORED	QPGMR	BATCH	ACTIVE	PGM-DOCSTORED
—	EMLAPI	SCR	BATCH	ACTIVE	
—	PCSRVI	SCR	BATCH	ACTIVE	
—	SNDAPI	SCR	BATCH	ACTIVE	
—	SPLMON	QPGMR	BATCH	ACTIVE	PGM-SPLMON
—	STREML	QPGMR	BATCH	ACTIVE	
—	STRFAX	QPGMR	BATCH	ACTIVE	PGM-CFAXSND

There are two jobs required to operate the Docstore:

1. **CHTTPD** – serves the web browser for Docstore Administration and Configuration and for viewing your stored documents.
2. **DOCSTORED** - manages Docstore jobs, currently it just makes sure the files DOCSTOREQ and DOCSTORES are present in the CPPD library.

Configuring Docstore Administrators

Before you can create a Docstore you will need to be an Administrator. The default Administrator is QPGMR but additional user's may be added via the [Cobwebb Web Server Configuration](#).

Granting Write access to a Docstore

Any user wishing to **Upload** or **Delete** documents to / from a Docstore must have 'Write' authority to the folder where the document is stored.

To check use the `wrklnk` command on the server e.g.

```
wrklnk '/cppd/docstore/Cobwebb Store/Invoice'
```

where the link is the path to your **Document Folder** e.g.

Invoice	
Name:	<input type="text" value="Invoice"/>
Description:	<input type="text" value="Invoice"/>
Document Folder:	<input type="text" value="/cppd/DocStore/Kim DocStore/Invoice"/>
Create Unique Document Names:	<input type="button" value="Yes"/> ▾
Hide Unauthorised Documents:	<input type="button" value="No"/> ▾ (Hide Search results that the user is not authorised to view)
Duplicate Document Handling:	<input type="button" value="Reject (Default)"/> ▾ (How to handle a submitted document with one or more 'unique key' values that match an existing document)
Document Life Span:	<input type="text" value="0"/> Days. (The number of days before a document is deleted. 0=Never)
Default Authorisation List:	<input type="text"/> (The authorisation list used to check document access permissions in place of any set on the actual document.)
Proxy Authority Object Path:	<input type="text"/> (File used to check document access permissions in place of the actual document.)
Document Handling Username:	<input type="text"/> (Read/Write credentials to use for this Document Type. Blank - use Logged in user credentials)
<input type="button" value="Update"/>	

Enter a "9" for "Work with authority" beside the **Object link** and you should something like the following:

```

Session B - [24 x 80]
File Edit View Communication Actions Window Help
Work with Authority

Object . . . . . : /cppd/docstore/DOCSTORE1/DocType1
Type . . . . . : DIR
Owner . . . . . : CPPDOBJOWN
Primary group . . . . . : *NONE
Authorization list . . . . . : *NONE

Type options, press Enter.
  1=Add user   2=Change user authority   4=Remove user

--Object Authorities--
Opt  User          Data Authority  Exist Mgt Alter Ref
--  -
--  *PUBLIC        *RX
--  CPPDOBJOWN    *RWX          X      X   X   X
--  TEST          *RX          X
Bottom

Parameters or command
==>
F3=Exit   F4=Prompt   F5=Refresh   F9=Retrieve
F11=Display detail data authorities   F12=Cancel   F24=More keys
(C) COPYRIGHT IBM CORP. 1980, 2007.

M b 14/003
IBM 1902 - Session successfully started

```

In this scenario user **CPPDOBJOWN** could **Upload** or **Delete** a document as it has ***RWX** authority and user **TEST** could not. Use the options provided to change the authority for a user as required.

Please refer to the topic on [How Docstore Authorisation works](#) for further details.

9.5.1 Creating a Docstore

Select **Server Configuration**, then the **Docstore Module** tab. Now click on **Configure Individual Docstores** where you will see the following:

Create a new Docstore

Name:

Library: (Must be a valid nonexistant library name)

Description:

Note: If you have existing Docstores then the above entry will appear at the bottom of the list.

Name

Enter a name for your Docstore

Library

Enter a library name for the new Docstore. **Note:** The Library must not already exist as this will be created but must be a valid name.

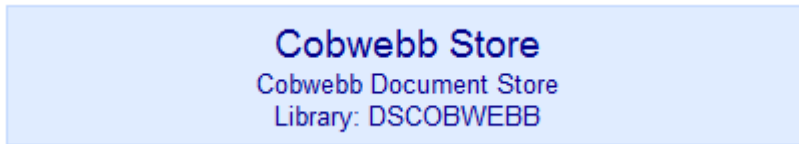
Description

Enter a description for your Docstore.

Click **Create new Docstore** and wait. This may take a little while as it has to create the library but you will see a red progress message e.g.

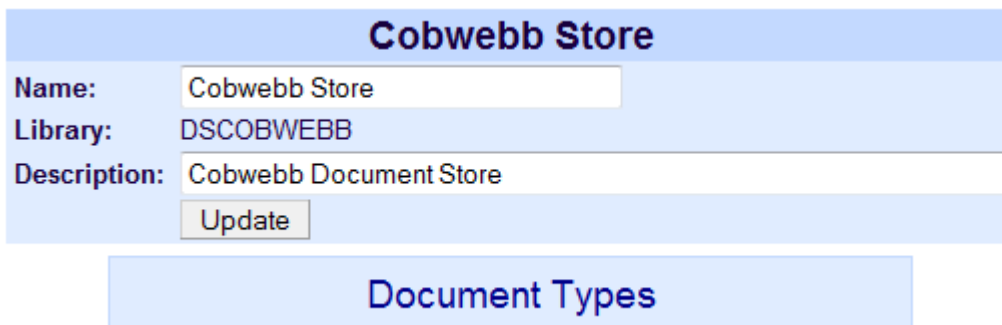
Creating Docstore 'Cobwebb Store'

When the progress message disappears you should see your new Docstore e.g.



Updating Docstore Details

If you wish to update the **Name** or **Description** for your Docstore simply click on the Docstore in the list.

A screenshot of the Docstore update form. The form is titled "Cobwebb Store" in blue text. It has three input fields: "Name:" with the value "Cobwebb Store", "Library:" with the value "DSCOBWEBB", and "Description:" with the value "Cobwebb Document Store". There is an "Update" button below the description field. Below the form is a button labeled "Document Types".

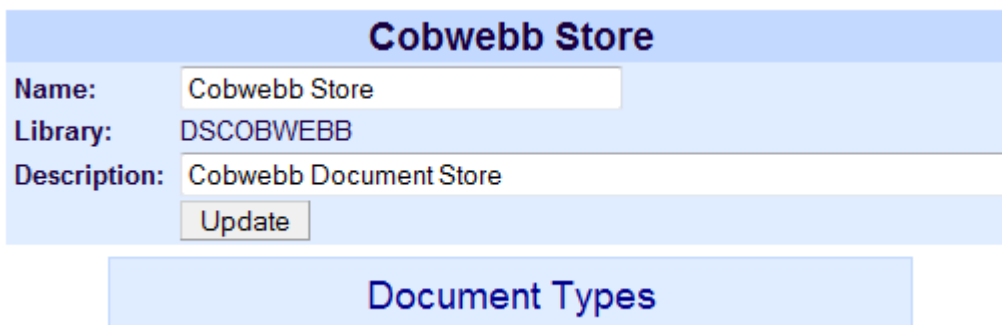
Make your changes and then click **Update** to apply the changes.

Note: If you change the *Name* and have used this in a PPD document then you will also have to change this otherwise your PPD will no longer work.

9.5.2 Creating a Docstore Document Type

Select **Server Configuration**, then the **Docstore Module** tab. Now click on **Configure Individual Docstores** where you will see the list of your current Docstores.

Click on the entry for the **Docstore** for which you wish to create a Document Type.

A screenshot of the Docstore update form. The form is titled "Cobwebb Store" in blue text. It has three input fields: "Name:" with the value "Cobwebb Store", "Library:" with the value "DSCOBWEBB", and "Description:" with the value "Cobwebb Document Store". There is an "Update" button below the description field. Below the form is a button labeled "Document Types".

To create a Document Type click the **Document Types** button. You will be prompted to **Create a new Document Type**.

Create a new Document Type

Name:

Description:

Document Folder: Default Custom

Create Unique Document Names: ▼

Hide Unauthorised Documents: ▼
(Hide Search results that the user is not authorised to view)

Duplicate Document Handling: ▼
(How to handle a submitted document with one or more 'unique key' values that match an existing document)

Document Life Span: Days.
(The number of days before a document is deleted. 0=Never)

Default Authorisation List:
(The authorisation list used to check document access permissions in place of any set on the actual document.)

Proxy Authority Object Path:
(File used to check document access permissions in place of the actual document.)

Document Handling Username:
(Read/Write credentials to use for this Document Type. Blank - use Logged in user credentials)

Name

Enter a name for your Document Type.

Description

Enter a description for your Document Type.

Document Folder

If you leave the **Default** radio button selected then the Document Folder will be created by Docstore. This folder will be created using the following format:

/cppd/DocStore/**DocStore Name/Document Type Name**

If you select the **Custom** radio button then you will be prompted to enter the folder e.g.

Default Custom

This custom folder will not be automatically created and must exist before you try to store any documents. This folder may be anywhere in your IFS; the recommendation is to use the root file system.

Note: If you need to move the storage location of documents in Docstore please see [Moving Document Type Storage Location](#).

Create Unique Document Names

We would recommend that you select to **Create Unique Document Names** unless you can guarantee unique names for your documents. If you say **Yes** then Docstore will automatically generate a unique name for your document.

Hide Unauthorised Documents

If you do not wish users to see documents to which they are not authorised in the [Search Results](#) then select **Yes** here. If this is set to **No** then the user will see the document in the Search Results but will not be able to view it. Setting this option to **No** will also allow documents that have been *versioned* (superseded) to be displayed in grey.

Duplicate Document Handling

If you are going to specify any of the Docstore Keys that you are going to assign to this Document Type as **Unique** then this option allows you to select how you want Docstore to handle duplicate keys. The default option is to **Reject** the document and it won't be stored. The other option you may select is **Version**. What this will do is to set the **superseded date** for the existing document and then store the newer version. Whether or not superseded documents will be displayed in Docstore is controlled by the **Hide Unauthorised Documents** setting above; if this is set to **No** then superseded documents will be displayed as grey in the list.

This option is only available from *chttpd v2.9 or above - Cobwebb Server v6.2.76 or above*.

Document Life Span

Decide how long you wish to keep the document before it is deleted. If you enter **0** here the document will never be deleted. There is a **DOCSTORED** job running in [CPPD subsystem](#) which will check for any documents requiring deletion when it initially starts up and then every 24 hours after it has completed its last check. In order to limit the load on the server, the number of documents deleted at any one time is based on the [Document Retirement Rate Limit](#). This is the maximum number of documents to retire before pausing for 1 minute, deleting another batch, and so on until all files requiring deletion have been processed..

Say, for instance, you wanted to keep your Invoices for 7 years then you would enter say **2567** days as the Document Life Span ($7 \times 365.25 = 2,566.75$). Once an entry has reached its desired life span the following will be deleted the:

- actual document
- Document Keys
- record for the Document in Docstore

This will mean that the document can no longer be retrieved and its details will not be returned in any searches.

Default Authorisation List

If specified this Authorisation List will be used to grant document access if access has not been granted at a higher level; see [How Docstore Authorisation Works](#) for details.

Proxy Authority Object Path

This way of granting permission has been superseded; see [How Docstore Authorisation Works](#) for details. Here you can specify a file to be used to check document access permission. This must be the complete path including the file name e.g. `/cppd/DocStore/Cobwebb Store/Invoice/proxy_test.txt`. You may call this file anything you like, but for obvious reasons this should be stored on the local portion of the IFS. All you will need to do is to grant 'Read' permission to this file for each IBM Server User Id you want to allow access to this Document Type.

Document Handling Username

This is only really useful if you are storing your Docstore documents on QNTC (i.e. not the IBM Server).

This is the IBM Server User Profile used to retrieve a document from Docstore and when writing a document to Docstore, for this Document Type. This user profile must have Read/Write access to all the documents for this Document Type.

Any user profile reading or writing a file to QNTC also has to be known to the remote file server. On a Windows File Server this means the user profile must be a member of the windows domain. This could become tedious if you have to do this for every user that wants to read or write to

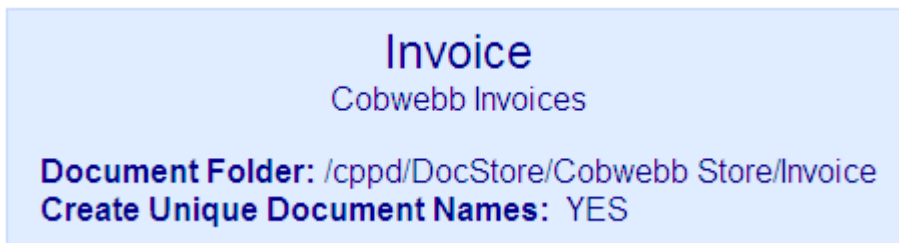
Docstore so to make life easier each Document Type has this **Document Handling Username** that will be used for all Read/Write of files for the Document Type. Now when a user requests a file, Docstore uses this **Document Handling Username** to retrieve the file from the QNTC share. Note that Docstore still checks that the user is permitted to Read/Write the file using the usual authorisation rules. This user must be *created* on the IBM Server with exactly the same name and password as a user on the Windows domain (password must be set not to expire). **Note:** If your IBM i is set to the default password level of '0' (System Value QPWDLV), this causes QNTC to send an all lower-case password on the authentication attempt, then your password must be all lower-case to match.

For details on how Docstore handles authorisation please see the topic [How Docstore Authorisation works](#).

Click '**Create new Document Type**' and wait... you will see a red progress message:

Docstore 'Cobwebb Store' created. Reloading...

When the progress message disappears you should see your new Document Type.



Updating Document Type details

If you wish to update the details for your Docstore Type simply click on the Docstore in the list.

Invoice	
Name:	<input type="text" value="Invoice"/>
Description:	<input type="text" value="Invoice"/>
Document Folder:	<input type="text" value="/cppd/DocStore/Kim DocStore/Invoice"/>
Create Unique Document Names:	<input type="button" value="Yes"/>
Hide Unauthorised Documents:	<input type="button" value="No"/> <small>(Hide Search results that the user is not authorised to view)</small>
Duplicate Document Handling:	<input type="button" value="Reject (Default)"/> <small>(How to handle a submitted document with one or more 'unique key' values that match an existing document)</small>
Document Life Span:	<input type="text" value="0"/> Days. <small>(The number of days before a document is deleted. 0=Never)</small>
Default Authorisation List:	<input type="text"/> <small>(The authorisation list used to check document access permissions in place of any set on the actual document.)</small>
Proxy Authority Object Path:	<input type="text"/> <small>(File used to check document access permissions in place of the actual document.)</small>
Document Handling Username:	<input type="text"/> <small>(Read/Write credentials to use for this Document Type. Blank - use Logged in user credentials)</small>
<input type="button" value="Update"/>	

Here you can change the details for the Document Type if required and the click **Update** to apply the changes.

Note: If you change the **Name** and have used this in a PPD document then you will also have to change this otherwise your PPD will no longer work. Also if you change the **Document Folder**

entry you will have to create this folder before trying to store documents as this will not be generated automatically.

9.5.3 Creating Docstore Keys

Select **Server Configuration**, then the **Docstore Module** tab. Now click on **Configure Individual Docstores** where you will see the list of your current Docstores.

Click on the entry for the **Docstore** and then the **Docstore Type** for which you wish to create Docstore Keys.

Invoice

Name:

Description:

Document Folder:

Create Unique Document Names: Yes ▾

Hide Unauthorised Documents: No ▾
(Hide Search results that the user is not authorised to view)

Duplicate Document Handling: Reject (Default) ▾
(How to handle a submitted document with one or more 'unique key' values that match an existing document)

Document Life Span: Days.
(The number of days before a document is deleted. 0=Never)

Default Authorisation List:
(The authorisation list used to check document access permissions in place of any set on the actual document.)

Proxy Authority Object Path:
(File used to check document access permissions in place of the actual document.)

Document Handling Username:
(Read/Write credentials to use for this Document Type. Blank - use Logged in user credentials)

To create Docstore Keys click on the **Document Type Keys** button.

Document Type Keys

Name	Type	Size	Scale	Description	Required	Unique
No Docstore Keys created						

Docstore Keys

No Docstore Keys created

Create a new Docstore Key

Name: (Max 9 characters, no spaces.)

Description: (Max 50 characters)

Type: SMALLINT ▾

Size: For a String: the number of characters.
For a Decimal: the total number of digits.

Scale: For a Decimal: the number of digits after the decimal place.

Before you can allocate **Docstore Keys** as **Document Type Keys** these must be created.

Enter the details for your **Docstore Key**.

For an explanation of the different Key **Types**, and their relevant **Size / Scale** please see [Docstore Key Types](#).

To create a Docstore Key enter the details click **Create Docstore Key** and wait... you will see a red progress message:

Creating Docstore Key 'INVNO'

When the progress message disappears you should see your new Docstore Key.

Document Type Keys

Name	Type	Size	Scale	Description	Required	Unique		
INVNO	CHAR	8	0	Invoice Number	Yes	No	Update	Remove

Docstore Keys

Name	Type	Size	Scale	Description	
INVNO	CHAR	8	0	Invoice Number	Delete

Create a new Docstore Key

Name: (Max 9 characters, no spaces.)

Description: (Max 50 characters)

Type:

Size: For a String: the number of characters.
For a Decimal: the total number of digits.

Scale: For a Decimal: the number of digits after the decimal place.

This Docstore Key is now available to be selected as a **Document Type Key**.

To remove a Docstore Key simply click the **Delete** button beside the key you wish to remove. If the Docstore Key is already being used as a Document Type Key then you will see a message like:

Key 'INVNO' Deletion failed. Error: Key 'INVNO' Still used by Document Types: Invoice,

9.5.3.1 Docstore Key Types

When you are configuring a **Docstore Key** you may select the **Type** of data to use for the Key.

Type:

Size:

Scale:

BIGINT

CHAR

VARCHAR

TIMESTAMP

DATE

TIME

REAL

DOUBLE

DECIMAL

NUMERIC

The following is an explanation of each of the Types.

Type	Description	Size	Scale	Notes
Number Types	All numbers have a sign and a precision. The precision is the total number of binary or decimal digits excluding the sign. The sign is positive if the value is zero.			
SMALLINT	A small integer is a binary number composed of 2 bytes (16 bits) with a precision of 5 digits. The range of small integers is -32768 to +32767. For small integers, decimal precision and scale are supported by COBOL, RPG, and iSeries system files.	2	0	
INTEGER	A large integer is a binary number composed of 4 bytes. The range of large integers is -2147483648 to +2147483647. For large integers, decimal precision and scale are supported by COBOL, RPG, and iSeries system files.	4	0	
BIGINT	A big integer is a binary number composed of 8 bytes. The range of big integers is -9223372036854775808 to +9223372036854775807.	8	0	
REAL	Floating-Point (REAL). A single-precision floating-point number is a 32-bit approximate representation of a real number. The range of magnitude is approximately $1.17549436 \times 10^{-38}$ to 3.40282356×10^38 .	4	0	
DOUBLE	Floating-Point (DOUBLE). A double-precision floating-point number is a IEEE 64-bit approximate representation of a real number. The range of magnitude is approximately $2.2250738585072014 \times 10^{-308}$ to $1.7976931348623158 \times 10^{308}$.	8	0	
DECIMAL	A decimal value is a packed-decimal number with an implicit decimal point. The position of the decimal point is determined by the precision and the scale of the number. The scale, which is the number of digits in the fractional part of the number, cannot be negative or greater than the precision. The maximum precision is 31 digits.			
NUMERIC	A numeric value is a zoned-decimal number with an implicit decimal point. The position of the decimal point is determined by the precision and the scale of the number. The scale, which is the number of digits in the fractional part of the number, cannot be negative or greater than the precision. The maximum precision is 31 digits.			

Character Types	A character string is a sequence of bytes. The length of the string is the number of bytes in the sequence.		
CHAR	All values of a fixed-length character-string column have the same length. This is determined by the length attribute of the column.	1 - 32766	
VARCHAR	The types of varying-length character strings are: VARCHAR (or synonyms CHAR VARYING and CHARACTER VARYING) The values of a column with any one of these string types can have different lengths. The length attribute of the column determines the maximum length a value can have.	1 - 32740	
Date Time Types	Although datetime values can be used in certain arithmetic and string operations and are compatible with certain strings, they are neither strings nor numbers.		
TIMESTAMP	A timestamp is a seven-part value (year, month, day, hour, minute, second, and microsecond). Valid string formats are: YYYY-MM-DD-hh.mm.ss.msmsms YYYY-MM-DD-hh.mm.ss YYYYMMDDhhmmss The following ODBC/JDBC formats are also supported. (Note the use of the colon in the time and the space between the date and time values) YYYY-MM-DD hh:mm:ss.msmsms YYYY-MM-DD hh:mm:ss	26	
DATE	A date is a three-part value (year, month, and day) designating a point in time under the Gregorian calendar ¹⁶ , which is assumed to have been in effect from the year 1 A.D The date format used by Docstore is *YMD. Valid string format is: YYYY-MM-DD	10	COBCVTDAT Exit Program may be used in a PPD to convert dates to the format required for Docstore.
TIME	A time is a three-part value (hour, minute, and second) designating a time of day using a 24-hour clock. The range of the hour part is 0 to 24, while the range of the minute and second parts is 0 to 59. If the hour is 24, the minute and second specifications are both zero. Valid string formats are: HH.MM.SS HH:MM:SS	8	

9.5.4 Assigning Docstore Keys to Document Types

Once you have created some [Docstore Keys](#) you can assign them as keys to the selected Document Type.

Select **Server Configuration**, then the **Docstore Module** tab. Now click on **Configure Individual Docstores** where you will see the list of your current Docstores.

Click on the entry for the **Docstore** and then the **Docstore Type** for which you wish to assign Docstore Keys.

Document Type Keys

Name	Type	Size	Scale	Description	Required	Unique	
INVNO					No	No	Add Key

Select the Docstore Key from the **Name** drop down list and whether or not this key is **Required** or to be **Unique**.

Required = Yes means that when you select this Docstore Key as a Document Key then the document being stored **MUST** have this key.

Unique = Yes means that you cannot have two documents with the same key of the same document type.

Click **Add Key** to add this as a Document Type Key. You may select up to 18 keys for a document type.

Document Type Keys

Name	Type	Size	Scale	Description	Required	Unique		
INVNO	CHAR	8	0	Invoice Number	Yes	Yes	Update	Remove
CUSNO					No	No	Add Key	

Update Document Type keys

If you wish to update the Document Type Key information then make the change and click Update. If you wish to remove a key from the list of document type keys then click the Remove button.

Note: If you remove a **Document Type Key** and have used this in a PPD document then you will also have to change this otherwise your PPD will no longer work

You have now set up your Document Store. You can now use this in a [Docstore Output Device](#) in one of your PPD designs.

9.5.5 Document Version Control

From Cobwebb Server v6.2.76 or above.

Enable Versioning for a Document Type

When you [Create a Docstore Document Type](#) there is an entry for **Duplicate Document Handling**. If you have are going to specify any of the Docstore Keys that you are going to assign to this Document Type as **Unique** then this option allows you to select how you want Docstore to handle duplicate keys. The default option is to **Reject** the document and it won't be stored. The other option you may select is **Version**. What this will do is to set the **superseded date** for the existing document and then store the newer version. Whether or not superseded documents will be displayed in Docstore is controlled by the **Hide Unauthorised Documents** setting above; if this is set to **No** then superseded documents will be displayed as grey in the list.

Manually Uploading a new Version of a Document

Once versioning has been enabled for a Document Type, provided you have the [correct permissions](#), you will then be able to [Create a New Version](#) of a Document when [editing a Document's details](#).

Automatically Uploading a new Version of a Document

If versioning has been enabled and your PPD uploads a Document with identical Unique Keys then any existing Document in Docstore will be superseded.

9.5.6 Configure Docstore Trigger to print Document Details

Overview

In the CPPD library there is a **DSLOGMON** trigger program which can be attached to the **DOCSTOREQ** file (the Docstore Log) to run each time a record is updated. There is a configuration file **DSLOGMONPF** where you can configure which **Docstore**, **Docstore Type** and **Document Status** entries you wish to print. If a correct match is found then the Document details including all of the Docstore **Key Names** and **Values** will be printed. This spooled file can then be used in a Cobwebb Design if required e.g.

```

Document Details
Docstore: CobwebbPOD          Document Type: POD          Status: S Date/Time: 2018-04-04-15.49.47.930532
Sts Desc: Document stored. ID: 994
Doc Name: 20180404_02194004_U_44505696229559426   Doc Ext: png Creator: TESTPICK  Mime Type: 0007
File Pth:
Doc Desc: Proof of Delivery: 0000218/00
Key Name  Value
KEYVALUE1
KEYVALUE2  0000218/00
KEYVALUE3
KEYVALUE4
KEYVALUE5
KEYVALUE6  Davepod
KEYVALUE7  Driverdave
KEYVALUE8  0000218/00
KEYVALUE9
KEYVALUE10
KEYVALUE11
KEYVALUE12
KEYVALUE13
KEYVALUE14
KEYVALUE15
KEYVALUE16
KEYVALUE17
KEYVALUE18
KEYVALUE19
KEYVALUE20

```

By default the supplied **DSLOGMON** Print File will print the output to **QPRINT** in library **CPPD** but this can be changed to output any valid Output Queue by using the **CHGPRTF** command.

Configure the Trigger

Currently the configuration file **DSLOGMONPF** is only updated via DFU so you can run the following from a command line on the server run the following:

```
UPDDTA CPPD/DSLOGMONPF
```

```

Session B - [24 x 80]
File Edit View Communication Actions Window Help
WORK WITH DATA IN A FILE
Format . . . . : DSLOGR
Mode . . . . : ENTRY
File . . . . : DSLOGMONPF

Docstore Name: _____
Document Type: _____
Status: _____

F3=Exit          F5=Refresh      F6=Select format
F9=Insert        F10=Entry      F11=Change
(C) COPYRIGHT IBM CORP. 1980, 2007.
MA b 04/017
1902 - Session successfully started

```

Enter the **Docstore Name** and **Document Type** (both case sensitive) and then decide the **Status** of the log entries that you wish to print. This would normally be "S" for "Success Document stored".

Configure the Print

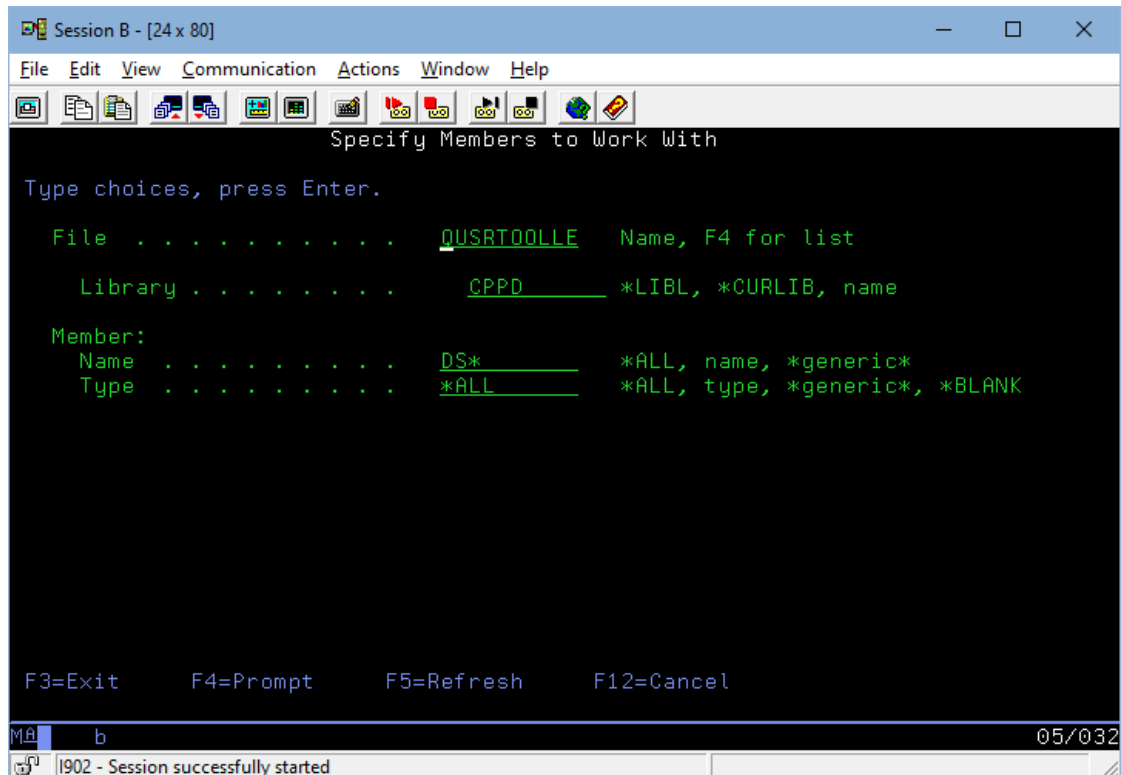
If you wish the printed output to be directed to a different Output Queue than **QPRINT** in **CPPD** then use the following command changing the **OUTQ** entry to be the library and output queue you wish to print to.

```
CHGPRTF FILE(CPPD/DSLOGMON) OUTQ(LIBRARY/OUTPUTQ)
```

Attach the Trigger program

- You will need to have exclusive access to the Docstore Log to add / remove the trigger so you will need to end the **CPPD** subsystem. From a command line on the server run the following:

```
ENDSBS CPPD
```
- Add the Trigger. Cobwebb have supplied two REXX programs **DSLOG_ADD** and **DSLOG_RMV** which you will find in the source file **QUSRTOOLLE** in library **CPPD**.
Enter **strpdm** on a command line and take option **3** and enter the following and press Enter.



To add the trigger enter **Option 16** beside **DSLOG_ADD** and press Enter. To remove the trigger enter **Option 16** beside **DSLOG_RMV** and press Enter.

- Start the **CPPD** subsystem. From a command line on the server run the following:
STRSBS CPPD/ CPPD

9.5.7 Moving Document Type Storage Location

Disclaimer

Please read this topic fully before making any changes. Ensure that all prerequisites are fully tested, such as the QNTC file system (if used) and read/write folder access from the IBM i, User ID etc., before starting this procedure. Please ensure the procedure is fully understood and plan for the Cobwebb Server system downtime within the business.

It is recommended that this procedure is first fully tested in a 'testing' environment which is separate to the production environment.

This procedure is undertaken at your own responsibility and Cobwebb Communications Ltd. cannot accept responsibility for costs, damage or loss of earnings as a result of information contained within this topic or actions taken as a result of reading this topic. Cobwebb Communications Ltd. would be able to provide an estimate for consultation services to complete this procedure if required.

Overview

There are various steps required to move the location for storing documents for a specific **Document Type** in Docstore. **Note:** If you need to move all documents in a Docstore, then you will need to repeat this process for all **Document Types** in that Docstore.

1. [Check that you can upload a document to the existing location](#)
2. [Create and Share the new storage location](#)
3. [Configure Docstore to use the new location for a Document Type](#)
4. [Test Access to new location](#)
5. [Prepare to move old documents to the new location](#)
6. [Update the Docstore database](#)
7. [Move the documents and restart the CPPD subsystem](#)

Step 1 - Test Access to existing storage location

Firstly it is a good idea to check that you can upload a test PDF to the current location for the Document Type.

1. Open up a browser and type in the **name/ip address** of the IBM i followed by **:6443** (the Port for HTTPS or **:6440** the Port for HTTP) to browse to the **Cobwebb Web Server**
2. See [Upload a Document to a Docstore](#) and upload a test PDF to the Docstore **Document Type** you wish to change the storage location for.
3. Now you need to check that you can search for and view the document.
 - a. Click on the **Advanced** tab then click **Search** (leave fields blank).
 - b. The most recent documents are displayed at the top of the screen – check the test PDF file (which has just been uploaded) can be seen and opened for viewing.
4. Do not proceed until this test has been successful.

Step 2 - Create and Share new storage location

1. Create the folder location to be used as the new location for your documents. It is recommended to use a folder path structure similar to:
.../DocStore/<Docstore Name>/<Document Type Name>
2. Share the folder for **read/write** access for the [Document Handling Username](#) (if used) or individual users, to enable them to read / upload / delete documents- see [How Docstore Authorisation works](#) for details. It might be a good idea to check the sharing for the current location and replicate for the new location, especially if more than one user requires access.
3. If using the **QNTC file system** i.e the location is on an external server or storage device, ensure the folder is 'visible' from the IBM i. See [QNTC Configuration](#) for details.

Step 3 - Configure Docstore to use new storage location

1. Firstly ensure that no documents of the Document Type, whose location is being changed, are being uploaded to Docstore. This includes any scanning software.
2. Browse to the **Cobwebb Web Server** and log on to Docstore as a [Docstore Administrator](#) (you must be able to see the **Server Configuration** button/link on the Docstore home page).

3. Select **Server Configuration** then **Configure Individual Docstores**, select the appropriate **Docstore** name.
4. Next click on the **Document Type** whose location is to be changed. The settings for the Document Type are displayed.
 - a. First note down the *existing* **Document Folder** entry as you will need this later when updating the Docstore database.

- b. Now enter the path to the new location into the **Document Folder** entry (including the '/QNTC/' prefix if necessary) e.g.

Note: If using QNTC then, if the displayed Directory when using **WRKLNK** is:

/cppd/DocStore/Cobwebb Store/Invoice

it will need to be entered into Docstore as:

/QNTC/cppd/DocStore/Cobwebb Store/Invoice

- c. Enter the [Document Handling Username](#) if required.
 - d. Click **Update** to apply the changes.

Step 4 - Test Access to new storage location

Now you need to perform a test to check that you can upload a document to the new storage location.

1. Repeat the steps from **Step 1** using the new storage location.
2. Do not proceed until this test has been successful.

Note: If necessary, the changes can be reversed, by changing the **Document Folder** path back to the previous folder path for the Document Type.

Step 5 - Prepare to move old Documents to new storage location

Now that we have tested the new location for the Document Type, 'old' documents of the same Document Type can be moved to the new location. Before doing this, we need to glean some configuration information and stop any new documents being uploaded into Docstore.

1. Find out the IBM i **library name** being used by Docstore for storing database information for the Docstore Document Type.
 - a. Browse to the **Cobwebb Web Server** and log on on as a [Docstore Administrator](#).
 - b. Select **Server Configuration** then **Configure Individual Docstores**
 - c. Select the **Docstore** name which contains the **Document Type** whose documents need relocating.

- d. Make a note of the name of the IBM i **Library** used by the Docstore. This is called the **Docstore Library** e.g.

Generic Store

Name:

Library:

Description:

2. Next, find out the **Document Type Id** for the Document Type being moved to the new folder storage location.
 - a. Browse to the **Cobwebb Web Server** and select **Docstore**.
 - b. Click on the **Docstore** which contains the documents which need to be moved.
 - c. Ensure the **Advanced** tab is displayed then select the relevant **Document Type** from the drop down list.
 - d. Leave the other fields blank and click **Search** to return a list of documents of that particular Document Type.
 - e. Click on the **Information** link for the first document and the **Cobwebb Docstore Document Metadata** information is displayed.
 - f. Make a note of the **Document Type ID** under **Additional Metadata** e.g.

Document Type ID:	1
Storage File Path:	/cppd/DocStore/DOCSTORE1/DocType1

Note: These values will be required later.

3. **End** the CPPD subsystem. (Warning: All CPPD and Docstore functionality will be ended)
4. Whilst the CPPD subsystem is ended, ensure that documents are not being inserted into Docstore via any scanning software.

Step 6 - Update the Docstore Database

Docstore keeps a record of where each Docstore document is stored in the Docstore database. The Docstore database record for each document found for the Document Type in question, will therefore need to be updated with the new folder location.

The Docstore database is always stored on the IBM i – no matter where the actual document files (PDF files etc.) are being stored.

The Docstore database file to be updated is called **#DOCUMENTS**. This is located in the **Docstore Library** and holds information for ALL documents of all Document Types in the Docstore. Therefore, the file to be updated is <Docstore Library>/#DOCUMENTS e.g.

DOCSTORE01/#DOCUMENTS

The **#DOCUMENTS** fields required for use in the SQL UPDATE statement are:

- The **Document Type ID** which is called **DOCTYPEID** (numeric). This field must be used when selecting the records to be updated.
- The **Docstore Path** (Storage file path) file path folder for the documents in Docstore is called **DOCPATH** (alphanumeric). This is the field to be updated.

List the records to be updated

Using SQL (STRSQL on command line), it is possible to list the documents of the Document Type needing to be updated using the IBM i SQL command:

```
SELECT * FROM <Docstore Library>/#DOCUMENTS
WHERE DOCTYPEID = <DocTypeID>
AND DOCPATH='<oldDocPath>'
```

where <Docstore Library> is the **Docstore Library** name noted in **Step 5 - 1d**, <DocTypeID> is the **Document Type Id** noted in **Step 5 - 2f**, and <oldDocPath> is the path to your original **Document Folder** location noted in **Step 3 - 4a**.

For Example:

```
SELECT * FROM DOCSTORE01/#DOCUMENTS
WHERE DOCTYPEID = 1
AND DOCPATH='/cppd/DocStore/DOCSTORE1/DocType1'
```

Count the records to be updated

Note: You can retrieve a count of the number of documents that will be affected by running a similar query using COUNT(*)

```
SELECT COUNT(*) FROM DOCSTORE01/#DOCUMENTS
WHERE DOCTYPEID = 1
AND DOCPATH='/cppd/DocStore/DOCSTORE1/DocType1'
```

Update the Document Path

Now that we have the information required we can use SQL to update the **Document Path** to the new storage location using the following command:

```
UPDATE <Docstore Library>/#DOCUMENTS
SET DOCPATH = '<NewDocPath>'
WHERE DOCTYPEID = <DocTypeID>
AND DOCPATH='<OldDocPath>'
```

where <NewDocPath> is the new **Document Folder** path entered in **Step 3 - 4b**

For Example: The above example Docstore name could be updated using the following SQL command:

```
UPDATE DOCSTORE01/#DOCUMENTS
SET DOCPATH = '/QNTC/HostPCName/DocStore/DOCSTORE1/DocType1'
WHERE DOCTYPEID = 1
AND DOCPATH='/cppd/DocStore/DOCSTORE1/DocType1'
```

Step 7 - Move Documents and restart CPPD subsystem

- All the existing Docstore files (PDF files etc.) for the Document Type should now be moved from the old location to the new location . The new location must be the same folder as referenced in the **SET DOCPATH** field of the **#DOCUMENTS** file in your SQL UPDATE statement.

- Restart the CPPD subsystem.

9.6 Searching your Docstore

Open up a browser and type in the **name/ip address** of the IBM i followed by **:6443** (or 6440 for http) to browse to the **Cobwebb Web Server**

After entering your IBM i **Username/Password** you should be taken to the **Cobwebb Web Server** homepage. Please see the topic [Configure Docstore Users](#) for details on how to create a Server logon.

From the [Cobwebb Web Server](#) homepage click on the **Docstore** link which will display a list of all of the configured Docstores.

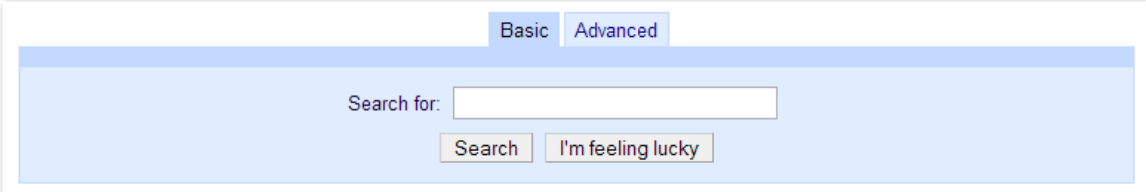
Select the **Docstore** you wish to search.

Searching

There are two types of search, **Basic** and **Advanced**. Clicking the **Search** button will return a list of documents matching the search criteria the **I'm feeling lucky** button will return the first match it finds and open the document.

Basic Search

Basic searches the Description field created for each document using a case insensitive LIKE %xxx% SQL query.



Advanced Search

Advanced dynamically creates a form containing each of the Document Keys defined for each Document Type. Searches are case sensitive and exact. **Note:** Predictive text has been introduced from **CHTTPD v4.49** (*Cobwebb Server Version 6.2.85*) so as you type into a key field matching entries will be displayed in a list.

The default is to search **All Document** Types but you can refine this by selecting a Document Type from the drop down selection. You can also click the link "[Individual Document Types](#)" on the right hand side which will also give you an [Upload](#) option if you are authorised.

Note: When searching **numeric** fields you can use a range e.g. "1 to 20". The **Text** searches perform a "Like" search which is case insensitive so entering "cob" would bring back results matching **Cobwebb**, **cobblers**, **Jacob** etc.

Basic Advanced

Document Type: <input type="text" value="All Documents"/>	Individual Document Types
Supplier Invoice No.: <input type="text"/>	Text (Max Length: 10)
Supplier Invoice Date: <input type="text"/>	Date (Format: YYYY-MM-DD)
Purchase Order No.: <input type="text"/>	Text (Max Length: 10)
Supplier Account No.: <input type="text"/>	Text (Max Length: 10)
Supplier Name: <input type="text"/>	Text (Max Length: 40)
Supplier Invoice Total Value: <input type="text"/>	Real (Eg: 12.25) (Min: 1.17549436e-38 Max: 3.40282356e+38)
<input type="button" value="Search"/> <input type="button" value="I'm feeling lucky"/>	

From **CHTTPD v4.11** you will see the following extra fields, after your **Document Keys**, to allow you to search by document **Metadata**. The **Date** searches include the Time so using a **Date Range** is best.

Metadata

Original File Name: <input type="text"/>	Text (Max Length: 255)
Document Creator: <input type="text"/>	Text (Max Length: 10)
MIME Type: <input type="text"/>	Text (Max Length: 10)
Document Public Authority: <input type="text"/>	Text (Max Length: 20)
Document Authorisation List: <input type="text"/>	Text (Max Length: 20)
Storage File Path: <input type="text"/>	Text (Max Length: 1024)
Storage File Name: <input type="text"/>	Text (Max Length: 255)
Created Date: <input type="text"/>	Timestamp (Format: YYYY-MM-DD hh:mm:ss[.msmsms] or YYYY-MM-DD-hh.mm.ss[.msmsms] or YYYYMMDDhhmmss)
Last Update Date: <input type="text"/>	Timestamp (Format: YYYY-MM-DD hh:mm:ss[.msmsms] or YYYY-MM-DD-hh.mm.ss[.msmsms] or YYYYMMDDhhmmss)
Last Access Date: <input type="text"/>	Timestamp (Format: YYYY-MM-DD hh:mm:ss[.msmsms] or YYYY-MM-DD-hh.mm.ss[.msmsms] or YYYYMMDDhhmmss)
Superceded Date: <input type="text"/>	Timestamp (Format: YYYY-MM-DD hh:mm:ss[.msmsms] or YYYY-MM-DD-hh.mm.ss[.msmsms] or YYYYMMDDhhmmss)
Access Count: <input type="text"/>	Number (Min: -2147483648 Max: 2147483647)
<input type="button" value="Search"/> <input type="button" value="I'm feeling lucky"/>	

Please see [supported MIME Types](#) if you wish to search by this Metadata entry.

Search Results

Once you click the **Search** button Docstore will return a list of all stored documents matching your search criteria.

CPPD

Docstore List

[PO124572.PDF](#)

PO: 124572 for ABC SUPPLIES LTD(S000001) on 23/08/10

Created: 12/10/2010 15:49:15 - [Information](#) [Delete](#)[PO124571.PDF](#)

PO: 124571 for DEF SUPPLIES LTD(S000002) on 22/07/10

Created: 12/10/2010 15:49:12 - [Information](#) [Delete](#)[PO124570.PDF](#)

PO: 124570 for ABC SUPPLIES LTD(S000001) on 21/07/10

Created: 12/10/2010 15:49:10 - [Information](#) [Delete](#)

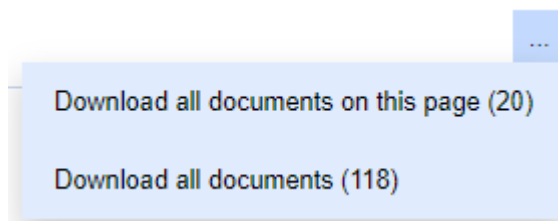
3 Documents found

Click on the **File Name** to open the document.

Click on the **Information** link to:

- [Display the Document Metadata](#)
- [Edit the Document Details](#) - this requires **Write** authority to the Document (*from `chttpd` v2.9 or above - Cobwebb Server v6.2.76 or above only*)

You may also download the search results as a .zip file to the **Downloads** folder by clicking on the three dots (*Cobwebb Server v6.2.84 or above only*) e.g.



Editing Document Details

(*from `chttpd` v2.9 or above - Cobwebb Server v6.2.76 or above only*)

If you have **Write** authority to the Document then you will be able click on the **Information** link and use the **Edit** button to [Edit the Document Details](#).

Deleting a Document

If you are a **Cobwebb Web Server Administrator** and have **Write** access to the Docstore folder you will be able to delete documents by clicking the **Delete** link - see [Configure Administrators](#) for details on setting up Administrators.

When you click the **Delete** button there will be a confirmation dialog displayed, click **Delete** to delete the document or **Cancel** to return without deleting.

9.6.1 Displaying Document Metadata

The **Document Metadata** is displayed when you click on the **Information** link in the search results.


Document Details & Keys

This area in the Document Metadata displays the main details of the stored document, together with the Key information which can be used for [searching](#). If you click on the **Keys** link you will just see the stored keys for the document.

Document Details	
ID:	35
Url:	http://m15:6400/docStore/store/DocStore%20Demo/document/35/
Original File Name:	PO124572.PDF
Description:	PO: 124572 for ABC SUPPLIES LTD(S000001) on 23/08/10
Document Type:	Purchase Orders (Purchase Orders)
Keys	
PONo: (Purchase Order No.)	124572
SUPACC: (Supplier Account No.)	S000001
SUPNAME: (Supplier Name)	ABC SUPPLIES LTD

Additional Metadata

Additional information for the document. From **CHTTPD v4.11** you will be able to [search](#) for documents based on certain metadata criteria.

Additional Metadata	
Document Creator:	
MIME Type:	1 - PDF - 
Document Public Authority:	*RWX
Document Authorisation List:	
Document Type ID:	1
Storage File Path:	/cppd/DocStore/Cobwebb PreSales/Purchase Order
Storage File Name:	DTYO5B1UX2.PDF
File Owner:	CPPDMM
File Public Authority:	*RWX
File Authorisation List:	*NONE
Created Date:	2017-09-29-10.05.21.321985 (29/09/2017 - 10:05:21)
Last Update Date:	
Last Access Date:	2017-09-29-10.08.56.877333 (29/09/2017 - 10:08:56)
Superceded Date:	
Access Count:	1

Document Creator - will only be set if this is specified when the document is uploaded to Docstore. If this is specified then it will be used to set the **File Owner** (if the file system supports it). If the **Document Creator** is not specified then the **File Owner** will be set to the owner of the job e.g. CPPDMM for the Spool File Monitor.

Document Authorisation List - is an authorisation list attached to a Docstore document by an entry in Docstore. This applies to all files regardless of where they are stored.

File Authorisation List - is an authorisation list attached to a file by the IBM i operating system. This is only possible for files stored on the IBM i.

User Read Authority

This explains how the user's **Read** authority has been calculated.

User Read Authority			
Authorised:		✓	
Authorisation source:			administratorAuthority
Authorisation sources	Available	Authorised	Data
administratorAuthority	✓	✓	KIM
fileAuthority	✓	✓	/cppd/DocStore/Inforum Demo/Purchase Orders/DTLVTC4BPY.PDF
documentPublicAuthority	✗		
documentCreatorAuthority	✗		
documentAutListAuthority	✗		
docTypeAutListAuthority	✗		
proxyObjectAuthority	✗		

Authorised

This will either have a green tick or a red cross and denotes whether or not a user has **Read** authority to the document.

Authorisation source

This tells you which Authorisation source was used to grant authority to the document and will only be displayed if the user is Authorised. The source displayed here will match the first entry in the list of **Authorisation sources** that has a green tick.

Authorisation Sources

This displays the list of authorisation sources that are used to perform the authorisation checking. There are three columns for each source and these are:

- **Available** - Is this information available to check against?
- **Authorised** - Using this source, is the user authorised?
- **Data** - This is the Data, if required, that is used for checking authority.

Please refer to the topic on [How Docstore Authorisation works](#) for details on each of the **Authorisation Sources**.

9.6.2 Editing Document Details

From chttpd v2.9 or above - Cobwebb Server v6.2.76 or above only.

If you have **Write** authority to the Document then you will have permission to **Edit** some of the Document Details such as the Description, Keys and Document.

Click on the **Information** link to view the **Document Details** and **Keys** and you will see an **Edit** button e.g.

Document Details		Edit
ID:	137	
Url:	http://m15:6462/docStore/store/Kim%20DocStore/document/137/	
Original File Name:	000065A8.TIF	
Description:	Despatch No: 3430715/00 Date: 15/01/09	
Document Type:	IVTEST (Image View Test)	

Click on the **Edit** button. The Edit button is now replace by **Cancel** and **Update** buttons e.g.

Document Details		Cancel	Update
ID:	137		
Url:	http://m15:6462/docStore/store/Kim%20DocStore/document/137/		
Original File Name:	000065A8.TIF		
Description:	<input type="text" value="Despatch No: 3430715/00 Date: 15/01/09"/>		
Document Type:	IVTEST (Image View Test)		
Keys		Add	
EXUKEY: (Unique Key)	<input type="text" value="343075"/>		
EXFTXT: (Folio Text)	<input type="text" value="ELECTRICAL"/>		
EXCRTD: (Creation Date)	<input type="text" value="15/01/2009"/>		
EXIDXN: (Index Number)	<input type="text" value="1"/>		
EXDOCN: (Document Number)	<input type="text" value="26025"/>		
EXFOLN: (Folio Number)	<input type="text" value="26568"/>		

Now you can change the Document **Description** and the **Keys** and you can also add a new Key by clicking the **Add** button on the Keys heading. If you want to **remove** a Key value then simply blank it out.

Make the changes you require and click the **Update** button to apply them. If you don't want to make any changes then click the **Cancel** button.

If Versioning is Enabled

If you have selected to **Version** documents for a [Document Type](#) then you will also see a **Create new version** button e.g.

Document Details		Create new version	Edit
------------------	--	--------------------	------

Clicking this button will display the following details which, as well as allowing you to edit the **Description** and **keys** has a **Choose file** button to allow you to upload a new file. Once you have pick a new file the **Submit new version** button will be enabled. Clicking this will set the superseded date for the current document and replace it with the new document.

Document Details		Cancel	Submit new version
ID:	105		
Url:	http://m15:6462/docStore/store/AMNITEC/document/105/		
Original File Name:	arabic.PDF	Choose file	No file chosen
Description:	<input type="text" value="asdf"/>		
Document Type:	TEST (A Test Document Type for Versioning)		
Keys	<input type="button" value="Add"/>		
UNIQUE: (Unique Key)	UNIQUE		

9.6.3 Individual Document Types

This page can be accessed via the **Advanced Search** and clicking the **Individual Document Types** link.

Clicking this link will display a button for each **Document Type** configured for your selected Docstore.

Click the button for the **Document Type** you wish to **Search** or to which you wish to [Upload a document](#) - if authorised.

Basic		Advanced	Upload
Keys			
Supplier Name:	<input type="text"/>	Text (Max Length: 35)	
Purchase Order Number:	<input type="text"/>	Text (Max Length: 7)	
Purchase Order Date:	<input type="text"/>	Date (Format: YYYY-MM-DD)	
Metadata			
Original File Name:	<input type="text"/>	Text (Max Length: 255)	
Document Creator:	<input type="text"/>	Text (Max Length: 10)	
MIME Type:	<input type="text"/>	Text (Max Length: 10)	
Document Public Authority:	<input type="text"/>	Text (Max Length: 20)	
Document Authorisation List:	<input type="text"/>	Text (Max Length: 20)	
Storage File Path:	<input type="text"/>	Text (Max Length: 1024)	
Storage File Name:	<input type="text"/>	Text (Max Length: 255)	
Created Date:	<input type="text"/>	Timestamp (Format: YYYY-MM-DD hh:mm:ss[.msmsms] or YYYY-MM-DD-hh.mm.ss[.msmsms] or YYYYMMDDhhmmss)	
Last Update Date:	<input type="text"/>	Timestamp (Format: YYYY-MM-DD hh:mm:ss[.msmsms] or YYYY-MM-DD-hh.mm.ss[.msmsms] or YYYYMMDDhhmmss)	
Last Access Date:	<input type="text"/>	Timestamp (Format: YYYY-MM-DD hh:mm:ss[.msmsms] or YYYY-MM-DD-hh.mm.ss[.msmsms] or YYYYMMDDhhmmss)	
Superceded Date:	<input type="text"/>	Timestamp (Format: YYYY-MM-DD hh:mm:ss[.msmsms] or YYYY-MM-DD-hh.mm.ss[.msmsms] or YYYYMMDDhhmmss)	
Access Count:	<input type="text"/>	Number (Min: -2147483648 Max: 2147483647)	
<input type="button" value="Search"/> <input type="button" value="I'm feeling lucky"/>			

Now you can use either the **Basic** or **Advanced** tabs to search for documents of the type selected.

9.6.4 Tips & Tricks

- Clicking on the **logo** [top left had side] acts as a **Back** button for the browser.
- Add **Bookmarks** to the Docstore pages that you use most often.

9.6.5 Supported MIME Types

Docstore currently supports the following **MIME** (Multipurpose Internet Mail Extensions) **Types** which may be used when [searching for documents](#) using the **Metadata** search (use the character **Document Extension** value when searching e.g. PDF). When a document is uploaded to Docstore the document extension is used to determine the MIME Type.

Document Extension	Numeric Value held in Docstore	Official MIME Type
PDF	1	application/pdf
TXT / TEXT	2	text/plain
CSV	3	text/csv
JPG / JPEG	4	image/jpeg
DOCX	5	application/msword
XLSX	6	application/vnd.ms-excel
PNG	7	image/png
TIFF	8	image/tiff
BMP	9	image/bmp
HTML	10	text/html
MP3	11	audio/mpeg3
MSG	12	application/vnd.ms-outlook
RTF	13	application/rtf
PPD	14	application/cppd

9.7 Upload a Document to a Docstore

From the **Advanced Search** you need to click the **Individual Document Types** link. This will display a button for each Document Type configured for your selected Docstore.

Click the button for the **Document Type** to which you wish to **Upload** a document. The **Upload** tab will only be displayed if you have the correct authority [i.e. [Write access to the Docstore folder](#)].

Click the **Upload** tab to enter the details for the document you wish to upload.

Basic Advanced Upload

Document: Browse...

Description: Document Description (Max Length: 1024)

Keys

Supplier Invoice No.: Text (Max Length: 10)

Supplier Invoice Date: Date (Format: YYYY-MM-DD)

Purchase Order No.: Text (Max Length: 10)

Supplier Name: Text (Max Length: 40)

Authority

Owner: Document Owner (Max Length: 10)

Public Authority: Public Authority (Max Length: 10)

Authorisation List: Authorisation List (Max Length: 10)

Upload

Document

Use the **Browse** button to search for the document that you wish to upload.

Description

Enter a description for your document.

Keys

Depending upon the Document Type Keys configured you will see an entry for each key. Complete the mandatory entries.

Authority

All of these entries are optional.

Owner

This must be a valid Server User Id or Group ID and will be used as the owner / creator of the generated file output. If this is left blank then this will default to the user uploading the document.

Public Authority

This is used to define the public authority for the generated file output. If this is left blank then this will default to the default Public Authority for the folder - *IFS only*.

Valid entries are:

*NONE, *RWX, *RX, *RW, "WX, *R, *W, *X, *EXCLUDE, *AUTL

Authorization List

This must be a valid Server Authorization List and will be used for the generated file output. If this is left blank then this will default to the default Authorization List for the folder - *IFS only*.

Click the **Upload** button to upload your document.

9.8 Docstore Management

This topic covers backing up and restoring the Docstore database. **Note:** If you need to move the storage location of documents in Docstore please see [Moving Document Type Storage Location](#).

Backing up a Docstore

This example assumes that:

Docstore library is **DOCSTORE1**

All documents are saved in subfolders of the IFS path: **/cppd/DocStore/DOCSTORE1/**

- Save the IFS files to a Save file [*SAVF] in the DocStore library:

```
CRTSAVF FILE(DOCSTORE1/DOCSAV)
SAV DEV('/qsys.lib/DOCSTORE1.lib/DOCSAV.file')
OBJ((' /cppd/DocStore/DOCSTORE1/*')) SAVACT(*YES)
```

- Save the Docstore library (which now includes the IFS documents)

```
SAVLIB LIB(DOCSTORE1) to whatever media.
```

Restoring a Docstore

This will restore the IFS Save file created in the previous section to a new IFS folder for comparison:

- Restore the Docstore library to library DOCSTR_OLD

```
RSTLIB SAVLIB(DOCSTORE1) RSTLIB(DOCSTR_OLD) from whatever media
you saved to
```

- Create the folder for the documents:

```
CRTDIR DIR('/cppd_old')
CRTDIR DIR('/cppd_old/DocStore')
CRTDIR DIR('/cppd_old/DocStore/DOCSTORE1')
```

- Restore the Docstore documents

```
RST DEV('/qsys.lib/DOCSTORE1.lib/DOCSAV.file') OBJ((' /cppd'
*INCLUDE '/cppd_old'))
```

9.9 Cobwebb Message Queue

If you have the **Web Interface** module then, provided that the **CHTTPD** job in the CPPD subsystem is running, you will have web access to the Cobwebb Queue.

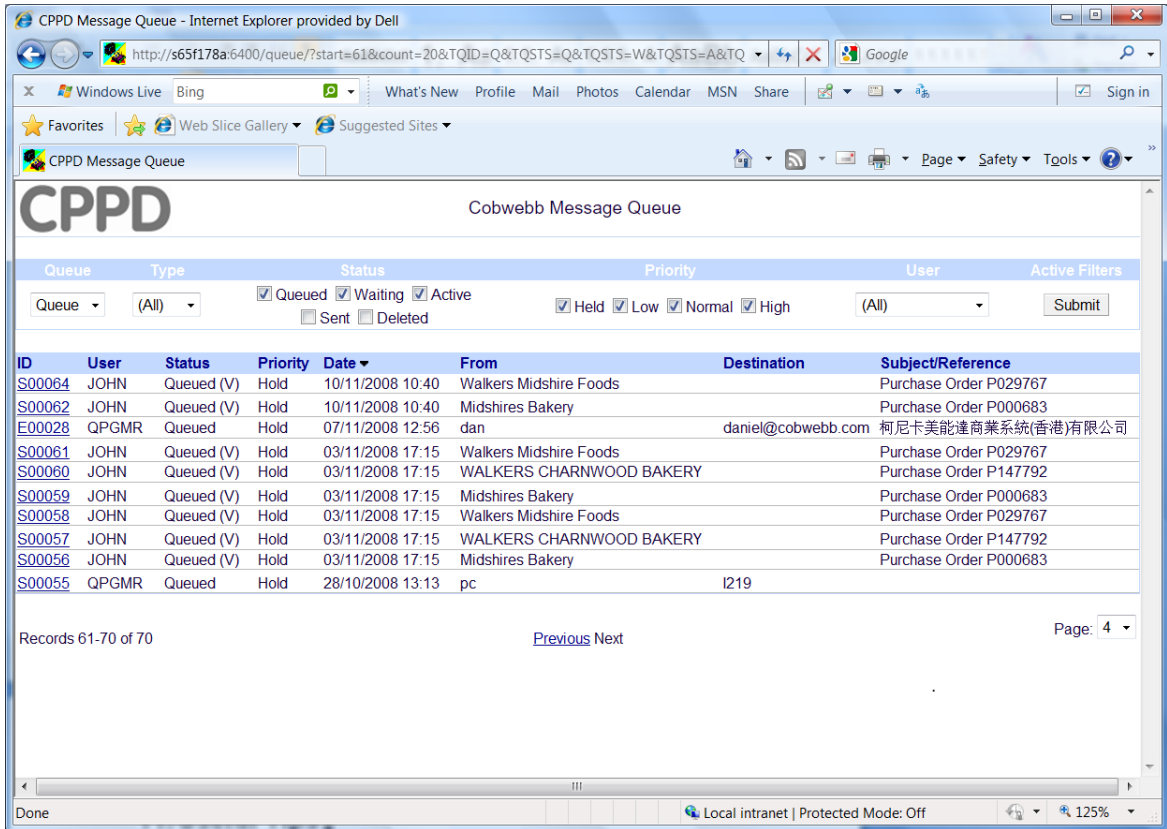
From a web browser enter:

```
https://server_name:6443/
```

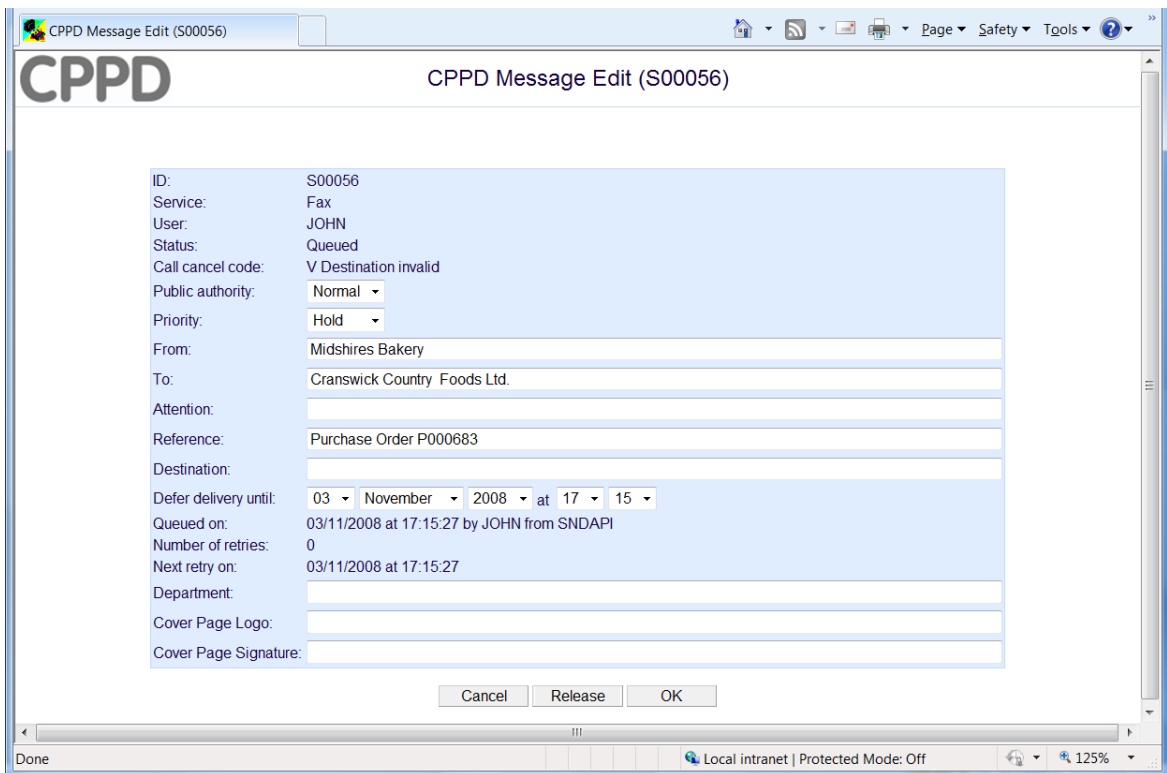
where **server_name** is the name or IP Address of your IBM i. and **6443** is the default [TCP/IP Port](#) for the **Cobwebb Web Server** for **HTTPS** (6400 for HTTP).

You will be asked for a login to the IBM i and then you will then have access to the **Cobwebb Message Queue**.

There are various ways of filtering the messages displayed, make your selection and click **Submit**.



A user has to be registered as an 'Authorized PC User' in the [Work with User Profiles](#) to be able to click on the ID for the message to edit the details.



10 Troubleshooting

If you have a problem where the Cobwebb Server software does not seem to be outputting the information to the correct destination or a job that you were expecting to be running in the CPPD subsystem isn't then the following topics contain a few suggestions to try and work out what is happening.

- [CPPD Subsystem Troubleshooting](#) if you are having trouble working out why a particular job doesn't seem to be running in the CPPD Subsystem.
- [Spool File Monitor Troubleshooting](#) if you are not seeing the expected output from the Spool File Monitor.
 - [Enable Trace Mode](#)
 - [Enable Test Mode](#)
- [Docstore Troubleshooting](#) for Docstore related issues.

If you still cannot resolve the problem then please see the [Online Support Procedures](#) for details on how to report the problem to Cobwebb.

10.1 CPPD Subsystem Jobs

If you are having trouble working out why a particular job doesn't seem to be running in the CPPD Subsystem then there are a couple of things you can do to work out why.

If the job has started but is not running as expected then, for some jobs like the Spool File Monitor, Folder Monitor and Job Launcher Monitor, you can switch on extra debugging. See [Enable Trace Mode](#) for the active job.

1. Check the Job was started when the CPPD subsystem started

First we need to check the joblog for when the CPPD subsystem starts.

```
WRKSPLF SELECT (CPPDMM *ALL *ALL CPPD)
```

Press **F18** to go to the bottom of the list and open the spool file.

Look for the **Job Name** and check that it has actually been submitted. If, for instance, you had a Folder Monitor or Job Launcher Monitor that wasn't running look for the Folder Monitor / Job Launcher Name (*must be CAPITAL letters*)

If you can see that it has started you then need to try to find a joblog for the actual job. This will only be produced if the Job Description has been configured to produce a print on completion.

2. Check if there is a joblog for the actual job

```
WRKSPLF SELECT (CPPDMM *ALL *ALL AUPLUPD) - where AUPLUPD is the
Folder Monitor / Job Launcher Name
```

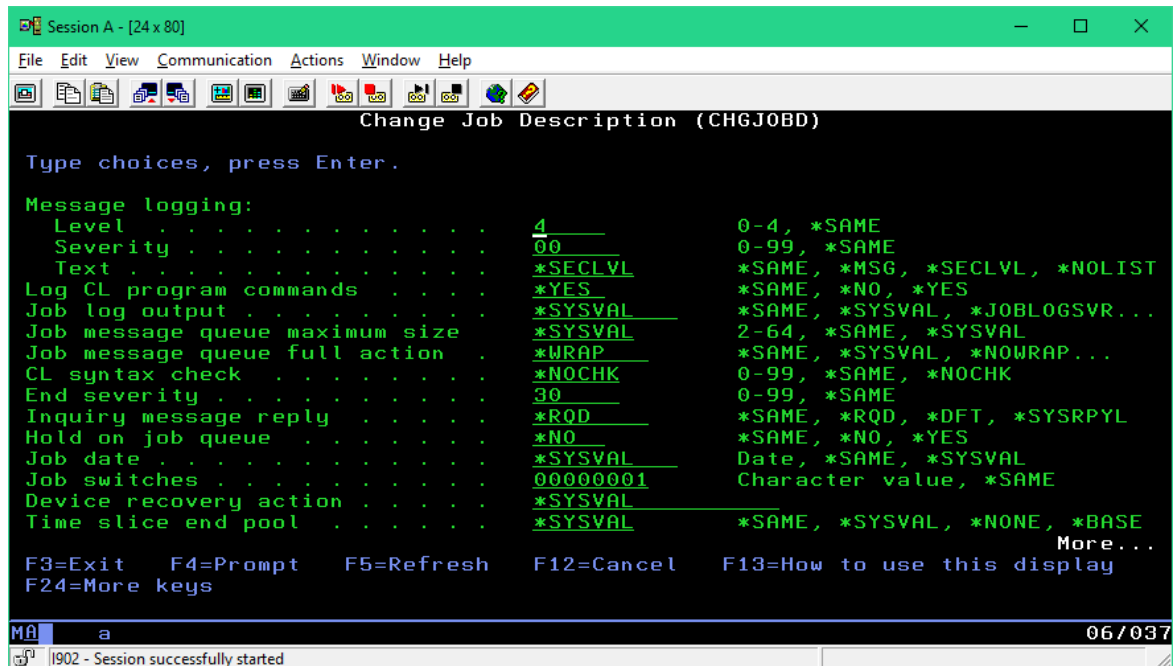
3. Check the Job Description configuration

If no spool file exists then you will need to check the Folder Monitor / Job Launcher entry to find the **Job Description** that is being used. Once you have this then

```
WRKJOBDD CPPD/AUPLUPD where CPPD is the Library and AUPLUPD is the Job
Description
```

Enter **2** to Change, press **Enter** and then press **F10=Additional parameters**

Page down twice until you see the **Message logging** entry e.g.



Set the following entries:

Message logging:

Level = 4

Severity = 00

Text = *SECLVL

Job switches

You need to change the last entry (switch 8) to be a "1" e.g. 0000000**1** as in the above screenshot. This should add additional trace information to the joblog.

Stop and Start the CPPD subsystem

In order to get the job to start again to make use of the changes to the Job Description you will need to stop and re-start the CPPD subsystem.

```
ENDSBS CPPD
STRSBS CPPD/CPPD
```

10.2 Spool File Monitor Troubleshooting

Analysing the problem

There are three main areas for troubleshooting.

1. IBM i – Including the Applications (e.g. Infor System 21) and Output Queues monitored by SPLMON.
2. CPPD

3. Multiple Output queues or devices

Troubleshooting should be started in the same sequence as above, starting with the IBM i application and spool file monitor.

- **Is the application spooled file being sent to the correct output queue or device?**

On your IBM i terminal enter **WRKOUTQ** and the name of your Output queue to see if the spooled file that you wish to process is there.

- **Is the spooled file in Ready status?**

Again **WRKOUTQ** will answer this question.

- **Is the spooled file monitor 'online'?**

Go to the CPPD menu on the IBM i. Select '**6 – PPD file maintenance**', then '**5 - [Work with spool file monitor](#)**'. Check that the status says '**Online**'

- **Is there a CPPD security violation?**

Enter **WRKSBSJOB CPPD** and check for any job called **ERROR** - *from version 6.2.60.*

Display the **QSYSOPR** message queue for any messages concerning **CPPD Security Violations**.

To request a new Security code from Cobwebb please see [Requesting a new Cobwebb Server Security Code](#) for details.

- **Is the CPPD subsystem running?**

Enter **WRKSBSJOB CPPD**. Check that there is an 'Active' **SPLMON** job.

- **Is there an ERROR job running in the CPPD subsystem? Older version may just have a 'CPPD Violation Error' in the QSYSOPR message queue.**

This means that you have an issue with the Cobwebb Server **Security Code**. To request a new **Security Code** from Cobwebb please see [Requesting a new Cobwebb Server Security Code](#) for details.

If the all the answers to the previous questions are **Yes** (*apart from the CPPD security violation question, which should be **No***) then you need to look at CPPD.

- **Display the SPLMON joblog.**

Enter **WRKSBSJOB CPPD** and place a **5** beside the **SPLMON** job to display the job. Select **10** to display the **joblog** and then press **F10** for details. Check for any error messages.

- **[Enabling Trace Mode for the SPLMON job](#)**

If you have added **Trace** elements to your design or wish to see extra detail in the joblog for the **Spooled File Monitor** then you can switch on debugging.

If this job is running correctly and there are no error messages then you need to check the output. The following checks will depend upon the type of output you are expecting. (E.g. print, fax)

- [Printed Output](#)
- [Faxed Output](#)
- [Emailed Output](#)

10.2.1 Enable Trace Mode

If you are having problems with your output then you can enable **Trace Mode** (debugging) for a specific **Spooled File Monitor** job running in the **CPPD** subsystem. Normally this job will be called **SPLMON** but if you have many monitor jobs you may have created a new Data Queue to handle some of the Output Queues. The name of the job running in the CPPD Subsystem will be the name of the Data Queue.

Trace Mode

Trace mode will enable any [Trace elements](#) you have added to your Cobwebb Design for debugging purposes to be written to the joblog. Any TRACE statements in the Cobwebb Server software will also be output such as the Parameter values on the Input and Output of Exit programs.

Enable Trace Mode for existing SPLMON job

From version 6.2.82 of the Server software **Trace Mode** can be enabled from the [Work with Spooled File Monitor](#) without having to Stop and Restart the CPPD subsystem.

Or.... from a command line on the Server enter:

- **WRKSBSJOB CPPD**
- Find the **SPLMON** job that you wish to debug and place a **2 = Change** beside the entry and then press **F4=Prompt**
- Press **F10=Additional Parameters**
- Page Down until you see "**Job switches...**" e.g. 10000000
- You need to change the last entry (switch 8) to be a "**1**" which will turn **Trace Mode on** e.g. 1000000**1**
- Press Enter

Once this has been done any subsequent spool file being processed by this **Spool File Monitor** will contain extra entries in the Joblog. This will include any [Trace elements](#) that have been added to your design.

PLEASE NOTE: Once you have found the problem you should switch this entry back to "**0**" otherwise you may receive messages saying that the Job message queue is full. Stopping and Re-starting the CPPD subsystem will also re-set the Job switches.

Interactive Trace Mode

The [CHGTSTMOD](#) command will allow you to switch either **Test** mode (U7) and/or **Trace** (U8) mode on or off for your interactive session i.e. when you either call **CRTPPD** or **RUNPPD** to test your Cobwebb Design (PPD). *This command has been included from version 6.2.66.*

10.2.2 Enable Test Mode

If you are having problems with your output then you can enable **Test Mode** for a specific **Spooled File Monitor** job running in the **CPPD** subsystem. Normally this job will be called **SPLMON** but if you have many monitor jobs you may have created a new Data Queue to handle some of the Output Queues. The name of the job running in the CPPD Subsystem will be the name of the Data Queue.

Test Mode

Running your Cobwebb Design in **Test Mode** will do the following:

- Hold Print output on the designated Output Queue
- Hold Fax output on the Cobwebb Queue
- Hold Email output on the Cobwebb Queue
- Hold the interim spooled file output from the [Advanced Reformatting Utility](#).

Note: At present no changes will be made to your File or Docstore output.

Enable Test Mode for existing SPLMON job

From version 6.2.82 of the Server software **Test Mode** can be enabled from the [Work with Spooled File Monitor](#) without having to Stop and Restart the CPPD subsystem.

Or... from a command line on the Server enter:

- **WRKSBSJOB CPPD**
- Find the **SPLMON** job that you wish to debug and place a **2 = Change** beside the entry and then press **F4=Prompt**
- Press **F10=Additional Parameters**
- Page Down until you see "**Job switches...**" e.g. 10000000
- You need to change the last entry (switch 7) to be a "**1**" which will turn **Test Mode on** e.g. 100000**1**0
- Press Enter

Once this has been done any subsequent spool file being processed by this **Spool File Monitor** will contain extra entries in the Joblog. This will include any [Trace elements](#) that have been added to your design.

Please Note: When you stop and re-start the CPPD subsystem **Test Mode** will be switched back off automatically.

Enable Test Mode permanently

If you wish to enable **Test Mode** for all PPD output from the Spool File Monitor even when the subsystem is stopped and re-started you will need to change the **Job Description** that is used to run this job.

From a command line on the Server enter:

- CHGJOB JOB(CPPD/SPLMON) SWS(100000**1**0)

To switch this back off again enter:

- CHGJOB JOB(CPPD/SPLMON) SWS(100000**0**0)

You will need to **stop** and **restart** the CPPD subsystem in order for the above changes to take effect.

Interactive Test Mode

The [CHGTSTMOD](#) command will allow you to switch either **Test** mode (U7) and/or **Trace** (U8) mode on or off for your interactive session i.e. when you either call **CRTPPD** or **RUNPPD** to test your Cobwebb Design (PPD). *This command has been included from version 6.2.66.*

10.2.3 Printed Output

If you are not seeing your printed output or a printer does not seem to be responding then :-

- **Can you see the final print file in your destination output queue?**

Enter **WRKOUTQ** together with the name of the Output queue. Check for your print file.

- **Is the status of the Output queue active (RLS)?**

Enter **WRKOUTQ** together with the name of the Output queue. Check that the writer is released (Status at top right hand side of the screen says **RLS**) and that there are no message wait errors (**MSGW**).

- **Check the Message Queue QSYSOPR.**

- . If there is a message indicating a Printer Error or Print Datastream Error, check to see whether you can see the solution.
- . **Data stream exception 0218..02..01** indicates that a font specified in the document (F0 – F9) is not included in the font group. Check that the correct CPPD font group has been specified.
- . **Data stream exception 0821..00..01** indicates that a Barcode has been specified with a font which cannot be found... Correct the LID in the Barcode file or select another font.

- **Check the Printer Writer, WRKWTR**

- a. If stopped start it.
- b. If message waiting check message.

- **If the Printer file is writing (WTR) but nothing is happening, this can be caused by: -**

- a. The printer not having enough memory on the IBM i.
Check the Spool file pool size... **WRKSYSSTS** press **F11** to display the Spool partition. At least 6Mb and preferably 20 Mb should be allocated. The spooler may not work correctly if under 6Mb,. Allocate more memory by simply entering the required size.
- b. The Printer has been tampered with. This should be sorted out by Ending the writer and restarting it.

ENDWTR, STRPRTWTR
- c. If this is the first time you have attempted to use the printer for printing images, you may need to check the printer configuration and the IBM i PTF level for Host Print Transform. Printing images may require more memory to be installed on the printer (we recommend a minimum of 16K).

10.2.4 Faxed output

Please use the following questions to help diagnose your fax issue.

- **Can you see the fax in the Cobwebb queue?**

From the **Cobwebb Fax & Email** menu select option **'4 – [Work with queue](#)'** to view the Cobwebb queue. Check that the screen says **'Active'** in the top right hand corner of your screen - this means that the CPPD subsystem is running. If the fax does not appear in the queue then you will need to check that the **SPLMON** and **SNDAPI** jobs are both running in the CPPD system. To do this enter **WRKSBSJOB CPPD**.

- **Is the fax program running?**

From the **Cobwebb Fax & Email** menu check if the driver is 'Online'. Select option **'6 – [Work with System parameters](#)'** then **'4 – [Communications lines](#)'**. The Send status of your fax driver should be **'Active'**.

If the status is 'Online' then either the CPPD subsystem is not running or the fax driver within the subsystem has been ended. The fax driver jobs have different names depending upon the type of installation. There should be at least one of the following jobs running:-

STRAFG - Ascom fax modem

STRFAX - Facsimile Support

To re-start the driver job end the CPPD subsystem and re-start it.

If the status is 'Offline' then you will need to change it to 'Online'. To do this place a **'2'** beside the relevant entry and change the 'Fax card function' to **'*SEND'**. You will now need to stop and re-start the CPPD subsystem.

- **Are there any messages against jobs running in the CPPD subsystem?**

Enter **WRKSBSJOB CPPD** and check for any job with a status of **MSGW**. If there are messages and the meaning is not clear you should call Cobwebb Communications with the details

- **Are you using IBM Facsimile Support/400?**

If you are check QFAXOPR message queue for any messages and check that the subsystem QFAXSBS is running with at least four jobs. To do this enter **WRKSBSJOB QFAXSBS**.

- **No error messages but faxes remain active on the queue.**

You need to end the CPPD subsystem and IBM Facsimile Support/400 if you are using it, reset the active faxes and then re-start the CPPD subsystem. To do this enter the following commands:-

ENDSBS CPPD *IMMED

ENDFAXSPT - (Only if using IBM Facsimile Support/400)

WRKSBSJOB CPPD The subsystem should end. Press **F5** to refresh the screen until the subsystem ends.

WRKSBSJOB QFAXSBS (Only if using IBM Facsimile Support/400). The subsystem should end. Press **F5** to refresh the screen until the subsystem ends.

Run the **Check Active Faxes** from the [Recovery Menu](#).

STRSBS CPPD - This will re-start the CPPD subsystem which will in turn, if required, start IBM Facsimile Support/400.

- **Faxes are not being sent and there are Queued or Waiting faxes (status Q or W) waiting.**

Check that the priority of the fax is not **Zero** (Held) and that the date and time are before "now". Select the fax and use **F5** to Release it.

Note: The maximum number of faxes which may be "A" active at any one time is defined in the CPPD line configuration. The default is **two**. For further details see [Communication Lines](#).

10.2.4.1 Ascom/Hasler Fax Hardware Troubleshooting

Cobwebb Fax can send faxes using Ascom (*formerly Hasler*) Fax hardware. This guide will help troubleshoot the hardware.

Check the CPPD Subsystem

Use the following command to display the jobs currently running in the CPPD subsystem

```
WRKSBSJOB CPPD
```

If the CPPD subsystem is running, there should be a **STRAFG** job in it, possibly on a **MSGW** if there is a problem.

(Note: From Cobwebb Server Software Version 6.0.33 the **STRAFG** job will be renamed to the **Fax Desc** as configured in the [Work with Communication Lines](#)).

Opt	Job	User	Type	-----Status-----	Function
	CHTTPD	CPPDMM	BATCH	ACTIVE	
	CNVHFU	CPPDMM	BATCH	ACTIVE	DLY-10
	DOCSTORED	CPPDMM	BATCH	ACTIVE	
	EMLAPI	CPPDMM	BATCH	ACTIVE	
	STRAFG CFAXAFG	CPPDMM	BATCH	MSGW	PGM-
	SNDAPI	CPPDMM	BATCH	ACTIVE	
	STREML	CPPDMM	BATCH	ACTIVE	

If this is the case then you need to **end** the CPPD subsystem using the following command.

```
ENDSBS CPPD
```

Note: If there is a problem with the STRAFG job it will not end controlled and you may have to force it to end.

Perform a Standard Fax Recovery

After any issue with the Cobwebb Fax hardware the standard **Recovery** options should be performed. These can be accessed from the Cobwebb Fax menu.

```
ADDLIBLE CPPD
```

GO CFAX400

From the Cobwebb Fax menu select the following options:

7. System maintenance

3. [Recovery Menu](#)

1. Check active faxes <-(Returns after a brief delay)

2. Check active lines <-(Returns after a brief delay)

Physically check the Cobwebb Fax Hardware

Is the Cobwebb Fax Hardware powered up?

There should be lights on the unit.



Ascom Fax Gateway



Is the Fax cable plugged in?

Is the Cobwebb Fax hardware plugged into the Server? There should be a 1 metre grey cable between the Fax unit and the IBM Serial Cable. The Fax Hardware will not function if it is plugged directly into the IBM Serial Cable.

Reset the Cobwebb Fax Hardware

The Cobwebb Fax hardware can become uncommunicative and require resetting.

Switch off power to the Cobwebb Fax hardware from the mains for 30 seconds, then switch back on. Note any sounds or light sequences that occur whilst the hardware is starting up.

Attempt to communicate with the Cobwebb Fax hardware

Make sure the CPPD subsystem is ended before performing the following:

These can be done from the Cobwebb Fax menu.

ADDLIBLE CPPD

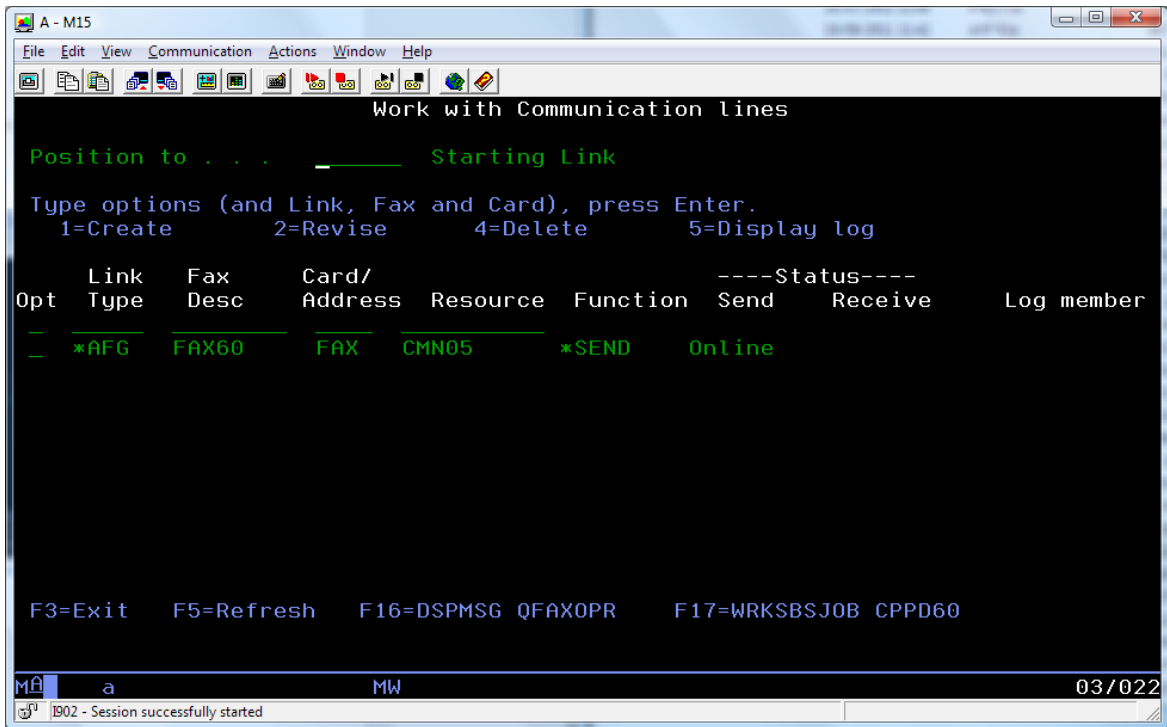
GO CFAX400

From the Cobwebb Fax menu select the following options:

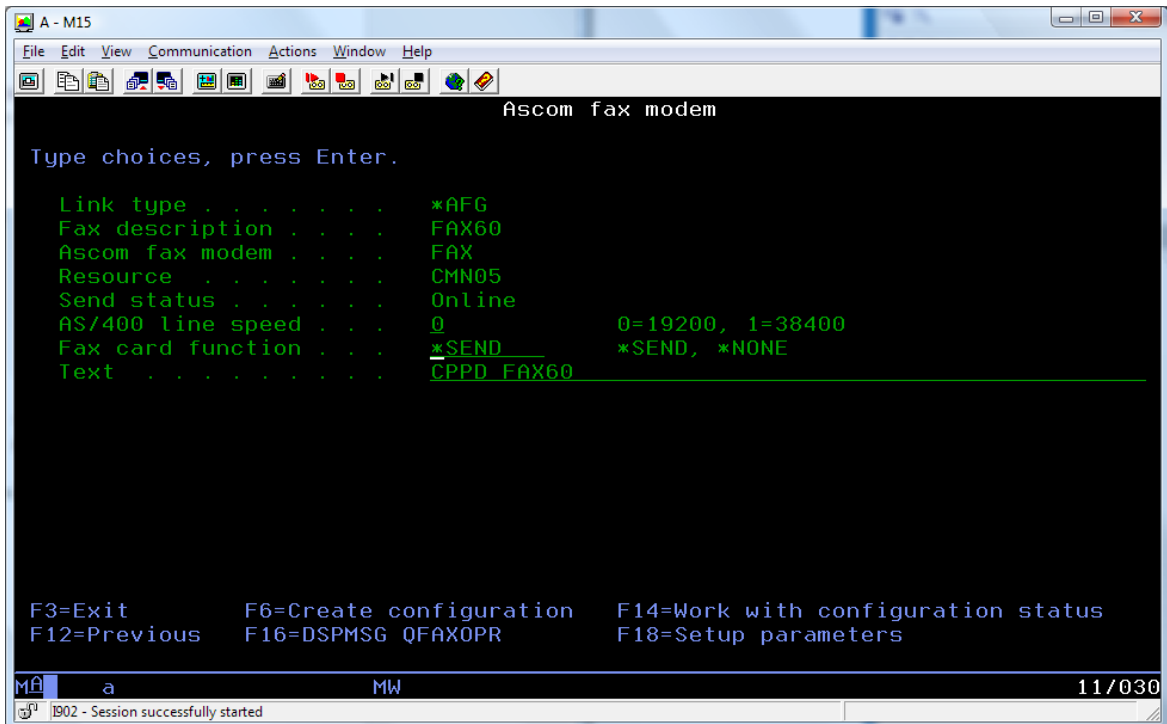
6. Work with system parameters

4. Communication lines

You will see the **Work with Communications Lines** screen:



Select **2=Revise** against the problem *AFG fax line to view the **Ascom fax modem** screen:



Select **F14=Work with configuration status** to view the **Work with Configuration Status** screen:

```

A - M15
File Edit View Communication Actions Window Help
Work with Configuration Status                               S65DC3A3
                                                            14/11/11 13:19:21
Position to . . . . . Starting characters
Type options, press Enter.
1=Vary on 2=Vary off 5=Work with job 8=Work with description
9=Display mode status 13=Work with APPN status...

Opt Description Status -----Job-----
-- FAX60 VARIED OFF
-- FAX60 VARIED OFF
-- FAX60 VARIED OFF

Parameters or command
===>
F3=Exit F4=Prompt F12=Cancel F23=More options F24=More keys

Mâ a MW 10/002
1902 - Session successfully started

```

You should be able to **1=Vary on** and then **2=Vary off** the top entry (*the Line*). If you press **F5** between each the Status(es) should go to **ACTIVE** and then **VARIED OFF**.

Leave the configuration **VARIED OFF** and press **F12** to return to the **Ascom Fax Modem** screen.

Select **F18=Setup parameters** and wait as it takes a while to respond. After a wait, the **Fax Configuration** screen should be displayed.

```

A - M15
File Edit View Communication Actions Window Help
Fax Configuration
Type choices, press Enter.
Identification text . . . . . (20 characters)
Identification No . . . . . (20 numeric)
Date/Time . . . . . 14 NOV 2011 13:30 (DD JAN YYYY HH:MM)
Left margin text . . . . . 6 1-99
Characters in a line . . . . . 144 1-144
Pad short pages . . . . . 0 0)No 1)Yes
Header line . . . . . 1 0)Yes 1)No 2)With gap
No. of line per page . . . . . 72 1-100
Dial type . . . . . 0 0)Tone 1)Pulse
Vertical spacing . . . . . 6 1 - 6
Line for incoming calls . . . . . 1 0)Open 1)Closed
Nationality . . . . . UK (UK)
National character set . . . . . USA (20 characters)
PABX Access Code . . . . . (3 numeric or : - =)
Mecury/BT Access and Account No . . . . . (20 characters)

F3=Exit F5=Display default configuration

Mâ a MW 05/036
1902 - Session successfully started

```

If it does, move on to [Start the CPPD Subsystem](#) below.

If not then re-check that [Reset the Cobwebb Fax hardware](#) has been run and retry attempting to communicate with the Cobwebb Fax unit. If it does, move on to [Start the CPPD Subsystem](#) below. If there is still no communication, contact [Cobwebb Support](#).

Check no other Configuration Descriptions are using the same Resource

Make a note of the **Fax Desc** and **Resource** for the ***AFG** entry on the [Work with Communication Lines](#) screen and then use the following command:

```
WRKHDWRSC *CMN
```

Scroll through the list until you find the **Resource** that matches and then:

Select **5=Work with configuration descriptions** against the *Resource Name*

Select **8=Work with configuration status** against any *Descriptions* and make sure they are all **VARIED OFF**.

Start the CPPD Subsystem

```
ADDLIBLE CPPD
```

```
STRSBS CPPD
```

```
WRKSBSJOB CPPD
```

Monitor the job for the STRAFG job (*or the Job Name matching the **Fax Desc** from Cobwebb Server Software version 6.0.32 or above*) and check that it remains **ACTIVE**. If not contact [Cobwebb Support](#).

Monitor the Cobwebb Queue

```
ADDLIBLE CPPD
```

```
GO CFX400
```

From the Cobwebb Fax menu select the following option:

[4. Work with queue](#)

The text in the top right hand corner of the screen should say **ACTIVE** not **IDLE**. If the text says **IDLE** then start the CPPD Subsystem.

Press **F7=Display all** to display messages from all users.

Press **F22=Display Faxes** to show only faxes.

Monitor the **Sts** (Status) column for faxes changing from **Q** to **A** to **S** status.

If there are no Faxes ready to send you may need to **Send a Test Fax**

Send a Test Fax

```
ADDLIBLE CPPD
```

```
GO CFX400
```

From the Cobwebb Fax menu select the following option:

[1. Send a fax](#)

- Enter a **3** in the **Priority** field
- Enter a known fax number in the **Destination** field

- Press enter and type "TEST FAX" in the editor.
- Press **F3** and ensure **Send Document** is **Y**
- Press **Enter**

10.2.5 Emailed Output

Please use the following questions to help diagnose your email issue.

- **Can you see the email in the Cobwebb queue?**

From the **Cobwebb Fax & Email** menu select option '4 – [Work with queue](#)' to view the Cobwebb queue. Check that the screen says 'Active' in the top right hand corner of your screen - this means that the CPPD subsystem is running. If the email does not appear in the queue then you will need to check that the **SPLMON** and **EMLAPI** jobs are both running in the CPPD system. To do this enter **WRKSBSJOB CPPD**.

If the status is 'S' then the SMTP Server has confirmed that the email has been received correctly (i.e. no error message was returned) by the server. If the status is 'W' then place a "1" beside the message on the queue and check the message fail code - please see the [list of messages returned by the SMTP server](#) below.

- **Is the email program running?**

Enter **WRKSBSJOB CPPD** and check to see if the **EMLSND** job is running. **Note:** The EMLSND job only runs if [Enable Email Queue](#) has been selected. You may have more than one of these if you have Email configured to run more than one Email Job - see [PPD Security](#).

To re-start the driver job end the CPPD subsystem and re-start it.

- **Are there any messages against jobs running in the CPPD subsystem?**

Enter **WRKSBSJOB CPPD** and check for any job with a status of **MSGW**. If there are messages and the meaning is not clear you should call Cobwebb Communications with the details

- **No error messages but emails remain active on the queue.**

You need to end the CPPD subsystem and reset the active email and then re-start the CPPD subsystem. To do this enter the following commands:-

ENDSBS CPPD *IMMED

WRKSBSJOB CPPD The subsystem should end. Press **F5** to refresh the screen until the subsystem ends.

Run the **Check Active Emails** from the [Recovery Menu](#).

STRSBS CPPD - This will re-start the CPPD subsystem.

- **Email are not being sent and there are Queued or Waiting email (status Q or W) waiting.**

Check that the priority of the email is not **Zero** (Held) and that the date and time are before "now". Select the fax and use **F5** to Release it.

- **Can you see the email on your SMTP Server?**

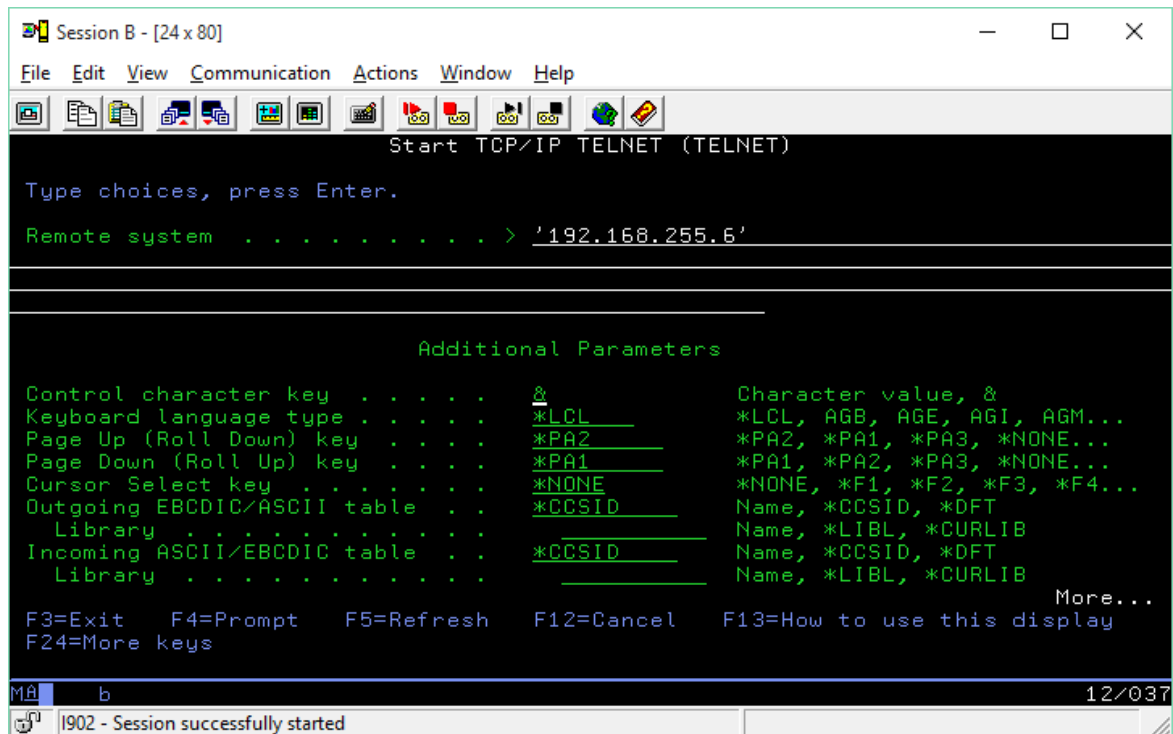
Cobwebb Email sends emails to the specified SMTP email server. Check here to see if your email has arrived and if not check the **Postmaster** Email address to which you have

directed any error messages. You can use [TELNET](#) from the IBM i to check if your SMTP Mail Server is responding.

If you are still having a problem and the above suggestions have not helped then Cobwebb do supply a debug version of the SMTP client POSTIE3. Please see [Enabling Debugging of SMTP conversations](#) for details.

10.2.5.1 Check SMTP Server using TELNET

Type **TELNET** on a command line and press **F4=Prompt**.



Enter the **SMTP mail server** value (in quotes) from the [Email Parameters](#) as the **Remote System**. Press **F10=Additional parameters** and page down to the **Port** field (*from the same Email Parameters option*).

```

Session B - [24 x 80]
File Edit View Communication Actions Window Help
Start TCP/IP TELNET (TELNET)
Type choices, press Enter.
ASCII tab stops . . . . . *DFT 0-133, *DFT, *NONE
+ for more values
Coded character set identifier *MULTINAT 1-65533, *MULTINAT...
ASCII operating mode ID . . . . *VT220B7 *VT220B7, *VT220B8, *VT100...
Port . . . . . 25 1-65534, *DFT
Remote virtual display . . . . *DFT Name, *DFT
Remote user . . . . . *NONE Name, *NONE, *CURRENT
Remote password . . . . . *NONE

Remote password encryption . . . *DES7 *DES7, *SHA1, *NONE
Remote initial program . . . . *RMTUSRPRF Name, *RMTUSRPRF, *NONE
Remote initial menu . . . . . *RMTUSRPRF Name, *RMTUSRPRF, *SIGNOFF
Remote current library . . . . . *RMTUSRPRF Name, *RMTUSRPRF
Remote keyboard type . . . . . *RMTSYS *RMTSYS, *LCL
Remote codepage . . . . . *RMTSYS *RMTSYS, *LCL
More...
F3=Exit F4=Prompt F5=Refresh F12=Cancel F13=How to use this display
F24=More keys

MA b 09/041
1902 - Session successfully started

```

Press **Enter** and you should see the following.

```

Session B - [24 x 80]
File Edit View Communication Actions Window Help
220 super1 VPOP3 SMTP Server Ready

MA b 02/001
1902 - Session successfully started

```

Type **QUIT** to exit Telnet - please note that this command is case sensitive and must be entered in uppercase.

10.2.5.2 Email SMTP Server Error Messages

The following messages may be returned by the SMTP server and are recorded in the [Cobwebb Queue](#).

Email Return Code	Message ID	Severity	Message Text
	EMF0000	0	Sent successfully.
	EMF0001	0	General error.
	EMF0002	0	Incorrect type or number of parameters.
	EMF0003	0	Out of memory.
	EMF0004	0	Failed to open attachment file.
	EMF0005	0	Failed to encode attachment file.
	EMF0006	0	File write error.
	EMF0007	0	Work file creation error.
	EMF0008	0	EMLAPI DTAQ sequence error.
0211			A system status message.
0214			A help message for a human reader follows.
0220			SMTP Service ready.
0221			Service closing.
0250			Requested action taken and completed.
0251			The recipient is not local to the server, but the server will accept and forward the message.
0252			The recipient cannot be VRFYed, but the server accepts the message and attempts delivery.
0354			Start message input and end with .. This indicates that the server is ready to accept the message itself (after you have told it who it is from and where you want it to go).
0421			The service is not available and the connection will be closed.
0450			The requested command failed because the user's mailbox was unavailable (for example because it was locked). Try again later.

Email Return Code	Message ID	Severity	Message Text
0451			The command has been aborted due to a server error. Not your fault. Maybe let the admin know.
0452			The command has been aborted because the server has insufficient system storage.
0455			The server cannot deal with the command at this time.
0500			The server could not recognize the command due to a syntax error.
0501			A syntax error was encountered in command arguments.
0502			This command is not implemented.
0503			The server has encountered a bad sequence of commands.
0504			A command parameter is not implemented.
0512	EMF0512	0	Failed to resolve our name
0513	EMF0513	0	Failed to resolve the server name.
0514	EMF0514	0	Invalid host address.
0515	EMF0515	0	Failed to connect to the SMTP Server Port, check SMTP address.
0516	EMF0516	0	Failed to read from socket.
0517	EMF0517	0	Failed to write to socket.
0518	EMF0518	0	General failure to send data.
0519	EMF0519	0	General failure to receive data.
0520			Invalid email address
0521			This host never accepts mail; a response by a dummy server.
0541			The message could not be delivered for policy reasons - typically a spam filter. (Only some SMTP servers return this error code.)
0550			The requested command failed because the user's mailbox was unavailable (for example because it was not

Email Return Code	Message ID	Severity	Message Text
			found, or because the command was rejected for policy reasons).
0551			The recipient is not local to the server. The server then gives a forward address to try.
0552			The action was aborted due to exceeded storage allocation.
0553			The command was aborted because the mailbox name is invalid.
0554			The transaction failed. Blame it on the weather.
0555			The server does not recognize the email address format, and delivery is not possible.
0556			The message would have to be forwarded, but the receiving server will reject it.
0768	EMF0768	0	Failed to establish connection with SMTP server.
0769	EMF0769	0	Failed to handshake with SMTP server.
0770	EMF0770	0	Failed to establish sender's address with SMTP server
0771	EMF0771	0	Failed to establish recipient's address with SMTP server.
0772	EMF0772	0	Failed to end connection with SMTP server.
0773	EMF0773	0	Failed sending data to SMTP server.
0774	EMF0774	0	Relaying is prohibited.
0775	EMF0775	0	SMTP Authentication required.
0776	EMF0776	0	Invalid SMTP UserName.
0777	EMF0777	0	Invalid SMTP PassWord.
0778	EMF0778	0	Server rejected the AUTH command.
0779	EMF0779	0	Bad base64 reply from server during Authentication.
0780	EMF0780	0	Authentication Login error.
0781	EMF0781	0	At least one recipient was not valid.
	EMF0900	0	Failed prior to calling POSTIE3

Email Return Code	Message ID	Severity	Message Text
	EMF1000	0	Sent successfully waiting confirmation.
	EMF1001	0	Sent successfully confirmation received.
	EMF2304	0	Failed prior to calling POSTIE3
	EMF2305	0	PDF conversion library SPLAMATIC not found
	EMF2306	0	PDF conversion error in library SPLAMATIC.
	EMF2307	0	Expiry date has been exceeded in library SPLAMATIC.
	EMF2311	0	Advanced print feature not installed.
	EMF2312	0	Fax interface not installed.
	EMF2313	0	PC designer not enabled in system security.
	EMF2314	0	Print Page Designer not installed.
	EMF2315	0	Email interface not installed.
	EMF2316	0	XML interface not installed.
	EMF2317	0	PDF interface not installed.
	EMF2318	0	File interface not installed.
	EMF2319	0	INTERFACE SECURITY message.
	EMF2320	0	SECURITY message.
	EMF2321	0	Invalid destination.
	EML0001	0	Email API data queue entry out of sequence
	EML0002	0	Email API data queue entry invalid
	EML0003	0	Email &1 queued to &2 &3
	EML0004	0	Email &1 proofprinted and held on queue to &2
	EML0005	40	POSTIE failed with error code &1. See joblog for details.

10.2.5.3 Enabling Debugging of SMTP conversations

The Cobwebb Server software is shipped with two versions of the SMTP Client **POSTIE3** - a debug version, named **POSTIE3#D**, and a release version, named **POSTIE3#R**. One of these versions is then duplicated, NOT RENAMED, to the live program, named **POSTIE3**, which is the program that is used by the system.

Enabling Debugging of SMTP conversations

- End the CPPD subsystem

```
ENDSBS CPPD
```
- Delete the existing **POSTIE3** program in the **CPPD** library and make a copy of **POSTIE3#D** (*the debug version*) named **POSTIE3**

```
DLTPGM PGM(CPPD/POSTIE3)
CRTDUPOBJ OBJ(POSTIE3#D) FROMLIB(CPPD) OBJTYPE(*PGM)
NEWOBJ(POSTIE3)
```
- Start the **CPPD** subsystem

```
STRSBS CPPD
```
- Release an email from the queue in the normal manner to populate the log with some data.
- View the **ENLSND** (or **STREML** depending on your version of CPPD) job log in the CPPD subsystem to see the debug details logged. See the following links for some example conversations
 - [Example of Successful email conversation](#)
 - [Example of Unsuccessful email conversation](#)

Reverting to Release version

- End the CPPD subsystem

```
ENDSBS CPPD
```
- Delete the existing **POSTIE3** program in the **CPPD** library and make a copy of **POSTIE3#R** (*the live version*) named **POSTIE3**

```
DLTPGM PGM(CPPD/POSTIE3)
CRTDUPOBJ OBJ(POSTIE3#R) FROMLIB(CPPD) OBJTYPE(*PGM)
NEWOBJ(POSTIE3)
```
- Start the CPPD subsystem

```
STRSBS CPPD
```

10.2.5.3.1 Example of Successful email conversation

SMTP Server started, Email successfully received by the server and Cobwebb queue status updated to 'S' for **SENT**.

```
*** Starting Program POSTIE ver 2.7 ***
*** Last Modified 19/09/01 ***
*****
szOriginator      = , Length=0
```

```

szRecipient      = support@cobwebb.co.uk, Length=21
szOriginatorName = Support, Length=7
szRecipientName  = , Length=0
szSubject        = O R D E R   A C K N O W L E D G E M E N T, Length=40
szMessage       = , Length=0
Attachment       = /TMP/SNDEML.140, Length=15
Attachment Name  = ORDACK.PDF, Length=10
bUseMsf          = 0
szSMTPServer     = 180.1.23.1, Length=10
nSMTPPort       = 25
Opened work file /tmp/cobmime.368
Sending mail using CPPDSendMail
*** Entering CPPDSendMail ver 1.00 ***
    Entering InitServerAddress
--> 220 agcovexctest01.AGCOTEST.com ESMTP Server (Microsoft Exchange Internet
    Mail Service 5.5.2650.21) ready
<-- HELO STODEV1.AGCO.COM
--> 250 OK
<-- MAIL FROM: <>
--> 250 OK - mail from <>
<-- RCPT TO: <support@cobwebb.co.uk>
--> 250 OK - Recipient <support@cobwebb.co.uk>
<-- DATA
--> 354 Send data.  End with CRLF.CRLF
<-- .
--> 250 OK
<-- QUIT
--> 221 closing connection
CPPDSendMail returns 0
***** Postie completes OK *****
*****
Press ENTER to end terminal session.

```

10.2.5.3.2 Example of Unsuccessful email conversation

SMTP Server not started, Email fails and Cobwebb queue status is updated with 'W' for **WAIT**. The error message is shown on the Email queue (see [Email SMTP Server Error Messages](#) for a list of error messages).

```

*** Starting Program POSTIE ver 2.7 ***
*** Last Modified 19/09/01 ***
*****
szOriginator      = , Length=0
szRecipient       = support@cobwebb.co.uk, Length=21
szOriginatorName  = Support, Length=7
szRecipientName   = , Length=0
szSubject         = O R D E R   A C K N O W L E D G E M E N T, Length=40
szMessage        = , Length=0
Attachment        = /TMP/SNDEML.141, Length=15
Attachment Name   = ORDACK.PDF, Length=10
bUseMsf           = 0
szSMTPServer      = 180.1.23.1, Length=10
nSMTPPort         = 25
Opened work file  /tmp/cobmime.208

Sending mail using CPPDSendMail
*** Entering CPPDSendMail ver 1.00 ***
    Entering InitServerAddress
connect() failed
CPPDSendMail returns 515

```

```
***** Postie FAILS *****
*****
Press ENTER to end terminal session.
```

10.2.6 Error messages from CRTPPD and SPLMON

The following are some of the messages that can be sent by the CRTPPD command.

Message ID	Description
PPD0009	Insert request exceeds available work space - There is insufficient work space to insert the number of lines specified.
PPD0011	No document selected - Error copying the spool file for processing.
PPD0021	File &1 in library &2 not found - PPD File Name not found. This should be APRTPDM in library CPPD .
PPD0022	Member &3 in file &1 library &2 not found - PPD Member Name not found. Correct the PPD Name and try again.
PPD0023	First page selection error - There is an error in your Page Setup > Conditional information in your PPD.
PPD0024	Create print page definition selection error
PPD0025	Create print page definition completed successfully
PPD0033	Create print page definition not successful - Look at any previous errors in the joblog to find out why.
PPD0034	Error in &1 statement. Line number &2 - The selection criteria for the specified file is invalid.
PPD0038	Error found on OVRPRTF command - Check the joblog for details.
PPD0047	Output device not found - Output device cannot be found in the CPPD file of Output Device Names.
PPD0048	No output data created - This is a warning to say that no output data has been created.
PPD0051	Override printfile error. Device type *AFPS
PPD0052	Data stream not valid
PPD0056	Negative position calculated for PPD function - This is a warning message that data is outside the printable area for your output device.
PPD0060	Error while calling exit program &1 - The call to an exit program has failed. Check that the correct program name and library have been used and that any other libraries used are added to the list.
PPD0062	Unable to read the spooled file - The spooled file entered may have been printed, contains no data, or is not an *SCS file. The user may not have the authority to process the spooled file or the selection criteria is incorrect.
PPD0063	Output queue &1 not found in library &2 - Check the joblog for the name of the PPD and correct.
PPD0067	Unable to open the spooled file for PC fax conversion

PPD0078	Spooled file page selection error - The spooled file page selected is greater than the number of spooled file pages.
PPD0095	Function &1 not valid for this PPD file.
PPD0109	Email directory entry not found.
PPD0111	Not all emails sent - There was an error sending to some email output - check the joblog for details.
PPD0114	Exit program &1 return parameter contains &2 - Information on the value of the parameter being returned back by the exit program.
PPD0142	Output queue authority error - Make sure that the user running the CRTPPD command or the CPPDMM user if error from SPLMON has permission to the Output queue.
PPD0145	Exit program &1 not found in library list - Check that the correct program name and library have been used and that any other libraries used are added to the list.
PPD0146	Create print page definition completed but exit program not found - One of more exit programs cannot be found. Check the joblog for the name of the program and check that the correct program name and library have been used and that any other libraries used are added to the list.
PPD0149	Create print page definition completed but no output generated - This is usually seen when you are using the Advanced Reformatting Utility to create a reformatted spool file. It basically means that your design has not written to any Output Devices.
PPD0176	Spooled file first page selection error - The Ignore First Page flag is set and the spooled file only has one page.
PPD0178	CPPD COPY function outside spooled file range.
PPD0184	Create print page definition completed but exit program failed - One of more exit programs have failed. Check the joblog for the name of the program and then look at the source to see when the error flag is being set.
PPD0185	Exit program &1/&2 failed in program &3 - Look at the source of your exit program to see when the error flag is being set.
PPD0186	Exit program &1 submitted parameter contains &2 - Information on the value of the parameter being passed to the exit program.
PPD0190	Create print page definition completed but warning message(s) issued - Check the joblog for any warning messages.

10.3 Docstore Troubleshooting

The first thing to do is to identify the main problem. You can use the following links to help you with this process.

Note: A Docstore update may also require the client browsers to refresh some files used by Docstore. If this doesn't happen automatically then the user will notice layout issues with the Docstore website. To fix this issue the user should clear their **Docstore** browser cache. See [Clear all browser cache for a specific website](#).

- [Docstore is not responding.](#)
- [Searching Docstore is failing to find a document.](#)
- [Viewing the Docstore Log](#) - this is useful if you think that your document is not being stored correctly.
- [Putting the STOREDOC program into DEBUG mode.](#)
- [Enable Debug for CHTTTPD](#)

10.3.1 Docstore not Responding

You have tried accessing Docstore from a Web Browser using a URL such as:
PROTOCOL://SERVER:PORT where

PROTOCOL Either HTTPS or HTTP

SERVER Either the DNS or IP Address of your IBM i

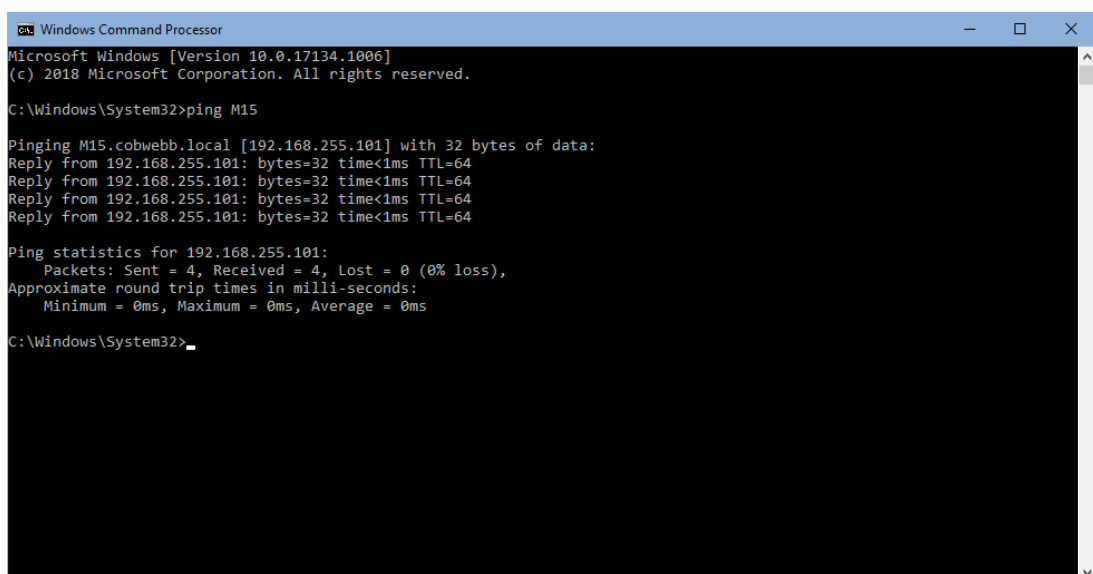
PORT 6443 if using HTTPS or 6400 for HTTP unless you have changed the defaults

Is there a response from the IBM i Server?

- Is there is network connection from the computer to the IBM i Server?

From a **cmd prompt** try to ping the IBM i Server.

If you are using a DNS then first try pinging with this e.g.



```
Microsoft Windows [Version 10.0.17134.1006]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Windows\System32>ping M15

Pinging M15.cobwebb.local [192.168.255.101] with 32 bytes of data:
Reply from 192.168.255.101: bytes=32 time<1ms TTL=64
Reply from 192.168.255.101: bytes=32 time<1ms TTL=64
Reply from 192.168.255.101: bytes=32 time<1ms TTL=64
Reply from 192.168.255.101: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.255.101:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\Windows\System32>
```

If you don't get a response try again using the IP Address.

If pinging to the IP Address works but the DNS doesn't then you have an issue with your DNS Server.

In either case, if you don't get a response, you need to contact your Network Administrator.

Is the CHTTTPD job running in the CPPD Subsystem?

- Check that the **CHTTPD** job is running in the CPPD Subsystem on the IBM i Server
Enter **WRKSBSJOB CPPD** and look for the job **CHTTPD**.

```

Session A - [24 x 80]
File Edit View Communication Actions Window Help
Work with Subsystem Jobs S65DC3A3 16/10/19 14:00:19
Subsystem . . . . . : CPPD
Type options, press Enter.
2=Change 3=Hold 4=End 5=Work with 6=Release 7=Display message
8=Work with spooled files 13=Disconnect

Opt Job User Type ----Status---- Function
--- CDQAPI CPPDMM BATCH ACTIVE
--- CHTTPD CPPDMM BATCH ACTIVE
--- DOCSTORED CPPDMM BATCH ACTIVE
--- EMLAPI CPPDMM BATCH ACTIVE
--- EMLSND CPPDMM BATCH ACTIVE
--- JOBSCD CPPDMM BATCH ACTIVE PGM-JOBSCD
--- JOBSCDSTS CPPDMM BATCH ACTIVE PGM-JOBSCDSTS
--- PCSRVI CPPDMM BATCH ACTIVE
More . . .

Parameters or command
==>
F3=Exit F4=Prompt F5=Refresh F9=Retrieve F11=Display schedule data
F12=Cancel F17=Top F18=Bottom

Má a 11/002
1902 - Session successfully started

```

If the CPPD Subsystem is not running then ask your IBM i Administrator to start the subsystem using:

STRSBS CPPD/PPD

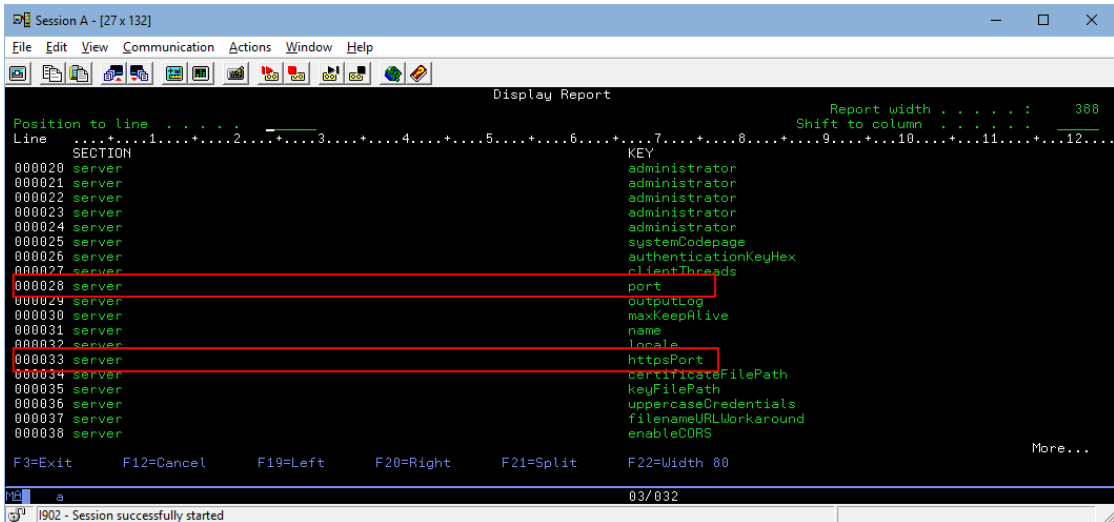
Is the CHTTPD job Status ACTIVE?

- Check that the CHTTPD job is running and doesn't have a **MSGW** Status. If there is a MSGW Status then check and respond to the message.

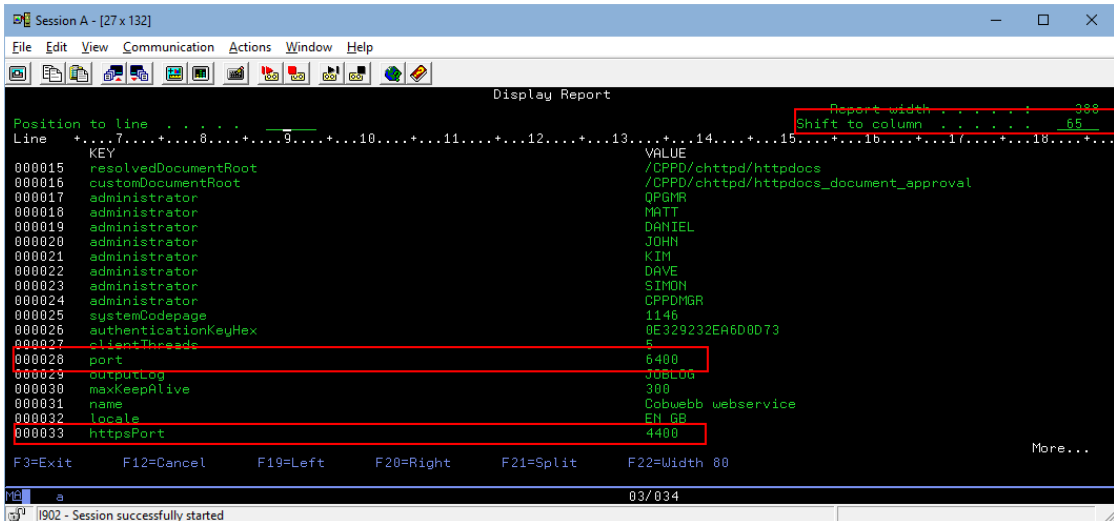
Is the CHTTPD Port correct?

You cannot check the Port via the Docstore Configuration as Docstore is not responding but you can access the same information from an IBM i session to check the config file.

- Run the following query command:
RUNQRY QRY(*NONE) QRYFILE((CPPD/CHTTPDCONF))
- **Page Down** until you see the **server httpsPort** (if using HTTPS) or **server port** (if using HTTP) entry e.g.



- Enter **65** in the **Shift to column** so that you can see the **VALUE** entry for the **httpsPort** or **port** KEY e.g.
(Please note that here at Cobwebb we have changed our HTTPS port from the default to 4400.)



Restart the CPPD Subsystem

If all of the above has checked out and you still cannot access the Docstore from a Web Browser, it has been known for the CHTTDP job to become unresponsive. Ask your IBM i Administrator to restart the **CPPD** subsystem using the following commands:

ENDSBS CPPD

Use **WRKSBSJOB CPPD** to make sure that all of the jobs have ended including the subsystem.

STRSBS CPPD/CPPD

Escalate to Cobwebb Support

If none of the above steps have resolved the issue, it's time to escalate to [Cobwebb Support](#).

10.3.2 Searching Docstore is failing to find a document

If you are failing to find a document that you believe should be in Docstore then:

- First ask your Docstore Administrator to [Check the Docstore Log](#).
- If the Document is still missing then you need to gather the following information in order for the Cobwebb Support team to be able to investigate.
 - The **URL of the search** that is failing to find the document. This is great because it contains lots of the following information such as.
 - **Document Type** (Invoice / Credit etc.)
 - **Keys and Values** being used to identify the Document
 - **Company Code** if multiple Docstores for multiple Company Codes are in use.
 - The **Spooled File details** for Document being processed (Spooled File Name / User data)
 - The **Spooled File location**. (Output Queue / Library are essential) with User name / Date / Time good to have so speed up finding the correct entry.
 - Send the above information to [Cobwebb Support](#).

10.3.3 Viewing the Docstore Log

This function is for Docstore Administrators only.

- Log on to the **Cobwebb Web Server**

Cobwebb Web Server Home

Message Queue

Docstore

Server Configuration

Diagnostics

chttpd version: v4.08 Library: CPPD

✔CHTTPD ✔Print ✔Fax ✔Email ✔File ✔PDF ✔XML ✔Docstore ✔PC Designer

- Select **Server Configuration**, then the **Docstore Module** tab.
- Now click on the **View Docstore Log** button.

- You will see a detailed log of all the documents sent to Cobwebb Docstore and whether or not they have been stored successfully. If you can see a problem with storing a document from a PPD then see [Putting the STOREDOC program into DEBUG mode.](#)

CPPD		Cobwebb Docstore Log			
ID	Date	Time	Document Description	Status	Status Description
1369	18/06/2012	17:22:46	Test	Success	Document stored. ID: 275
1368	18/06/2012	17:19:25		Request Invalid	Invalid Request, http(403), Unauthorized, User 'TEST' Unauthorised to object '/cppd/DocStore /DOCSTORE1/DocType1'
1367	18/06/2012	16:42:24			
1366	18/06/2012	15:13:31	Test	Success	Document stored. ID: 274
1365	18/06/2012	15:11:36	Test	Success	Document stored. ID: 273
1364	18/06/2012	15:09:27	test manual	Success	Document stored. ID: 272
1363	07/06/2012	15:40:44	Sup. Inv/Crd: 1021725 (2011-10-19) for PO: P000060 - Royal Hospital	Success	Document stored. ID: 29
1362	01/06/2012	14:15:14	aaa	Log Entry	Document 224 deleted
1361	31/05/2012	14:25:52	tiger1	Log Entry	Document 270 deleted
1360	31/05/2012	14:24:43	tiger2	Log Entry	Document 271 deleted
1359	29/05/2012	10:35:30	tiger2	Success	Document stored. ID: 271
1358	29/05/2012	10:35:16	tiger1	Success	Document stored. ID: 270
1357	22/05/2012	15:45:06	asdf	Success	Document stored. ID: 6
1356	21/05/2012	13:42:05	Sup. Inv/Crd: aaa for GS01 - Royal Hospital	Success	Document stored. ID: 28

10.3.4 Putting the STOREDOC program into DEBUG mode

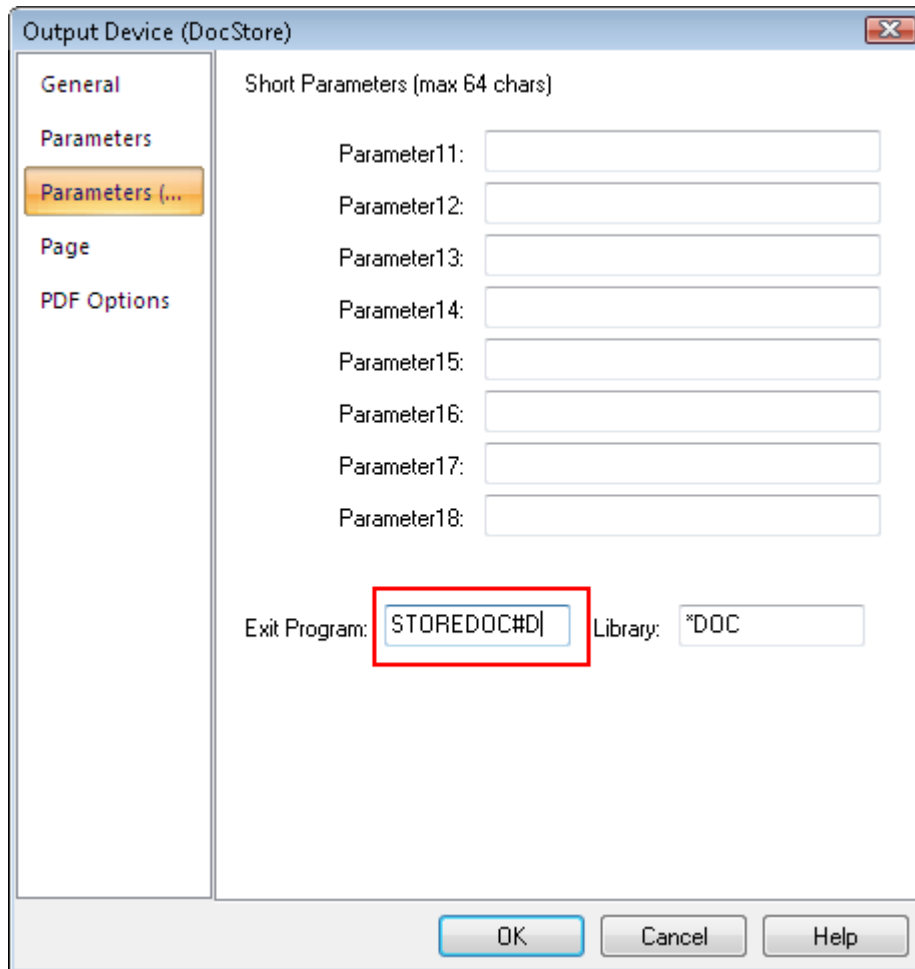
This function is for Docstore Administrators only. Select **Server Configuration**, then the **Docstore Module** tab. Now click on the **View Docstore Log** button.

You will see a detailed log of all the documents sent to Cobwebb Docstore and whether or not they have been stored successfully.

CPPD		Cobwebb Docstore Log			
ID	Date	Time	Document Description	Status	Status Description
1369	18/06/2012	17:22:46	Test	Success	Document stored. ID: 275
1368	18/06/2012	17:19:25		Request Invalid	Invalid Request, http(403), Unauthorized, User 'TEST' Unauthorised to object '/cppd/DocStore /DOCSTORE1/DocType1'
1367	18/06/2012	16:42:24			
1366	18/06/2012	15:13:31	Test	Success	Document stored. ID: 274
1365	18/06/2012	15:11:36	Test	Success	Document stored. ID: 273
1364	18/06/2012	15:09:27	test manual	Success	Document stored. ID: 272
1363	07/06/2012	15:40:44	Sup. Inv/Crd: 1021725 (2011-10-19) for PO: P000060 - Royal Hospital	Success	Document stored. ID: 29
1362	01/06/2012	14:15:14	aaa	Log Entry	Document 224 deleted
1361	31/05/2012	14:25:52	tiger1	Log Entry	Document 270 deleted
1360	31/05/2012	14:24:43	tiger2	Log Entry	Document 271 deleted
1359	29/05/2012	10:35:30	tiger2	Success	Document stored. ID: 271
1358	29/05/2012	10:35:16	tiger1	Success	Document stored. ID: 270
1357	22/05/2012	15:45:06	asdf	Success	Document stored. ID: 6
1356	21/05/2012	13:42:05	Sup. Inv/Crd: aaa for GS01 - Royal Hospital	Success	Document stored. ID: 28

You can troubleshoot an individual PPD issue but putting the STOREDOC program into debug mode just for that PPD. Here's how:

- Open your PPD
- Double click on the **Docstore Output Device** in the Explorer pane to bring up the **Properties** dialog.
- Click on the **Settings** button and then select the **Parameters (...** tab.



- Change the **Exit program** name from **STOREDOC** to **STOREDOC#D** as highlighted in red in the above screenshot,
- Click **OK** to apply your changes
- Click [Save and Export](#) the PPD to the Server in the normal way.
Now, when the PPD is run, additional debug logging is added to the joblog for the **Spooled File Monitor** being used to process the PPD. Alternatively, if you are running the [RUNPPD](#) command interactively, the joblog for your current session.
- **Remember to switch this back when you have found the problem.**

10.3.5 Enable Debug for CHTTTPD

Enable CHTTTPD Debug

1. Stop the CPPD Subsystem.

ENDSBS CPPD

2. Copy program CPPD/**CHTTPD#D** to program CPPD/**CHTTPD**, overwriting the existing program.

3. Change the **Job Description** to make logging more verbose by:

```
CHGJOB JOB(CPPD/CHTTPD) LOG(4 0 *SECLVL) LOGOUTPUT(*JOBEND)
```

4. Restart the CPPD Subsystem

```
STRSBS CPPD/CPPD
```

5. Wait for the error to occur again.
6. Locate the joblog that is generated when the CHTTPD job ends and Send to Cobwebb.

Disable CHTTPD Debug

7. Stop the CPPD Subsystem.

```
ENDSBS CPPD
```

8. Copy program CPPD/**CHTTPD#R** to program CPPD/**CHTTPD**, overwriting the existing program.

9. Change the **Job Description** to make logging less verbose by:

```
CHGJOB JOB(CPPD/CHTTPD) LOG(1 30 *NOLIST) LOGOUTPUT(*SYSVAL)
```

10. Restart the CPPD Subsystem

```
STRSBS CPPD/CPPD
```

10.4 Online Support Procedures

Introduction

Before reporting an issue to Cobwebb you may be able to resolve it by following the instructions in the [Troubleshooting](#) section.

If you still have a issue then the following pieces of information will be required to identify and resolve it:

- [The Input](#)
- [The Output](#)
- [The Design](#)
- [An Explanation of the Issue](#)
- The **version** of the Cobwebb Server Software you are running - this is displayed top right of the [CPPD menu](#) e.g. Release 6.2.79.

To Log a support issue visit http://www.cobwebb.co.uk/support_welcome.

The Input

This is normally a Spooled File. This needs to either be sent to Cobwebb or identified on the Customer's Server in order for a Cobwebb Consultant to dial in and retrieve it.

- To send the spooled file to Cobwebb open the Cobwebb Designer and either,

- import the Spooled File into a blank PPD and then send the PPD to Cobwebb ([see *Sending your PPD file to Cobwebb*](#))
- or use the **Save to File** Spooled File Tool ([see *Saving / Restoring a Spooled File*](#)) and send the saved file to Cobwebb.
- To identify the spooled file for Cobwebb to investigate in place, the following **Spooled file Attributes** are required:

- Job Name
- User
- Number
- File Name
- Number

All of the above information may be found by using the **WRKSPLF** or **WRKOUTQ** commands.

- Alternatively it may be possible to uniquely identify a spooled file using a combination of one or more 'User Friendly' Attributes, eg:

- Output Queue Name
- Library
- Creation Date
- Creation Time
- Owner
- User Data

The Output

Attach the relevant Cobwebb output such as the:

- PDF Document,
- Scan of a printed output
- E-mail

The Design

This should be the current PPD file that is being used by the Spool File Monitor program. First you need to determine the correct PPD file and then you need to send this to Cobwebb.

For details see:

- [Finding the Current PPD file](#)
- [Sending your PPD file to Cobwebb](#)

An Explanation of the Issue

"A problem well stated is a problem half solved" — Charles Kettering

This can be the hardest, yet most important step. Use whatever means necessary to explain how the current behaviour differs from the expected behaviour.

- It is often clearest to print out and write, or draw on, the output.

- Alternatively, look to explain the cause, if known, or list the symptoms with as much accuracy as possible, e.g.
 - Line 2 of the Item list is not displaying the Units of Measure
 - the Customer Number is not being displayed in the Header area on page 2 onwards
 - the Email address is being displayed on the output page when I have selected to remove it
- Include any recent changes to the system that could have made an impact.
- Include a priority - how urgent is a solution?

10.4.1 Sending your PPD file to Cobwebb

If you wish Cobwebb to amend your PPD file(s) for you, or you have a problem you wish Cobwebb to solve, then you will need to send the PPD file, via email, to Cobwebb.

To do this you need to:

- Open your PPD in the **Cobwebb Designer**
- Select **Send to Cobwebb** from the **File** menu. This will zip up your PPD file and image and using your default mail client open up a new email addressed to Cobwebb for you to define your changes. The zipped file will automatically be included as an attachment.
- Add any other details as outlined in the [Online Support Procedures](#) and click **Send**.

10.4.2 Uploading your PPD file from Cobwebb

If you have sent your PPD file to Cobwebb for amendment then we will send it back via email. You will then need to go through the following steps to implement the new changes.

- Take the spool file monitor job offline. To do this you need to take option '6 – PPD file maintenance' from the CPPD menu, then '5 – Work with spool file monitor'. Place a '2 – Revise' beside the entry that you wish to change and press enter. You will now need to press F8 to set the job to 'offline'. To stop the monitor running you will now need to end and re-start the CPPD subsystem.
- Copy your new PPD file into the correct folder
- Make any changes to the PPD file that have been outlined in the corresponding email. There may be nothing to change but sometimes you will need to change the font or the image name for example.
- Export the new PPD file to the IBM i.
- Test the changes using the **CRTPPD** command. Please refer to the section on 'Testing your PPD file on the IBM i' for the full details.
- If you are happy with your test then re-set your spool file monitor to '**online**' and end and re-start the CPPD subsystem.

10.4.3 Saving / Restoring a Spooled File

If you need to save and/or restore spooled file information held on your IBM i to a file on your network then we have provided two tools for this purpose. This can be useful if you require Cobwebb Communications to create a .PPD file from your spooled file data.

Saving a Spooled file

From the **File** menu select **Spooled File tools | Save to File**. You will be presented with the Select Spooled File dialog which is identical to the dialog displayed when you use the [Import Spooled file](#) tool from the **Edit** menu. Select the spooled file entry that you require from the list and click on **OK**. You will be presented with the **Save As** dialog to enable you to pick a destination and name for your file. The file must be saved as type **Raw Spooled File Data (*.raw_splf)**.

Restoring a Spooled file

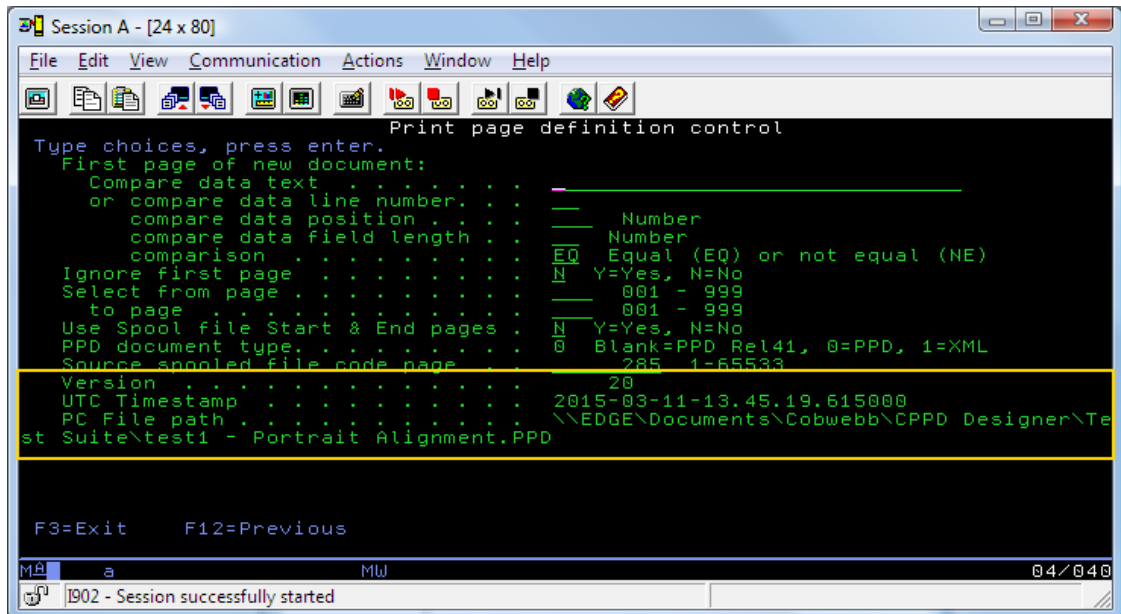
You can only use this function to restore a file which has been previously created with the above Save to File command.

From the **File** menu select **Spooled File tools | Create from File**. You will be presented with the **Export Spooled File** dialog. Enter the IBM i output queue location and name of the file that you wish to create and click on **OK**. Then from the **File Open** dialog, select the previously saved spooled file and click on **Open**.

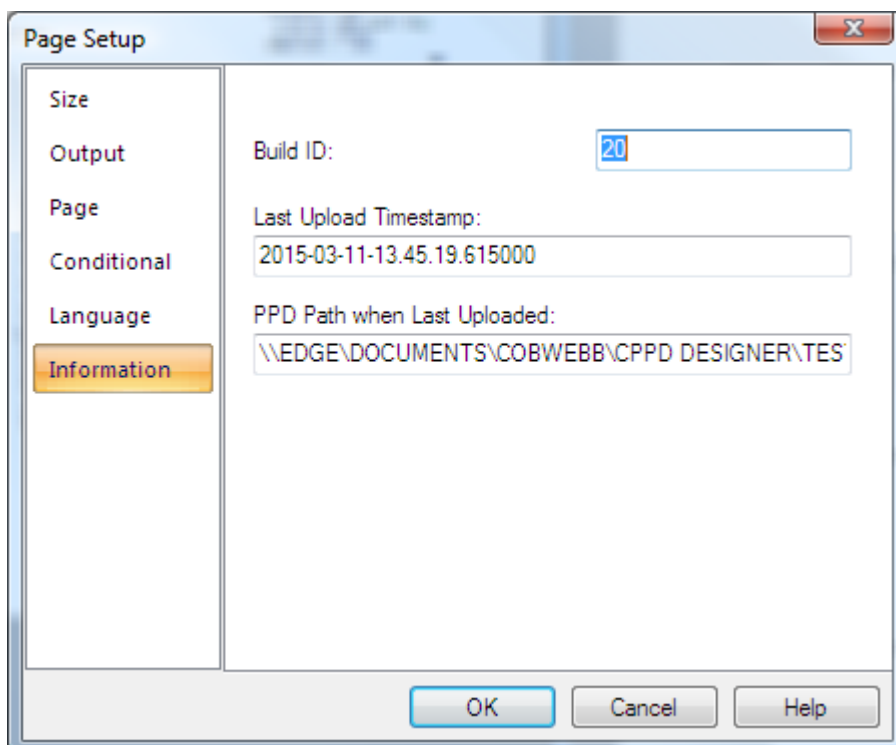
10.4.4 Finding the Current PPD file

In order to find out the name and location for the PPD file that is being used by the **Spooled File Monitor** you need to perform the following steps:

- From the main **CPPD** menu select "**6. PPD file maintenance**"
- Now select "**5. Work with spool file monitor**"
- Using the **PageUp** and **PageDown** keys identify the **PPD Member** that is being used to pick up your Spooled File. Make a note of the **PPD Member** name.
- Now return to the main **CPPD** menu and select "**1. Work with PPD**"
- Enter the **PPD Member** name that you noted down into the **Position To** entry at the top right hand side of the screen and press **Enter**. This should position the list to display the **Page Definition** you are interested in.
- Enter a "**2=Revise**" beside the entry and press **Enter**.
- Press "**F10=More parameters**"



- Look at the information highlighted by the yellow box. Use the **PC File path** to locate where the design was uploaded from - sorry we can't help if you have subsequently moved this.
- Browse to the folder and open the PPD file in the **Cobwebb Designer**.
- From the **File** menu select **Page Setup**
- Click on the **Information** tab



- The **Last Uploaded Timestamp** on the PPD file should match the **UTC Timestamp** from the PPD Parameters on the Server.

11 Technical Information

This section covers the Technical Information relating to the **Cobwebb Document Management** software and covers topics such as:

- [Restricting Access to Cobwebb PPD Security & System Parameters](#)
- [Replicating the Cobwebb Server Software](#)
- [Creating images](#)
- [Cobwebb Exit Programs](#)
- [Cobwebb APIs & Commands](#)
- [Cobwebb Folder Monitor](#)
- [Cobwebb FTP](#)
- [Cobwebb Kofax Export Connector](#)
- [Fonts](#)
- [Barcode Types supported by CPPD](#)
- [Printing to Thermal Label Printers](#)
- [Configuring remote LAN attached Printers](#)
- [QNTC Configuration](#)
- [Notify API \(NFYAPI\)](#)

11.1 Restricting Access to PPD Security & Parameters

If you wish to restrict access to the Cobwebb [PPD Security](#) and / or [System Parameters](#) then this can be done by **revoking** the ***PUBLIC** access to these functions.

The following commands will prevent users from making changes to these areas unless they have ***ALLOBJ** in their profile.

PPD Security

```
GRTOBJAUT OBJ(CPPD/SYSSEC) OBJTYPE(*PGM) USER(*PUBLIC)
AUT(*EXCLUDE)
```

To restore *PUBLIC authority then use:

```
GRTOBJAUT OBJ(CPPD/SYSSEC) OBJTYPE(*PGM) USER(*PUBLIC)
AUT(*USE)
```

System Parameters

```
GRTOBJAUT OBJ(CPPD/SYSPARM) OBJTYPE(*PGM) USER(*PUBLIC)
AUT(*EXCLUDE)
```

To restore *PUBLIC authority then use:

```
GRTOBJAUT OBJ(CPPD/SYSPARM) OBJTYPE(*PGM) USER(*PUBLIC)
AUT(*USE)
```

11.2 Replicating the Cobwebb Server Software

If you wish to replicate the **Cobwebb Server** software from the **Live** Server to the **Disaster Recovery [DR]** Server (*using Mimix for example*) then you will need to include the following in your Replication process.

Cobwebb Objects to Include

Object	Object Type	Description
CPPD	*LIB	Contains all the objects required to run the Cobwebb Server Software. There are certain objects in this library which will need to be excluded from this replication. Please refer to the table CPPD Objects to Exclude and the Notes for Customers on Cobwebb Server prior to v6.0.32 .
CPPD	*DLO	Used by the Cobwebb Server software. Includes the installer for the Cobwebb Designer and some documentation.
CPPDOBJOWN	*USRPR F	Owens all the objects in library CPPD apart from a few which are required to be owned by QSECOFR.
CPPDMM	*USRPR F	Runs all the jobs in the CPPD subsystem
CPPDMM	*DIRE	Required for the CPPDMM user
CPPD	IFS	Contains the Cobwebb Web Server objects.
DOCSTORE	*LIB	If you are using the Cobwebb Docstore module then this holds the Cobwebb Docstore configurations. Note: You will also need to include any Docstore Libraries that you have created.
User Docstore Folder	*DLO	Each Docstore Document Type stores its data in a folder, either on the IFS or the network via QNTC. Note: This data will need to be accessible to the new Docstore using the identical path.
Exit Programs	*LIB	Your installation may utilise Exit Programs or bespoke data that are located outside of the Cobwebb Server product, in library COBEXIT for example.
AP Invoice Data Libraries	*LIB	If you have Docstore Capture & KTA then you will need to backup the Environment specific data libraries (prefixed CPPDDTA) and usually called: CPPDDTAAUL for Live CPPDDTATST for Test

CPPD Objects to Exclude

All of the following objects exist in the **CPPD** library.

Object	Object Type	Description / Action
CHKCOD	*DTAARA	Contains the server specific encrypted Cobwebb Server Security code [Access code]. Note: From v6.0.32 this will also contain the Expiry Date. Action: Copy from the Live Server and then manually set on the DR Server using Option 4 - PPD Security from the main Cobwebb Main menu.
ALINNAM	*FILE [PF-DTA]	Contains the Fax line(s) configuration details. If fax is not used or the configurations are identical this need not be excluded. Action: Copy from the Live Server and then manually set on the DR Server using Option 4 - Communication lines from the Cobwebb Fax & Email > System Parameters menu.

Checking the Replication

Once you have set up and run your Replication process and dealt with the excluded CPPD objects, you need to check the Cobwebb PPD Security.

On the **Disaster Recovery** server:

1. ADDLIBLE CPPD
2. GO CPPD
3. Select [Option 4 - PPD Security](#)
4. Make sure all editable fields are identical to the Live Server. **Note:** The System Name should be the same for both Live and Disaster Recovery Servers.
5. Enter your **Expiry date** (*if different*) and **Access Code**.

Notes for Customers on Cobwebb Server prior to v6.0.32

Prior to v6.0.32, the Cobwebb Server software stored the **Expiry Date** in the **SYSPARM** data area. As this data area also holds the majority of the **Cobwebb Server System Parameters**, not just the Security information, it is recommended that this data area is still replicated.

BEFORE using the Cobwebb Server software on your DR Server you will need to consider the following:

- Is the **System Name & Expiry Date** the same for both Servers?

Answer	Disaster Recovery Steps
Yes	You need to do nothing as the Expiry date will not have invalidated your Cobwebb PPD Security Access code.
No	Perform the following steps to correctly enable your Cobwebb PPD Security Access code. <ol style="list-style-type: none"> 1. ADDLIBLE CPPD 2. GO CPPD

3. Select [Option 4 - PPD Security](#)
4. Enter the correct **System Name** (*if required*)
5. Enter the correct **Expiry Date** (*if required*)
6. Enter the correct **Access Code**
7. Press **Enter**

You should see the message "**Access code updated**"

11.3 Creating Images

The Cobwebb Designer use two main types of image.

- [An overlay image](#) - this is usually A4 and created from an MS Word document using the **Cobwebb PPD Printer** driver
- [An inline image](#) - this is usually something like a logo, signature, badges etc.

11.3.1 Creating an Overlay Image with the Cobwebb PPD Printer Driver

When creating images using the **Cobwebb PPD Printer** driver there are a few useful tips that aid in the quick and efficient printing of images from the Server, and in the alignment of text when originally positioning your Spooled file text within the document creation of CPPD. See [Including your Image Overlay](#) for details on how to include your overlay in your design.

Things to bear in mind when you start:-

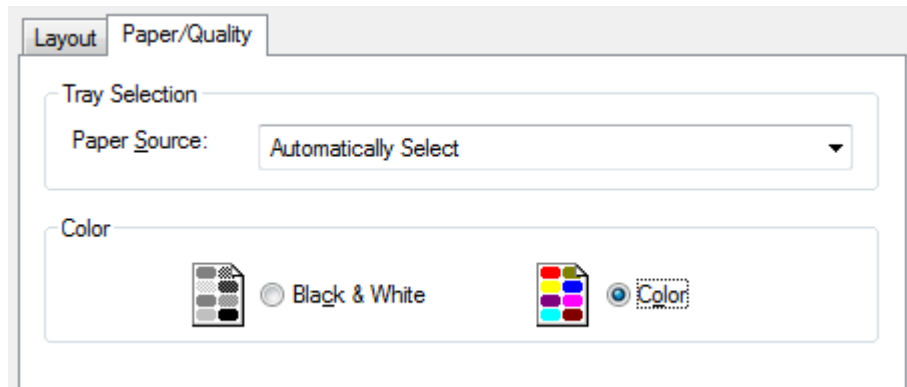
1. The document that you create (say in MS Word etc) needs to be made up of line drawing with the inserted company logos etc. Sticking to black and white is a sensible standard to conform to as any image that contains a lot of colour or grey scale can cause the file created to be large. Bear this in mind when you imagine that a print run from the Server containing your image merged with the reformatted text could be a number of pages and this will have an effect on the speed of printing, and the traffic on the network. Image size should be 10-20K. Using a resolution of >300dpi will not improve the print quality.

Note: Colour images and overlays can only be used when the output device is one of the following:

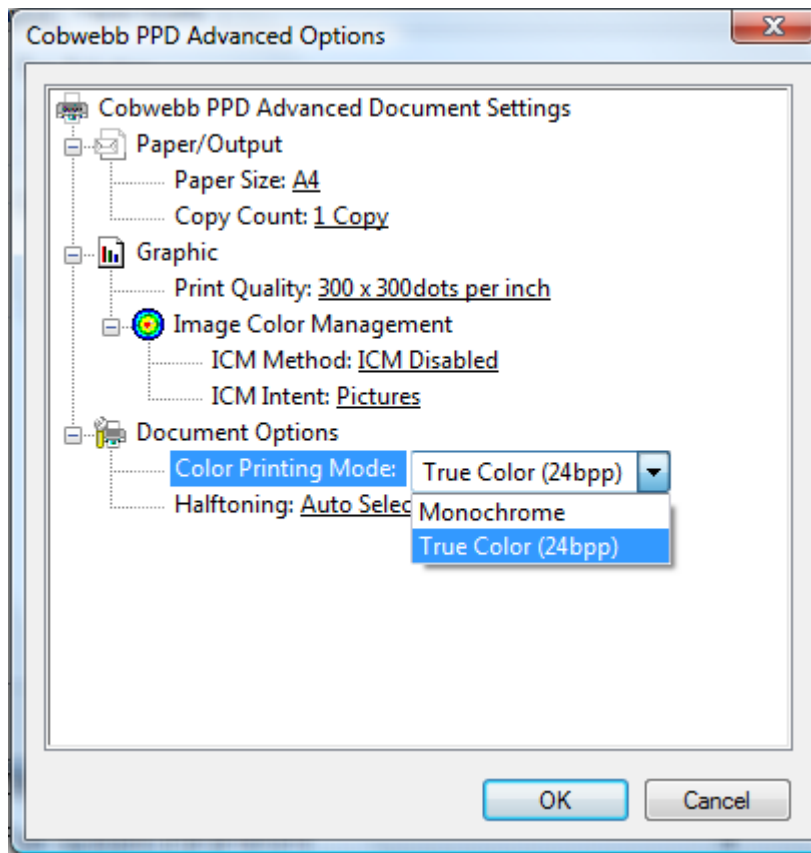
- Print - AFP
- Email - PDF
- File - PDF

The above output devices also support Image Resources which will speed up the printing process as the image is only downloaded once for each print run.

2. Once you have selected to print to the **Cobwebb PPD Printer** driver, click on the **Properties** button. If you wish your output to be black and white click on the **Gray Scale** radio button otherwise select **Color**.



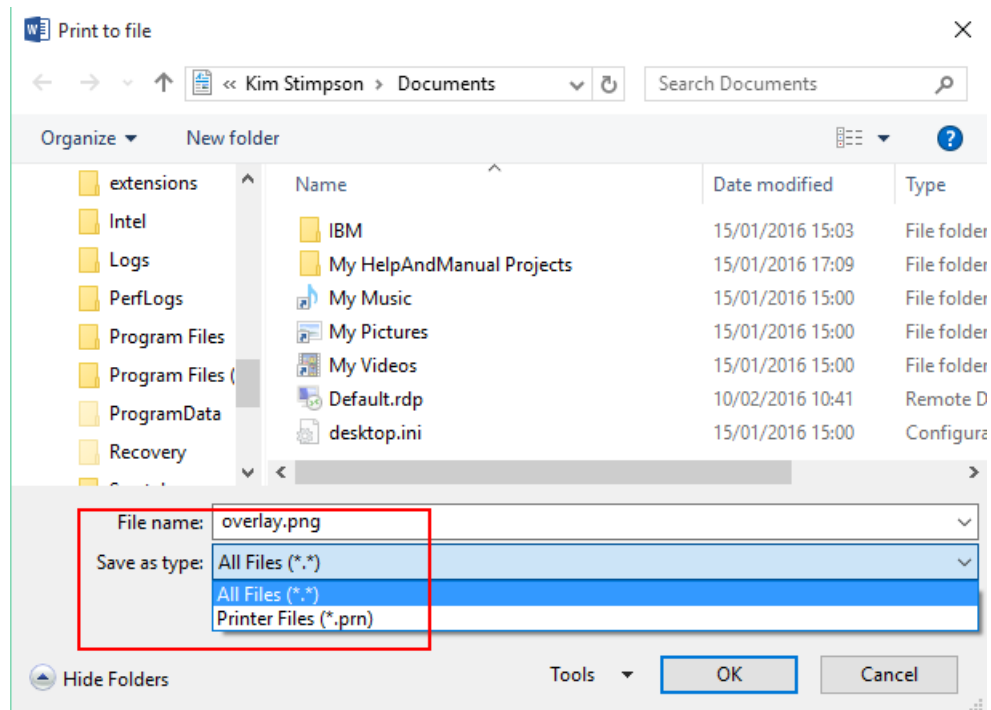
3. You can now click on the **Advanced** button to select the colour depth you require and change the resolution.



4. It is possible to print shaded areas by filling them with a shaded grey scale of no more than 15-20%. We have found that this does not have a huge impact on the size of the file.
5. When you come to print the document using the **Cobwebb PPD Printer** driver (which creates the file format desired for the Cobwebb Designer) it will automatically print it to your **Documents** folder unless you change the path. Then when you **Insert Image Element**, to include the image within your PPD file, it will default to the path you have configured for the Images directory in the [View > Options > Directories](#).

Note: You will need to change the **Save as type** default from **Printer Files (*.prn)** to **All Files (*.*)** and enter a **File name** for your Overlay including the **.png** extension. Please remember when creating your image file name, that it needs to be **eight** characters

or less in order for it to be successfully uploaded to the Server. We recommend you maintain the same, or related names for your Image Overlays and your PPD files.



6. If you need to make changes to your overlay simply change the document and re-print it using the **Cobwebb PPD Printer** driver. If you do not already have the PPD file open then the new overlay will automatically be selected (provided that you have stored it in the same folder). If you already have your PPD file open and you want to bring in the new overlay then:
 - a. Open the **Properties** dialog for the Image, click on the **Image** tab and **Browse**. This will give you the opportunity to select the new file of the same name and overwrite the current image that you have in the document with the modified image.

11.3.2 Creating Inline Images

The examples here use the free image processing application **IrfanView** which may be downloaded from <http://www.irfanview.com/>. Please see [Inserting an Image](#) for details on how to include the image in your design.

Step 1: Optimising the Size of the image

Using an image of the correct size is critical to optimise quality and file size. All images are made up of pixels. An image that is 300 pixels wide, printed out at 1 inch will have a resolution of 300 pixels per inch (ppi). That same image printed out at 2 inches would have the same number of pixels spread over double the area giving 150ppi - half the resolution, half the quality.

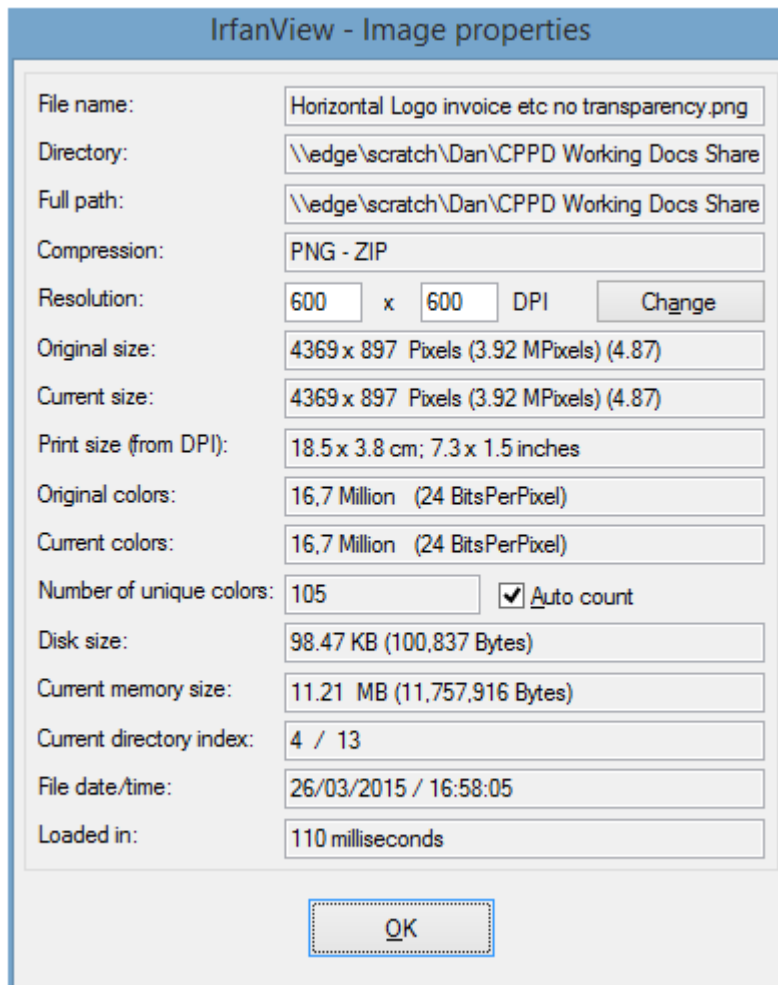
So it is important to create images with the correct size and resolution. There are 3 steps to achieving that goal:

1. Set the desired resolution

300ppi is generally accepted as a good balance between quality and size for print.

72ppi used to be considered acceptable for images that would only be seen on screen, but modern screens are pushing that value up towards **150ppi** and beyond.

In IrfanView, select **Image | Information**



Change the **Resolution** to match your required PPI (eg: 300 x 300 PPI)

Note: This does not alter the number of pixels in the image, or the data stored in those pixels, it only changes the PPI values.

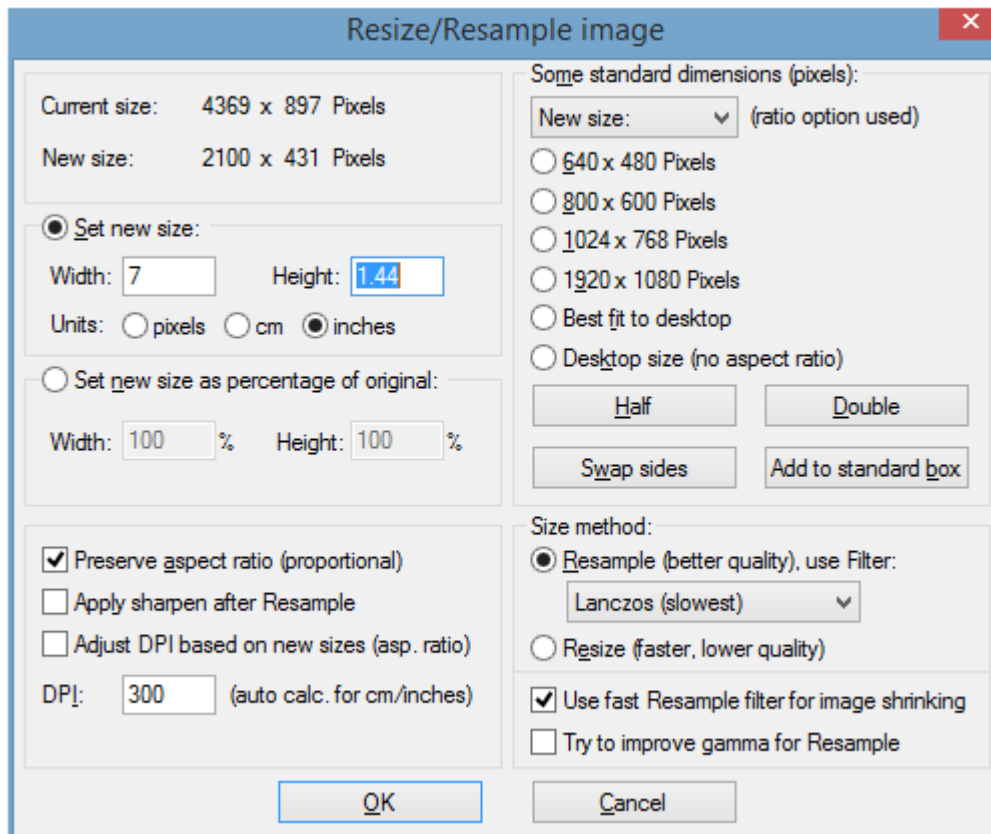
2. Calculate the desired physical dimensions

Measure the physical size of the space that the image should take up on the page e.g.

- a page of A4 is 8.27 inches wide and 11.69 inches long
- a logo may be 3 inches wide and 1 inch long

3. Resize the Image

In IrfanView select **Image | Resize/Resample**.



Set the **Units** to **inches** by clicking the relevant radio button

Make sure **Preserve aspect** ratio is ticked.

Enter the required size in the **Width** field, the **Height** should adjust automatically.

Notes:

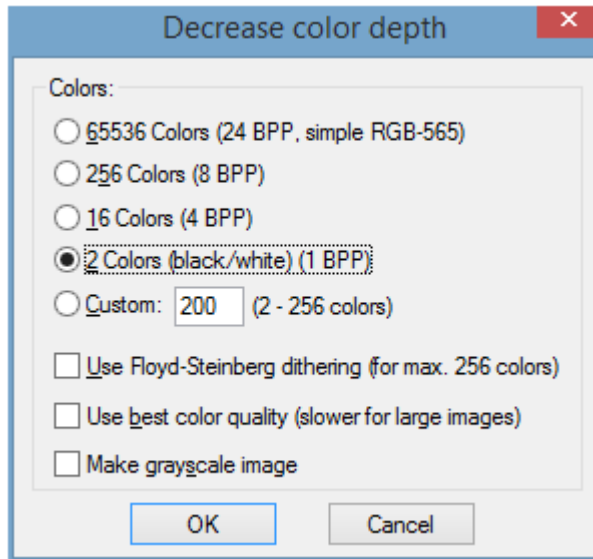
Sometimes when saving a png image and viewing it in the Cobweb Designer you will see a purple coloured line on the left hand side of the image. If you check the pixel width of the image and adjust this to a value that is divisible by 16 this purple line is removed from the PPD view and also the PDF output.

Step 2: Optimising the Colour of the image

CPPD can process images in one of two colour depths **1BPP** for Blank & White images or **32BPP** (bits per pixel) for Colour.

1. Black and White Images - 1BPP

It is much better to use a full image editor to convert the colour depth to 1BPP. Otherwise the input image will be converted to 1BPP when exported to the server by the Cobweb Designer which has only basic conversion abilities. IrfanView has better conversion abilities, including Floyd-Steinberg dithering e.g.



Other programs such as Adobe Photoshop have an even greater range of dithering.

2. Full Colour - 32BPP

The Input Image can be in any colour depth.

Step 3: Saving the Image in the correct Format

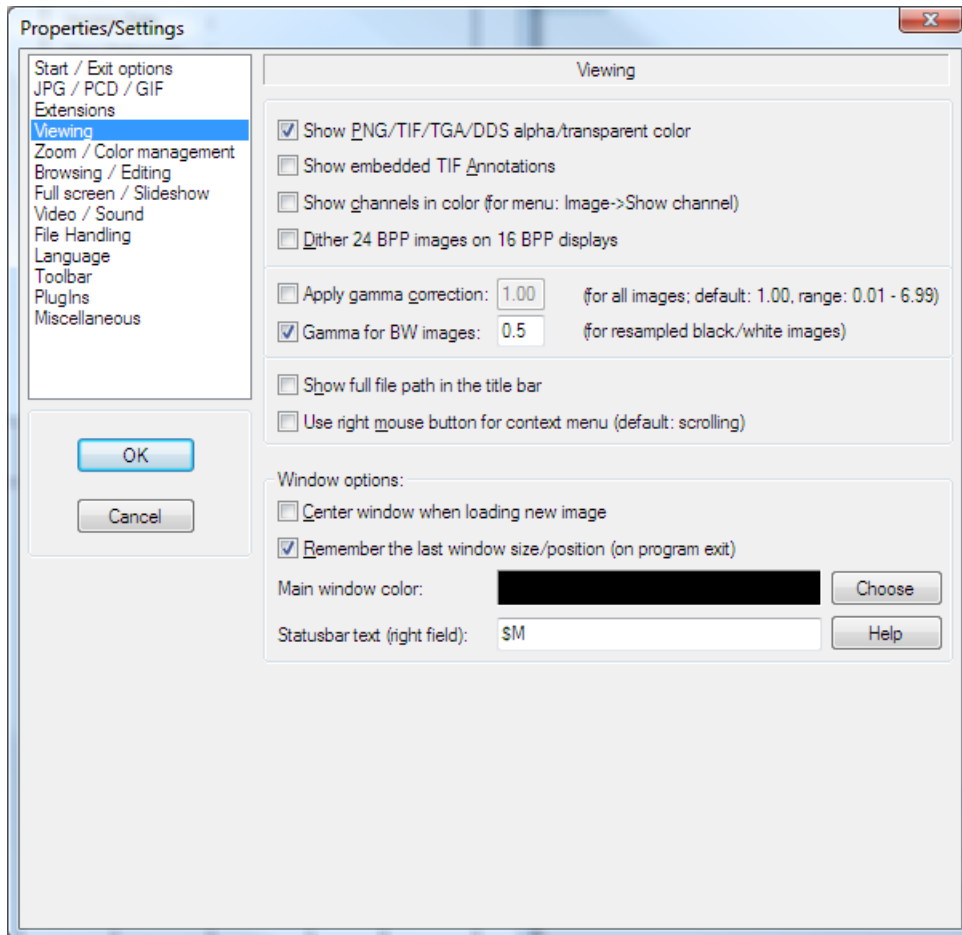
We recommend saving all images as **PNG** without a transparent colour - e.g. in IrfanView

Note: Please remember when creating your image file name, that it needs to be eight characters or less in order for it to be successfully uploaded to the Server. If you don't do this then when the image is uploaded the name will be truncated to **eight** characters and then may not be unique.

What to do if the image appears all blank in your design

If you cannot view the image due to transparencies in the PNG, i.e. the image appears all black, you can change the background colour.

In IrfanView this is done by selecting **Options | Properties/Settings** and selecting the **Viewing** tab.



This displays the option **Main Window Colour**. Change the selected colour here by clicking the **Choose** button..

Once the colour has been changed you may need to update the image by selecting **File | Reopen**. This should display the PNG with the new selected window colour.

11.4 Cobwebb Exit Programs

Cobwebb Exit Programs are used to retrieve information that is missing from the original spool file and that is required for the output document e.g. retrieving a Customer Name using the Customer Account Number, retrieving a fax or email destination etc.

Depending upon the type of Cobwebb Exit Program these Exit Programs will have a different list of parameters - please see [Cobwebb Exit Program Parameters](#) for details.

Cobwebb supply an [Advanced Re-Formatting Utility](#), in the form of an exit program, which allows you to totally control the format of your output document.

If you need to retrieve information about the spooled file that is being processed CPPD writes a lot of this information to a temporary data area called **SPLATR** in library **QTEMP**. Cobwebb supply an Exit Program called [COBSPLATR](#) which will return most of this information. For details of the SPLATR data area please see [SPLATR Data Area Definition](#).

Cobwebb supply numerous Standard Exit Programs which may be used for things such as Adding values, Formatting Dates, Validating File Names etc. Please see [Supplied Exit Programs](#) for more details. We also supply a [Test Harness Suite](#) to help you test your exit programs both outside and inside a PPD file.

11.4.1 Cobwebb Exit Program Parameters

Each different type of Cobwebb Exit Program has a different set of parameters. If you wish to write your own exit programs then please select the relevant link below for details of the parameters and where you can find some sample source for each Exit Program type.

- [Cobwebb Standard](#)
- [Cobwebb Print](#)
- [Cobwebb Fax](#)
- [Cobwebb Email](#)
- [Cobwebb File](#)

11.4.1.1 Cobwebb Standard Exit Program

The **Cobwebb Standard** exit programs can be used in the main design of your PPD and are used mainly to retrieve information from a database on the IBM i for output. Sample programs may be found in either the **USRTOOL** [for RPG] or **USRTOOLLE** [for RPGLE] source file in the **CPPD** library - see entries where the *Description* is prefixed *CPPD*. You can use CLLE (or CLP) as well but you must have all the correct parameters as defined below.

Note: When creating an **Standard Exit Program** you will need to add any required libraries to your Cobwebb Design.

- Step 1 - **Create** your Cobwebb Standard Exit Program

Notes:

All of the other parameters may be used to pass back information to your Cobwebb Design. Remember to set the **Error** parameter to either **0 (or blank) for Success** or **1 for Failure** this is then passed back to the Cobwebb Server software to handle accordingly.

- Step 2 - **Test your Cobwebb Standard Exit Program** using the [Cobwebb Test Harness](#) for a File Exit Program **TSTCPRM**.
- Step 3 - **Test your PPD** interactively.
 - [Enable Test Mode](#) to write parameter details to the joblog.
 - Use the [RUNPPD](#) command.

Program Parameters

Parameter	Attribute	Description
Parm1	A(132)	Parameter 1 from the PPD
Parm2	A(132)	Parameter 2
Parm3	A(132)	Parameter 3
Parm4	A(132)	Parameter 4
Parm5	A(132)	Parameter 5
Parm6	A(132)	Parameter 6

Error	Z (1,0)	Error code to return to calling program. 0 = Success 1 = Failure
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11.4.1.2 Cobwebb Print Exit Program

The **Cobwebb Print** exit programs can be used in the **Print Output Device** and are used mainly to automate the print attributes. Sample programs may be found in either the **USRTOOL** [for RPG] or **USRTOOLLE** [for RPGLE] source file in the **CPPD** library - see entries where the *Description* is prefixed *OUTD-PRT*. You can use CLLE (or CLP) as well but you must have all the correct parameters as defined below.

Note: When creating an **Print Exit Program** you will need to add any required libraries (*before you open the files*) as the libraries added to your Cobwebb Design are not carried through to the Distribution program.

- Step 1 - **Create** your Cobwebb Print Exit Program

Notes:

The **first parameter** will always be the **Input string**; all of the other parameters may be used to pass back information to your Cobwebb Design.

Remember to set the **Error** parameter to either **0 (or blank) for Success** or **1 for Failure** this is then passed back to the Cobwebb Server software to handle accordingly.

- Step 2 - **Test your Cobwebb Print Exit Program** using the [Cobwebb Test Harness](#) for a File Exit Program **TSTPPRM**.
- Step 3 - **Test your PPD** interactively.
 - [Enable Test Mode](#) to write parameter details to the joblog.
 - Use the [RUNPPD](#) command. **Note:** Make sure that you only have the libraries that existing in the **SPLMON** Job Description in your Library List (CPPD, QGPL, QTEMP by default) so if there are any missing libraries you will know and can add them to your Print Exit Program.

Program Parameters

Parameter	Attribute	Description
Input	A (256)	Input string - Destination Address element
OutQNam	A (10)	Output Queue Name
OutQLib	A (10)	Output Queue Library
OutDev	A (10)	Output Device Name
FormType	A (10)	Forms Type
UserData	A (10)	User Data
HoldPrt	A (4)	Hold Print
SavePrt	A (4)	Save Print

Duplex	A (7)	Duplex
Drawer	A (5)	Drawer
Copies	Z (3,0)	Number of copies
Error	A (1)	Error code to return to calling program. 0 = Success 1 = Failure

11.4.1.3 Cobwebb Fax Exit Program

The **Cobwebb Fax** exit programs can be used in the **Fax Output Device** and are used mainly to retrieve destination information from a database on the IBM i. Sample programs may be found in either the **USRTOOL** [for RPG] or **USRTOOLLE** [for RPGLE] source file in the **CPPD** library - see entries where the *Description* is prefixed *OUTD-FAX*. You can use CLLE (or CLP) as well but you must have all the correct parameters as defined below.

Note: When creating an **Fax Exit Program** you will need to add any required libraries (*before you open the files*) as the libraries added to your Cobwebb Design are not carried through to the Distribution program.

- Step 1 - **Create** your Cobwebb Fax Exit Program

Notes:

The **first parameter** will always be the **Input string**; all of the other parameters may be used to pass back information to your Cobwebb Design.

Remember to set the **Error** parameter to either **0 (or blank) for Success** or **1 for Failure** this is then passed back to the Cobwebb Server software to handle accordingly.

- Step 2 - **Test your Cobwebb Fax Exit Program** using the [Cobwebb Test Harness](#) for a File Exit Program TSTXPRM.
- Step 3 - **Test your PPD** interactively.
 - [Enable Test Mode](#) to write parameter details to the joblog.
 - Use the [RUNPPD](#) command. **Note:** Make sure that you only have the libraries that existing in the **SPLMON** Job Description in your Library List (CPPD, QGPL, QTEMP by default) so if there are any missing libraries you will know and can add them to your Fax Exit Program.

Program Parameters

Parameter	Attribute	Description
Input	A (20)	Input string - Destination Address element
FaxNo	A (20)	Destination Fax number
To	A (50)	To / Company Name
Attention	A (30)	Attention
Reference	A (30)	Reference

From	A (30)	From Name
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11.4.1.4 Cobwebb Email Exit Program

The **Cobwebb Email** exit programs can be used in the **Email Output Device** and are used mainly to retrieve destination information from a database on the IBM i. Sample programs may be found in either the **USRTOOL** [for RPG] or **USRTOOLLE** [for RPGLE] source file in the **CPPD** library - see entries where the *Description* is prefixed *OUTD-EML*. You can use CLLE (or CLP) as well but you must have all the correct parameters as defined below.

You may also output up to 19 additional email destinations in your Exit Program - for details see [Adding Additional Email Destinations in your Email Exit Program](#).

Note: When creating an **Email Exit Program** you will need to add any required libraries (*before you open the files*) as the libraries added to your Cobwebb Design are not carried through to the Distribution program.

- Step 1 - **Create** your Cobwebb Email Exit Program

Notes:

The **first parameter** will always be the **Input string**; all of the other parameters may be used to pass back information to your Cobwebb Design.

Remember to set the **Error** parameter to either **0 (or blank) for Success** or **1 for Failure** this is then passed back to the Cobwebb Server software to handle accordingly.

- Step 2 - **Test your Cobwebb Email Exit Program** using the [Cobwebb Test Harness](#) for a File Exit Program **TSTEPRM**.
- Step 3 - **Test your PPD** interactively.
 - [Enable Test Mode](#) to write parameter details to the joblog.
 - Use the [RUNPPD](#) command. **Note:** Make sure that you only have the libraries that existing in the **SPLMON** Job Description in your Library List (CPPD, QGPL, QTEMP by default) so if there are any missing libraries you will know and can add them to your Email Exit Program.

Program Parameters

Parameter	Attribute	Description
Input	A (256)	Input string - Destination Address element
RecEmail	A (256)	Recipient's email address
SndEmail	A (256)	Sender's email address
SndName	A (50)	Sender's name
RecName	A (50)	Recipient's name
Subject	A (256)	Email subject
Message	A (256)	Email message text
AttName	A (64)	Attachment Name

AttExt	A (3)	Attachment Extension
AttType	A (3)	Attachment Type

11.4.1.4.1 Adding Additional Email Destinations in your Email Exit Program

The main parameters in your Email Exit Program cater for addressing your output to a single destination. It is possible to include up to 19 additional destinations by writing to a Temporary Address file in QTEMP called **@OUTDEA**.

We provide a sample source program called **GETMULTEML** which you will find in source file **QUSRTOOLLE** in library **CPPD** - from version 6.2.22.

The file **@OUTDEA** is not externally defined but is structured as follows:

Field Name	From Pos	To Pos	Length	Description
@OEType	1	3	3	This holds the type of recipient and can be one of the following: TO CC BCC
@OEAddr	4	259	256	The email address for the recipient
@OEName	260	309	50	The name for the recipient

Example code definition

```
*
F@OUTDEA  UF A F  309          DISK    USROPN
*
* @OUTDEA output email address.
D @DEA           DS
D @OEType        1          3
D @OEAddr        4          259
D @OEName        260        309
*
I@OUTDEA  NS  01
I                               1  309  @DEA
```

Note: If you write more than 19 entries to this file they will be ignored.

11.4.1.5 Cobwebb File Exit Program

The **Cobwebb File** exit programs can be used in the **File Output Device** and can be used to interface with your existing Archiving system or FTPing the document to another server. Sample programs may be found in either the **USRTOOL** [for RPG] or **USRTOOLLE** [for RPGLE] source file in the **CPPD** library - see entries where the *Description* is prefixed **OUTD-FIL**. We have only provided RPGLE (or RPG) source. You can use CLLE (or CLP) as well but you must have all the correct parameters as defined below.

Note: When creating a **File Exit Program** you will need to add any required libraries (*before you open the files*) as the libraries added to your Cobwebb Design are not carried through to the Distribution program.

- Step 1 - **Create** your Cobwebb File Exit Program

Notes:

The **first 3 parameters** will always be the **File Path, File Name** and **File Extension**; if you want to pass back information to your Cobwebb Design then you need to return this in the **Parameters 1 - 20**.

Remember to set the **Error** parameter to either **0 (or blank) for Success** or **1 for Failure** this is then passed back to the Cobwebb Server software to handle accordingly.

- Step 2 - **Test your Cobwebb File Exit Program** using the [Cobwebb Test Harness](#) for a File Exit Program **TSTFPRM**.
- Step 3 - **Test your PPD** interactively.
 - [Enable Test Mode](#) to write parameter details to the joblog.
 - Use the [RUNPPD](#) command. **Note:** Make sure that you only have the libraries that existing in the **SPLMON** Job Description in your Library List (CPPD, QGPL, QTEMP by default) so if there are any missing libraries you will know and can add them to your File Exit Program.

Program Parameters

Parameter	Attribute	Description
FilePath	A (256)	File Path
FileName	A (64)	File Name
FileExt	A (3)	File Extension
Parm01	A (132)	Parameter 1 from the PPD
Parm02	A (132)	Parameter 2
Parm03	A (132)	Parameter 3
Parm04	A (132)	Parameter 4
Parm05	A (132)	Parameter 5
Parm06	A (132)	Parameter 6
Parm07	A (132)	Parameter 7
Parm08	A (132)	Parameter 8
Parm09	A (132)	Parameter 9
Parm10	A (132)	Parameter 10
Parm11	A (64)	Parameter 11

Parm12	A (64)	Parameter 12
Parm13	A (64)	Parameter 13
Parm14	A (64)	Parameter 14
Parm15	A (64)	Parameter 15
Parm16	A (64)	Parameter 16
Parm17	A (64)	Parameter 17
Parm18	A (64)	Parameter 18
Parm19	A (64)	Parameter 19
Parm20	A (64)	Parameter 20
Error	A (1)	Error code to return to calling program. 0 = Success 1 = Failure

11.4.2 Using the Advanced Reformatting Utility

The **Advanced Reformatting Utility** allows you to totally control the format of your output document via the **ADVRFMT** [*Cobwebb Standard*] Exit Program; for example you may:

- Define the number of detail lines that are output on a page.
- Merge information from different pages onto one page - *from v1.8*
- Change the sequence of the data you output
- Include whole lines of external information
- Displaying total number of pages e.g. Page 1 of 3
- Store information from one page of the spool file to include later in the document.
- Prevent a page break after a specific line of data
- Force a page break before a specific line of data
- Choose to print a heading of the Detail Key information on change in Detail Key field value and to output a blank line before / after or both
- Wrap and Store text to be output
- Summarise & Total information
- Write multiple Detail lines using a bespoke Exit Program to write to the **Advanced Reformatting Utility** - see [How to write Detail lines using an Exit Program](#).
- *From version 6.2.83* - For Infor customers who have the **Style Module** there is [ADVRSSTYLE](#) to help with the formatting of **Size / Quantity** information.

When using the **Advanced Reformatting Utility** you would normally create **two** PPD files:

1. The **Build PPD** - to pass information from the original spooled file, and any other external information you wish to include in your output, to the **Advanced Reformatting Utility**. This will create a brand new spooled file to include all of the information you have defined so there is no need to specify an Output Device or anything in the Output pane in this PPD. You will need to decide if your output needs to be:
 - a. **Portrait** (up to 132 characters) or **Landscape** (up to 264 characters) - use the *Mandatory* ***FIRST** *Call Type* which would normally be inside a **PAGE EQ *START Conditional** element in your design.
 - b. **Sorted at Header** level e.g. Customer Number - use the ***KEY** *Call Type* which would normally be inside a **PAGE EQ *FIRST Conditional** element in your design.
 - c. **Sorted at Detail** line level e.g. Item Lines - use the Detail Key Fields in the ***DET** *Call Type*.

You will then need to work out what information you wish to be included in the **Header** i.e. the same for each page of a document e.g. Invoice Header details, and what you want included as **Detail** lines e.g. Invoice Lines. These are specified using the ***HDR** and ***DET** *Call Types* respectively. **Note:** You must have at least one ***DET** *Call Type* in your PPD.

Finally you need to add the *Mandatory* *Call Type* of ***LAST** which is when the new spooled file is generated; this would normally be inside a **PAGE EQ *END Conditional** element in your design. You can also override the **Output Queue** and **User Data** at this point if you wish.

There are various other *Call Types* that may be used and they are all outlined below in **How it works in the Cobwebb Designer**.

2. The **Final PPD** - to format the generated spooled file from the **Advanced Reformatting Utility** direct to your required **Output Device** types. The generated spool file will have the file name of either **ADVPRTP** (Portrait) or **ADVPRTL** (Landscape).

How it works in the Cobwebb Designer

Note: You may also wish to see the [Flow Diagram](#) for an overall view.

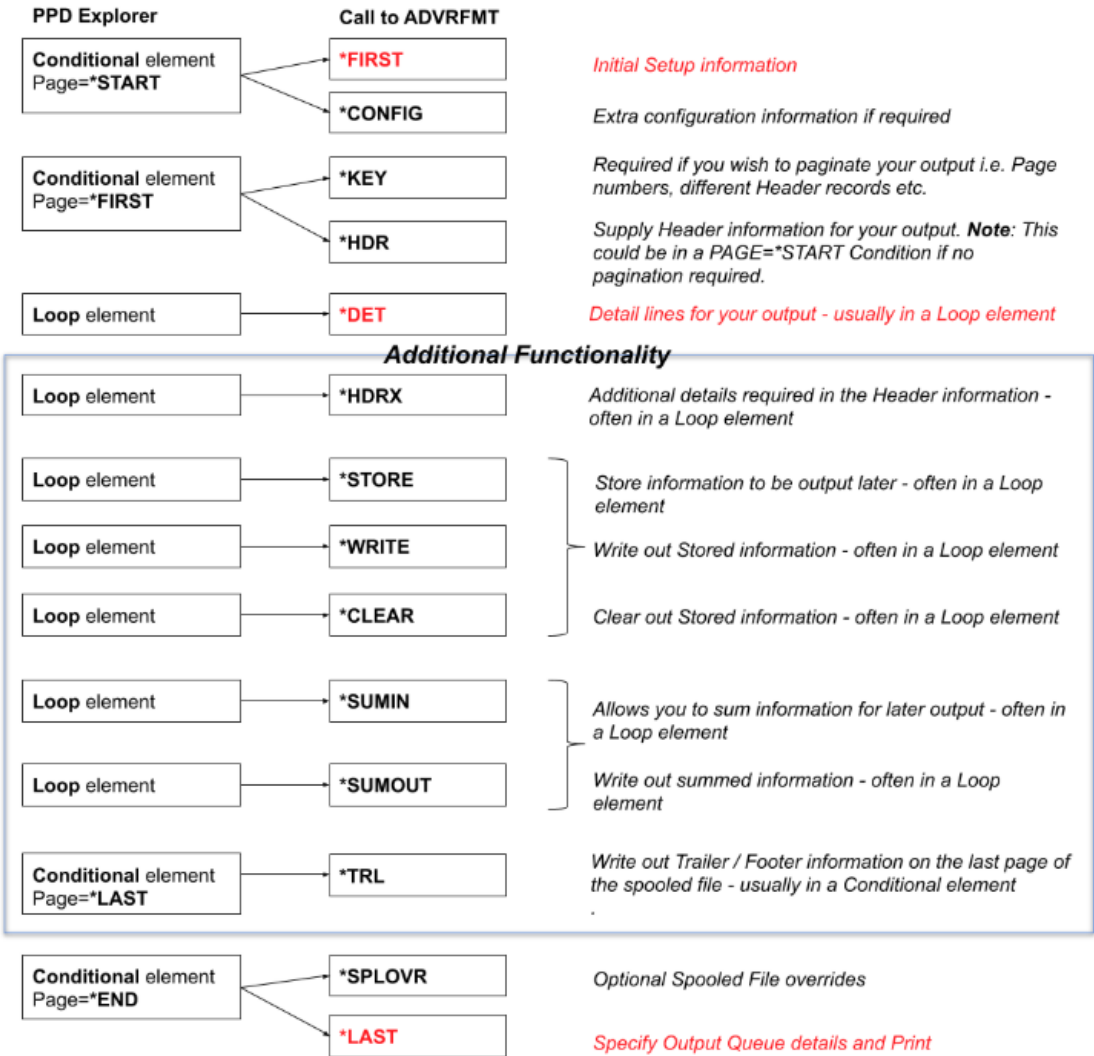
1. First we need to define the call the **ADVRFMT** program with ***FIRST** in PARM6 to provide the **initial setup** information such as desired lines per page to print, where you wish trailer/footer lines to start to printing and also whether the spooled file is ***WIDE = 264** columns wide (double width needed) or normal width (up to 132 columns wide). This is a *Mandatory* call and should only occur once per spooled file.
2. *From version 1.8* - there is an *Optional* ***CONFIG** call allowing you to specify other configuration details to be used when processing your PPD file; such as merging spooled file data from pages with the same ***KEY** details but where the pages may not be consecutive.
3. The next call of the **ADVRFMT** program is *Optional* and can be used to pass in **Header Key field** information either constant or from the source spooled file page, with ***KEY** passed into PARM6. This is used for sorting the output pages.
4. **Header lines** are *Optional* and are only stored once for a document (or when ***KEY** field information changes) but are passed in and the exit program is called on every page. Header lines will be printed at the top of every page of output for the document. Call **ADVRFMT** with PARM6 = ***HDR** repeatedly with PARMS 1-5 being used to enter 5 lines of header lines at a time from the source spooled file. Each time you call **ADVRFMT** with

PARM6 = *HDR, pass in the next 5 lines of header text in PARMs 1-5. **Note:** If you want to output Header information AFTER Detail lines then you will need to pass *HDRX (extra) in PARM6 - (Advanced Reformatting Utility v1.4 or greater).

5. For **Detail lines** in the loop, call **ADVRFMT** with PARM6 = ***DET** (detail lines). Each detail item line will be passed using PARM1 (only) for 132 wide lines or PARM1 and PARM2 on the same line for 264 char wide lines. PARM5 can be set to ***NO** to "not allow a page throw after the line being copied". This means if PARM5 = *NO, the next line copied will be kept onto the same page with no page throw allowed. Please note, PARM5 only states "Allow a page throw?" but pages will not be thrown unless the max number of lines per page is reached and PARM5 is not *NO. It is used only to prevent throwing a page for a few lines which need to be kept together on the same page. If you wish to re-sequence your detail lines then you may use either one or both of the key fields (PARM3 & PARM4) to supply the key sequence otherwise the order of the detail lines will remain as on the input spooled file. This is a *Mandatory* call and you should have at least one Detail line in your output.
6. On the last page for a document you can output *Optional Trailer lines* by calling **ADVRFMT** with PARM6 = ***TRL**. PARMs 1-5 should then contain the footer text which will only be printed on the last page of the output.
7. If you wish to **store** some text from the spool file to print at a later point in the output then you may call **ADVRFMT** using the ***STORE** and ***WRITE** calls to store and write the text respectively. You may specify a **Line_ID** for the stored text so that the number of stored lines is limitless. When you write the text you can choose whether to write it as a Detail, Header or Trailer line. There is also a ***CLEAR** call to clear any stored text by **Line_ID**.
8. You can also choose to **wrap** the stored text. This is done using the ***WRAP** and ***WRITE** calls in **ADVRFMT** to wrap and write the text respectively. You may specify a **Line_ID** for the stored text so that the number of stored lines is limitless. When you write the text you can choose whether to write it as a Detail, Header or Trailer line.
9. If you wish to **summarise** information, with up to two values to be totalled, then you may use the ***SUMIN** and ***SUMOUT** calls in **ADVRFMT** to store and write out the summary information. You may specify a **Summary_ID** for a set of summary lines. When you output the summary you can choose whether to write it as a Detail, Header or Trailer line. This could be useful if you had say an item number appearing more than once and you want to total the quantities and just output one line for the total.
10. Although the Advanced Reformatting Utility has configurable overrides on the ***LAST** call you may wish to add others such as **HOLD(*YES)** or **IGCDTA(*YES)** if you need to output to a **Double Byte** spooled file. You can use the ***SPLOVR** call to specify any overrides that are not already being used by the Advanced Reformatting Utility.
11. Finally, call **ADVRFMT** with PARM6 = ***LAST** to **setup the printer queue** and other output information to use, this triggers the creation of the new spooled file. This is a *Mandatory* call.

11.4.2.1 Flow Diagram

Note: The entries in Red are Mandatory.



11.4.2.2 *FIRST Call

This is a **MANDATORY** call to pass in the **Initial Setup** and must be inside a “Page = *FIRST” or “Page = *START” condition as it must only be called **ONCE** in a PPD file.

Parameter	In	Len	Comment
PARM1	Number of Detail lines output per page LPP <i>(From v1.9 of the Advanced Reformatting Utility this has been increased from a limit of 99)</i>	3	Excluding Header & Trailer lines. Default is 30. Note: The LPP + Header lines + Trailer lines can never be more than 249 (1 line required for Page 1 of n & Server maximum is 250). If you enter too many lines then the LPP will be automatically adjusted to the maximum allowed.

PARM2	Blank or *WIDE	5	*WIDE if data > 132 characters
PARM3	Must be 60, 65 or blank #1	2	Start print line for Trailer lines if supplied. If entered this must be less than the value of PARM1 otherwise "blank" will be assumed.
PARM4	Blank, *YES #2 or *YESn #3	1	If *YES then the process will check if 1st Detail line on a new page is blank, or exactly matches the <i>Blank line identifier</i> passed in PARM5, and remove it. If *YESn where n = 0 - 9 . Here the n is used for consecutive blank line suppression .
PARM5	Data or Blank #2	13 2	Blank line identifier for PARM4 as sometimes the lines will just have the column separators and won't actually be blank. - (v1.6 or greater)
PARM6	*FIRST	7	

Note #1: If blank Trailer lines follow straight after details. If you do specify 60 or 65 then you must make sure that your detail lines do not output after this position.

Note #2: If PARM4 = *YES then the data passed in PARM5 will be checked against the first 132 bytes of the first Detail line at the start of a new page. This is mainly to prevent a blank line at the start of the detail lines when a page throw occurs.

Note #3: If PARM4 = *YESn (where n is 0 - 9) then the data passed in PARM5 will be checked against the first 132 bytes of any Detail line. This is to prevent consecutive blank lines appearing in your output. The value n allows you to control the number of blank lines that you are happy to include in your output. If n=0 then no blank lines are allowed, n=1 then only one blank line is allowed, if n=2 then two consecutive blank lines will be allowed etc. - (v1.6 or greater)

11.4.2.3 *CONFIG Call

From v1.8 of the Advanced Reformatting Utility. This is an *OPTIONAL* call to pass extra **Configuration** details for use when processing your PPD file. This call **MUST** come directly **AFTER** your ***FIRST** call in your PPD design as this contains configuration information for the entire process.

This is where you can specify if you wish to **Merge** the data from spooled file pages which have the same ***KEY** information but where the pages may or may not be consecutive in the original spooled file.

From v1.9 of the Advanced Reformatting Utility You may also **Override the Spool File Owner** of the generated spool file.

Parameter	In	Length	Comment
PARM1	*YES, *NO or Blank	4	If this parameter is *YES then data from pages containing the same *KEY

			information will be merged. *HDR & *TRL information will be taken from the first page only. Note: You should not use this option if you are printing totals from your original spooled file as they will no longer be correct.
PARM2	User ID or Blank		If entered this User ID will be used to Override the Spool File Owner of the generated spool file. Note: This must be a valid User ID - if not then the original owner of the spool file will be used.
PARM3			
PARM4			
PARM5			
PARM6	*CONFIG	7	

11.4.2.4 *KEY Call

This is an *OPTIONAL* call to pass in the **Header Key** information for sequencing the output and also for pagination.

Note: Key call **MUST** come **BEFORE** the [*HDR Header call](#).

Parameter	In	Len	Comment
PARM1	Key Field 1	30	Keys making document unique - you may specify up to 3
PARM2	Key Field 2	30	
PARM3	Key Field 3	30	
PARM4	Blank, *HDR, *TRL, *BOTH	7	Detail Key Field 1 break line #1
PARM5	Blank, *HDR, *TRL, *BOTH	7	Detail Key Field 2 break line #1
PARM6	*KEY	7	

Note #1: These two parameters [PARM4 & PARM5] determine whether or not a separate Detail line (and blank line) should be written when the corresponding Detail Key Field changes. You may specify if the extra Detail lines should be written **before** the Detail Key Field change (*HDR), **after** (*TRL) or **both** (*BOTH).

Example:

```

StartKey 1: <Detail Key Field 1 data>
StartKey 2: <Detail Key Field 2 data>
<Detail Lines>
<Detail Lines>
EndKey 2: <Detail Key Field 2 data>
StartKey 2: <Detail Key Field 2 data>
<Detail Lines>
<Detail Lines>
EndKey 2: <Detail Key Field 2 data>
EndKey 1: <Detail Key Field 1 data>

```

Note: Information displayed between <> is variable data.

11.4.2.5 *HDR Call

This is an *OPTIONAL* call to pass in **Header** details. You may have multiple consecutive *HDR calls if you have more than five lines of header text. Header information will continue to be stored until the first [*DET call](#). When a new [*KEY call](#) is specified then new Header information will be stored. Using ***NONE** in PARM1 - PARM5 will assume you want a blank line.

Note: If you want to output Header information AFTER Detail lines then you will need to pass ***HDRX** (extra) in PARM6 - (v1.4 or greater). This new option has been added to allow for the *HDR call to be backwardly compatible.

Header lines will be replaced on change of Header Key if using an [*KEY](#) call.

Parameter	In	Length	Comment
PARM1	Data or *NONE	132	If using *WIDE then each line is specified over two PARMs thus leaving PARM5 redundant.
PARM2	Data or *NONE	132	
PARM3	Data or *NONE	132	
PARM4	Data or *NONE	132	
PARM5	Data or *NONE (ignored if *WIDE)	132	
PARM6	*HDR or *HDRX	7	

11.4.2.6 *DET Call

This is an **MANDATORY** call to pass in **Detail** lines. You must have at least one *DET call to the program.

Note: From *Advanced Reformatting Utility v2.0 or greater* Detail lines are no longer Mandatory if you have at least one Header line.

This would normally be inside a "Loop" .

Parameter	In	Length	Comment
PARM1	Data	132	If using *WIDE then each line is specified over PARM1 & PARM2.
PARM2	Data (only if using *WIDE)	132	
PARM3	Detail Key Field 1	30	Key 1 to sequence lines
PARM4	Detail Key Field 2	30	Key 2 to sequence lines
PARM5	*NO /*NOW	4	See Note #1
PARM6	*DET	7	

Note #1: ***NO** if you do not want to allow a skip to a new page after this line, ***NOW** if you want to throw a page after this line, else leave blank.

11.4.2.7 *TRL Call

This is an **OPTIONAL** call for passing in **Trailer** lines so that they appear at the bottom of the last page of the output. The ***FIRST** call *PARM3* controls the positioning of your Trailer output. You may have multiple consecutive ***TRL** calls if you have more than 5 lines of trailer text. Using ***NONE** in PARM1 - PARM5 will assume you want a blank line.

Note: If you decide to specify a "Start print line" for your Trailer lines, in your ***FIRST** call, then you will need to make sure that your detail lines do not output past the chosen Trailer position.

Trailer lines will be replaced on change of Header Key if using an ***KEY** call.

Parameter	In	Length	Comment
PARM1	Data or *NONE	132	If using *WIDE then each line is specified over two PARMs thus leaving PARM5 redundant.
PARM2	Data or *NONE	132	
PARM3	Data or *NONE	132	

PARM4	Data or *NONE	13 2	
PARM5	Data or *NONE (ignored if *WIDE)	13 2	
PARM6	*TRL	7	

11.4.2.8 ***STORE Call**

This is an *OPTIONAL* call to **Store** the text for a Line ID which you may then subsequently write using the [*WRITE](#) call. You may store a blank portion of data by specifying blank in 'Data to store' and specifying '*Length of output data*' as the number of blank spaces you want. If the data that you store ends up wider than the selected output [132 or 264 for ***WIDE**] then the information will be truncated.

Note: If you use the same Line ID more than once then subsequent calls will append the data until a ***WRITE** is called.

Parameter	In	Len	Comment
PARM1	Line ID (opt)	10	Unique ID for the stored information, may be blank.
PARM2	Data to store	13 2	
PARM3	Length of output data (opt)	3	Used when storing blank information or using Right Align
PARM4	Right Align [*YES] (opt)	4	If you specify *YES then you must specify an entry in PARM3. Any text will be right aligned to the position you specify. If the length of data to store is longer than the value specified in PARM3 then Right Align will be ignored.
PARM5			
PARM6	*STORE	7	

11.4.2.9 ***WRITE Call**

This is an *OPTIONAL* call to **Write** the stored ([*STORE](#)) or wrapped ([*WRAP](#)) text for a Line ID.

Parameter	In	Len	Comment
PARM1	Line ID	10	Unique Line ID for the stored data you wish to output. Can be blank.

PARM2	*HDR, *HDRX, *DET, *DETN, *DETY, *TRL	4	Decide which type of output - see Note #1.
PARM3	Detail Key Field 1 (opt)	30	Key 1 to sequence lines - *DET, *DETN, *DETY only.
PARM4	Detail Key Field 2 (opt)	30	Key 2 to sequence lines - *DET, *DETN, *DETY only.
PARM5	Number of blank lines after	1	If you specify a number here then that number of blank lines will be written after EVERY stored record output for the supplied Line ID.
PARM6	*WRITE	7	

Note #1:

*HDR	Header Line
*HDRX	Header Line output even after details lines have been written (<i>v1.4 or greater</i>)
*DET	Detail Line
*DETN	Detail line - but do not want a skip to a new page after this line = *NO
*DETY	Detail Line - but want to throw a page before this line = *NOW
*TRL	Trailer Line

11.4.2.10 *WRAP Call

This is an *OPTIONAL* call to **Wrap** the text for a Line ID which you may then subsequently write using the [*WRITE](#) call - (*Advanced Reformatting Utility v1.3 or greater*). If you pass a blank line then it will assume a new paragraph.

Parameter	In	Len	Comment
PARM1	Line ID (opt)	10	Unique ID for the stored information, may be blank.
PARM2	Data to wrap	132	
PARM3	Length to wrap to (opt)	3	Defaults to 132
PARM4	No Paragraphs #1 (opt)	4	Blank or *YES
PARM5			
PARM6	*WRAP	7	

Note #1: If you pass in a line with a full stop and nothing after then it will assume you want to start a new line unless you specify ***YES** in PARM4.

11.4.2.11 *CLEAR Call

This is an *OPTIONAL* call to **Clear** the stored ([*STORE](#)) or wrapped ([*WRAP](#)) text for a Line ID if it is no longer required.

Parameter	In	Len	Comment
PARM1	Line ID	10	Unique Line ID for the stored data you wish to clear. Can be blank.
PARM2			
PARM3			
PARM4			
PARM5			
PARM6	*CLEAR	7	

11.4.2.12 *SUMIN Call

This is an *OPTIONAL* call to **Summarise** the text for a Summary ID which you may then subsequently write using the [*SUMOUT](#) call - (*Advanced Reformatting Utility v1.2 or greater*).

Parameter	In	Len	Comment
PARM1	Summary ID (opt)	10	Summary ID - used if you wish to summarise different types of output in one PPD.
PARM2	Unique Text	30	Unique Text used to summarise values passed in PARM4 & 5 e.g. Item Number
PARM3	Other Text	50	Other Text e.g. Description - optional
PARM4	Summary Value 1	21	Value that you wish to accumulate. If you wish to accumulate negative numbers then include the minus sign to the right hand side of the printed value e.g. 10.00-. (<i>v1.5 or greater</i>)
PARM5	Summary Value 2	21	Second Value that you wish to accumulate - optional. If you wish to accumulate negative numbers then include the minus sign to the

			right hand side of the printed value e.g. 10.00-. (v1.5 or greater)
PARM6	*SUMIN	7	

11.4.2.13 *SUMOUT Call

This is an *OPTIONAL* call to **Output** the Summary information for a Summary ID stored using the ***SUMIN** call - (*Advanced Reformatting Utility v1.2 or greater*).

Parameter	In	Length	Comment
PARM1	Summary ID	10	Summary ID for the lines you wish to output at this time.
PARM2	*HDR, *HDRX, *DET, *DETN, *DETY, *TRL	4	Decide which type of output - see Note #1.
PARM3	Detail Key Field 1 (opt)	30	Key 1 to sequence lines - *DET, *DETN, *DETY only.
PARM4	Detail Key Field 2 (opt)	30	Key 2 to sequence lines - *DET, *DETN, *DETY only.
PARM5	Number of blank lines after	1	If you specify a number here then that number of blank lines will be written after EVERY summary record output for the supplied Summary ID.
PARM6	*SUMOUT	7	

Note #1:

*HDR	Header Line
*HDRX	Header Line output even after details lines have been written (<i>Advanced Reformatting Utility v1.4 or greater</i>)
*DET	Detail Line
*DET N	Detail line - but do not want a skip to a new page after this line = *NO
*DETY	Detail Line - but want to throw a page before this line = *NOW
*TRL	Trailer Line

Output Line format

The summary information is written to the spool file in the following format:

Field	Start position	End position
Unique Text	1	30
Other Text	32	81
Summary Value 1	83	99
Summary Value 2	101	117
Text - *RECS	119	123
No of Records with Unique Text	125	131

11.4.2.14 *SPLOVR Call

This is an *OPTIONAL* call to allow for extra overrides on the generated spooled file - (*Advanced Reformatting Utility v1.6 or greater*). This call must be specified BEFORE the [*LAST](#) call.

Notes:

- The keyword **MUST** be exactly as specified on the **OVRPRTF** command. For instance, if you wish your output spooled file to be **Double Byte** enabled then specify **IGCDTA(*YES)**.
- If you wish to add more than one override then just add a space between them e.g. **HOLD(*YES) IGCDTA(*YES)**
- Keywords that **CANNOT** be used in the Override call are:
 - **FILE** - ADVRPRTF or ADVRPRTL for Portrait or Landscape output respectively and cannot be changed.
 - **OUTQ** - configurable via *LAST call
 - **FORMTYPE** - configurable via *LAST call
 - **USRDATA** - configurable via *LAST call
 - **CHRID** - retrieved from original spooled file

Parameter	In	Len	Comment
PARAM1	Extra overrides	132	Add the required extra overrides e.g. HOLD(*YES) or HOLD(*NO) to Hold or Release the resultant spooled file respectively.
PARAM2	Not used		
PARAM3	Not used		
PARAM4	Not used		
PARAM5	Not used		
PARAM6	*SPLOVR	7	

11.4.2.15 *LAST Call

This is an **MANDATORY** call and should be inside either a “Page = *LAST” or “Page = *END” condition and only called **ONCE** within a PPD file.

This calls the print program to produce the new print file **ADVPRTP** or **ADVPRTL** (depending upon whether using 132 characters or wider respectively) in output queue **QPRINT** in library **CPPD** with user data **ADVRPRT** unless overridden in the parameters. Once the print program has been called the ADVRFMT program ends.

Parameter	In	Length	Comment
PARM1	Output queue	10	Only if different from QPRINT (must exist).
PARM2	Output queue Library	10	Only if different from CPPD (must exist).
PARM3	User Data	10	Only if different from ADVRPRT
PARM4	Form Type	10	Optional
PARM5	<i>Split Output</i> see Note #1.	10	
PARM6	*LAST	7	

Note #1: There are three keywords that can be used in this *Split Output* parameter.

*SPLITKEY1	Create a new spool file when Key Field 1 [*KEY call] changes
*SPLITKEY2	Create a new spool file when Key Fields 1 & 2 [*KEY call] change
*SPLITKEY3	Create a new spool file when Key Field 1, 2 & 3 [*KEY call] change

11.4.2.16 Pre-paginator for the Advanced Reformatting Utility

From version 6.2.88 - **ADVPREPAGE** is a Cobwebb Exit program to pre-process the pagination for detail lines (***DET call**) being passed to the [Advanced Reformatting Utility \(ADVRFMT\)](#). This can be useful if you have a varying number of lines for each specific Item in your spooled file and you want to keep / group them on the same page.

In the Cobwebb Design (PPD) where you wish to use this Exit program you must first have called the **ADVRFMT** Exit program with an ***FIRST** call to set up the configuration and open the files.

Note: The **Lines Per Page** in the ***FIRST** call to the **ADVRFMT** in your design **MUST** be the same as the **Lines Per Page** in the ***FIRST** call to **ADVPREPAGE**.

This Exit program will try to write up to the maximum number of lines per page depending upon where the **Page Throw** parameter is **Blank** or ***NOW**. **Note:** If there are more consecutive **Page Throw = *NO** lines than the **Maximum LPP** then a page throw will be forced at the point where the limit has been reached.

***FIRST Call**

This is a call passing the **Number of lines per page** and the **Maximum number of lines per page**. This must be called in the **PAGE = *FIRST** Condition in your **Cobwebb Design** as this is per document in the spooled file.

Parameter	In	Len	Comments
PARM1	Lines per page (LPP)	3	This must be the same as in your *FIRST call to the ADVRFMT in your PPD. Default 30.
PARM2	Maximum LPP	3	This must be greater than the LPP. Default is 249.
PARM3			
PARM4			
PARM5			
PARM6	*FIRST	7	

*DET Call

This is a call to store all of the information for the ***DET** lines into arrays for re-pagination. **Note:** You can only pass in a maximum number of **99,999** ***DET** lines into this program. If you pass in more than '***ERROR**' will be passed back in **PARM1**.

Parameter	In	Len	Comments
PARM1	Data	132	The spooled file data to be paginated.
PARM2	Data	132	The spooled file data to be paginated, only if using *WIDE .
PARM3	Detail Key Field 1	30	Key 1 to sequence lines.
PARM4	Detail Key Field 2	30	Key 2 to sequence lines.
PARM5	Page Throw *NO/*NOW	4	*NO if you do not want to allow a skip to a new page after this line, *NOW if you want to throw a page after this line, else leave blank.
PARM6	*DET	7	

*LAST Call

This call will pre-paginate all the supplied ***DET** lines and alter the **Page Throw** entry for a line if required (PARM5 from the ***DET** call). Once the data has been paginated it is passed to the Advanced Reformatting Utility as a [*DET call](#). This must be called in the **PAGE = *LAST** Condition in your Cobwebb Design as this is per document in the spooled file.

Parameter	In	Len	Comment
PARM1			
PARM2			
PARM3			
PARM4			
PARM5			
PARM6	*LAST	7	

11.4.2.17 API for the Advanced Reformatting Utility

ADVRFMTAPI

This is a Cobwebb Standard Exit program which can only be used in conjunction with the **ADVRFMT** Exit program. It allows you to store information from the input spool file to be output at a later point in the output document. The maximum number of lines to store before outputting is 100.

If you are simply wishing to store information from the spooled file then you can use the [*STORE](#) and [*WRITE](#) calls in the **ADVRFMT** Exit program, but if you need to retrieve other information from a database then this API can be useful.

***IN call**

This call allows you to pass in the spooled file data to store.

Parameter	In	Len	Comment
PARM1	Data	132	If using *WIDE then each line is specified over PARM1 & PARM2.
PARM2	Data (only if using *WIDE)	132	
PARM3	Detail Key Field 1	30	Key 1 to sequence lines
PARM4	Detail Key Field 2	30	Key 2 to sequence lines
PARM5	*NO / *NOW	4	<i>See Note #1</i>
PARM6	*IN	7	

Note #1: ***NO** if do not want to allow a skip to a new page after this line, ***NOW** if you want to throw a page before this line, else leave blank.

Note #2: If you pass in more than 100 lines of data then you will receive ***ERROR** returned in PARM1.

*OUT call

This call allows you to pass out all data stored to ADVRFMT. This **MUST** be called AFTER an [*FIRST](#) [*Output Setup*] call to ADVRFMT.

Parameter	In	Len	Comment
PARM1			
PARM2			
PARM3			
PARM4			
PARM5			
PARM6	*OUT	7	

11.4.2.18 How to write Detail lines using an Exit Program

If you wish to retrieve multiple detail lines from an external system to write out via the **Advanced Reformatting Utility** then we have provided some sample source for you to be able to write your own Exit program to do this. If you look in **QUSRTOOLLE** source file in library **CPPD** you will see the source for a program called **COBADVWRT**. This program shows you how you can write individual ***DET** lines directly to the **ADVRFMT** program. If your version doesn't have this source then please ask [Cobwebb Support](#) for details.

There are several steps you need to follow if you wish to write detail lines in this way.

In your PPD file you must follow this process:

1. Specify the [*FIRST](#) call to ADVRFMT to define the **Initial Setup** - *Mandatory*.
2. Specify the [*KEY](#) call to ADVRFMT to define the **Header Key** - *Optional*.
3. Specify the [*HDR](#) call to ADVRFMT to define the **Header details** - *Optional*.
4. Now you may call your bespoke Exit Program to write the [*DET](#) lines to ADVRFMT. Here you have the option to either pass in or hard code details such as *Detail Key Fields, Page Throw* etc.

Notes: The *LineType* entry must always be *DET.

The parameters that are passed to the ADVRFMT program are the same as those defined for the [*DET call](#).

All parameters are cleared by ADVRFMT after processing so you will need to pass them every time you call ADVRFMT even if they are the same.

5. Specify the [*LAST](#) call to ADVRFMT to define the **Output Setup** - *Mandatory*.

11.4.2.19 Using the Style Module ADVRSTYLE

Overview

From version 6.2.83 - For Infor customers who have the Style Module, Invoices and Orders have the Size and Quantity information written as three entries per line in the format Size / Quantity. The **ADVRSTYLE** Standard Exit Program allows you to output this information in a more tabular format, when using the [Advanced Formatting Utility](#), with the option of configuring the number of buckets (columns) you wish to include, per line, for the Size and Quantity information. In our example below we have decided on 4 but you can select from between 1 - 9 with the default being 6.

```
*STY Blue           XL           Large           Med           Small
                   2             1             5             6

*STY                XXL           XXS
                   3             1
```

Note: This program writes Detail lines to the [Advanced Formatting Utility](#). This means that, in your PPD design you must follow this process:

1. Specify the [*FIRST](#) call to ADVRFMT to define the **Initial Setup** - *Mandatory*.
2. Specify the [*KEY](#) call to ADVRFMT to define the **Header Key** - *Optional*.
3. Specify the [*HDR](#) call to ADVRFMT to define the **Header details** - *Optional*.
4. Now you may call the **ADVRSTYLE** Exit Program to first Store all the **Size / Quantity** information for a particular **Item / Colour**, using the [*STYLES](#) call.
5. When you have stored all of the **Size / Quantity** information for a particular **Item / Colour** use the [*STYLEW](#) call to write the information as Detail lines to ADVRFMT. Here you have the option to add details such as *Detail Key Fields, Page Throw* etc.
6. **Note:** You may specify any number of [*DET](#) lines between **Steps 3 & 7** - *Optional*.
7. Specify the [*LAST](#) call to ADVRFMT to define the **Output Setup** - *Mandatory*.

*STYLES Call

This is a call to **Store** the **Style Code** and **Quantity** information, for an **Item / Colour**, which you may then subsequently write using the [*STYLEW](#) call. As there are up to three combinations of Size / Quantity per line on the spooled file you can pass all three at once. If you have further lines of Size / Quantity information then simply add another ***STYLES** call but you must supply the **Item Code** and **Colour Description** each time.

Parameter	In	Len	Comment
PARM1	Item Code	3	Item Code (acts like a Line ID)
PARM2	Colour Description	5	Colour Description for entry
PARM3	Size Code / Qty	2	Size Code / Quantity
PARM4	Size Code / Qty	1	Size Code / Quantity

PARM5	Size Code / Qty	13 2	Size Code / Quantity
PARM6	*STYLES	7	

*STYLEW Call

This is a call to **Write** all the stored ([*STYLES](#)) data on a change in **Item / Colour**. This may result in more than one line being output. These lines will be prefixed with ***STY*** in order to help when formatting your final output.

Parameter	In	Len	Comment
PARM1	Item Code	10	Item Code whose details you wish to output. Note: The number of *STY* lines written will be returned in this parameter e.g. 2
PARM2	*DET, *DET, *DETY	4	Decide which type of output - see Note #1.
PARM3	Detail Key Field 1 (opt)	30	Key 1 to sequence lines
PARM4	Detail Key Field 2 (opt)	30	Key 2 to sequence lines
PARM5	Number of buckets / columns per line	1	1-9 default 6
PARM6	*STYLEW	7	

Note #1:

*DET	Detail Line
*DET	Detail line - but do not want a skip to a new page after this line = *NO
*DETY	Detail Line - but want to throw a page before this line = *NOW

11.4.3 SPLATR Data Area Definition

The data area **SPLATR** is created by the CRTPPD program and will remain in **QTEMP** until the next CRTPPD command is processed.

Cobwebb have supplied some sample RPGLE source [*versions after 6.2.24*] which includes the data area definition - see the member **RTVSPLATR** in **QUSRTOOLLE** source file in the **CPPD** library.

Data Area Definition

The total size of the data area is 2000.

Note: Entries in the following table with their **Description** in blue are returned by the supplied [COBSPLATR](#) Exit Program.

Start	End	Length	Type	Description
1	48			<i>Not used at present</i>
49	58	10	A	Job Name. The name of the job that owns the spooled file
59	68	10	A	User Name. The name of the user that owns the spooled file
69	74	6	A	Job Number. The number of the job that owns the spooled file
75	84	10	A	Spool File Name. The name of the spooled file whose information is retrieved
85	88	4,0	Binary	Spool File Number. The spooled file number of the specified file
89	98			Forms Type. The type of form to be loaded in the printer to print this file
99	108	10	A	<p>User-defined data. Data defined by the user to be used by user applications or user-specified programs that process spooled files.</p> <p>The following values are supported:</p> <p><i>*NONE</i> No user-defined data is specified. <i>User-defined data</i> Data defined by the user.</p>
109	128			<i>Not used at present</i>
129	138	10	A	<p>Hold file before written. Whether the file is held. The hold parameter handles this function on a Create Printer File (CRTPRTF), Override Printer File (OVRPRTF), or Change Printer File (CHGPRTF) command.</p> <p>The possible values are:</p> <p><i>*YES</i> The file is held <i>*NO</i> The file is not held</p>
139	148			<i>Not used at present</i>
149	152	4,0	Binary	Total pages. The number of pages this printer file contains
153	156			<i>Not used at present</i>
157	160	4,0	Binary	<p>Start Page Number. The page at which printing is to start for the file.</p> <p>The possible values are:</p> <p><i>0</i> Printing starts on page 1.</p>

				-1 Use the ending page value. 1-2147483647 Number of page to start printing from.
161	164	4,0	Binary	End Page Number. The page at which printing is to end for the file. 0 or 2147483647 indicates the last page.
165	172			<i>Not used at present</i>
173	176	4,0	Binary	Total copies. The total number of copies to be produced for this printer file
109	190			<i>Not used at present</i>
191	200	10	A	Output Queue Name. The name of the output queue where the file is located.
201	210	10	A	Output Queue Library. The name of the library that contains the output queue.
211	214	4,0	Binary	Source Drawer. The drawer to be used when the automatically cut form feed option is selected. The possible values are: 1-255 The drawer number. -1 *E1, the envelope drawer. -2 *FORMDF, indicating that the file uses a user-specified form definition. This value is used only for *LINE, *AFPDS, *IPDS, *SCS, or *AFPDSLIN printer device type files.
215	218	4,0	Binary	CCSID. The coded character set identifier (CCSID) used when the user-defined text was created using the Change User Print Information (CHGUSRPTI) command.
219	220			<i>Not used at present</i>
221	227	7	A	Printed Date. Date file opened (created) The date, based on local job time, that the file was opened in the CYMMDD format where: C Century, where 0 indicates years 19xx and 1 indicates years 20xx. YY Year MM Month DD Day
228	233	6	A	Printed Time. Time file opened (created) The time, in local job time, that the file was opened in the HHMMSS format where: HH Hour MM Minutes

				SS Seconds
234	243	10	A	Graphic Character Set. The set of graphic characters to be used when printing this file. For *DEV D, the system gets the graphic character set from the printer device description.
244	253	10	A	Code Page. The name of the code page used to print this spooled file.
254	2000			<i>Not used at present</i>

11.4.4 Supplied Exit Programs

The majority of Cobwebb supplied exit programs are **CPPD** exit programs but we do have a couple of **Print** and **File** exit programs as well. The programs can be found in the CPPD library.

Note: If you do not have a current version of the Cobwebb Document Management software then you may not have all of these programs available. Please contact a [Cobwebb Consultant](#) and they will probably be able to supply you with the exit program you require.

Cobwebb Standard Exit Programs

These programs can be used in your main Cobwebb design - see the topic [Calling an Exit Program](#) for details.

Advanced Reformatting Utility Exit Programs

These Exit programs are designed to work in conjunction with the [Advanced Reformatting Utility](#)

[ADVRFMTAPI](#) - Allows you to store information from the input spool file to be output at a later point in the output document. This has largely been replaced by the ability to use Key fields in the [*DET call](#)

[ADVRSTYLE](#) - Allows you to output the Size and Quantity information, written as three entries per line in the format Size / Quantity, in a more tabular format - *from version 6.2.83*

[ADVPREPAGE](#) - Allows you to pre-process the pagination for detail lines ([*DET call](#)) - *from version 6.2.88*

General Exit Programs

[COBADD & COBADDR](#) – Add parameters and return

[COBADDUR](#) - Add / Subtract a duration to / from a date

[COBADDTIM](#) - Add Hours, Minutes or Seconds to a Starting Time - *from version 6.2.83*

[COBCASE](#) – Convert case of parameters

[COBCENTRE](#) - Centre a string based on the supplied length - *from version 6.2.67*

[COBCHARCHK](#) - Compare string position with given character

[COBCHKEML](#) - Checks that the supplied string contains an '@' - *from version 6.2.88*

[COBCOMPNUM](#) - Compare two numbers and return if *GT, *LT or *EQ - *from version 6.2.57*

[COBCONTACT](#) - Supplied as sample source to retrieve Contact Details from Aurora Contact Management

- [COBCOUNT](#) – Increment multiple counters
- [COBCVTDAT](#) – Convert date from one format to another
- [COBDATE](#) – Return the system date and time
- [COBDIV & COBDIVR](#) – Divide two parameters
- [COBFILDET](#) - Extract File Folder, Name and Extension from the supplied path
- [COBFILECHK](#) - Check the validity of a file name for either the IFS or QDLS
- [COBFIND](#) – Find a Pattern in a String
- [COBFINDRET](#) – Find a Pattern in a String & Return Data - *from version 6.2.83* this has been replaced by [COBFNDRET](#)
- [COBFMT](#) – Format numeric output
- [COBFMTBC](#) – Format a Barcode string
- [COBFMTNUM](#) – Format numeric values
- [COBFNDRET](#) – Find a Pattern in a String & Return Data
- [COBGENLIBL](#) - Add or Remove Libraries defined in the [Cobwebb General Directory](#) - *from version 6.2.62*
- [COBGETRTG](#) - Return PPD Routeing details - *from version 6.2.87*
- [COBGETSYS](#) - Return your IBM i System information - *from version 6.2.81*
- [COBHEX](#) - Return hexadecimal data say for a barcode - *from version 6.2.87*
- [COBLABEL](#) – Print Address labels
- [COBLOWER](#) – Convert text to lower case
- [COBMERGE](#) – Merges PARM1 – PARM5 into one field
- [COBMULTEML](#) - Write multiple email addresses to a temporary file to be retrieved by GETMULTEML Email Exit program - *from version 6.2.87*
- [COBNULL](#) – Do nothing exit program
- [COBPAGE](#) – Return an incrementing number
- [COBPERC](#) – Calculate a percentage
- [COBPPDATR](#) – Return PPD Attributes - *from version 6.2.83*
- [COBRAND](#) - Return a random set of characters based on the input string supplied and the length of string to be returned - *from version 6.2.83*
- [COBREPLACE](#) - Replace characters in a string
- [COBRFMTNUM](#) – Format numeric values - replacement for COBFMTNUM - *from version 6.2.62*
- [COBRJ](#) – Right justify a numeric string
- [COBRMVLIN](#) - Strip out blank lines e.g from Addresses - *from version 6.2.87*
- [COBRTVEML](#) – Retrieve an Email address from CPPD directory
- [COBSNDEML](#) - Send an email to a single recipient without attachments - *from version 6.2.59*
- [COBSPLATR](#) – Return Spool File Attributes & System Name
- [COBSPLIT](#) – Split string into components
- [COBSQL & COBSQL2](#) - Run a SQL SELECT statement and return up to six fields.

[COBSQLM](#) - Run a SQL SELECT statement and return up to six fields for multiple records - *from version 6.2.88*

[COBSSCC](#) - Generate an SSCC, including the check digit, based on the supplied data and type of GTIN requested - *from version 6.2.81*

[COBSTORE](#) – Save and Return data

[COBSUB & COBSUBS](#) – Subtract parameters and return

[COBSUBSTR](#) – Return specified part of a string

[COBSUM](#) – Total values in specified buckets

[COBTOT & COBTOTR](#) – Multiply two parameters

[COBTOTAL](#) – Add values to produce sub-totals and total

[COBTOTALB](#) - Accumulate up to 99 different totals (buckets) - *from version 6.2.57*

[COBTRIM](#) - Trim leading blanks off all supplied parameters - *from version 6.2.59*

[COBUNIQKEY](#) - Returns a Unique Key for your supplied Key fields

[COBUPPER](#) – Convert text to upper case

[COBUSREML](#) – Get email destination for user from email directory

[COBWRAP](#) - Reformat text by wrapping into fewer or more lines in your output - *from version 6.2.87*

[COBXLATE](#) - Translate Text from one CCSID (Coded Character Set ID) to another - *from version 6.2.83*

[COBZERO](#) – Remove leading zeros/blanks and left justify result

[GETGEND](#) – Retrieve General Directory data

[IMG2CRG](#) - Allows for the use of **Dynamic Images** in your Cobwebb Design

Cobwebb Print Exit Programs

These programs can be used in a [Print Output Device](#).

[COBPRTCPY](#) – Change the number of copies printed

[COBPRTOVR](#) – Print output overrides

[COBPRTUSRD](#) – Change the User Data of Printed output

[COBAUUSERQ](#) - Supplied as sample source to retrieve Aurora User Output Queue & Library from the User Profile file

Cobwebb Email Exit Programs

These programs can be used in a [Email Output Device](#).

[GETMULTEML](#) - Read the temporary additional email addresses file written to by [COBMULTEML](#), based on the supplied Email Key, and write to the Email Output Device - *from version 6.2.87*

Cobwebb File Exit Programs

These programs can be used in a [File Output Device](#).

[COBFILCOPY](#) - Copy the file to an alternate destination

[COBFILEFTP](#) - FTP your file output - *from version 6.2.57*

[COBFILPOST](#) - POST your file output to a Web Service - *from version 6.2.79*

[COBFILIDX](#) - Write all File parameters to a .IDX file of the same name in the same folder as the original file (for use with the [Java Folder Monitor](#)) - *from version 6.2.79*

[IVSTORE](#) – Interface to ImageView using command PIDXIMP

[IVSTOREIFS](#) - Interface to ImageView using command PIMPDOCIFS

11.4.4.1 COBADD & COBADDR

These programs will add together the parameters **one** to **five** supplied to the program and pass the result back in parameter **one**. The default is to pass the result back as a two decimal numeric field of length eleven (eight numerics the decimal point and two decimals). The number of characters returned before the decimal point is always **eight** but you may alter the number of decimals by passing the value of **1 – 5** in parameter **six**.

If you alter the number of decimals returned then the return value length will change accordingly [**8 – 15**]. The difference between **COBADD** and **COBADDR** is that **COBADDR** will use rounding whilst **COBADD** will just truncate to the correct number of decimals.

Note: If the number you pass into the program has a minus sign e.g. 1.10- then this number will be subtracted. If the end result is a negative number then a minus sign will be returned.

Parameter	In	Len	Out	Len
PARM1	Value 1	21	Result Return length depends upon value specified in PARM6 e.g. xxxxxxxx.xxxxx- xxxxxxxx.xxxx- xxxxxxxx.xxx- xxxxxxxx.xx- xxxxxxxx.x- xxxxxxxx-	15
PARM2	Value 2	21	-	
PARM3	Value 3	21	-	
PARM4	Value 4	21	-	
PARM5	Value 5	21	-	
PARM6	Number of decimals (0 - 5) or Blank for default of 2		-	

11.4.4.2 COBADDUR

This program will take a date string, in a specified format, add/subtract a specified duration [days, months or years] and pass it back in the same or a different specified format.

Parameter	In	Len	Out	Len
PARM1	Input Date String	50	Output Date String	50
PARM2	Input Date Format #1 (opt)	7	-	
PARM3	Duration to add/sub #2 (opt)	3	-	
PARM4	Output Date Format #3 (opt)	7	-	
PARM5	Date separator	1	-	
PARM6	Duration Type #4 (opt)		Error Indicator #5	1

Note:

- #1 If no *Input Date Format* is specified then *DMY [DD/MM/YY] is assumed.
- #2 If no *Duration to add/sub* is specified then 1 is assumed. If you wish to subtract a duration from a date then specify a “-“ as the first character of this parameter e.g. “-2”
- #3 If no *Output Date Format* is specified then *Input Date Format* is assumed.
- #4 If no *Duration Type* is specified then **D**=Days is assumed. **D**=Days, **M**=Months or **Y**=Years
- #5 *Error Indicator* **0 = Valid**

Valid Date Format strings

Specifies the valid Date Formats that may be used in either PARM2 or PARM4.

Format Code	Description
*MDY	The date has the month, day, year format, mmddy .
*MDYY	The date has the month, day, year format, mmddyyy .
*DMY	The date has the day, month, year format, ddmmy .
*DMYY	The date has the day, month, year format, ddmmyyy .
*YMD	The date has the year, month, day format, yymmdd .
*YYMD	The date has the year, month, day format, yyymmdd .
*CYMD	The date has the century, year, month, day format, cyymmdd , where c is 0 for years 1928 through 1999 and is 1 for years 2000 through 2071.
*JUL	The date has the Julian format, yyddd .

*ISO	The date has the International Organization for Standardization (ISO) date format, yyyy-mm-dd .
*USA	The date has the United States date format, mm/dd/yyyy .
*EUR	The date has the European date format, dd.mm.yyyy .
*JIS	The date has the Japanese Industrial Standard date format, yyyy-mm-dd .
*LONGJUL	The date has the long Julian format, yyyyddd .

Example Date Format

If your date is in the format **mm/dd/yy** you would specify ***MDY** as your Input Date Format in PARM2.

11.4.4.3 COBADDTIM

From versions > 6.2.82 - This program allows you to add a number of Hours, Minutes and Seconds to a Starting Time.

You can pass in a 5 character **Starting Time** e.g. "HH:MM" if required and this will be handled but the **Resulting Time** will always be 8 characters e.g. "HH:MM:SS".

Parameter	In	Len	Out	Len
PARM1	Starting Time HH:MM:SS ^{#1}	8	Resulting Time in HH:MM:SS	8
PARM2	Number of Hours to add	2	-	
PARM3	Number of Minutes to add	2	-	
PARM4	Number of Seconds to add	2	-	
PARM5	-		-	
PARM6	-		-	

Note ^{#1}: If you don't pass a **Starting Time** in PARM1, or the **Starting Time** is an invalid time, then "00:00:00" will be assumed.

11.4.4.4 COBCASE

This exit program will convert the case of the text in PARMs 1 – 5 depending upon what conversion type is passed in PARM6.

Parameter	Description	Len
PARM1	Text for converting	132
PARM2	Text for converting – or blank	132

PARM3	Text for converting – or blank	132
PARM4	Text for converting – or blank	132
PARM5	Text for converting – or blank	132
PARM6	Conversion type [see below]	1

PARM6 = Conversion type

L – Lower case

U – Upper case

T – Title case

S – Sentence case

Note: If you are using Sentence case and passing text into more than one parameter then the first character of the parameters, subsequent to PARM1, will not be capitalised unless there is a previous end of sentence character or a totally blank parameter.

11.4.4.5 COBCENTRE

From version 6.2.67 - This program will take the string passed in PARM1 and centre it based on the supplied length passed in PARM2.

Parameter	In	Len	Out	Len
PARM1	Input String	132	Centred String	132
PARM2	Maximum Output Length	3	-	
PARM3	-	1	-	
PARM4	-		-	
PARM5	-		-	
PARM6	-		-	

11.4.4.6 COBCHARCHK

This program compares the specified position [PARM2] in the String [PARM1] with the supplied comparison character [PARM3] and passes back **LT** [less than], **GT** [greater than] or **EQ** [equal to] as a result in PARM1.

Parameter	In	Len	Out	Len
PARM1	String	132	Results = LT, GT or EQ	2
PARM2	String Position	2	-	

PARM3	Comparison character	1	-	
PARM4	-		-	
PARM5	-		-	
PARM6	-		-	

Note: If nothing is passed in PARM2 the string position of **1** will be assumed.

11.4.4.7 COBCHKEML

From version 6.2.88 - This program checks the email address supplied in PARM1 contains an '@' and if not passes back '*INVALID'.

Parameter	In	Len	Out	Len
PARM1	Email address	132	Blank or *INVALID	8
PARM2	-		-	
PARM3	-		-	
PARM4	-		-	
PARM5	-		-	
PARM6	-		-	

11.4.4.8 COBCOMPNUM

From version 6.2.57 - This program will allow you to compare two numeric values and return whether Parameter 1 is *Greater Than*, *Equal To* or *Less Than* Parameter 2. The values passed in may contain non numeric characters such as a currency symbol, thousand delimiter etc. and may also be negative (with the minus sign at the right of the number e.g. £1.00-). They may also contain different numbers of decimals.

Parameter	In	Len	Out	Len	Comment
PARM1	Value to compare against	21	*GT *EQ *LT	3	PARM1 > PARM2 PARM1 = PARM2 PARM1 < PARM2
PARM2	Value to compare with	21			
PARM3	Decimal point e.g. "." or ","	1			If left blank defaults to "." This is required for Europe where decimal point is a comma.
PARM4					

PARM5					
PARM6					

Examples

PARM1	PARM2	PARM3	Returned
£1,234.567	1234.567		*EQ
1.24-	1.24		*LT
1.245	1.24		*GT
€1.234,567	€1.234,568	,	*LT

11.4.4.9 COBCONTACT

This program will retrieve contact details from the **Aurora Contact Management** file **T1P1A** in library **AULT1F1** [or similar]. We have to supply this as program source as this needs to be compiled over your version of Aurora.

Creating the program

If you look in **QUSRTOOLLE** source file in library **CPPD** you will see the source for a program called **COBCONTACT** [from version 5.2 onwards of the Cobwebb Server software].

1. In order to use this program you will need to compile it over your version of Aurora i.e. have the correct Aurora library in the library list where the **T1P1A01P** file resides [usually **AULT1F1**].
2. We would suggest that you compile this program into the library **COBEXIT** which is the library name that is most commonly used for Cobwebb Exit Programs.

Note: Please do not compile it into library **CPPD** otherwise this will be lost when you next upgrade your Cobwebb Server software.

3. The program will then need to be owned by **AUOWNER** and have the **USRPRF** parameter set to be ***OWNER** in order for **CPPD** to be able to access the data. You can do this either when you compile the program or by using the **CHGPGM** command and pressing **F4**.

You can use the following steps from your server session:

1. ADDLIBLE AULT1F1 (or your Aurora version of the library where T1P1A01P resides)
2. CRTBNDRPG PGM(COBEXIT/COBCONTACT) SRCFILE(CPPD/QUSRTOOLLE) SRCMBR(COBCONTACT) DFTACTGRP(*NO) DBGVIEW(*NONE) OPTIMIZE(*FULL) REPLACE(*YES) USRPRF(*OWNER)
3. CHGOBJOWN OBJ(COBEXIT/COBCONTACT) OBJTYPE(*PGM) NEWOWN(AUOWNER)

If you require any help with the above process please call or email support@cobwebb.co.uk and we will be pleased to assist you.

Using COBCONTACT in your PPD file

There are two ways of using this program. You may call it:

- once passing in the **Contact Number** for the Contact details you wish to return in **PARM6**.
- multiple times leaving **PARM6 blank** which will return the next set of Contact details matching the supplied PARM1-5 each time you call the program. When all Contact details have been returned you will see ***NORECS** returned in **PARM1**. Once you have this entry you will need to call the program once more, specifying ***LAST** in **PARM6** to close the program.

In your PPD you need to call the Exit program **COBCONTACT**, with the parameters listed below. You will need to add both **COBEXIT** (*the library where you have compiled this program*) and **AULT1F1** (the Aurora library where the file **T1P1A** resides) libraries to the list of libraries.

Parameter	In	Len	Out	Len	Aurora Field Name
PARM1	Company Number	2	Contact Name or *NORECS	35	CNTN1A
PARM2	Selection Criteria - see below for details.	7	Correspondence Name	35	CRNM1A
PARM3	Customer/Supplier Account No	8	Email Address	80	EMIL1A
PARM4	Delivery Sequence No	3	Fax Number	30	Depends on Selection Criteria - see below for details.
PARM5	Contact Type [blank for all]	4	General Text 1 (&2)	32(65)	GTX11A GTX21A
PARM6	Contact Number or *LAST - see below for details.	9	Contact Type	4	CTCT1A

Note: If there are no more contact records to retrieve the program will pass back ***NORECS** in **PARM1** instead of the Contact Name so that this must be tested for. Once ***NORECS** has been returned in **PARM1**; then you need to make one last call to the program specifying ***LAST** in **PARM6** to close the program.

Selection Criteria

This parameter is manually entered in the Data box in the following format:

Position 1-2 **GL Code** (e.g. 01)

Position 3-4 **Application code** (e.g. SL, PL)

Position 5-5 **Fax field No** – this is a number (1-4) which represents the telephone number entry that is used for the fax number. Please refer to the table below for the number to use for the Fax field No.

Fax Field No	Field Name on T1P1A	Description
1	HMNB1A	Home Telephone Number
2	PFNB1A	Preferred Telephone Number
3	OFNB1A	Office Telephone Number
4	MBNB1A	Mobile Telephone Number

Position 6-6 **Record Selection Flag** (1=Select if Email address found)

- (2=Select if designated Fax number found)
- (3=Select if either Email or Fax entry found)
- (0=Return all entries regardless)

Position 7-7 **Text Flag** (Y=Concatenate two "General Text" fields, N=Only Text 1). **Note:** Depending upon your selection here the returned value will be up to **32** or **65** characters.

Contact Number or *LAST

This parameter is used for two different scenarios.

1. If you know the actual **Contact Number** whose details you wish to retrieve, you may pass this in here and the program will only select the unique contact record. The selection criteria passed in **PARAM2** and **PARAM5** will also be honored.
2. If you wish to return **all** Contact details matching **PARAM1-5** then you need to leave this entry blank and call the program multiple times until you see ***NORECS** returned in **PARAM1**; then you need to make one last call to the program specifying ***LAST** in this parameter (**PARAM6**) to close the program. **Note:** With the ***LAST** call it doesn't matter what is in PARAM1-5.

11.4.4.10 COBCOUNT

This program will allow you to increment up to **99** different counters and reset them on request. **Note:** PARAM3 & PARAM4 added in Cobwebb Server versions > 6.2.82.

Parameter	In	Len	Out	Len
PARAM1	Blank, *LAST, *END	7	Counter	1-7
PARAM2	Instance (01 – 99)	2	-	

PARM3	Length of Counter (1 - 7 default 3)	1	-	
PARM4	Blank or *KEEP to keep leading zeros	5	-	
PARM5	-		-	
PARM6	-		-	

Notes:

If you do not specify an Instance in PARM2 then **1** will be assumed except when ***END** has been specified.

PARM1 = Blank The Counter for the instance supplied in PARM2 will be incremented by one and returned.

PARM1 = *LAST The Counter for the instance supplied in PARM2 will be incremented by one, returned and then reset back to zeros.

PARM1 = *END Regardless of the Instance all counters will be zeroed and the program will end

11.4.4.11 COBCVTDAT

This program will take a date string in a specified format and pass it back in a different specified format. This is particularly useful in converting dates printed on a spooled file into the Cobwebb Docstore format of YYYY-MM-DD.

Parameter	In	Len	Out	Len
PARM1	Input Date String	50	Output Date String	50
PARM2	Input Date Format (optional)	7	-	
PARM3	Output Date Format (optional)	50	-	
PARM4	-		-	
PARM5	-		-	
PARM6	-		-	

Note:

If no Input Date Format is specified then *DMY [DD/MM/YY] is assumed.

If no Output Date Format is specified then %Y-%m-%d {YYYY-MM-DD} is assumed which is the required format for Cobwebb Docstore.

Input Date Format string

Specifies the current format of the Input Date String to be converted. All valid date separators will be removed automatically before converting. The valid date separators are the slash (/), hyphen (-), period (.), and comma (,).

Format Code	Description
*MDY	The date has the month, day, year format, mmddyy.
*MDYY	The date has the month, day, year format, mmddyyyy.
*DMY	The date has the day, month, year format, ddmmyy.
*DMYY	The date has the day, month, year format, ddmmyyyy.
*YMD	The date has the year, month, day format, yymmdd.
*YYMD	The date has the year, month, day format, yyyyymmdd.
*CYMD	The date has the century, year, month, day format, cyymmdd, where c is 0 for years 1928 through 1999 and is 1 for years 2000 through 2071.
*JUL	The date has the Julian format, yyddd.
*ISO	The date has the International Organization for Standardization (ISO) date format, yyyy-mm-dd.
*USA	The date has the United States date format, mm/dd/yyyy.
*EUR	The date has the European date format, dd.mm.yyyy.
*JIS	The date has the Japanese Industrial Standard date format, yyyy-mm-dd.
*LONGJUL	The date has the long Julian format, yyyyddd.

Example Input Date Format

If your input date is in the format mm/dd/yy you would specify *MDY as your Input Date Format in PARM2

Output Date Format string

These can be any character string value with embedded format codes. The format codes are translated into their corresponding values. These format codes and their corresponding values are listed in the table that follows.

Format Code	Description
%a	Abbreviated weekday name: 'Tue', 'Wed', etc.
%A	Full weekday name: 'Tuesday', 'Wednesday', etc.

%b	Abbreviated month name: "Jan", "Feb", etc.
%B	Full month name: "January", "February", etc.
%d	Day of the month as a decimal (01 to 31)
%j	Day of the year as a decimal (001 to 366)
%m	Month as a decimal number (01 to 12)
%U	Week as a decimal number: Sunday base (00 to 53)
%w	Weekday as a decimal number with Sunday base (0 to 6)
%W	Week as a decimal number with Monday base (00 to 53)
%x	Date edited for local system.
%y	Year without century (2-digit year) (00 to 99)
%Y	Year with century (4-digit year)
%%	Embed a percent sign into the string.

Example Output Date Format

If you wanted your output date to be in the format Friday 29 February 2008 then you would specify %A %d %B %Y as your Output Date Format in PARM3.

11.4.4.12 COBDATE

No parameters are required to be passed into this exit program. The current date and time are retrieved from the IBM i and returned in the following format(s):

Note: PARM3 and PARM4 will only be returned from version 6.2.81.

Parameter	In	Description	Out	Len
PARM1	-	Time	HH:MM:SS e.g. 15:27:35	8
PARM2	-	Date	DD/MM/YY e.g. 23/10/19	8
PARM3	-	Date / Time *ISO including milliseconds	YYYY-MM-DD-HH-MM-SS-mmmmmm e.g. 2019-10-23-15.27.35.960000	26
PARM4	-	Date / Time *ISO	YYYY-MM-DD HH:MM:SS e.g. 2019-10-23 15:27:35	19
PARM5	-		-	

PARM6	-		-	
-------	---	--	---	--

11.4.4.13 COBDIV & COBDIVR

These programs will divide parameter **one** by parameter **two** supplied to the program and pass the result back in parameter **one**. The default is to pass the result back as a two decimal numeric field of length eleven (8 numerics the decimal point and two decimals). The number of characters returned before the decimal point is always eight but you may alter the number of decimals by passing the value of **1 – 5** in parameter **six**.

If you alter the number of decimals returned then the return value length will change accordingly. The difference between **COBDIV** and **COBDIVR** is that **COBDIVR** will use rounding whilst **COBDIV** will just truncate to the correct number of decimals.

Parameter	In	Len	Out	Len
PARM1	Dividend	21	Quotient Return length depends upon value specified in PARM6 e.g. XXXXXXXX.XXXXX XXXXXXXX.XXXX XXXXXXXX.XXX XXXXXXXX.XX XXXXXXXX.X XXXXXXXX	14
PARM2	Divisor	21	-	
PARM3	-		-	
PARM4	-		-	
PARM5	-		-	
PARM6	Number of decimals (0 - 5) or Blank for default of 2		-	

11.4.4.14 COBFILDET

This program will take the information supplied in PARM1 & PARM2 and concatenate this as the File Path. The file Folder name, Name and Extension will then be extracted from the File Path and returned as per the following table.

Note: From version 6.2.82.

Parameter	In	Len	Out	Len
PARM1	First 132 characters of File Path	132	First 132 characters of file Folder name	132

PARM2	Second 132 characters of File Path	132	Last characters of file Folder name .	124
PARM3			File Name	64
PARM4			File Extension	64
PARM5				
PARM6				

11.4.4.15 COBFILECHK

This program will check the validity of a filename for either the IFS or QDLS. If you specify a Replacement character in PARM2 then any invalid characters found in the filename will be replaced with this character. If you will be writing the file to QDLS then specify QDLS in PARM3 as the validity checking is different.

The filename will be passed back in PARM1 either the same as was passed in or with invalid characters replaced if required.

Parameter	In	Len	Out	Len
PARM1	Filename	132	Return Filename	132
PARM2	Replacement character	1	Error #1	1
PARM3	File Server, Blank or QDLS #2	4		
PARM4	-			
PARM5	-			
PARM6	-			

- #1 "E" = Invalid characters found and they have NOT been replaced.
 "R" = Invalid characters found and have been replaced
 "F" = Invalid replacement character
 "L" = Length of filename invalid. **Note:** If an "L" is returned then no other validity checking is performed and the returned filename will be identical to the input filename.
- #2 If this parameter is blank then assumes IFS, for QDLS file checking enter QDLS.

Invalid Characters for IFS

\ / : * ? " < > |

Valid Characters for QDLS

ABCDEFGHIJKLMNOPQRSTUVWXYZ

abcdefghijklmnopqrstuvwxy
 0123456789
 \$#@_.-

11.4.4.16 COBFIND

This program will scan the **String** passed in PARM1 for the **Pattern** supplied in PARM2.

Parameter	In	Len	Out	Len
PARM1	String	132	Pattern start position #2	3
PARM2	Pattern	132	-	
PARM3	Translate [*YES] #1	4	-	
PARM4	Whole word [*YES] #3	4	-	
PARM5	-		-	
PARM6	-		-	

#1 the scan function will be case sensitive unless you specify ***YES** in PARM3 in which case the string [PARM1] will be converted to uppercase before matching with the pattern.

It follows that if you specify *YES in PARM3 then your pattern should be entered in uppercase in order to find a result.

#2 the result returned in PARM1 will be '000' if:

- No match was found
- The Pattern length is longer than the String length
- The String is blank
- The Pattern is blank

Otherwise the result returned is the position of the first character of the pattern in the string e.g. 028.

#3 the scan function will search for the pattern with an assumed leading and trailing blank. E.g.

String = Here we go again, the aga is playing up.

Pattern = aga [with a leading space]

If you specify ***YES** in **PARM4** then the **Pattern start position** returned will be **023** [for aga], if blank then it will be **012** [for again].

11.4.4.17 COBFINDRET

Note: From Cobwebb Server Version > 6.2.82 you should use [COBFINDRET](#) as this program has an issue in that you needed to specify the Offset and Return String length as one greater than you want due to the program adding a blank to the front of the pattern.

This program will scan the **String** passed in PARM1 for the **Pattern** supplied in PARM2. If the pattern is found then a string will be returned based on the **Offset** and **Return String length** specified in parameters 5 & 6 respectively.

Parameter	In	Len	Out	Len
PARM1	String	132	Pattern start position #2	3
PARM2	Pattern	132	Return string #5	132
PARM3	Translate [*YES] #1	4	-	
PARM4	Whole word [*YES] #3	4	-	
PARM5	Offset #4	4	-	
PARM6	Return String length	3	-	

#1 the scan function will be case sensitive unless you specify ***YES** in **PARM3** in which case the string [PARM1] will be converted to uppercase before matching with the pattern.

It follows that if you specify ***YES** in **PARM3** then your pattern should be entered in uppercase in order to find a result.

#2 the result returned in **PARM1** will be '000' if:

- No match was found
- The Pattern length is longer than the String length
- The String is blank
- The Pattern is blank

Otherwise the result returned is the position of the first character of the pattern in the string e.g. 028.

#3 the scan function will search for the pattern with an assumed leading and trailing blank.
E.g.

String = Here we go again, the aga is playing up.

Pattern = aga [with a leading space]

If you specify ***YES** in **PARM4** then the **Pattern start position** returned will be **023** [for aga], if blank then it will be **012** [for again].

#4 this is the Offset from the first character of the found string **#2** to specify the start position for the data to be returned. If you wish the offset to be BEFORE the found string then the first character of this parameter must be '-'.
Note: If no offset is specified, or the offset makes the start position > 132, then the start position of the found string will be assumed.

#5 this will only be populated if you have specified a **Return String length** in **PARM6**.

Example

Posi	1	2	3	4
tion	12345678901234567890123456789012345678901234567890123456789			

Stri PAR The quick brown fox jumped over the lazy dog.
 ng M1
 Patt PAR fox
 ern M2

The returned **Pattern Start** in **PARM1** would be **017**. Then depending upon the **Offset** & **Return length** you would get the following examples:

Offset	Return length	Return String
PARM5	PARM6	PARM2
'-006'	'005'	brown
'004'	'011'	jumped over
' '	'010'	fox jumped

11.4.4.18 COBFMT

This program takes parameter one and will add a suffix (parameter **two**) and/or prefix (parameter **three**) to it and pass it back in Parameter **one**. This can be useful if you wish to add a pound sign or credit sign to numeric data. You also have the option of adding a space between the Prefix and the parameter string (parameter **four**) or a space between the parameter string and the Suffix (parameter **five**).

The parameters are as follows:

Parameter	Description	Comments
PARM1	Data String	The data string that you wish to format e.g. 12,345.00
PARM2	Prefix	e.g. £ (maximum length 10 characters)
PARM3	Suffix	e.g. CR or - (maximum length 10 characters)
PARM4	Space after Prefix	Y if you wish to add a space between the <i>Prefix</i> and the <i>Data String</i> or Blank if not.
PARM5	Space before Suffix	Y if you wish to add a space between the <i>Data String</i> and the <i>Suffix</i> or Blank if not.
PARM6	Not used	

Note: If the Data String passed in parameter **one** has leading blanks then these are honoured when the string is reformatted. This is to ensure that if you were passing a vertical list of numeric entries, one at a time, into the program the resulting output strings will still line up vertically. **E.g.**

PARM1 Input	PARM1 Output
1,234.00	[£1,234.00-]

12,234.00	[£12,234.00-]
234.00	[£234.00-]
4.00	[£4.00-]
0.04	[£0.04-]

Example 1

Parameter	Input	Output
PARM1	1,234.00	[£ 1,234.00-]
PARM2	[£	
PARM3	-]	
PARM4	Y	
PARM5		
PARM6		

Example 2

Parameter	Input	Output
PARM1	1,234.00	£1,234.00 CR
PARM2	£	
PARM3	CR	
PARM4		
PARM5	Y	
PARM6		

11.4.4.19 COBFMTBC

If you wish to add a prefix to your barcode then this would be passed into PARM1. The barcode passed in PARM2 will then be left justified (leading blanks and zeros removed). The formatted barcode returned will be in the correct format for the Cobwebb Designer e.g.

¶CAZZZZNNNN

where:

¶C Are the special characters used by PPD to denote a barcode

- A** Barcode type (PARM3)
- ZZZZ** Barcode prefix (PARM1)
- NNNN** Barcode (PARM2) left justified with leading blanks and zeros removed

Parameter	In	Len	Out	Len
PARM1	Barcode prefix data	132	Formatted barcode	132
PARM2	Barcode data	132	Barcode left justified	132
PARM3	Barcode type	1	-	
PARM4	-		-	
PARM5	-		-	
PARM6	-		-	

11.4.4.20 COBFMTNUM

Program to format a numeric value with a varying number of input decimals and output a value with a specific number of decimals. The result may be rounded and include comma delimiters if required. You may also change the decimal point character to cater for UK and European numbers.

Notes:

- If the 'Input value string' contains a minus sign (on the right) then this will be output - see [Example 2](#).
- This program only caters for numeric values with a maximum of 10 characters before the decimal point and a maximum of 5 decimal places.

Parameter	In	Len	Out	Len
PARM1	Input value string	132	Output string	132
PARM2	Output decimals (0-5) / Round (R)	2	-	
PARM3	Thousand delimiter etc.	1	-	
PARM4	Input Decimal point e.g. "." or ","	1	-	
PARM5	Output Decimal point e.g. "." or ","	1	-	
PARM6	Length of output string	2	-	

Note: It is extremely important that you specify the correct length for your returned value in PARM6 otherwise your output could be truncated.

Example 1

Parameter	Input	Output
PARM1	1234.679	1,234.68
PARM2	2R	
PARM3	,	
PARM4		
PARM5		
PARM6		

Example 2

Parameter	Input	Output
PARM1	1234.679-	1,234.67-
PARM2		
PARM3	,	
PARM4		
PARM5		
PARM6	9	

Example 3

Parameter	Input	Output
PARM1	1234.679	1.234,68
PARM2	2R	
PARM3	.	
PARM4	.	
PARM5	,	
PARM6		

11.4.4.21 COBFNDRET

This program will scan the **String** passed in PARM1 for the **Pattern** supplied in PARM2. If the pattern is found then a string will be returned based on the **Offset** and **Return String length** specified in parameters 5 & 6 respectively.

Parameter	In	Len	Out	Len
PARM1	String	132	Pattern start position #2	3
PARM2	Pattern	132	Return string #5	132
PARM3	Translate [*YES] #1	4	-	
PARM4	Whole word [*YES] #3	4	-	
PARM5	Offset #4	4	-	
PARM6	Return String length	3	-	

#1 the scan function will be case sensitive unless you specify ***YES** in **PARM3** in which case the string [PARM1] will be converted to uppercase before matching with the pattern.

It follows that if you specify ***YES** in **PARM3** then your pattern should be entered in uppercase in order to find a result.

#2 the result returned in **PARM1** will be '000' if:

- No match was found
- The Pattern length is longer than the String length
- The String is blank
- The Pattern is blank

Otherwise the result returned is the position of the first character of the pattern in the string e.g. 028.

#3 the scan function will search for the pattern with an assumed leading and trailing blank. E.g.

String = Here we go again, the aga is playing up.

Pattern = aga [with a leading space]

If you specify ***YES** in **PARM4** then the **Pattern start position** returned will be **023** [for aga], if blank then it will be **012** [for again].

#4 this is the Offset from the first character of the found string#2 to specify the start position for the data to be returned. If you wish the offset to be BEFORE the found string then the first character of this parameter must be '-'.

Note: If no offset is specified, or the offset makes the start position > 132, then the start position of the found string will be assumed.

#5 this will only be populated if you have specified a **Return String length** in **PARM6**.

Example

```

Posi          1          2          3          4
tion  1234567890123456789012345678901234567890123456789
Stri PARThe quick brown fox jumped over the lazy dog.
ng M1
    
```

Patt PAR fox
ern M2

The returned **Pattern Start** in **PARM1** would be **017**. Then depending upon the **Offset** & **Return length** you would get the following examples:

Offset	Return length	Return String
PARM5	PARM6	PARM2
'-006'	'005'	brown
'004'	'011'	jumped over
' '	'010'	fox jumped

11.4.4.22 COBGENLIBL

From version 6.2.62 - This program allows you to specify the Library List required for the PPD using the [Cobwebb General Directory](#). You need to call this program twice in your PPD, once to **Add** the required libraries to the Library List and finally to **Remove** the added libraries.

You should place the **ADD** call to this program inside a "**PAGE = *START**" condition; this will check the existing Library List and add all the libraries specified in the Cobwebb General Directory for the supplied **Key 1** that are not already in the Library List. Make sure that you add this entry as the first thing you do in your PPD. The program keeps a record of the libraries that are added.

You then need to place the **RMV** call to this program inside a "**PAGE = *END**" condition; this will then remove all of the previously added libraries. Make sure that you add this as the last thing you do in your PPD.

Notes:

It is important that you make sure that you call this program with the **RMV** entry otherwise the library list will be left and used for the next PPD being processed by the Spooled File Monitor.

From version 6.2.88 - the **ADD** call now clears its store of library names in case a previous design has not specified the **RMV** call.

Parameter	In
PARM1	Data to match Key 1 in the Cobwebb General Directory
PARM2	ADD - To Add the libraries RMV - To Remove the libraries
PARM3	-
PARM4	-
PARM5	-
PARM6	-

Notes:

In order to add your libraries in the correct order you can specify a sequence number in the **Key 2** entry of your Cobwebb General Directory. The libraries will be added so that they appear in the Library List in **Key 2** ascending sequence.

For instance if you have the following entries in the Cobwebb General Directory:

Key 1	Key 2	Key 3	Data
TEST	1		AULBESPOKE
TEST	2		AULT3F2
TEST	3		AULT2F2
TEST	4		AULT1F2

This would result in your Library List looking similar to the following:

```

QSYS
... Any other System Libraries
AULBESPOKE
AULT3F2
AULT2F2
AULT1F2
...Any other User Libraries
    
```

11.4.4.23 COBGETRTG

From versions after 6.2.86 - This Exit Program will return the routing entry details based on the supplied parameters. If a comparison match is found then this will be used otherwise the values from the **Default** entry will be returned.

This program retrieves the entries from the [Work with PPD Routing](#).

Parameter	In	Len	Out	Len
PARM1	PPD Name	10	Printer Override or *NONE (for COBPRTOVR)	132
PARM2	Environment / Company	10	Sender Email or *NONE	132
PARM3	Value to compare with Key 1	10	Sender Name or *NONE	132
PARM4	Value to compare with Key 2	10	Recipient Email or *NONE	132
PARM5	Value to compare with Key 3	10	Recipient Name or *NONE	132
PARM6	Value to compare with Key 4	10	*FOUND (Comparison match found) *DEFAULT (Default used)	10

			*NOTFOUND (No match and No default)	
--	--	--	--	--

11.4.4.24 COBGETSYS

From version 6.2.81 - This Exit Program will return your IBM i System information. This can be useful if you have to print a Currency Symbol (PARM5) or print dates in a certain Date Format (PARM4).

It could also be used when running in a TEST environment (i.e. a separate test IBM i) to send email output for checking the output from a PPD by adding a condition using the System Name (PARM3).

Parameter	In	Len	Out	Len
PARM1	-		IBM i Serial Number	8
PARM2	-		IBM i Model Number	4
PARM3	-		IBM i System Name	8
PARM4	-		IBM i Date Format	3
PARM5	-		IBM i Currency Symbol	1
PARM6	*SYSTEM	7	IBM i CCSID	5

Here is an example of its use in a PPD where the program is being called in a **PAGE = *START** Conditional element:

```

Page Start
PAGE = *START
  Get System Details
    (..) PARM1 IN: OUT: Serial Number
    (..) PARM2 IN: OUT: Model Number
    (..) PARM3 IN: OUT: System Name
    (..) PARM4 IN: OUT: Date Format
    (..) PARM5 IN: OUT: Currency Symbol
    (..) PARM6 IN: *SYSTEM OUT: CCSID
    COBGETSYS
    V @G_ISRL ?PARM1, Serial Number
    V @G_IMDL ?PARM2, Model Number
    V @G_INAM ?PARM3, System Name
    V @G_IDFM ?PARM4, Date Format
    V @G_ICUR ?PARM5, Currency Symbol
    V @G_ICCS ?PARM6, CCSID
    (..) PARM2 IN: OUT: Model Number
    (..) PARM3 IN: OUT: System Name
    (..) PARM4 IN: OUT: Date Format
    (..) PARM5 IN: OUT: Currency Symbol
    (..) PARM6 IN: *SYSTEM OUT: CCSID
  
```

11.4.4.25 COBHEX

From version 6.2.87 - This Exit Program is useful if you need to output hexadecimal data, say for a barcode. If you pass in the hex equivalent in characters in PARM1, 2, 3, 4, 5, or 6 then each PARM will be converted into hex and returned back in the same parameter.

The reason this program is useful is that it is impossible to specify 'control characters' in the Cobwebb Designer and get it transferred successfully to the IBM i. Control characters are all the values between 0x00 and 0xFF that are not standard characters such as A-Z, 0-9 etc.

The returned hex can then be moved into a variable e.g. RS=?PARM1 and then added to the barcode data using the [Multiple Variable & Parameter substitution](#) technique to write the data out e.g. VAR1='TEST?RS?END'. VAR1 will then contain 8 bytes of data, 4 bytes for TEST, 1 byte of control character 0x1E and 3 bytes for END.

Notes:

- The data in CPPD on the IBM i is EBCDIC but the data in the barcode is ASCII; so a translation is required. IBM converts the EBCDIC data to ASCII when it creates the barcode and it uses this table <https://www.ibm.com/docs/en/iis/9.1?topic=tables-ebcdic-ascii>. If you need to add a specific ASCII character to your barcode, look up the EBCDIC equivalent in the table and use **COBHEX** to generate the correct EBCDIC character. This will then be converted to the desired ASCII in the barcode.
- When adding the [barcode](#) output in the Cobwebb Designer it is recommended to set the barcode length to the maximum length required and tick "Trim trailing blanks" in the [barcode Settings](#).

Parameter	In	Len	Out	Len
-----------	----	-----	-----	-----

PARM1	Hex data as a character string e.g. 0E	32	Converted Hex output e.g. 0x1E	16
PARM2	As above	32	As above	16
PARM3	As above	32	As above	16
PARM4	As above	32	As above	16
PARM5	As above	32	As above	16
PARM6	As above	32	As above	16

Example

Parameter	Input	Output
PARM1	0E	0x1E
PARM2	1D	0x1D
PARM3	37	0x37
PARM4	0E1D	0x1E0x1D
PARM5		
PARM6		

11.4.4.26 COBLABEL

This exit program allows you to print the same text more than once on separate pages as for labels. The maximum number of text lines per page is 99.

FIRST call – To pass in spool file details and clear the old stored text

Parameter	In	Len	Comment
PARM1	Output queue	10	Only if different from QPRINT in
PARM2	Output queue Library	10	Library CPPD (must exist).
PARM3	User Data	10	Only if different from COBLABEL.
PARM4	Form Type	10	Only if required.
PARM5	-		
PARM6	*FIRST	7	

TEXT call – To pass in the lines of data to be printed on each page of the output. **Note:** *TEXT call **MUST** come before *LAST call.

Parameter	In	Len	Comment
PARM1	Data or *NONE	132	
PARM2	Data or *NONE	132	
PARM3	Data or *NONE	132	
PARM4	Data or *NONE	132	
PARM5	Data or *NONE	132	
PARM6	*TEXT	7	

LAST call – This must when you wish to output the label information to a spooled file.

Parameter	In	Len	Comment
PARM1	Quantity of Labels	5	Assume 1 if blank
PARM2	Start Label number	5	Assume 1 if blank
PARM3	*YES or *NO [default *YES]	4	Pad Sequence No with zeros
PARM4	-		
PARM5	-		
PARM6	*LAST	7	

When PARM6 = *LAST program a new print file COBLABEL in output queue QPRINT in library CPPD with user data COBLABEL unless specified in above parameters.

11.4.4.27 COBLOWER

This program will convert parameters **one** to **six** supplied to the program into **lowercase**, passing the result back in the corresponding parameter. If you wish to convert all parameters to uppercase then use [COBUPPER](#).

Parameter	In	Len	Out	Len
PARM1	Text	132	Text converted to Lowercase	132
PARM2	Text	132	Text converted to Lowercase	132
PARM3	Text	132	Text converted to Lowercase	132
PARM4	Text	132	Text converted to Lowercase	132
PARM5	Text	132	Text converted to Lowercase	132

PARM6	Text	132	Text converted to Lowercase	132
-------	------	-----	-----------------------------	-----

11.4.4.28 COBMERGE

This program takes parameters **one** to **five** and merges them into one parameter returned in PARM1. Parameter **six** determines how the merging of each parameter will be handled.

The parameters are as follows:

Parameter	Description	Comments
PARM1	Data String	The first data string that you wish to merge
PARM2	Data String	The second data string that you wish to merge
PARM3	Data String	The third data string that you wish to merge
PARM4	Data String	The fourth data string that you wish to merge
PARM5	Data String	The fifth data string that you wish to merge
PARM6	Special format	A formatted string of characters to determine how to merge the above 1-5 parameters see table below

How to format PARM6

If all you wish to do is concatenate strings of data trimming the leading and trailing spaces and not having any space between the parameters then you do not need to specify anything in PARM6 as this is the default.

Each parameter, however, may have the following rules applied to it when merging:

- Retain leading spaces – **Retain spaces**
- Remove leading zeros – **Trim zeros**
- Fill leading spaces with zeros – **Fill zeros**
- Add a single space before merging with next parameter – **Space after**

These following four rules may be specified for each parameter.

Input	Values
Retain spaces	Y = Yes
Trim zeros	Y = Yes
Fill zeros #1	Y = Yes
Space after	Y = Yes
Length of String #2	nn – where nn is a number e.g. 01, 12 (both characters must be used i.e. "01" not "1").

The values must be specified in the correct order with a comma (,) between the rules for each individual parameter. Please refer to the following examples for a better explanation of the formatting for PARM6.

Notes:

- #1 If you are using the rule **Fill Zeros** then it will be assumed that you wish to also **Retain spaces** and you will not need to enter the “Y” for the first rule.
- #2 If left blank this will default to the length of the data string passed in the parameter. If you wish to specify a length then you must supply two digits i.e. for a string of length four you must specify ‘04’

Example 1 - Formatting an email address

Parameter	Input	Output
PARM1	Joe	Joe_Bloggs@cobwebb.co.uk
PARM2	_	
PARM3	Bloggs	
PARM4	@cobwebb.co.uk	
PARM5		
PARM6		

There is no requirement here for anything to be passed in PARM6 as each field wants to be merged without any spaces.

Example 2 - Formatting a numeric with a pound sign

Parameter	Input	Output
PARM1	£	£126.50
PARM2	126.50	
PARM3		
PARM4		
PARM5		
PARM6		

There is no requirement here for anything to be passed in PARM6 as each field wants to be merged without any spaces.

Example 3 - Formatting a numeric with pound sign and CR with spaces between

Parameter	Input	Output
PARM1	£	£ 126.50 CR
PARM2	000126.50	
PARM3	CR	
PARM4		
PARM5		
PARM6	y, y y	

PARM 6 formatting explained

PARM1 - We want to add **a space after** this parameter. Because we wish to add a space after we must also put **three spaces** before the **y** as otherwise the **y** would represent the "Retain spaces"

PARM2 - We want to **remove leading zeros** if they are there. Here we have a **space** followed by a **y** for the second rule and then a **space** followed by a **y**.

Example 4 - This is an all singing and dancing example.

Parameter	Input	Output
PARM1	£	£126.50CR 000012345 xyz
PARM2	126.50	
PARM3	CR	
PARM4	12345	
PARM5	xyz	
PARM6	, y, y, yy	

PARM 6 formatting explained

PARM1 - No formatting required so we just have a comma.

PARM2 - We want to **remove leading zeros** if they are there. Here we have a **y** for the second rule and then a **comma** as the remaining rules are defaulted.

PARM3 - We want to add **a space after** this parameter. Because we wish to add a space after we must also put three spaces before the **y** as otherwise the **y** would represent the "Retain spaces"

PARM4 - We want to add **leading zeros** and **add a space after**. We need to add two spaces before the two "y"s otherwise this would mean **Retain spaces** and **Trim zeros**.

Note: If you are using the rule “Fill Zeros” then it will be assumed that you wish to “Retain spaces”.

Example 5 - This example shows the use of defined string lengths

Parameter	Input	Output
PARM1	ID	ID Description Value
PARM2	Description	
PARM3	Value	
PARM4		
PARM5		
PARM6	10, 30	

PARM 6 formatting explained

PARM1 - We want this to take up a length of 10 characters so we have used 10 for the fifth rule.

PARM2 - We want this to take up a length of 30 characters so we have used 30 for the fifth rule.

PARM3 - No formatting required.

Note: If you are using the rule “Length of String” then these must be specified as **two characters** e.g. "01" for "1" etc.

11.4.4.29 COBMULTEML

This is a Standard Exit program which you call each time you wish to write out an email address for a document to the Temporary Additional Email Addresses file with an ***EMAIL** call. Then, when you have finished i.e. at the end of a document & change of Email Key, call it again with ***LAST** to close the program and file.

The Email Key that you pass must be unique, so maybe a date time stamp (you can use [COBDATE](#) for this), and the unique document number e.g. Invoice No, PO No etc. which you can concatenate with the date time stamp using [COBMERGE](#) or [Multiple Variable & Parameter substitution](#).

The records written to this file will be processed by the [GETMULTEML](#) Email Exit program and deleted. This Email Exit program could be called in the same Cobwebb Design that writes the records or in a totally separate design. If it is going to be a separate design then you will need to write the **Email Key** to your interim spooled file so that it can be passed to GETMULTEML to retrieve the correct email addresses for the document.

***EMAIL Call**

Parameter	In	Le n	Description
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PARM1	Email key	80	A unique key for this email output which will need to be passed into the GETMULTEML Email Exit Program as the Destination Address.
PARM2	Email Type	3	This can be TO , CC or BCC . Note: For the first email address you supply this will always be a TO regardless of what you enter here as it is used as the main email address for the Cobwebb Queue.
PARM3	Email Address	13 2	The email address for the recipient
PARM4	Email Name	50	The name for the recipient
PARM5	-		-
PARM6	*EMAIL	7	

*LAST Call

This should be called on change of document i.e. when **PAGE = *LAST**. If at this point you have written more than 20 email addresses a message is written to the joblog explaining that the limit of 20 has been exceeded.

Parameter	In	Length	Description
PARM1	-		-
PARM2	-		-
PARM3	-		-
PARM4	-		-
PARM5	-		-
PARM6	*LAST	7	-

11.4.4.30 COBNULL

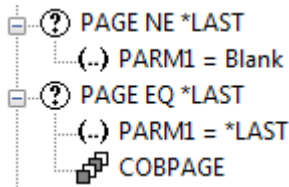
If you simply need to add more libraries to your list of libraries before calling an exit program then you can call **COBNULL** and simply add the extra libraries. The program just returns without doing anything.

From version 6.2.62 - you will be able to use the [COBGENLIBL](#) program to add any libraries you have configured in your [Cobwebb General Directory](#).

11.4.4.31 COBPAGE

If you need to add page numbers to your output then you can use this exit program. The page number is passed back in PARM1. If you need to reset page numbers on change of PO Number, for example, then you will need to set up page counting in the PPD **Page Setup, Conditional** tab. See the section **“Start of new document definition”** in the [Setting up your Output page](#) topic.

In order for this program to work correctly you need to create the following setup in the Explorer view of your PPD file



Note: It is extremely important that you create the above two conditions passing in the parameter *LAST on the last page as this zeros the page count and closes the program. If you do not do this and you use this exit program in another PPD file then it will not have zeroed the page count and your first document could contain the incorrect page number.

Parameter	In	Len	Out	Len
PARM1	When the parameter is in the condition <i>PAGE NE *LAST</i> you need to click on the Data radio button for the Exit program properties and enter a couple of blanks for the parameter. When the parameter is in the condition <i>PAGE EQ *LAST</i> you need to again click on the Data radio button and this time enter *LAST .	5	The page number	3

11.4.4.32 COBPERC

This program will calculate the percentage of parameter **1** using parameter **2** passing back the result in parameter **1**. This can be useful if needing to calculate a Discount or VAT for example. The program can handle both positive and negative values and will also remove any non numeric characters such as currency symbol , thousand delimiter etc. from the input string. **Note:** No currency symbol or thousand delimiter will be returned.

You can choose to **add** [***ADD**] or **subtract** [***SUB**] using parameter **3** the percentage to / from respectively from the input value giving a resultant value passed back in parameter **2**. If you do not pass a variable in this parameter *ADD is assumed.

Depending upon what is passed in parameter **4** the program will either **round** [***YES**] or **truncate** [***NO**] the results returned to the number of decimals specified. If you do not pass a variable in this parameter rounding = *YES is assumed.

The default is to return the results as a two decimal numeric field of length eleven e.g. nnnnnnnn.nn [*8 numeric the decimal point and two decimal*]. The number of characters returned before the decimal point is always eight but you may alter the number of decimals by passing the value of **0 – 5** in parameter **6**. If you alter the number of decimals returned then the return value

length will change accordingly from **8 – 15** respectively. An extra “-“ character will be returned at the end of the string if the value is negative.

Parameter	In	Len	Out	Len
PARM1	Input Value	132	Percentage value	8 - 15
PARM2	Input Percentage	132	Resultant value	8 - 15
PARM3	*ADD or *SUB	4	-	
PARM4	Round result *YES or *NO	4	-	
PARM5	-		-	
PARM6	No of decimals to return	1	-	

11.4.4.33 COBPPDATR

From version 6.2.83 - This program will return details from the **PPDATR data area** which is created in **QTEMP** by the **CRTPPD** program.

No parameters are required to be passed into this exit program. The relevant PPD attributes are returned as set out in the table below:

Parameter	In	Len	Out	Len
PARM1	-		PPD Name	10
PARM2	-		-	
PARM3	-		-	
PARM4	-		-	
PARM5	-		-	
PARM6	-		-	

11.4.4.34 COBRAND

From version 6.2.83 - This program will return a random set of characters based on the input string supplied and the length of string to be returned.

Parameter	In	Len	Out	Len
PARM1	String of characters from which to choose your random characters. #1	132	Random String	132
PARM2	Length of string to be returned. #2	132	-	

PARM3	-		-	
PARM4	-		-	
PARM5	-		-	
PARM6	-		-	

Notes:

#1. If you don't supply a string of characters in PARM1 then the digits 0 - 9 will be used to generated your random string.

#2. If you don't supply a length for your returned Random String then this will default to 5. If the length supplied is greater than 132 characters then this will be reduced to 132 as this is the maximum length of data that can be returned by an Exit program.

11.4.4.35 COBREPLACE

This program will replace the characters, matching PARM2 with those in PARM3, in the string passed in PARM1. This function is case sensitive.

Parameter	In	Len	Out	Len
PARM1	String	132	Return String #1	132
PARM2	Old character(s)	132	-	
PARM3	New character(s)	132	-	
PARM4	Length of Old Chr String #2	3	-	
PARM5	Length of New Chr String #2	3	-	
PARM6	-		-	

#1 If the number of characters you are replacing are greater in length than the original characters then there is the possibility the Return String will be truncated to 132 characters.

#2 These parameters are optional unless either the original character(s) or the replacement character(s) is blank or you wish to include a blank on the end of either of the two strings. In this case you must pass in the length of the string as otherwise the blank will not be included.

11.4.4.36 COBRFMTNUM

From version 6.2.62 - Program to format a numeric value with a varying number of input decimals and output a value with a specific number of decimals. The result may be rounded and include comma delimiters if required. You may also change the decimal point character to cater for UK and European numbers.

Notes:

- If the 'Input value string' contains a minus sign (on the right) then this will be output - see [Example 2](#).
- This program only caters for numeric values with a maximum of 10 characters before the decimal point and a maximum of 5 decimal places.

Parameter	In	Len	Out	Len
PARM1	Input value string	132	Output string	132
PARM2	Output decimals (0-5) / Round (R)	2	-	
PARM3	Thousand delimiter etc.	1	-	
PARM4	Input Decimal point e.g. "." or ","	1	-	
PARM5	Output Decimal point e.g. "." or ","	1	-	
PARM6	Length of output string #1	3	-	

Note #1: It is extremely important that you specify the correct length for your returned value in PARM6 otherwise your output could be truncated. Also the length specified here will include a possible minus sign in order that all values are returned with the same length i.e. positive numbers will be one character shorter than negative ones. Valid entries are 2 - 132.

Example 1

Parameter	Input	Output
PARM1	1234.679	1,234.68
PARM2	2R	
PARM3	,	
PARM4		
PARM5		
PARM6		

Example 2

Parameter	Input	Output
PARM1	1234.679-	1,234.67-
PARM2		
PARM3	,	
PARM4		
PARM5		

PARM6	9	
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11.4.4.37 COBRJ

This program will right justify a string. This should be used in conjunction either with “Align to grid” or a fixed width font in your design. You pass your string in PARM1 and the number of characters you wish to output in PARM2. The justified string is returned in PARM1 with length as defined by PARM2.

Parameter	In	Len	Out	Len
PARM1	String	132	String right justified to specified number of characters	132
PARM2	Number of characters	3	-	
PARM3	-		-	
PARM4	-		-	
PARM5	-		-	
PARM6	-		-	

11.4.4.38 COBRMLIN

From version 6.2.87 - If you have addresses on your spooled file containing blank lines, this Exit Program will remove the blank lines. Pass each address line in as a separate parameter then the blank lines will be removed and the address returned.

Parameter	In	Len	Out	Len
PARM1	Line 1	132	Shuffled output	132
PARM2	Line 2	132	As above	132
PARM3	Line 3	132	As above	132
PARM4	Line 4	132	As above	132
PARM5	Line 5	132	As above	132
PARM6	Line 6	132	As above	132

Example

Parameter	Input	Output
PARM1	1 High Street	1 High Street

PARM2		Tonbridge
PARM3	Tonbridge	Kent
PARM4		TN12 5JP
PARM5	Kent	
PARM6	TN12 5JP	

11.4.4.39 COBRTVEML

This program will allow you to retrieve an email address from the Cobwebb [Email directory](#). Pass in the string that you wish to use to look up the Cobwebb Email directory in PARM1 and the details are passed back in PARM1 - 3 as defined below.

Parameter	In	Len	Out	Len
PARM1	Lookup string	20	Email Address	132
PARM2	-		Recipient Name	50
PARM3	-		Description	50
PARM4	-		-	
PARM5	-		-	
PARM6	-		-	

11.4.4.40 COBSNDEML

From version 6.2.59 - This program allows you to send a basic email, without any attachments, to a single specified recipient directly to your SMTP Mail Server. This program uses the [SNDDPEML3](#) command and the **SMTP Server Name, Port, Encryption Type, Authentication UserId** and **Authentication Password** are automatically retrieved from the [Email System Parameters](#).

Parameter	In	Len
PARM1	Sender Email address	132
PARM2	Recipient Email address	132
PARM3	Subject for the Email	132
PARM4	Message text 1 - see below for details	132
PARM5	Message text 2 - see below for details	132
PARM6	Message text 3 - see below for details	132

The **Message Text** entries (PARM4 - PARM6) will be concatenated with a single space between each entry.

If you wish to include more than 396 bytes of data in your **Message Text** or to include carriage returns, then you may specify an **html** or **txt** file to use as the message text. You do this by specifying a **%FILE** parameter in the **Message Text 1** (PARM4) e.g.

`%FILE"/test/message.html"`

where `/test/message.html` is the path to the document you wish to use.

Note: When using **%FILE** in PARM4, PARM5 & PARM6 must be blank, and the file must always be encoded as **UTF-8**.

11.4.4.41 COBSPLATR

This program will return details from the [SPLATR data area](#) which is created in **QTEMP** by the **CRTPPD** program. Depending upon the information passed into the program in PARM6 different information will be returned.

Basic Spool File Attributes

No parameters are required to be passed into this exit program to retrieve the default return data. The relevant spooled file attributes are returned as set out in the table below:

Parameter	In	Len	Out	Len
PARM1	-		User Id	10
PARM2	-		User Data	10
PARM3	-		Output queue name	10
PARM4	-		Output queue library	10
PARM5	-		Drawer	4
PARM6	-		Spooled File Name	10

Spool File Date et al.

If you wish to return the Date and Time that the spooled file was created and the Job Name then you will need to call the same program but with the Date format for the returned date in PARM1 and ***DATE** in PARM6:

Parameter	In	Len	Out	Len
PARM1	Date Format #1		Spool File Date	8
PARM2	Date Separator (*YES, *NO) #2		Spool File Time	8
PARM3	Time Separator (*YES, *NO) #2		Spool File Job Name	10
PARM4	-		-	
PARM5	-		-	

PARM6	*DATE		-	
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#1 The valid date formats are:

DMY – Date returned DD/MM/YY (*the default*)

MDY – Date returned MM/DD/YY

YMD – Date returned YY/MM/DD

SYS – Date returned as per the System Value QDATFMT - *from version 6.2.88.*

#2 The Date and Time separator entries will default to ***YES** (separators being '/' and ':' respectively) if nothing is specified.

Total Number of Pages for Spool File et al.

If you wish to return the total number of pages for the spooled file for the entire spool file, together with the number of Copies, CCSID, Character set and Codepage then you will need to call the same program but with ***PAGES** in PARM6:

Note: Parameters 2 - 6 will only be returned from version 6.2.85.

Parameter	In	Len	Out	Len
PARM1	-		Total no of pages #3	7
PARM2	-		Number of copies#3	7
PARM3	-		CCSID#3	7
PARM4	-		Character set	10
PARM5	-		Codepage	10
PARM6	*PAGES		-	

#3 Value will be returned left justified with leading zeros removed.

System Name

If you wish to return the System Name for the server then you will need to call the same program but with ***SYSTEM** in PARM6

Parameter	In	Len	Out	Len
PARM1	-		System Name	8
PARM2	-		-	
PARM3	-		-	
PARM4	-		-	
PARM5	-		-	
PARM6	*SYSTEM		-	

11.4.4.42 COBSPLIT

This program will take a string and split it into component parts using supplied delimiters. You may supply up to two split characters as this will enable both splitting the string and the removal of any character that may be present at the end of your string that you do not require.

Parameter	In	Len	Out	Len
PARM1	String	132	Part 1	132
PARM2	Split character 1	1	Part 2	132
PARM3	Split character 2	1	Part 3	132
PARM4	Split blanks [*NO] #4		Part 4	132
PARM5	-		Part 5	132
PARM6	-		Part 6	132

Note 1: If the String should contain two consecutive split characters then a blank parameter would be returned.

Note 2: If the input parameters should result in more than six output components only the first six will be returned.

Note 3: If your **Split character 1** [PARM2] is a **Blank** then this program will still work but you will need to specify in PARM3 a character that will never exist in your String.

Note 4: If you only have one split character and don't want to split on blanks then currently you would need to specify in PARM3 a character that will never exist in your String. *From version 6.2.82* you can specify ***NO** in PARM4 and this will prevent splitting on blank characters if nothing is specified in PARM3.

Scenarios

String	Split 1	Split 2	Returned
UNT+200+58375206995222 '	+	'	Parm 1= UNT Parm 2= 200 Parm 3= 58375206995222
UNT+200+58375206995222 '	+		Parm 1= UNT Parm 2= 200 Parm 3= 58375206995222 '
UNT+200+583+ +752+069+95222 '	+	'	Parm 1= UNT Parm 2= 200 Parm 3= 583 Parm 4= Parm 5= 752 Parm 6= 069

11.4.4.43 COBSQL & COBSQL2

COBSQL & **COBSQL2** allow you to pass in a SQL SELECT statement using PARM1-6. These programs are identical apart from that fact that **COBSQL** will concatenate all the parameters without adding a blank between them and **COBSQL2** will add a blank.

Note: The source for these two programs may be found in **QUSRTOOLLE** source file in the **CPPD** library.

Parameter	In	Len	Out	Len
PARM1	String	132	First field	132
PARM2	String	132	Second field	132
PARM3	String	132	Third field	132
PARM4	String	132	Fourth field	132
PARM5	String	132	Fifth field	132
PARM6	String	132	Sixth field	132

How the program works

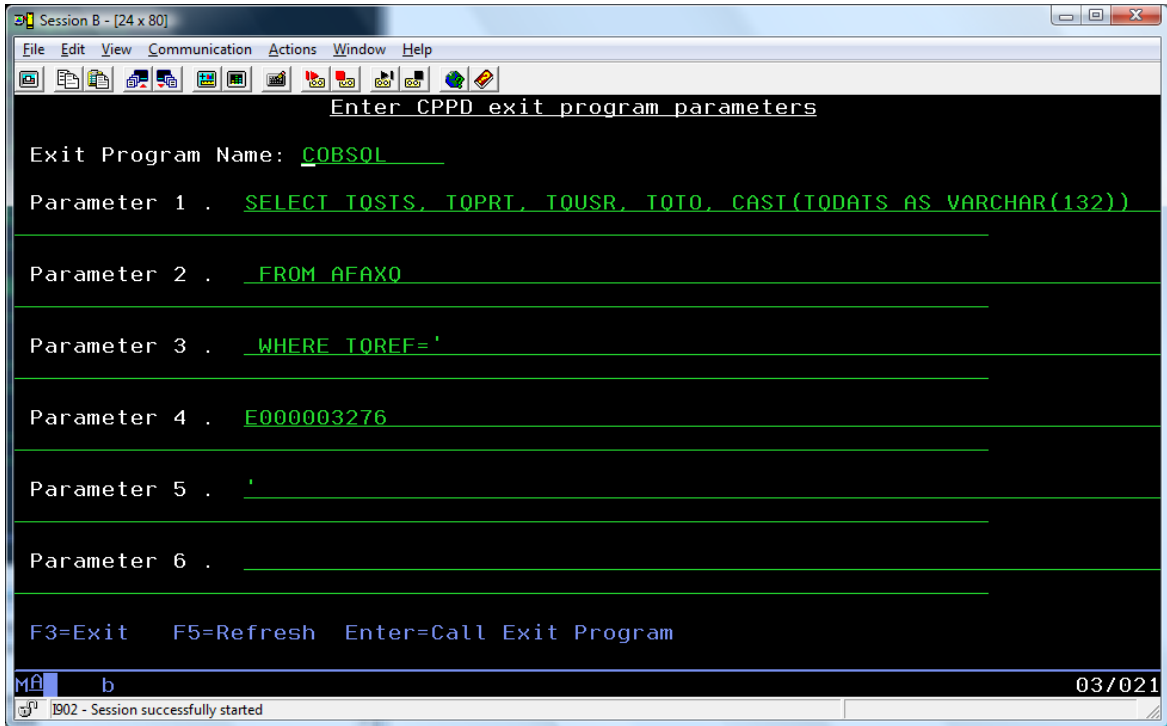
- Firstly the program trims any trailing blanks from PARM1 - PARM6.
- Now **COBSQL** will concatenate them all into one long string whereas **COBSQL2** will concatenate them with a space between each parameter.
- Having build up the SQL SELECT statement the original input parameters are cleared.
- The program then executes this string as an SQL statement
- The returned values from the SQL statement are returned into PARM1-PARM6.

Some Notes:

- You can split the input SQL string across PARM1 - PARM6 as you see fit.
- You can use this to insert dynamic values from the spooled file or simply to clarify the SQL call
- You must ensure any return values are *string* types or are cast to string types using `CAST(VALUE_NAME AS CHAR(132))`
- You can also populate your parameters with [multiple variable](#) information - also see [Multiple Variable & Parameter Substitution](#).
- If you are accessing data from a file outside the CPPD library then you will need to either specify the library name in the SQL string e.g. "SELECT * FROM **LIBRARYA**/FILEB" or add the library to the list of libraries in your PPD see [Calling an Exit Program](#) for details.

Example using the Test Harness

This example is using the [Test Harness](#) to return the fields from the Cobwebb Queue for a specific entry. Notice we have added a blank character on the front of Parameters 2 & 3 as we are using **COBSQL** and otherwise the statement would not work.

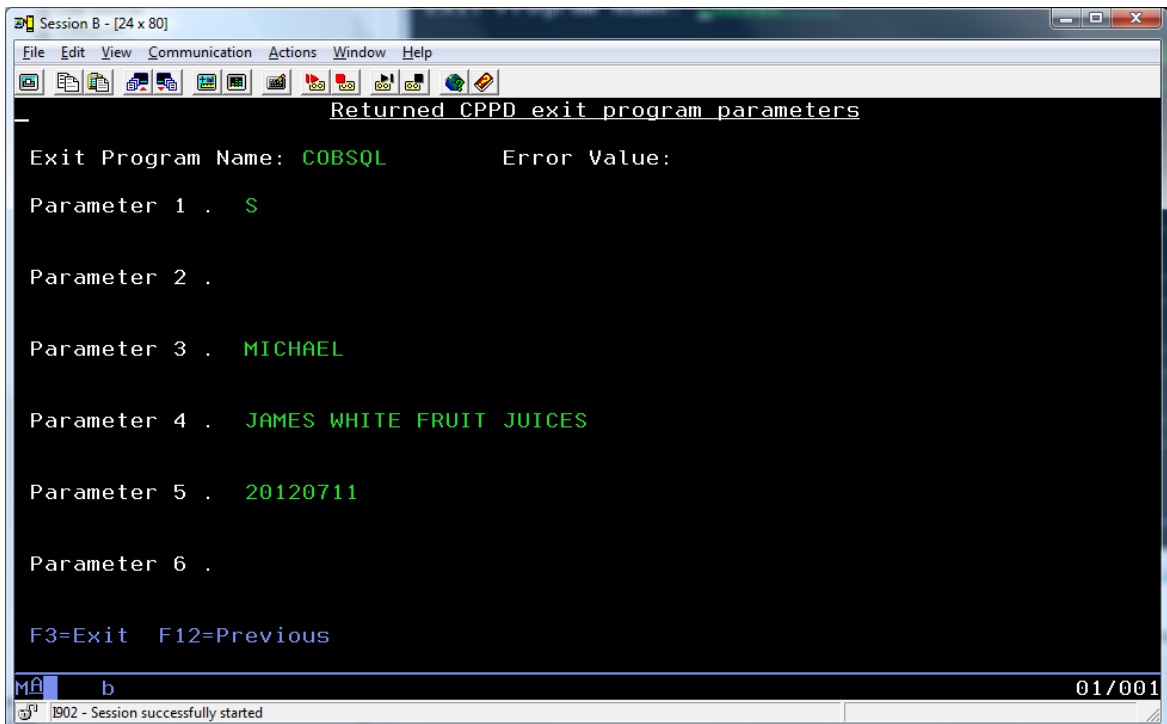


This would build up the SQL Statement:

```

SELECT TQSTS, TQPRT, TQUSR, TQTO, CAST(TQDATS AS VARCHAR(132))
FROM AFAXQ WHERE TQREF='E000003276'
    
```

Here is the result:



Using Multiple Variable Substitution

If you want to use [Multiple Variable Substitution](#) it could make your SQL statement even easier. For instance if you wanted to retrieve data from the [Cobwebb General Directory](#) and you stored

the input for the three key field in variables called **INPUT1**, **INPUT2** and **INPUT3** then you could use the following string as your **PARM1** into **COBSQL** e.g.

```
SELECT GDDATA FROM AGENDIR WHERE GDKEY1=' ?INPUT1?' AND
GDKEY2=' ?INPUT2?' AND GDKEY3=' ?INPUT3?'
```

The general data field GDATA will be returned in PARM1.

11.4.4.44 COBSQLM

COBSQLM is similar to **COBSQL** in that it will concatenate all the parameters, without adding a blank between them, but it will allow you to return more than one record. *From version 6.2.88.*

Configure the SQL select statement

The '*FIRST' call allows you to specify the SQL SELECT statement that you wish to use to retrieve your data over PARM1 - 5. This would normally be called in a **PAGE=*FIRST** condition. This will set the SQL cursor ready to retrieve the records.

Parameter	In	Len	Out	Len
PARM1	String	132		
PARM2	String	132		
PARM3	String	132		
PARM4	String	132		
PARM5	String	132		
PARM6	*FIRST	6		

- Firstly the program trims any trailing blanks from PARM1 - PARM5.
- Now **COBSQLM** will concatenate them all into one long string.

Return the data

To return the data you do not need to specify any parameters (PARM6 must be blank), just call the program and the data will be passed back in PARM1-6.

Keep calling the program with blank in PARM6 to return all the records you want unless ***NOMORE** is returned in **PARM1** to let you know that there are no more records to be returned.

Parameter	In	Len	Out	Len
PARM1			First field <i>or</i> *NOMORE *ERROR	132
PARM2			Second field <i>or</i> SQLSTT value	132

PARM3			Third field	132
PARM4			Fourth field	132
PARM5			Fifth field	132
PARM6			Sixth field	132

- The data will be returned in PARM1-6 unless there are no more records to return when **'*NOMORE'** is returned in **PARM1** or if there is an error running the SQL statement, when **'*ERROR'** is returned in PARM1 and the **SQLSTATE** value is returned in **PARM2**. **Note:** When either **'*NOMORE'** or **'*ERROR'** are returned the program is automatically ended and there is no need to call it with **'*LAST'** in PARM6.

End the program

The ***LAST** call will close the SQL cursor and end the program. This would normally be called in a **PAGE=*LAST** condition. It could also be called if you wanted to specify a different SQL SELECT statement to close the current cursor, and then you would call the program again with ***FIRST** to configure the new SELECT statement.

Parameter	In	Len	Out	Len
PARM1				
PARM2				
PARM3				
PARM4				
PARM5				
PARM6	*LAST			

Some Notes:

- You can split the input SQL string across PARM1 - PARM5 as you see fit.
- You can use this to insert dynamic values from the spooled file or simply to clarify the SQL call.
- You must ensure any return values are *string* types or are cast to string types using `CAST(VALUE_NAME AS CHAR(132))`
- You can also populate your parameters with multiple Variable information - see [Multiple Variable & Parameter Substitution](#).
- If you are accessing data from a file outside the CPPD library then you will need to either specify the library name in the SQL string e.g. "SELECT * FROM **LIBRARYA**/FILEB" or add the library to the list of libraries in your PPD see [Calling an Exit Program](#) for details.
- See examples of calling [COBSQL from the Test Harness](#) and using [Multiple Variable Substitution](#) for more information, as the select statements work in the same way.

11.4.4.45 COBSSCC

From version 6.2.81 - This Exit Program will generate an **SSCC** (Serial Shipping Container Code), including the check digit, based on the supplied data and type of **GTIN** (Global Trade Item Number) requested.

The program will error under the following conditions:

- PARM1, PARM2, PARM3, PARM4 or PARM5 contain non numeric data or data length > (GTIN - 1).
- PARM6 is not a valid GTIN Type
- The combined data length <> to (GTIN - 1)

All errors will be written to the joblog.

Parameter	In	Len	Out	Len
PARM1	Input Sting 1	Max 17	SSCC (including Check Digit)	Max 18
PARM2	Input Sting 2	Max 17	Check Digit	1
PARM3	Input Sting 3	Max 17	-	
PARM4	Input Sting 4	Max 17	-	
PARM5	Input Sting 5	Max 17	-	
PARM6	Type of GTIN Number required e.g. 8,12,13,14,17,18	2	-	

GTIN 18 Example

Parameter	Input	Output
PARM1	3761	376104250021234569
PARM2	0425002123456	9
PARM3		
PARM4		
PARM5		
PARM6	18	

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
3	7	6	1	0	4	2	5	0	0	2	1	2	3	4	5	6	
x3	x1	x3	x1	x3	x1	x3	x1	x3	x1	x3	x1	x3	x1	x3	x1	x3	

9	7	18	1	0	4	6	5	0	0	6	1	6	3	12	5	18	=101
Subtract sum from nearest = or higher multiple of 10 (110) = check digit																	9

GTIN 12 Example

Parameter	Input	Output
PARM1	37610425002	376104250024
PARM2		4
PARM3		
PARM4		
PARM5		
PARM6	12	

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
						3	7	6	1	0	4	2	5	0	0	2	
x3	x1	x3	x1	x3	x1	x3	x1	x3	x1	x3	x1	x3	x1	x3	x1	x3	
						9	7	18	1	0	4	6	5	0	0	6	=56
Subtract sum from nearest = or higher multiple of 10 (60) = check digit																	4

11.4.4.46 COBSTORE

COBSTORE will allow you to save information from one page of the spooled file, together with static information if required, and output it to another page. This can be useful if information is only printed on say the first page of an Invoice, Order etc. but is perhaps required to be output on every page.

To **Save** information call COBSTORE with the following parameters:

Parameter	In	Len	Out	Len
PARM1	Spooled File Data or constant	132		
PARM2	Spooled File Data or constant	132		
PARM3	Spooled File Data or constant	132		
PARM4	Spooled File Data or constant	132		
PARM5	Spooled File Data or constant	132		
PARM6	*SAVE + Text ID #1	15		

- #1** The Text ID can be up to 10 characters and should immediately follow the *SAVE .e.g. *SAVEADD1 where ADD1 is the Text ID in order that multiple text lines may be stored by using different Text IDs. If you call COBSTORE with *SAVE and the same Text ID as a previous call without first returning the data then the original stored data, for that Text ID will be overwritten.

To **Return** information call COBSTORE with the following parameters:

Parameter	In	Len	Out	Len
PARM1			Saved data from PARM1	132
PARM2			Saved data from PARM2	132
PARM3			Saved data from PARM3	132
PARM4			Saved data from PARM4	132
PARM5			Saved data from PARM5	132
PARM6	*RETN + Text ID #2	15		

- #2** Here the Text ID must be the ID for the data that you wish to return. The data will be returned in the same parameters where it was originally stored e.g. data stored in PARM1 of the *SAVE call will be returned in PARM1 of the *RETN.

To **Clear** all saved information call COBSTORE with the following parameters:

Parameter	In	Len	Out	Len
PARM1				
PARM2				
PARM3				
PARM4				
PARM5				
PARM6	*LAST	15		

Note: This call would normally only be used under the condition PAGE EQ *LAST.

11.4.4.47 COBSUB

This program will subtract the parameters **two** to **five** from parameter **one** and pass the result back in parameter **one**. **Note:** A minus sign will be added as the last character of the result if it is negative - thus making COBSUBS obsolete.

The default is to pass the result back as a two decimal numeric field of length **12** [to include the minus sign]. The number of characters returned before the decimal point is always **eight** but you may alter the number of decimals by passing the value of **0 – 5** in parameter **six**. If you alter the

number of decimals returned then the return value length will change accordingly from **9 – 15** [including the minus sign].

Note: If the number you pass into the program has a minus sign e.g. 1.10- then this number will be added i.e. subtracting a negative number will add it. If the end result is a negative number then a minus sign will be returned.

Parameter	In	Len	Out	Len
PARM1	Value 1	21	Result. Return length depends upon value specified in PARM6 e.g. xxxxxxxx.xxxxx- xxxxxxxx.xxxx- xxxxxxxx.xxx- xxxxxxxx.xx- xxxxxxxx.x- xxxxxxxx-	15
PARM2	Value 2	21	-	
PARM3	Value 3	21	-	
PARM4	Value 4	21	-	
PARM5	Value 5	21	-	
PARM6	Number of decimals (0 - 5) or Blank for default of 2		-	

11.4.4.48 COBSUBSTR

This program will return a substring of the String passed in PARM1 using PARM2 as the start position and PARM3 and the return string length. You may also use this program to **replace** part of the string if you specify a "**Replacement String**" in PARM4 or **Insert** the "Replacement String" if you specify ***YES** in PARM5. By default the string will be processed from the left; if you wish to process from the right then you will need to specify ***YES** in PARM6.

Note: If PARM6 = *YES then PARM4 & PARM5 will be ignored as there is no replacement facility if you are processing the string from the right.

Parameter	In	Len	Out	Len
PARM1	String	132	Substring	132
PARM2	Start position #1	3	-	
PARM3	Return length #2	3	-	
PARM4	Replacement String #3	132	-	

PARM5	Insert / Replace? Blank or *YES ^{#4}	4	-	
PARM6	Process String from Right? Blank or *YES ^{#5} Note: If *YES specified then any values passed in PARM4 & PARM5 will be ignored.	4	-	

Notes:

- #1** If the **Start position** is left blank, contains non numeric characters, or is greater than 131 then a Start position of **1** is assumed unless PARM6 = *YES when then end of the supplied string is assumed.
- #2** If the **Return length** is left blank, contains non numeric characters, or is greater than the string length minus the start position then a Return length of “**the string length minus the start position**” is assumed.
- #3** If a **Replacement String** is specified then this will overwrite the original string starting from the **Start position** for the **Return length**. If you wish to replace with a blank string then use ‘***BLANK**’ in this parameter and set the Return length to the number of blank characters you would like. **Note:** This parameter will be ignored if you have specified ***YES** in PARM6^{#5}.
- #4** If ***YES** is specified in PARM5 and you have also specified a **Replacement String** [PARM4] then the Replacement String will be inserted at the **Start position** for the **Return length** and the remainder of the string [up to 132 characters] will be added to the end - *from version 6.2.57*. **Note:** This parameter will be ignored if you have specified ***YES** in PARM6^{#5}.
- #5** If ***YES** is specified in PARM6 then you want to return data starting from the right of the string for a number of characters. The **Start position** will be the right most character of the string and the **Return length** the number of characters to the left of the **Start position** to be returned - *from version 6.2.63*. **Note:** You cannot use character **Replacement** or **Insertion** when processing the string from the right.

Example 1 - Return Sub String

Parameter	Input	Output
PARM1	Here now brown fox	brown
PARM2	10	
PARM3	6	
PARM4		
PARM5		
PARM6		

Example 2 - Replace Sub String

Parameter	Input	Output
-----------	-------	--------

PARM1	Here now brown fox	Here now small fox
PARM2	10	
PARM3	6	
PARM4	small	
PARM5		
PARM6		

Example 3 - Insert Sub String

Parameter	Input	Output
PARM1	Here now brown fox	Here now small brown fox
PARM2	10	
PARM3	6	
PARM4	small	
PARM5	*YES	
PARM6		

Example 4 - Right Sub String

Parameter	Input	Output
PARM1	Here now brown fox	brown fox
PARM2		
PARM3	9	
PARM4		
PARM5		
PARM6	*YES	

11.4.4.49 COBSUM

Program to total values with a varying number of input decimals and output a value with a specific number of decimals. The result may be rounded and include comma delimiters if required. You can also specify a bucket (1 – 99) into which you wish to put your total to allow for more than one running total.

First call – This should be called when you wish to zero the total and start again, possibly inside a Page = *FIRST condition.

Parameter	In	Len	Comment
PARM1	Number of output decimals (0 – 5)	1	If left blank defaults to 0
PARM2	Round up result	4	*YES to round or blank
PARM3	Thousand delimiter etc.	1	Enter delimiter if required e.g. “,”
PARM4	Negative sign?	4	*NO to stop minus sign on Total
PARM5	Decimal point e.g. “.” or “,”	1	If left blank defaults to “.”
PARM6	*FIRST		

Sum call – This should be called when you wish to pass in a value to be added to / subtracted from your total, possibly inside a “Loop”

Parameter	In	Len	Out	Len	Comment
PARM1	Value to sum	30	Sub Total #2	20	Subtotal values (passed in Sum call)
PARM2	Bucket No	2	Negative	4	*NEG if result is negative
PARM3	-				
PARM4	-				
PARM5	-				
PARM6	*ADD or *SUB #1				

#1 If using ***ADD** you may pass in a number with a minus sign and it will subtract the value. If you do not have minus signs on your spooled file then you may use ***SUB** to subtract a number from your total. It does not matter if the value that you pass in PARM1 has more or less decimals than the decimals required for the total value.

#2 If there is an error in the value being passed in ***ERROR** will be returned in PARM1.

Reset call – This should be called when you wish to clear a specific counter.

Parameter	In	Len	Out	Len	Comment
PARM1	Bucket No	4			Bucket no to clear (1 – 99)
PARM2	-				or *ALL for all buckets
PARM3	-				

PARM4	-				
PARM5	-				
PARM6	*RESET				

Last call – This should be called when you wish to produce a total, possibly inside a **Page = *LAST** condition.

Parameter	In	Len	Out	Len	Comment
PARM1	-				Grand Total #3
PARM2	-				
PARM3	-				
PARM4	-				
PARM5	-				
PARM6	*LAST				

#3 The sum of all the buckets will be returned in PARM1.

11.4.4.50 COBTOT & COBTOTR

These programs will multiply together parameters **one** and **two** supplied to the program and pass the result back in parameter **one**. The default is to pass the result back as a two decimal numeric field of length eleven (8 numerics the decimal point and two decimals). The number of characters returned before the decimal point is always eight but you may alter the number of decimals by passing the value of **1 – 5** in parameter **six**. If you alter the number of decimals returned then the return value length will change accordingly. The difference between **COBTOT** and **COBTOTR** is that **COBTOTR** will use rounding whilst **COBTOT** will just truncate to the correct number of decimals.

Parameter	In	Len	Out	Len
PARM1	Value 1	21	Result. Return length depends upon value specified in PARM6 e.g. xxxxxxxx.xxxxx xxxxxxxx.xxxx xxxxxxxx.xxx xxxxxxxx.xx xxxxxxxx.x xxxxxxxx	14

PARM2	Value 2	21	-	
PARM3	-		-	
PARM4	-		-	
PARM5	-		-	
PARM6	Number of decimals (0 - 5) or Blank for default of 2		-	

11.4.4.51 COBTOTAL

Program to total values with a varying number of input decimals and output a value with a specific number of decimals. The result may be rounded and include comma delimiters if required.

To **INITIALISE** the parameters and zero the total, use the following parameters:

Parameter	In	Len	Comments
PARM1	Number of output decimals (0 – 5)	1	If left blank defaults to 0
PARM2	Round up result	4	*YES to round or blank if not
PARM3	Thousand delimiter etc.	1	Enter delimiter if required e.g. “,”
PARM4	Negative sign?	4	*NO to stop minus sign on Total or Sub Total
PARM5	Decimal point e.g. “.” or “,”	1	If left blank defaults to “.” This is required for Europe where decimal point is a comma.
PARM6	*FIRST	6	This should be called when you wish to zero the total and start again, possibly inside a Page = *FIRST condition

To **ADD** or **SUBTRACT** values, use the following parameters:

Parameter	In	Len	Out	Len	Comment
PARM1	Value to sum	30	Sub Total #2	20 #3	Subtotal
PARM2			*NEG	4	If result is negative
PARM3					
PARM4					
PARM5					
PARM6	*ADD or *SUB #1	6			

Notes:

- #1 If using ***ADD** you may pass in a number with a minus sign and it will subtract the value. If you do not have minus signs on your spooled file then you may use ***SUB** to subtract a number from your total. It does not matter if the value that you pass in PARM1 has more or less decimals than the decimals required for the total value.
- #2 If there is an error in the value being passed in ***ERROR** will be returned in PARM1 otherwise a subtotal of all the values passed for this type of call since initialisation will be returned.
- #3 This is the maximum length; the actual length will depend upon the number of decimals you wish returned, a minus sign and whether or not you have specified a thousands delimiter.

To return the **TOTAL** value, use the following parameters:

Parameter	In	Len	Out	Len	Comment
PARM1			Total Value	20 #3	Total of values
PARM2			*NEG	4	If result is negative
PARM3					
PARM4					
PARM5					
PARM6	*LAST				Called when you wish to produce a total, possibly inside a Page = *LAST condition.

11.4.4.52 COBTOTALB

From version 6.2.57 - This program will allow you to accumulate up to **99** different totals for your PPD file. Each total (bucket) may have its own configuration such as the number of decimals to return, should the result be rounded and include comma delimiters. It works like the original [COBTOTAL](#) only now allowing for 99 different totals (buckets).

Note: In the description of the parameters below *nn* represents the bucket number. If this is left blank then bucket 01 is assumed.

Configure Totals

To configure the parameters for your total (bucket) you need to specify an ***FIRST** call. This should be called when you wish to define the requirements for your total and should only be called **ONCE** for each bucket, possibly inside a "**Page = *FIRST**" or "**Page = *START**" condition.

Note: If no ***FIRST** call is specified for a bucket the default values will be used.

Parameter	In	Len	Out	Len	Comments
-----------	----	-----	-----	-----	----------

PARM1	Number of output decimals (0 – 5)	1			If left blank defaults to 0
PARM2	Round up result	4			*YES to round or blank if not
PARM3	Thousand delimiter etc.	1			Enter delimiter if required e.g. “,”
PARM4	Negative sign?	4			*NO to stop minus sign on Total or Sub Total
PARM5	Decimal point e.g. “.” or “,”	1			If left blank defaults to “.” This is required for Europe where decimal point is a comma.
PARM6	*FIRSTnn	8			Positions 1 - 6 = *FIRST Positions 7 - 8 = Bucket number e.g. 01, 02

Accumulate values

To add or subtract values from a bucket you would use either the ***ADD** or ***SUB** call where nn is the bucket number you wish to add / subtract the value to / from. The sub total for the bucket, after having processed the value, will be returned in PARM1.

Parameter	In	Len	Out	Len	Comment
PARM1	Value to sum	30	Sub Total #3	20 #4	Sub total
PARM2			*NEG	4	If the sub total is negative
PARM3					
PARM4					
PARM5					
PARM6	*ADDnn or *SUBnn	6			Positions 1 - 4 = *ADD#1 or *SUB#2 Positions 5 - 6 = Bucket number e.g. 01, 02

Notes:

- #1** If using ***ADD** you may pass in a number with a minus sign and it will *subtract* the value. It does not matter if the value that you pass in PARM1 has more or less decimals than the decimals required for the total value.
- #2** If you do not have minus signs on your spooled file then you may use ***SUB** to subtract a number from your total. It does not matter if the value that you pass in PARM1 has more

or less decimals than the decimals required for the total value. If you use ***SUB** and pass in a number with a minus sign it will *add* the value.

- #3 If there is an error in the value being passed in ***ERROR** will be returned in PARM1 otherwise a subtotal of all the values passed for this type of call since initialisation will be returned.
- #4 This is the maximum length; the actual length will depend upon the number of decimals you wish returned, a minus sign and whether or not you have specified a thousands delimiter.

Reset a total

To reset the total for a bucket you would use the ***RESET** call where nn is the bucket number you wish to reset. The sub total, before it is zeroed, will also be returned in PARM1.

Parameter	In	Len	Out	Len	Comment
PARM1			Sub Total	20 #4	The sub total is returned and then zeroed.
PARM2			*NEG	4	If the sub total is negative
PARM3					
PARM4					
PARM5					
PARM6	*RESETnn	8			Positions 1 - 6 = *RESET Positions 7 - 8 = Bucket number e.g. 01, 02

End Accumulation process

This is an **MANDATORY** call and should be inside either a “Page = ***LAST**” or “Page = ***END**” condition and only called **ONCE** within a PPD file.

The bucket number is not required as this call will clear **ALL** totals regardless of the bucket number specified. If you do specify a bucket number, then the total for that bucket will be returned in PARM1.

If you wish to return totals for more than one bucket and clear it to start accumulating again then you should use the ***RESET** call.

Parameter	In	Len	Out	Len	Comment
PARM1			Total Value	20 #4	Total for the bucket
PARM2			*NEG	4	If the total is negative
PARM3					

PARM4					
PARM5					
PARM6	*LASTnn	7			Positions 1 - 5 = *LAST Positions 6 - 7 = Optional Bucket number e.g. 01, 02

11.4.4.53 COBTRIM

From versions after 6.2.58 - This program will remove the leading blanks from parameters **one** to **six** passing the result back in the corresponding parameter.

Parameter	In	Len	Out	Len
PARM1	Text	132	Text with leading blanks removed	132
PARM2	Text	132	Text with leading blanks removed	132
PARM3	Text	132	Text with leading blanks removed	132
PARM4	Text	132	Text with leading blanks removed	132
PARM5	Text	132	Text with leading blanks removed	132
PARM6	Text	132	Text with leading blanks removed	132

11.4.4.54 COBUNIQKEY

This program will allow you to pass up to 5 key fields in PARM1 - 5 and then return a Unique Key for these back in PARM1.

Note: You may need to upgrade your Cobwebb Server software to use this program - *from version 6.2.24.*

***FIRST Call**

To **reset** the Unique Keys i.e clear the Unique keys file and reset the Unique Key counter, use the ***FIRST** call which has the following parameters.

You should have at least one, but usually only one, ***FIRST call** in your PPD file.

Parameter	In	Len	Out	Len	Comments
PARM1	-		-		
PARM2	-		-		
PARM3	-		-		
PARM4	-		-		

PARM5	-		-		
PARM6	*FIRST	7	-		This should be called when you wish to reset the Unique Keys, usually inside a Page = *FIRST condition.

***KEY Call**

To return a **Unique Key** for your supplied parameters you would use the ***KEY** call which has the following parameters.

You may have as many ***KEY** calls in your PPD file as you like. **Note:** If the same key fields are passed more than once then the same Unique Key will be returned.

Parameter	In	Len	Out	Len	Comments
PARM1	Key Field 1	132	Unique Key	7	The Unique Key is returned in the format "0000001"
PARM2	Key Field 2	132	*FOUND		This will be blank if the record was not found or *FOUND if it was (<i>from v6.2.78</i>).
PARM3	Key Field 3	132	-		
PARM4	Key Field 4	132	-		
PARM5	Key Field 5	132	-		
PARM6	*KEY	7	-		

***LAST Call**

To **Clear** and **Close** the file and program you need to use the ***LAST** call which has the following parameters.

You should have at least one, but usually only one, ***LAST call** in your PPD file.

Parameter	In	Len	Out	Len	Comment
PARM1			Highest Unique Key generated	7	This value is returned with leading zeros removed. [Later versions of the Server software only]
PARM2			-		
PARM3			-		
PARM4			-		
PARM5			-		

PARM6	*LAST	7	-		Called when you have finished to clear and close the Unique Keys file, usually inside a Page = *LAST condition.
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11.4.4.55 COBUPPER

This program will convert parameters **one** to **six** supplied to the program into **uppercase**, passing the result back in the corresponding parameter. If you wish to convert all parameters to lowercase then use [COBLOWER](#).

Parameter	In	Len	Out	Len
PARM1	Text	132	Text converted to Uppercase	132
PARM2	Text	132	Text converted to Uppercase	132
PARM3	Text	132	Text converted to Uppercase	132
PARM4	Text	132	Text converted to Uppercase	132
PARM5	Text	132	Text converted to Uppercase	132
PARM6	Text	132	Text converted to Uppercase	132

11.4.4.56 COBUSREML

This program will take the IBM i User Id of the owner of the original spooled file and check the Cobwebb [Email directory](#) for an entry. The **Email address** will be returned in **PARM1** and the **Recipient name** in **PARM2**.

If an entry for the IBM i User Id cannot be found in the Cobwebb Email directory then the program will try using the User Id **CPPDMM**.

You may then retrieve these details from the **Output pane**, using the [Address element](#), to determine the destination for your e-mail output.

Note: This is a Cobwebb Standard Exit program not a Cobwebb Email Exit program.

Parameter	In	Len	Out	Len
PARM1	-		Email Address	132
PARM2	-		Recipient Name	50
PARM3	-		-	
PARM4	-		-	
PARM5	-		-	
PARM6	-		-	

11.4.4.57 COBWRAP

From version 6.2.87 - This Exit Program can be used to wrap data from the spooled file, or hard coded in the Cobwebb Design, into fewer or more lines in your output depending upon your requirement.

The data passed in **PARM1 - 4** has the leading and trailing blanks trimmed and is then concatenated with a single space between each parameter.

The data is then wrapped to the length specified in **PARM6** and output back in **PARM1 - 5**.

If there there is abnormal spacing in your input data i.e more than one space between certain words then all extra spaces will be stripped unless you specify 'Y' in **PARM5**.

Nothing is currently returned in PARM6 as this has been kept free for future proofing.

Notes:

1. Blank input data in PARM1 - 4 is not included, so no extra spaces generated.
2. If the program finds a word that is greater in length than the "Length to wrap to" then that word is truncated when output.
3. When returning the data, if the result cannot fit in PARM1 - 5 then data left over is discarded.

Parameter	In	Len	Out	Len
PARM1	Data to wrap	132	Wrapped output	132
PARM2	Data to wrap	132	As above	132
PARM3	Data to wrap	132	As above	132
PARM4	Data to wrap	132	As above	132
PARM5	Keep extra blank spaces 'Y' to keep or blank to remove. Default = blank	1	As above	132
PARM6	Length to wrap to. Default = 35 max = 132	3		

11.4.4.58 COBXLATE

From versions after 6.2.82 - This program will take the text that you supply in **PARM1 - PARM4** and translate it from its current CCSID (Coded Character Set Identifier) supplied in **PARM5**, to the CCSID you want the text to be converted to supplied in **PARM6**. The translated text will be passed back in the corresponding PARM1 - PARM4.

Note: PARM1, PARM5 & PARM6 are *Mandatory* entries and PARM2 - PARM4 are *Optional*.

Parameter	In	Len	Out	Len
PARM1	Text to translate	132	Translated Text	132

PARM2	Text to translate	13 2	Translated Text	132
PARM3	Text to translate	13 2	Translated Text	132
PARM4	Text to translate	13 2	Translated Text	132
PARM5	Source CCSID (e.g. 1146) - if this is 0 the CCSID for the job will be used.	5	-	
PARM6	Target CCSID (e.g. German 1141)	5	-	

11.4.4.59 COBZERO

This program will remove the leading blanks or zeros from each of the six parameters and left justify the result.

Parameter	In	Len	Out	Len
PARM1	Text	132	Text with leading blanks/zeros removed	132
PARM2	Text	132	Text with leading blanks/zeros removed	132
PARM3	Text	132	Text with leading blanks/zeros removed	132
PARM4	Text	132	Text with leading blanks/zeros removed	132
PARM5	Text	132	Text with leading blanks/zeros removed	132
PARM6	Text	132	Text with leading blanks/zeros removed	132

11.4.4.60 GETGEND

This program allows you to retrieve information that you have stored in the **Cobwebb General Directory**. The General Directory may be maintained via the "[Work with Directory](#)" option in CPPD and selecting "3. [Work with general directory](#)".

Up to three KEY entries may be passed into this program with KEY 2 & 3 being optional. The KEY entries may be up to 20 characters in length as set out in the table below. The General directory data is returned in PARM1 and may be up to 132 characters in length.

Parameter	In	Len	Out	Len
PARM1	KEY 1	20	General directory data	132
PARM2	KEY 2	20	-	
PARM3	KEY 3	20	-	
PARM4	-		-	

PARM5	-		-	
PARM6	- See Note#1		-	

Note#1: From version 6.2.85.

If **PARM6** is **blank** then one lookup will be performed using all three Key fields. This is how the program has always worked.

If you want to return more than one result then, by using **PARM6** in the following way, you can retrieve the data based on the supplied key parameters KEY1, KEY2 & KEY3.

- If all three key parameters are populated then use all three to lookup the data - *this will obviously only ever return one record*
- If only the first two key parameters are populated then just use these two to lookup the data
- if only the first key parameter is populated then just use this to lookup the data

PARM 6	When to use	What is returned
*FIRST	When you want to set the pointer to retrieve new information using the supplied keys KEY1, KEY2 & KEY3. Use this the first time you call the program to retrieve multiple records or if you wish to change the key information.	Return the first matching record in PARM1. If no match found then '*NORECS' is returned in PARM1. If '*NORECS' is passed back then the program will end and there is no need to call it with *LAST.
*NEXT	When you want to retrieve the next matching entry base on the supplied keys KEY1, KEY2 & KEY3. Only use this until '*NORECS' is passed back.	Return the next matching record in PARM1. If no more matches are found then '*NORECS' is returned in PARM1. If '*NORECS' is passed back then the program will end and there is no need to call it with *LAST.
*LAST	Use this call to end the program. Only required if you wish to end the program before '*NORECS' has been passed back in PARM1.	No parameters are returned.

11.4.4.61 COBPRTCPY

This exit program allows you to specify the number of copies for your printed output. It must be called by a **Print Output Device** passing in the **Number of copies** in the **Destination** address element.

11.4.4.62 COBPRTOVR

This is a **Print** exit program to be used in a **Print Output Device**. This will allow you to pass in a string of overrides for the Print Output Device parameters in the **Destination** address element. The string contains a pipe delimited list of overrides based on the keyword supplied. The keyword **MUST** be uppercase immediately followed by an = sign e.g.

OUTQ=PRT01

These keywords may be passed in any sequence and it does not matter if spaces exist between the keyword value and the next pipe.

For instance to override the **User Data** and **Copies** you would use something similar to the following:

USRD=Inv Print|**CPYS**=2

or

USRD=Inv Print | **CPYS**=2

Keyword	Description	Max Length	Values
OUTQ	Output Queue Name	10	Text string
OTQL	Output Queue Library	10	Text string
LIBQ	Output Queue Library and Name e.g. QUSRSYS/PRT01	21	Text string
PRTD	Printer Device	10	Text string
USRD	User Data	10	Text string
FRMT	Forms Type	10	Text string
HLDP	Hold Print	4	*NO or *YES
SAVP	Save Print	4	*NO or *YES
DPLX	Duplex	7	*NO, *YES, *TUMBLE, *FORMDF
SRCD	Source Drawer	5	Integer 1 – 225
CPYS	Number of copies	3	Integer 1 - 999
OBIN	Output Bin	5	Integer 1 – 225

11.4.4.63 COBPRTUSRD

This exit program allows you to specify the user data for your printed output. It must be called by a **Print Output Device** passing in the **User Data** in the **Destination** address element.

11.4.4.64 COBAUSERQ - Retrieve Aurora User Output Queue & Library

Overview

Cobwebb supply a program **COBAUSERQ** which will retrieve retrieve Aurora User **Output Queue & Library** from the **User Profile** file **APG05L00** in library **AULAMF2** [or similar]. **Note:** We have to supply this as program source as this needs to be compiled over your version of Aurora files.

Creating the program

If you look in **QUSRTOOLLE** source file in library **CPPD** you will see the source for a program called **COBAUSERQ**. In order to use this program you will need to compile it over your version of Aurora i.e. have the correct Aurora library in the library list where the **APG05L00** file resides [usually **AULAMF2**].

We would suggest that you compile this program into the library **COBEXIT** which is the library name that is most commonly used for Cobwebb Exit Programs.

Note: Please **do not** compile it into library **CPPD** otherwise this will be lost when you next upgrade the Cobwebb Server software.

The program will then need to be owned by **AULOWNER** and have the **USRPRF** parameter set to be ***OWNER** in order for CPPD to be able to access the data. You can do this either when you compile the program or by using the **CHGPGM** command and pressing **F4**.

If you require any help with the above process please call or email support@cobwebb.co.uk and we will be please to assist you.

Defining the program in your PPD

This exit program must be called by a **Print Output Device** in your PPD passing in the **User** for whom you wish to retrieve the **Output Queue** information and the **Library** name where the file **APG05L00** may be found in the **Destination** address element.

Parameter	In	Len	Out	Aurora Field Name
Destination	User Id / Library Note: The User ID must be specified in positions 1 – 10 and the Library name where the file APG05L00 may be found in positions 11 – 20 .	50		
Output Queue		10	Output Queue	PRQU05
Output Queue Lib		10	Output Queue Lib	PLIB05
Output Device		10		
Forms Type		10		
User Data		10		
Hold Print		4		

Save print		4		
Duplex		7		
Drawer		5		
No of copies		3(0)		
Error Flag		1		

How the program works

First the program will override the file **AP05L00** to the library name specified. Then using the **User ID** it will try to retrieve the **Output Queue** details. If a record does not exist for the User ID specified, or the Output Queue entry is blank, then no information will be returned.

11.4.4.65 GETMULTEML

This exit program must be called by an **Email Output Device** and should be used in conjunction with the Standard Exit program **COBMULTEML** which enables you to write multiple email addresses for a document to a temporary file. You pass the **Email key** (that you supplied in PARM1 to COBMULTEML) in the **Destination address** (Input string). The program then reads through the temporary file writing the email details of the first record it finds as the main address on the Cobwebb Queue and the rest (up to 20 in all) as **Additional Email Addresses**. These Additional Email Addresses can be **TO**, **CC** or **BCC**. If you have supplied more than 20 email addresses then a message is written to the joblog explaining that the limit of 20 has been exceeded.

Leave the **Recipient email** and **Recipient name** blank as these will be filled with the first email address it finds in the temporary file.

Parameter	Attribute	Description
Input	A (256)	Input string - Destination Address element
RecEmail	A (256)	Recipient's email address
SndEmail	A (256)	Sender's email address
SndName	A (50)	Sender's name
RecName	A (50)	Recipient's name
Subject	A (256)	Email subject
Message	A (256)	Email message text
AttName	A (64)	Attachment Name
AttExt	A (3)	Attachment Extension
AttType	A (3)	Attachment Type

11.4.4.66 COBFILCOPY

This exit program must be called by a **File Output Device** and is used to COPY the generated file to up to nine alternative destinations. The program will check the validity of the specified paths and then proceed to copy the file to the specified destination. Your specified destination may be either in the IFS or QNTC.

If you have specified a QNTC path then you need to enter a User ID in **PARM2**, which is also a valid Windows User Name, and has permission to write to the QNTC folder.

Parameter	Length	Description	Example
PARM1	132	Destination for copy 1	'/test/output/' OR '/qntc/scratch/'
PARM2	132	User ID	User to use when writing to QNTC and must have required permission. See QNTC Configuration for details.
PARM3	132	Destination for copy 2	As for copy 1
PARM4	132	Destination for copy 3	As for copy 1
PARM5	132	Destination for copy 4	As for copy 1
PARM6	132	Destination for copy 5	As for copy 1
PARM7	132	Destination for copy 6	As for copy 1
PARM8	132	Destination for copy 7	As for copy 1
PARM9	132	Destination for copy 8	As for copy 1
PARM10	132	Destination for copy 9	As for copy 1
PARM11 - 20	64	<i>Not used</i>	

11.4.4.67 COBFILPOST

This exit program must be called by a **File Output Device** and is used to **POST** the generated file to a Web Service. If the Web Service requires you to log on with a *Username* and *Password* then these must be provided. You may specify up to seven *Name & Value* pairs as *Parameters* for the Web Service.

Note: You may need to upgrade your Cobwebb Server software to use this program - *from version 6.2.78*.

Parameter	Length	Description	Example
PARM1	132	First 132 characters of URL to Web Service.	https://localhost:6443/docStore/store/Test%20DocStore/document/

		Note: Characters must be escaped e.g. blank is %20	
PARM2	132	Last 132 characters of URL to Web Service. Note: Characters must be escaped e.g. blank is %20	
PARM3	132	Username for Web Service if required.	
PARM4	132	Password for above Username	
PARM5	132	The Parameter name for the file parameter	document
The following are Name and Value pairs for the Web Service parameters.			
PARM6	132	Parameter Name 1	CUSNO
PARM7	132	Parameter Value 1	ABC001
PARM8	132	Parameter Name 2	INVNO
PARM9	132	Parameter Value 2	0000001
PARM10	132	Parameter Name 3	
PARM11	132	Parameter Value 3	
PARM12	64	Parameter Name 4	
PARM13	64	Parameter Value 4	
PARM14	64	Parameter Name 5	
PARM15	64	Parameter Value 5	
PARM16	64	Parameter Name 6	
PARM17	64	Parameter Value 6	
PARM18	64	Parameter Name 7	
PARM19	64	Parameter Value 7	
PARM20	64	<i>Not used</i>	

11.4.4.68 COBFILIDX

This exit program must be called by a **File Output Device** and is used to create a .IDX file with the same name as the supplied file name and in the same location. All of the supplied parameters, which can contain any information that you require for your Java program, together with the File path, File name, File extension and other program information. **Note:** The generated .IDX file will inherit permissions from the folder.

This program would normally be called if you are creating a file in a folder being monitored by a [Java Folder Monitor](#) or [Web Service Folder Monitor](#).

Required Parameters for using FMWEBPOST

If you wish to use this program to produce an **IDX** file to be used by the [Web Service Folder Monitor](#) **FMWEBPOST** then you will need to specify the following **File Exit program parameters** in your PPD.

Parameter	Length	Description	Example
You do not need to specify PARM1 - PARM5 unless you wish to override the entries in the Web Service Folder Monitor you have created to monitor for these files.			
PARM1	132	First 132 characters of URL to Web Service if you wish to override Folder Monitor parameter.	https://localhost:6443/docStore/store/Test%20DocStore/document/ Note: Characters must be escaped e.g. blank is %20
PARM2	132	Last 132 characters of URL to Web Service if you wish to override Folder Monitor parameter.	
PARM3	132	Username for Web Service if you wish to override Folder Monitor parameter.	
PARM4	132	Password for above Username if you wish to override Folder Monitor parameter.	
PARM5	132	The Parameter name for the file parameter if you wish to override Folder Monitor parameter	document
The following are the Values for the Parameter Names specified in your Web Service Folder Monitor making up the Name / Value pairs for the Web Service parameters.			
PARM6	132	Parameter Value 06	Customer Number for CUSNO key
PARM7	132	Parameter Value 07	Invoice Number for INVNO key
PARM8	132	Parameter Value 08	Invoice Date for INVDAT key

PARM9	132	Parameter Value 09	
PARM10	132	Parameter Value 10	
PARM11	64	Parameter Value 11	
"	"	"	
PARM20	64	Parameter Value 18	

Note: You may need to upgrade your Cobwebb Server software to use this program - *from version 6.2.78.*

Example Output

Based on the supplied information in this example the file path would be **/test/idm/flrmon/TEST13.idx**

```
Parm01=https://localhost:6443/docStore/store/Test%20DocStore/document/  
Parm02=  
Parm03=  
Parm04=  
Parm05=document  
Parm06=ABC0123  
Parm07=01234567  
Parm08=2018-10-24  
Parm09=  
Parm10=  
Parm11=  
Parm12=  
Parm13=  
Parm14=  
Parm15=  
Parm16=  
Parm17=  
Parm18=  
Parm19=  
Parm20=  
Path=/test/idm/flrmon/  
Filename=TEST13  
Extension=PDF  
Program=COBFILIDX  
Library=COBEXIT  
User=CPPDMM
```


Date=2018-10-24

Time=12.49.32

11.4.4.69 IVSTORE - Interface to Image View

This File Exit program may be called by a [File Output Device](#) and is used to interface with **Image View**. You will need to pass the following parameters that are used in the **Image View API** command **PIDXIMP**.

Note: If you wish to call this program outside of a PPD then please refer to the [Cobwebb File Exit Program](#) for details on the required parameters.

File Exit Program Parameters:

Parameter	PIDXIMP keyword	Length	Description	Example
PARAM1	APPARA	10	Application Area	COBWEBB
PARAM2	FLOSUB	10	Folio Subject	PO
PARAM3	DOCTYP	10	Document Type	PO
PARAM4	CMPTYP	10	Component Type	PCEXT
PARAM5	FLOTXT	50	Folio Text	Whatever
PARAM6	DOCTXT	50	Document Text	Comments
PARAM7	USRKEY	132	User Key	e.g. Invoice number
PARAM8	FROMPATH	90	From path	CPPD/IVTEMP Note: This folder must exist within QDLS
PARAM9		10	Image View Library for PIDXIMP command	DEMIVOBJ

Example:

11.4.4.70 IVSTOREIFS - Interface to Image View

This File Exit program may be called by a [File Output Device](#) and is used to interface with **Image View**. This calls a CLP program called IVSTOREIFC which in turn calls the ImageView api **PIMPDOCIFS** to store a single document in ImageView. The Return code from the PIMPDOCIFS command is written out to the Joblog and also to PARM20 in the File Exit Program.

Note: If you wish to call this program outside of a PPD then please refer to the [Cobwebb File Exit Program](#) for details on the required parameters.

File Exit Program Parameters:

You will need to pass the following parameters that are used in the **Image View API** command **PIMPDOCIFS**:

Parameter	PIDXIMP keyword	Length	Description	Example
PARM1	APPARA	10	Application Area	FINANCE
PARM2	FLOSUB	10	Folio Subject	ORDERS
PARM3	DOCTYP	10	Document Type	POD

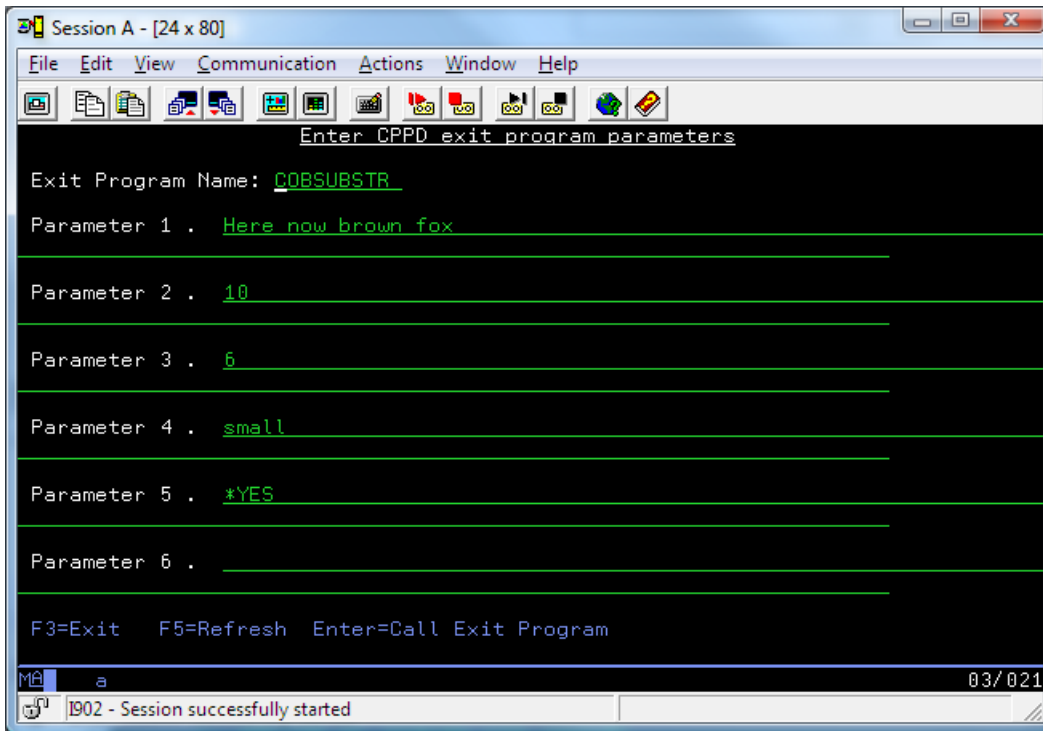
PARM4			<i>Not used</i>	
PARM5	FLOTXT	50	Folio Text	Proof of Delivery
PARM6	DOCTXT	50	Document Text	Signee Name
PARM7	USRKEY	132	User Key	POD Barcode
PARM8	USRDTA	50	User Data	Can be blank
PARM9	IVLIBO	10	ImageView Object Library for PIMPDOCIFS command	PACIVOBJ - can be blank if in JOBD# ¹
PARM10	IVLIBF	10	ImageView File Library for PIMPDOCIFS command	PACIVFIL - can be blank if in JOBD# ¹
PARM11	IVLIBU	10	ImageView User Library for PIMPDOCIFS command	PACIVUSR - can be blank if in JOBD# ¹ or not used
...				
PARM20	RETCOD	11	PIMPDOCIFS Return Code or Server Error Message ID	

Note #1: If you are running in a multi-threaded environment then you should add any required libraries to your Job Description and leave these entries blank.

11.4.5 Test Harness Suite

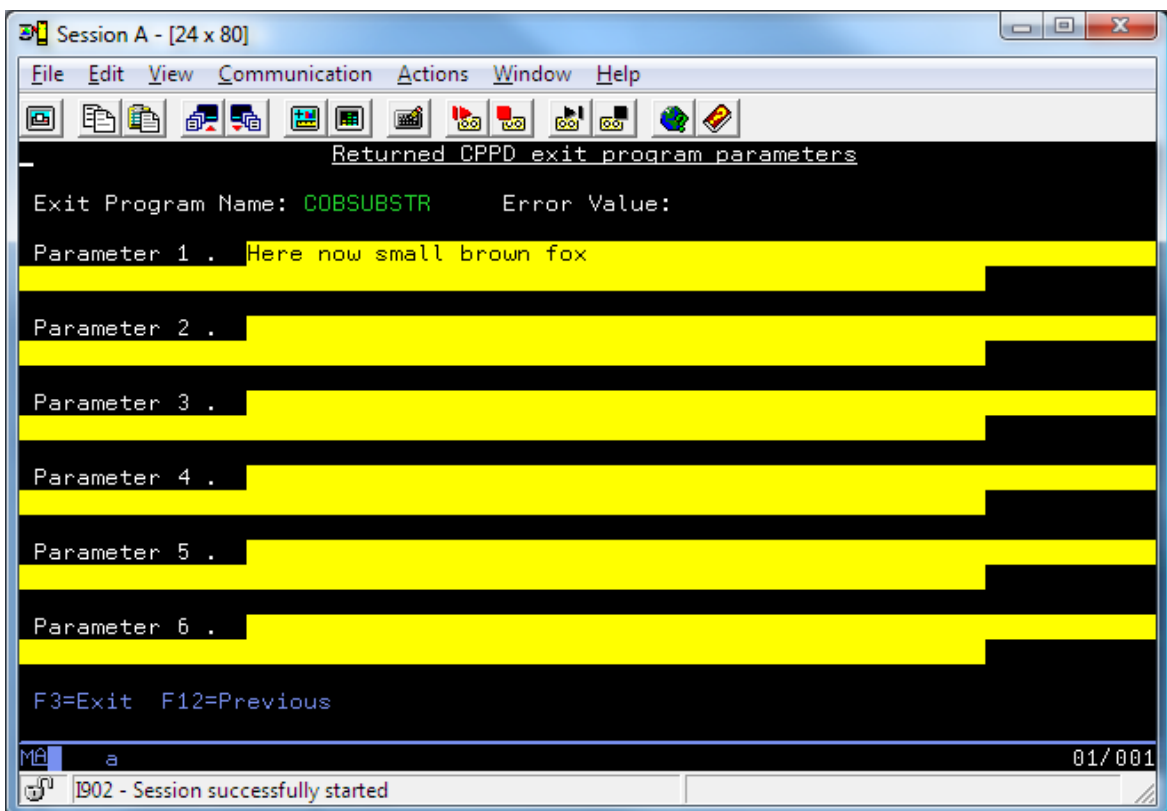
Standalone Test Harness Suite

If you wish to test your exit programs before adding them into a PPD file then Cobwebb have supplied a suite of programs to facilitate this. You will need to have CPPD and any other library required by your program, including the one where your program resides and where any files accessed by your program may be found, in your library list before calling any of these programs. When called, each program will display a screen asking for the name of your program together with a list of the parameters. You may then enter any data required into the parameters and press Enter to call your program - the example below is using **TSTCPRM**.



The parameters returned by your program are then displayed for you to verify. *From version 6.2.63 the returned fields will be highlighted yellow in order that returned blanks and underline characters can be seen more easily.*

Note: If an Error has been returned by the program then it will be displayed in the **Error Value**.



The supplied programs are as follows:

Parameter	Description
TSTCPRM	Test Harness for a Cobwebb Standard Exit Program
TSTXPRM	Test Harness for a Cobwebb Fax Exit Program
TSTEPRM	Test Harness for a Cobwebb Email Exit Program
TSTFPRM	Test Harness for a Cobwebb File Exit Program
TSTPPRM	Test Harness for a Cobwebb Print Exit Program

Note: Each of the above Test Harness programs have a command of the same name which you may call.

Interactive Test Harness Suite for PPD files

Cobwebb supply a suite of exit programs that you may call in your PPD files in order to interactively test them before an exit program has been written or to make sure that you are passing the correct information to your exit program. These will only run when using the [CRTPPD](#) or [RUNPPD](#) commands (*not the Spooled File Monitor*) as they require screen input.

When running the **CRTPPD** or **RUNPPD** commands the relevant exit program is called passing in the parameters from your PPD file. These parameters are then displayed on your IBM i screen. You may change these before pressing enter to return the updated parameters to your PPD file. In this way you can test the PPD output without having to wait for the exit program to be written.

The supplied programs are as follows:

Parameter	Description
DSPCPRM	Test Harness for a Cobwebb Standard Exit Program
DSPXPRM	Test Harness for a Cobwebb Fax Exit Program
DSPEPRM	Test Harness for a Cobwebb Email Exit Program
DSPFPRM	Test Harness for a Cobwebb File Exit Program
DSPPPRM	Test Harness for a Cobwebb Print Exit Program

11.5 Cobwebb APIs & Commands

Cobwebb Document Management includes various **Application Program Interfaces (APIs)** and **Commands**:

Note: You will need to add the **CPPD** library to your library list before calling any of these commands e.g.

```
ADDLIBLE CPPD
```

Menu Option Commands:

- For the commands behind some of the menu options please see [Menu Option Commands](#).

APIs

- [SNDAPI](#) - Outgoing fax API.
- [EMLAPI](#) - Outgoing email API.
- [DSTAPI](#) - Cobwebb Distribution API which allows a correctly designed PPD to have its output distribution modified at runtime programmatically.
There is also an [ARCDSTAPI](#) which archives old records from the [DSTAPI Database](#) - *from version 6.2.70.*

PPD Commands:

- [CRTPPD](#) - Command to process a spooled file using a PPD file - used by the [Cobwebb Spool File Monitor](#)
- [RUNPPD](#) - Cut down version of CRTPPD for testing your PPD files.
- [SNDFAXP](#) - Command to send a spooled file as a fax using a PPD to generate the output.
- [SNDFAXP](#) - Command to send a spooled file as a fax.
- [SNDPPDEML](#) - Command to send an email directly to your SMTP Mail Server using POSTIE. (One recipient & attachment)
- [SNDPPDEML3](#) - Command to send an email directly to your SMTP Mail Server using POSTIE3. (Multiple recipients & attachments)

Cobwebb Queue Commands - *included from version 6.2.*

- [WRKQARC](#) - Archives a queue entry. This is the same as entering **8=Archive** against a message on the queue.
- [WRKQCPY](#) - Copies a queue entry. This is the same as entering **3=Copy** against a message on the queue.
- [WRKQDEL](#) - Deletes a queue entry. This is the same as entering **4=Delete** against a message on the queue.
- [WRKQPTY](#) - Changes the priority of a queue entry. This is the same as entering **4=Select** against a message on the queue and then changing the priority.
- [WRKHLDQ](#) - Displays all Held emails that have never been sent and allows you to route them to a different email for checking the output, prior to going live with a new Cobwebb Design (PPD) - *from version 6.2.88.*

Housekeeping Commands (also included in the [Housekeeping menu](#)):

- [ARCPPDQ](#) - Archive Cobwebb Queue messages so that they don't appear on the [Work with Queue](#) display unless you press **F13 Archive Q**.
- [SAVPPDQ](#) - Save the Cobwebb Queue to a save file.
- [CLRPPDQ](#) - Clear (delete) entries from the Cobwebb Queue.
- [RGZPPDQ](#) - Save the Cobwebb Queue and Clear entries. This combines the **SAVPPDQ** and **CLRPPDQ** commands. It will end the CPPD subsystem at the beginning of the job then, when it has cleared the records, it will reorganise ANY file in library CPPD that has deleted records, and then re-start the CPPD subsystem.

Spooled File Commands (also included in the [Cobwebb Tools menu](#)):

- [CHGSPLFS](#) - Change the status of multiple spool files, with the same file name in a defined Output Queue - *from version 6.2.66.*

- [DLTSPLFS](#) - Delete multiple spool files, with the same file name in a defined Output Queue - *from version 6.2.66.*
- [DUPSPLF](#) - Duplicate a spooled file. **Note:** Not currently on the Cobwebb Tools menu.
- [MOVSPPLFS](#) - Move multiple spool files, with the same file name in a defined Output Queue, to a different Output Queue - *from version 6.2.66.*
- [MRGSPPLFS](#) - Merge spool files, with the same file name in a defined Output Queue, together - *from version 6.2.65.*
- [RTVPRTF](#) - Retrieve the details of the records and fields that exists in the selected externally defined Printer File - *from version 6.2.78*
- [SCANSPLF](#) - Search an Output Queue for spool files that contain a supplied text string - *from version 6.2.57*
- [WRKSPLH](#) - Work with Spooled Files Housekeeping allows you to specify a list of Spooled File tasks that you wish to be performed to help tidy up your Spooled Files - *from version 6.2.68*

Docstore Commands:

- [SNDDSEML](#) - Send a Docstore Document directly to your SMTP Mail Server - - *from version 6.2.84.*
- [STOREDOC](#) - Manually move a document to the Cobwebb Docstore.

Folder Commands:

- [FLRMON](#) - Program to monitor a folder for new files which then calls a supplied program.
- [FLRTIDY](#) - Run housekeeping over a specified folder - *from version 6.2.76.*
- [WRKFLRH](#) - Work with Folder Housekeeping allows you to specify a list of Folders that you wish to housekeep - *from version 6.2.76.*

PTF Commands:

- [CRTPPDPTF](#) - Create a PTF of changed / new objects.
- [RSTPPDPTF](#) - Restore a PTF of changed / new objects.

Other Commands:

- [ARCFTPLOG](#) - Archive old records from the [FTP Folder Monitor](#) log file **AFTPLOG** - *from version 6.2.87.*
- [CHGPPDAUT](#) - Populates the [PPD Security](#) screen. When you request a Security Code from Cobwebb you will be emailed a command sting calling this command with all your security details - *from version 6.2.24.*
- [CHGTSTMOD](#) - Enable or disable Test and Trace modes for testing your designs - *from version 6.2.66.*
- [CRTTSTLIB](#) - Creates a copy of your existing CPPD library and restores it as a new name. It will also change all of the necessary objects such as the CPPD Subsystem name and Job Description to be the same as your new library name as well as making sure they all point to the new library - *from version 6.2.37.*
- [DLTORPHAND](#) - **Print** & optionally **Delete** any orphaned **Fax** or **Email Message text** or **Additional Email Destinations** - *from version 6.2.24.*
- [FMNOTIFYP](#) - Print & Delete records from the **Folder Monitor Notifications** file. This should be used in conjunction with the [FMNOTIFY](#) Folder Monitor program - *coming soon.*

- [PRTXMLSPL](#) - Print XML Cross References. Prints an XML File, that has been pre-configured via the [Work with XML Cross References](#), to a spooled file. *Requires Cobwebb Server version 6.2.82 or above (with a licence to the [Cobwebb XML](#) module) and IBM i OS V6R1M0 or above.*
- [RSTPPDQ](#) - Allows you to restore a previous version of the Cobwebb Queue saved using [SAVPPDQ](#).
- [WRKGEND](#) - [Work with General Directory](#) and supply a filter to prevent users from maintaining entries except those that match the supplied filter - *from version 6.2.83.*
- [WRKPPDSTAT](#) - Command to [Work with PPD Statistics](#).

11.5.1 Menu Option Commands

Some of the menu options have equivalent commands in order that you may add these to your own menus if required. **Please Note:** You must have the **CPPD** library in your Library List before calling any of these commands.

Main CPPD menu

Option	Description	Command	Parameters
1.	Work with PPD	WRKPPD	No
2.	Create PPD	CRTPPD	Yes
3.	Import PC PPD file	PCPPD	Yes
4.	PPD Security	SYSSEC	No
5.	Work with PPD parameters	PPDPARM	Yes DFT=Y
6.	PPD file maintenance	PPDMNT	No
7.	Configuration Wizard		

PPD File Maintenance menu

Option	Description	Command	Parameters
1.	Work with Graphics File	WRKGRA	No
2.	Work with Font Groups	WRKFNT	No
3.	Work with Barcodes		
4.	Work with Printer Resources		
5.	Work with Spooled File Monitor	WRKSPLM	No
6.	Work with Output Devices	WRKOUTD	No
7.	Work with PPD Routeing	WRKPPDR	No
8.	Work with PPD Users	WRKPPDU	No
9.	Work with Directories	WRKCDE	No
10.	Work with Folder Monitor	WRKFLRM	No
11.	Work with PPD Statistics	WRKPPDSTAT	No
12.	Work with Job Launcher	WRKJOB	No
13.	Work with XML Cross References	WRKXMLX	No

Work with Directory menu

Option	Description	Command	Parameters
1.	Work with Fax directory	WRKFAXD	No
2.	Work with Email directory	WRKEMLD	No
3.	Work with General directory	WRKGEND	No

Cobwebb Fax & Email menu

Option	Description	Command	Parameters
1.	Send a fax	SNDFAX	Yes
2.	Send an email	SNDEML	Yes
3.	Work with directory	WRKCDE	No
4.	Work with queue	WRKQ	No
5.	Work with log	WRKLOG	No
6.	Work with system parameters	SYSPARM	Yes DFT=N
7.	System maintenance	SYSTEMT	No

CFAX400 System Parameters menu

Option	Description	Command	Parameters
1.	System parameters		
2.	Email parameters		
3.	User profile defaults		
4.	Work with multiple SMTP entries	WRKSMTP	No

CFAX400 Maintenance menu

Option	Description	Command	Parameters
1.	Work with user profiles	WRKCUP	No
2.	Work with call cancelled codes	WRKCCC	No
3.	Work with call unit identities	WRKCUI	No
4.	Work with graphics file	WRKGRA	No
5.	Work with dial precodes		
6.	Work with font groups	WRKFNT	No
7.	Work with cover pages		
8.	Work with barcodes		
9.	Work with spooled file fax monitor	WRKSFFM	
10.	Work with output devices	WRKOUTD	No
11.	Work with standard text	EDTTXT	No

CFAX400 Housekeeping menu

Option	Description	Command	Parameters
1.	Archive queue entries	ARCPPDQ	Yes
2.	Save queue entries	SAVPPDQ	Yes
3.	Clear queue entries	CLRPPDQ	Yes
4.	Schedule housekeeping		

Cobwebb Tools menu

Option	Description	Command	Parameters
1.	Work with Spooled Files Housekeeping	WRKSPLH	No
2.	Work with Cobwebb Job Scheduler	WRKCSCH	No
3.	Scan Spooled Files for Text	SCANSPLF	Yes
5.	Change Spooled Files Status	CHGSPLFS	Yes
6.	Delete Spooled Files	DLTSPLFS	Yes
7.	Move Spooled Files	MOVSPLFS	Yes
8.	Merge Spooled Files	MRGSPPLFS	Yes
9.	Duplicate Spooled File	DUPSPLF	Yes
10.	Change Test Mode	CHGTSTMOD	Yes
12.	Work with Folder Housekeeping	WRKFLRH	No

11.5.2 SNDAPI - Outgoing Fax

SNDAPI can be utilised to send faxes from your application programs. For example, you might decide to fax urgent purchase orders to a supplier. Your reordering application would write purchase order details to the Cobwebb Fax SNDAPI data queue **QCOBWEBB#1**, together with the relevant destination details.

Because Cobwebb Fax utilises CPYSPLF/*PRTCTL format, you can easily incorporate printed output as the text of the fax using the QTXT Text Member Record.

The User (pos. 514 of QRCD) is used to check against the [Cobwebb User Profile](#), if a User Profile record is found the following fields will be used if not previously completed:

- Mandatory Authority
- Maximum Priority
- Mandatory Department
- Default Logo

As the fax is queued under the User name specified in the QRCD record, the user can be used to identify specific types of queue entry e.g. PURCHASING.

The procedure for writing to SNDAPI is as follows:

1. Allocate data queue **QCOBWEBB#1** with an *EXCLRD lock state. This ensures integrity of data queue entries should another application attempt to write to the data queue at the same time. A CL primitive **ALCDTAQ** is provided for this purpose.

2. Send the appropriate data structures to the data queue. For each fax there is a queue entry (QRCD), destination entries (QDST), a variable number of text entries, and a terminator (ENDQ).
3. Deallocate the SNDAPI data queue **QCOBWEBB**^{#1}. CL primitive **DLCDTAQ** is provided for this purpose.

The formats for each type of data queue entry are:

- [Queue record entry 'QRCD'](#) - This is the first entry in the API set.
- [Destination entries 'QDST'](#) - Specifies destinations. Any number of QDST entries are allowed.
- [Form Entry 'QFRM'](#) - Specifies the member containing Form characters.
- [Text line entries 'PRTCTL'](#) - Text for Fax. First four characters of entry are *PRTCTL.
- [Text member record 'QTXT'](#) - Specifies location of file and member if you have written the text to a file member.
- [Terminator 'ENDQ'](#) - Denotes the end of the API message.

^{#1} - This data queue name is held in the **APIDTAQ** data area in library **CPPD** and could have been renamed.

11.5.2.1 Fax Queue Record - QRCD

From	To	Attribute	Description
1	4	A (4)	'QRCD'
5	14	A (10)	User name or 'QSYSOPR'
15	15	A (1)	Priority 0=Hold 1=Low 2=Normal 3=High
16	16	A (1)	Public authority 1=Normal 2=None 3=All
17	22	Z (6,0)	Date to send (YYMMDD)
23	26	Z (4,2)	Time to send (HHMM)
27	56	A (30)	From
57	86	A (30)	Reference
87	94	A (8)	User Id
95	102	A (8)	User Address
103	103	A (1)	Logo Code
104	104	A (1)	Signature Code
105	116	A (12)	Department

117	126	A (10)	Cover Page Logo
127	136	A (10)	Cover Page Signature
137	144	A (8)	Font Group
145	145	A (1)	Document type (default 0)
146	146	A (1)	Rotation flag

Notes:

This must be the first record type for a new message and you can only have one QRCD record per message.

Date/Time to send should be initialised to zeros if not required. If you specify Date to send, you must also specify Time to send. From, Reference, Logo and Signature are optional

If the Logo in pos. 103 is blank, SNDAPI will use the Userid in pos. 514 to check the Cobwebb User Profile, if a default logo (2) is found it will be inserted.

If a Userid of '**NFYAPI**' is used in pos. 8794, a response record will be automatically placed in data queue '**NFYMSGQ**' (maxlen 29), any data in the User Address will be returned. (See [Fax Response Messages](#)). If the Userid contains any other data the API will attempt to send a message back to it.

11.5.2.2 Fax Destination Entries - QDST

From	To	Attribute	Description
1	4	A (4)	'QDST'
5	5	A (1)	Service 2=Fax
6	25	A (20)	Destination
26	45	A (20)	Answerback
46	75	A (30)	Attention
76	125	A (50)	To (Company name)
126	131	A (6)	Date to send (YYMMDD)
132	135	A (6)	Time to send (HHMM)
190	202	A (13)	Memo text

Notes:

There may be one or more destination entries for each fax. Each destination will create a separate queue record.

Destination may specify a Directory short code prefixed by an asterisk (e.g. *ABC001).

Answerback and Attention are optional. The short code is used to look up the appropriate keyword file, therefore all destinations for that keyword will be selected.

11.5.2.3 Fax Form Entry - QFRM

From	To	Attribute	Description
1	4	A (4)	'QFRM'

5	14	A (10)	Library name
15	24	A (10)	File name
25	25	A (1)	Delete file (Y=Yes, N=No)
26	35	A (20)	Member name
36	36	A (1)	Remove member (Y=Yes, N=No)

Notes:

The Form Record is used by SNDAPI to specify a file member containing a form outline to be merged with the text specified in the subsequent text entries (either *PRTCTL or QTXT).

During the merge, form characters will overwrite blank text characters on a line-by-line basis, if the text character is not blank the text character will be output, this ensures that significant text characters are not lost.

A sample form 'FORMTEST' and associated text 'TEXTTEST' will be found in file 'FORMTEST' in library 'CPPD'. The graphics member 'COBWEB' will be found in AFAXDOC (**Note:** max length of Graphics member name is 6 Characters, hence 'COBWEB').

11.5.2.4 Fax Text line entries - PRTCTL

Text may either be written directly to the DTAQ QCOBWEBB using Text Entries in *PRTCTL format, or a file member containing the text can be specified in a QTXT record.

All the Text Enhancement features described in [Message Text Enhancement](#) are available to be included. It is recommended that use be made of the features to enhance the quality of automatically generated faxes.

From	To	Attribute	Description
1	4	A (4)	*PRTCTL
1	3	A (3)	Skip before value (blank, 1-255)
4	4	A (1)	Space before value (blank, 1-3)
5	1022	A (1018)	Text line

Notes:

Skip/Space before values are mutually exclusive, either a Skip or Space must be included. Leaving *PRTCTL blank results in 'space 0' causing lines to overwrite each other.

i.e. ' 1' must appear on each line to be printed with single spacing. See IBM CPYSPLF command for further details.

Avoid using Zero spacing for print lines, only data from the last line will be used.

11.5.2.5 Fax Text member record - QTXT

If you do not want to output text lines directly from your program to DTAQ QCOBWEBB, you can output the text to a member in a file and output a QTXT record to the API, the text in the file member must be in *PRTCTL format. If you wish to use a spool file, CPYSPLF to a file member and specify the file member in the QTXT record.

Do not use the same member name for more than one QTXT entry at a time. Although the entries are removed from QCOBWEBB fast it is possible for more than one Fax to be on the

DATAQ at a time. If the same member name is used the text in the member may be overwritten by the next member before the previous one has been processed.

Any number of QTXT entries may be specified (length=36);

From	To	Attribute	Description
1	4	A (4)	'QTXT'
5	14	A (10)	Library name
15	24	A (10)	File name
25	25	A (1)	Delete file (Y=Yes, N=No)
26	35	A (20)	Member name
36	36	A (1)	Remove member (Y=Yes, N=No)

11.5.2.6 Fax Terminator - ENDQ

A terminator record must follow the last line of text in each fax.

From	To	Attribute	Description
1	4	A (4)	'ENDQ'

Notes:

Your application program will use QSNDTAAQ to write entries to CPPD/QCOBWEBB.

In order to queue faxes using the SNDAPI, subsystem CPPD must be active and process SNDAPI running (see System Parameters, [CFAX400 Interfaces](#)).

11.5.2.7 Fax Response Messages

If you wish to receive a response message for any fax you have sent using the API, put 'NFYAPI' in the Userid field (pos. 87 - 94) of the QRCD. **Note** : If you put any other data in this field the API will try to send a SNDDST back assuming pos. 87 - 94 and 95 - 102 are a IBM i Userid and Address.

The response fax is placed in data queue **NFYMSGQ** (maxlen 29) in the following format:

From	To	Attribute	Description
1	6	A (6)	The Cobwebb Fax Reference number
7	13	A (7)	The Cobwebb Fax response message FAX0059 = Fax SENT FAX0024 - Fax FAILED
14	21	A (8)	'NFYAPI'
22	29	A (8)	User information returned from QRCD

The Cobwebb message reference number **TQREF** can be used to access the Cobwebb Queue (**AFAXQ**) and complete details of the fax extracted.

If for any reason you do not wish to use the response message you can create logical views of the Cobwebb Queue.

For example, to select and sequence all Sent faxes in the active queue you could use the following DDS:

```

A          R FAXQ          FORMAT (AFAXQ)
A          PFIL (AFAXQ)
A          K TQREF
A          S TQID          COMP (EQ 'Q')      /* Active
queue
A          TQSRV          COMP (EQ '2')      Fax
A          TQSTS          COMP (EQ 'S')      Sent */

```

If you require not Sent (failed) faxes, then:

```

A          R FAXQ          FORMAT (AFAXQ)
A          PFIL (AFAXQ)
A          K TQREF
A          S TQID          COMP (EQ 'Q')      /* Active
queue
A          TQSRV          COMP (EQ '2')      Fax
A          TQSTS          COMP (EQ 'W')      Wait
A          TQPTY          COMP (EQ '0')      Held */

```

Note that once Cobwebb Fax has exhausted the retry cycle, fax status becomes Wait/Held.

You can determine the content and layout of the Cobwebb Queue by using the DSPFD and DSPFFD commands.

11.5.3 EMLAPI - Outgoing Email

EMLAPI can be utilised to send emails from your application programs. For example, you might decide to email urgent purchase orders to a supplier. Your reordering application would write purchase order details to the Cobwebb Email EMLAPI data queue **APIEML**^{#1}, together with the relevant destination details.

Because Cobwebb Email utilises CPYSPLF/*PRTCTL format, you can easily incorporate printed output as the text of the fax using the QTXT Text Member Record.

The User (pos. 514 of QRCD) is used to check against the [Cobwebb User Profile](#), if a User Profile record is found the following fields will be used if not previously completed:

- Mandatory Authority
- Maximum Priority
- Mandatory Department

As the message is queued under the User name specified in the QRCD record, the user can be used to identify specific types of queue entry e.g. PURCHASING.

The procedure for writing to EMLAPI is as follows:

1. Allocate data queue **APIEML**^{#1} with an *EXCLRD lock state. This ensures integrity of data queue entries should another application attempt to write to the data queue at the same time. A CL primitive **ALCDTAQE** is provided for this purpose.

2. Send the appropriate data structures to the data queue. For each email there is a queue entry (QRCD), destination entries (QDST), a variable number of text entries, and a terminator (ENDQ).
3. Deallocate the EMLAPI data queue **APIEML**^{#1}. CL primitive **DLCDTAQE** is provided for this purpose.

The formats for each type of data queue entry are:

- [Queue record entry 'QRCD'](#) - This is the first entry in the API set.
- [Destination entries 'QDST'](#) - Specifies destinations. Any number of QDST entries are allowed.
- [Form Entry 'QFRM'](#) - Specifies the member containing Form characters.
- [Text line entries 'PRTCTL'](#) Text for Email. First four characters of entry are *PRTCTL
- [Text member record 'QTXT'](#) - Specifies location of file and member if you have written the text to a file member.
- [Terminator 'ENDQ'](#) - Denotes the end of the API message.

^{#1} - This data queue name is held in the **APIEML** data area in library **CPPD** and could have been renamed.

11.5.3.1 Email Queue Record - QRCD

From	To	Attribute	Description
1	4	A (4)	'QRCD'
5	14	A (10)	User name or 'QSYSOPR'
15	15	A (1)	Priority 0=Hold 1=Low 2=Normal 3=High
16	16	A (1)	Public authority 1=Normal 2=None 3=All
17	22	Z (6,0)	Date to send (YYMMDD)
23	26	Z (4,2)	Time to send (HHMM)
27	76	A (50)	From
77	126	A (50)	Reference
127	134	A (8)	User Id
135	142	A (8)	User Address
143	143	A (1)	Logo Code
144	144	A (1)	Signature Code
145	156	A (12)	Department

157	166	A (10)	Cover Page Logo
167	176	A (10)	Cover Page Signature
177	184	A (8)	Font Group
185	185	A (1)	Document type (default 0)
186	186	A (1)	Rotation flag
241	250	A (10)	PPD member name
251	260	A (10)	Email output device

Notes:

This must be the first record type for a new message and you can only have one QRCD record per message.

Date/Time to send should be initialised to zeros if not required. If you specify Date to send, you must also specify Time to send. From and Reference are optional

If a Userid of 'NFYAPI' is used in pos. 8794, a response record will be automatically placed in data queue 'NFYMSGQ' (maxlen 29), any data in the User Address will be returned. (See [Email Response Messages](#)). If the Userid contains any other data the API will attempt to send a message back to it.

11.5.3.2 Email Destination Entries - QDST

From	To	Attribute	Description
1	4	A (4)	'QDST'
5	5	A (1)	Service 4=Email
6	261	A (256)	Senders email address
262	517	A (256)	Recipients email address
518	773	A (256)	Subject
774	1797	A (1024)	Message text
2030	2079	A (50)	Recipient name
2080	2185	A (6)	Date to send (YYMMDD)
2186	2189	A (6)	Time to send (HHMM)
2190	2203	A (14)	Memo text
2204	2267	A (64)	Attachment name
2268	2270	A (3)	Attachment extension e.g. PDF, TXT
2271	2273	A (3)	Attachment format e.g. PDF, SCS, TXT

Notes:

There may be one or more destination entries for each email. Each destination will create a separate queue record.

Destination may specify an email directory entry prefixed by an asterisk (e.g. *ABC001). The destination is used to look up the appropriate directory entry on the file.

11.5.3.3 Email Form Entry - QFRM

From	To	Attribute	Description
1	4	A (4)	'QFRM'
5	14	A (10)	Library name
15	24	A (10)	File name
25	25	A (1)	Delete file (Y=Yes, N=No)
26	35	A (20)	Member name
36	36	A (1)	Remove member (Y=Yes, N=No)

Notes:

The Form Record is used by EMLAPI to specify a file member containing a form outline to be merged with the text specified in the subsequent text entries (either *PRTCTL or QTXT).

During the merge, form characters will overwrite blank text characters on a line-by-line basis, if the text character is not blank the text character will be output, this ensures that significant text characters are not lost.

A sample form 'FORMTEST' and associated text 'TEXTTEST' will be found in file 'FORMTEST' in library 'CPPD'. The graphics member 'COBWEB' will be found in AFAXDOC (**Note:** max length of Graphics member name is 6 Characters, hence 'COBWEB').

11.5.3.4 Email Text line entries - PRTCTL

Text may either be written directly to the DTAQ **APIEML** using Text Entries in *PRTCTL format, or a file member containing the text can be specified in a QTXT record.

All the Text Enhancement features described in [Message Text Enhancement](#) are available to be included. It is recommended that use be made of the features to enhance the quality of automatically generated email.

From	To	Attribute	Description
1	4	A (4)	*PRTCTL
1	3	A (3)	Skip before value (blank, 1-255)
4	4	A (1)	Space before value (blank, 1-3)
5	1022	A (1018)	Text line

Notes:

Skip/Space before values are mutually exclusive, either a Skip or Space must be included. Leaving *PRTCTL blank results in 'space 0' causing lines to overwrite each other.

i.e. ' 1' must appear on each line to be printed with single spacing. See IBM CPYSPLF command for further details.

Avoid using Zero spacing for print lines, only data from the last line will be used.

11.5.3.5 Email Text member record - QTXT

If you do not want to output text lines directly from your program to DTAQ APIEML, you can output the text to a member in a file and output a QTXT record to the API, the text in the file member must be in *PRTCTL format. If you wish to use a spool file, CPYSPLF to a file member and specify the file member in the QTXT record.

Do not use the same member name for more than one QTXT entry at a time. Although the entries are removed from APIEML fast it is possible for more than one Fax to be on the DATAQ at a time. If the same member name is used the text in the member may be overwritten by the next member before the previous one has been processed.

Any number of QTXT entries may be specified (length=36);

From	To	Attribute	Description
1	4	A (4)	'QTXT'
5	14	A (10)	Library name
15	24	A (10)	File name
25	25	A (1)	Delete file (Y=Yes, N=No)
26	35	A (20)	Member name
36	36	A (1)	Remove member (Y=Yes, N=No)

11.5.3.6 Email Terminator - ENDQ

A terminator record must follow the last line of text in each email.

From	To	Attribute	Description
1	4	A (4)	'ENDQ'

Notes:

Your application program will use QSNDDTAQ to write entries to CPPD/APIEML.

In order to queue messages using the EMLAPI, subsystem CPPD must be active and process EMLAPI running (see System Parameters, [Email parameters](#), **Enable email queue**).

11.5.3.7 Email Response Messages

If you wish to receive a response message for any fax you have sent using the API, put 'NFYAPI' in the Userid field (pos. 87 - 94) of the QRCD. **Note** : If you put any other data in this field the API will try to send a SNDDST back assuming pos. 87 - 94 and 95 - 102 are a IBM i Userid and Address.

The response message is placed in data queue 'NFYMSGQ' (maxlen 29) in the following format:

From	To	Attribute	Description
1	6	A (6)	The Cobwebb Email Reference number
7	13	A (7)	The Cobwebb Email response message EMF0000 = Email SENT EMF0001 - Email FAILED

14	21	A (8)	'NFYAPI'
22	29	A (8)	User information returned from QRCD

The Cobwebb message reference number **TQREF** can be used to access the Cobwebb Queue (**AFAXQ**) and complete details of the message extracted.

If for any reason you do not wish to use the response message you can create logical views of the Cobwebb Queue.

For example, to select and sequence all Sent emails in the active queue you could use the following DDS:

```

A           R FAXQ           FORMAT (AFAXQ)
A           PFIL (AFAXQ)
A           K TQREF
A           S TQID           COMP (EQ 'Q')      /* Active
queue
A           TQSRV           COMP (EQ '4')      Email
A           TQSTS           COMP (EQ 'S')      Sent */

```

If you require not Sent (failed) emails, then:

```

A           R FAXQ           FORMAT (AFAXQ)
A           PFIL (AFAXQ)
A           K TQREF
A           S TQID           COMP (EQ 'Q')      /* Active
queue
A           TQSRV           COMP (EQ '4')      Email
A           TQSTS           COMP (EQ 'W')      Wait
A           TQPTY           COMP (EQ '0')      Held */

```

Note that once Cobwebb Email has exhausted the retry cycle, email status becomes Wait/Held.

You can determine the content and layout of the Cobwebb Queue by using the DSPFD and DSPFFD commands.

11.5.4 DSTAPI - Cobwebb Distribution API

The **Cobwebb Distribution API [DSTAPI]** allows a correctly designed PPD to have its output distribution modified at runtime programmatically.

The API consists of a Database file (**DSTAPI**) along with a number of Cobwebb Exit programs. This API was initially designed to interface with the GTOS Document Management System.

Usage

1. Design a PPD document using the **Cobwebb Designer** to include the relevant [DSTAPI Exit programs](#).
2. Export it to the IBM i.
3. Create a spool file and write a record to the [DSTAPI Database](#) describing the **spool file attributes**, **PPD file** and **distribution parameters**. If you need to know how to retrieve the attributes of the spool file you have created to the DSTAPI database then please refer to the topic on [Retrieving Spool File Attributes](#).
4. Call the **CRTPPD** command to process the spool file according to the designed PPD file. For details on all the parameters for the **CRTPPD** command please refer to the [CRTPPD Command](#) topic.

- Run the [ARCDSTAPI](#) command to archive old records from the [DSTAPI Database](#) - from version 6.2.70. **Note:** This will delete old records but not free up space in the file. To do that you will need to run the following command (with library CPPD in your library list) when the file is not in use:

RGZPFM DSTAPI

11.5.4.1 DSTAPI Exit Programs

All the following exit programs reside in library **CPPD**. You may distribute the same spool file to any or all of the various distribution types.

DSTAPID – Determine type of distribution

This Exit Program should be called in the main design of the PPD file to determine the type of output required for the selected spool file. Uses parameters 1 - 3 to determine the Output Device types that are required. Parameters 4 - 6 return information from the [DSTAPI database](#) (field names in pink).

Program Name – DSTAPID

Parameter	In	Length	Out	Length
PARM1	-		Email Output Flag [Y=Yes]	1
PARM2	-		File Output Flag [Y=Yes]	1
PARM3	-		Print Output Flag [Y=Yes]	1
PARM4	-		Document Id (DAID)	40
PARM5	-		File Temp Path (DAFILETMP)	50
PARM6	-		Email Temp Path (DAEMLETMP)	50

DSTAPIE – Distribute via Email

This Exit Program should be called by a [File Output Device](#) as the PPD has to first generate a File output to be sent as the first attachment to the Email destination along with any other information specified in the [DSTAPI database](#).

Program Name – DSTAPIE

Parameter	Description	Length
FilePath	File Path	256
FileName	File Name Note: This should be PARM4 from DSTAPID for uniqueness	64
FileExt	File Extension	3
PARM1	From Code Page	132

PARM2	To Code Page	132
PARM3	Email Confirmation	132
PARM 4 - 10	Not used	132
PARM 11 - 20	Not used	64
ErrorCode	Error not blank then check DSTAPI database for details	1

Note: This program calls POSTIE3 directly to send email using email parameters from the [DSTAPI database](#).

DSTAPIF – Distribute to an IFS folder

This Exit Program should be called by a [File Output Device](#) and will create a File output and distribute it to the path specified in the [DSTAPI database](#). Uses database field **DAFILEPATH** to distribute the file.

Program Name – DSTAPIF

Parameter	Description	Length
FilePath	File Path - only used if DAFILEPATH is blank	256
FileName	File Name for the output file	64
FileExt	File Extension for the output file	3
PARM 1 - 10	Not used	132
PARM 11 - 20	Not used	64
ErrorCode	Error not blank then check DSTAPI database for details	1

DSTAPIP – Distribute to a Print Output Queue

This Exit Program should be called by a [Print Output Device](#) and will create a spool file in the Output Queue specified in the [DSTAPI database](#). Uses database fields **DAPROUTQ** & **DAPROUTQL** to distribute the print.

Program Name – DSTAPIP

For a full explanation of the Print entries please refer to the topic [Print Output Details](#).

Parameter	Description	Length
InputString	Not used -	256
OutputQueue	Default Output Queue - will only be used if DAPROUTQ entry is blank	10

OutQLib	Default Output Queue Library - will only be used if DAPROUTQL entry is blank	10
PrintDevice	Default Printer Device - will only be used if DAPROUTQ entry is blank	10
FormsType	Forms Type - default is *STD	10
UserData	User Data	10
HoldPrint	Hold the print on the queue	4
SavePrint	Save the print after printing	4
Duplex	Use duplex - default is *NO.	7
Drawer	Drawer to use - default is 1	5
NoCopies	Number of copies - default is 1	3,0
ErrorCode	Error not blank then check DSTAPI database for details	1

11.5.4.2 DSTAPI Database

The **DSTAPI** database resides in the **CPPD** library on the server.

Note: All fields are Alphanumeric unless otherwise stated and the **Key** is UNIQUE.

Length	Type	Name	Description	Key
40	A	DAID	Record Unique ID	
10	A	DAFILEID	File ID– Calling program identifier	
1	A	DASTATUS	Record Status e.g.: Q = Queued, C = Complete, F= Failed etc.	
10	Date	DACDATE	Record Creation Date (*ISO)	
8	Time	DACTIME	Record Creation Time (*ISO)	
10	A	DASNAME	Spool file Name – of the spool file you wish to process	1
6	A	DASNUM	Spool file Number – of the spool file # 1	2
10	A	DAJNAME	Job Name – of the spool file	3
10	A	DAJUSER	Job User – of the spool file	4
6	A	DAJNUM	Job Number – of the spool file # 1	5

10	A	DAPPDNAME	CPPD Design Name – this is the name of the PPD file that you wish to use to process the pool file	
60	A	DARCPTYP	Recipient Type – Values TO, CC or BCC [20 * 3] This is an array of 20 elements each of 3 characters holding the Type of recipient.	
5120	A	DARCPADR	Recipient Address [20 * 256] This is an array of 20 elements each of 256 characters holding the email address relating to the type specified in the previous field.	
1000	A	DARCPNAM	Recipient Name [20 * 50] This is an array of 20 elements each of 50 characters holding the name of the recipient relating to the address specified in the previous field.	
256	A	DASNDADR	Sender Address – The email address of the Sender	
50	A	DASNDNAM	Sender Name – The name of the sender	
256	A	DAEMLSUBJ	Email Subject – the subject of the email	
1	A	DAEMLBDFMT	Email Body Format (1=HTML, any other =Plain Text)	
1024	A	DAEMLBODY	Email Body – the main message text in the format defined in the previous field	
68	A	DAEMLATTN	Email PPD Attachment Name	
6400	A	DAEMLATT	Email File Attachment Path [25 * 256] See # 2	
80	A	DAEMLFLIST	Email Fail List [20 * 4] This is an array of 20 elements each of 4 characters holding the Email Return Codes for each recipient.	
1,0	N	DAEMLRETRY	Email Retry Count	
10	A	DAPROUTQ	Print Output Queue – Print distribution	
10	A	DAPROUTQL	Print Output Library – Print distribution	
256	A	DAFILEPATH	File Output Path – File distribution	
50	A	DAFILETMP	Temporary FILE output Folder	

50	A	DAEMLTMP	Temporary EMAIL output Folder	
----	---	----------	-------------------------------	--

1 These fields are alpha but contain numeric information and must be right justified with leading zeros included e.g.001234.

2 **Email File Attachment Path** only caters for 25 elements as the 26th element will be the actual attachment created by CPPD.

11.5.4.3 Retrieving Spool File Attributes

You can use the IBM supplied API **QUSRSPLA** to retrieve the attributes of a spool file. If you specify ***LAST [-1]** as the Spool File number it will return the actual number.

Here is some sample RPGLE code to retrieve the spool file number:

```

*
* Receiver variable for spool file attributes - SPLA0200

D RcvVar          DS          3745
D  JobName        49          58
D  UserName       59          68
D  JobNbr         69          74
D  FileName       75          84
D  FileNbr        85          88B 0
D  FormTyp        89          98
D  UserData       99         108
D  HoldFile      129         138
D  TotPages      149        152B 0
D  Copies        173        176B 0
D  OutQName      191         200
D  OutQLib       201         210
D  DateCreate    211         217
D  TimeCreate    218         223
D  DevFileNam    224         233
D  DevFileLib    234         243
*
* API Error Code Parameter data structure
D APIErr          DS
D  ErByProv      1           4B 0 INZ(116)
D  ErByAvail     5           8B 0
D  ErExId        9           15
D  ErExData     17          116
*
* Parameters for QUSRSPLA API
D
D          DS
D  RsRLen        1           4B 0 INZ(3745)
D  RsFmtN        5           12   INZ('SPLA0200')
D  RsQJob        13          38
D  RsJbNm        13          22
D  RsUsNm        23          32
D  RsJbNo        33          38
D  RsInJb        39          54
D  RsInSp        55          70
D  RsSpNm        71          80
D  RsSpNo        81          84B 0
*
* Setup paramters for QUSRSPLA AI...
C          MoveL    XXUserName    RsUsNm          *User
name
C          MoveL    XXJobNam      RsQJob
*Qualjobname

```

```

C          MoveL      XXJobNbr      RsJbNo
*Qualjobnumber
C          MoveL      XXSpoolNam     RsSpNm      *SPLF
name
C          Clear      RsInJb
*Internal JobNo
C          Clear      RsInSp
*Internal SPLF
*
* Spooled number... For *LAST use -1
C          Z-Sub      1              RsSpNo      *SPLF
number
*
* Call QUSRSPLA API...
C          Call       'QUSRSPLA'     99          *99 -
error
C          Parm       RcvVar
*Receiver Var
C          Parm       RsRLen          *RCVVAR
length
C          Parm       RsFmtN         *Format
name
C          Parm       RsQJob         *Qual
job name
C          Parm       RsInJb
*Internal Job
C          Parm       RsInSp
*Internal SPLF
C          Parm       RsSpNm         *SPLF
name
C          Parm       RsSpNo         *SPLF
number
C          Parm       APIErr         *Error
code
* Error... Add error handling as required
C          ErByAvail  IfGt           0
C          Else
* Good...
C          Z-Add      FileNbr        DaSNum      *SPLF No
retrn
C          EndIf

```

11.5.4.4 ARCDSTAPI Command

From version 6.2.70 - **ARCDSTAPI** provides the facility to archive old records from the [DSTAPI Database](#). If you wish to run this automatically you could add an entry to call this command to the [Cobwebb Job Scheduler](#).

Note: This will delete old records but not free up space in the file. The [RGZPPDQ](#) command will reorganise all files in library CPPD with deleted records, or you can manually run the following command (with library CPPD in your library list) when the CPPD subsystem is not running:

```
RGZPFM DSTAPI
```

Command Parameters

DAYS - No of days to retain

Specify a number of days. Entries, that match the requirements, older than this date will be archived.

CLRC - Clear Completed entries

If you enter a "Y" then entries with status "C" for Completed are selected.

CLRF - Clear Failed entries

If you enter a "Y" then entries with status "F" for Failed are selected.

CLRQ - Clear Queued entries

If you enter a "Y" then entries with status "Q" or " " for Queued are selected.

11.5.5 CRTPPD Command

This command must be run on the IBM i. First you need to make sure that you have the CPPD library in your library list. To do this, enter the following command: -

```
ADDLIBLE CPPD
```

If the library already exists in your library list, you will receive an error message, which you may ignore.

Next enter **CRTPPD** and press **F4=Prompt**.

The first parameter gives you two options ***SLTSPL** and ***ENTSPL**.

The ***ENTSPL** is used if you wish to embed the CRTPPD command in a CL program and will allow you to enter the spooled file name and job details. If an * is used in the Job name the last spooled file created in the current job is used.

For testing, unless you know the job details of the spooled file that you wish to test, it is easier if you use ***SLTSPL**. Leave the default of ***SLTSPL** and press **Enter**. You will now be able to enter selection criteria and the spooled file or files matching the selection criteria will be selected and converted.

For example:

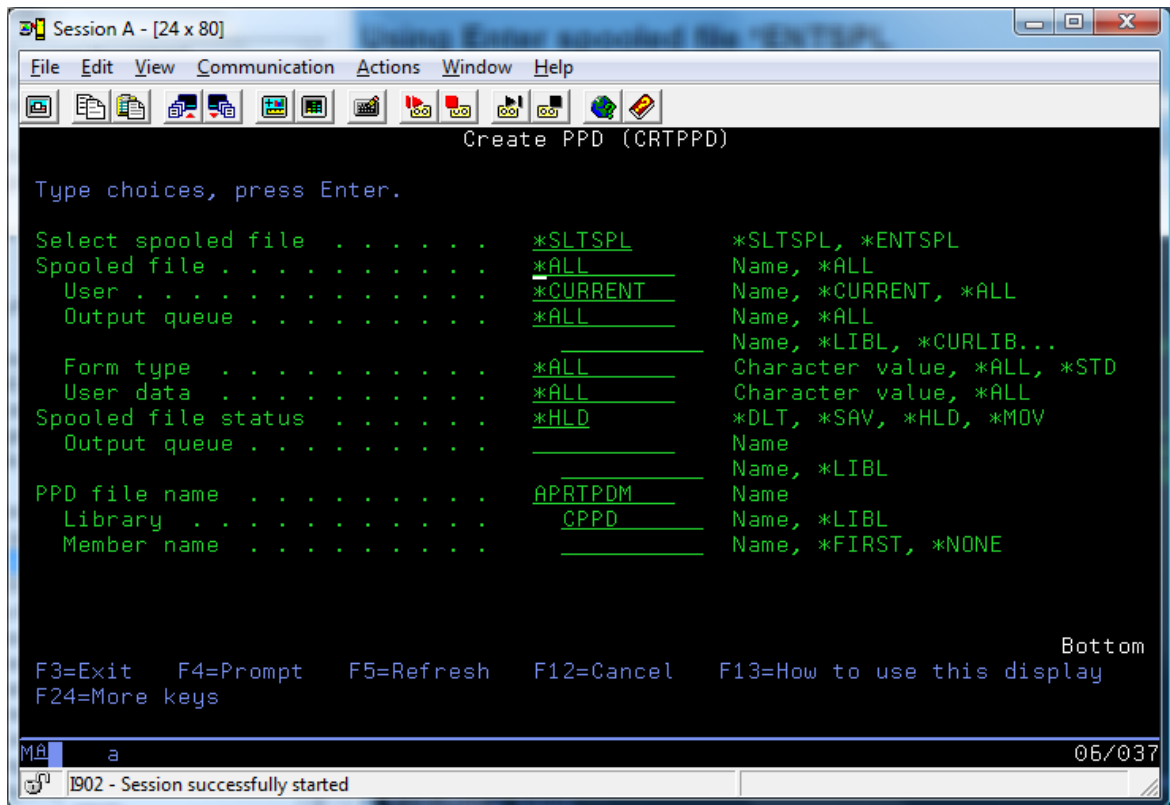
```
CRTPPD USRPRF(*ALL) OUTQ(TEST/PPD) USRDTA(COBCUS)  
PPDNAM(COBCUS/PPD/APRTPDM)
```

Here we have specified the user, output queue, user data and the PPD member name as highlighted above.

For further details of the other parameters that may be used when using ***SLTSPL** and ***ENTSPL** please select one of the links below.

- [Using Select spooled file *SLTSPL](#)
- [Using Enter spooled file *ENTSPL](#)

11.5.5.1 Using Select spooled file *SLTSPL



Spooled file (FILE)

Enter the name of your spooled file or ***ALL**.

User (USRPRF)

Enter a specific User profile used to select the spooled files, ***CURRENT** for the User profile running the job or ***ALL** to select spooled files for all users.

Output queue (OUTQ)

Enter the print output queue and library name from which the spooled files will be selected, or enter ***ALL** to select spooled files from all output queues. If you enter ***ALL** for the output queue then you must leave the library blank. If you enter an output queue name then either enter ***LIBL** to search the user library list for the print output queue, ***CURRENT** to search the current library list for the output queue or a specific library name.

Form type (FORMTYPE)

Enter the form type used to select the spooled files, ***ALL** to select all form types or ***STD** to select the 'Standard' form type.

User data (USRDTA)

Enter the User specified data used to select the spooled files or ***ALL** to select all spooled files regardless of user data.

Spooled file status (SPLSTS)

Select the final spooled file(s) status. Enter ***DLT** if you wish to delete the selected spooled file(s) after processing, ***SAV** to set the selected spooled file(s) status to SAVED after processing, ***HLD** to set selected spooled file(s) status to HELD after processing and ***MOV** to move the spooled file

to another Output queue. If you use ***MOV** you must then enter the **Output queue** and **Library (MOUTQ)** for the move.

PPD file name (PPDNAM)

The default file name is AP RTPDM and should not be changed.

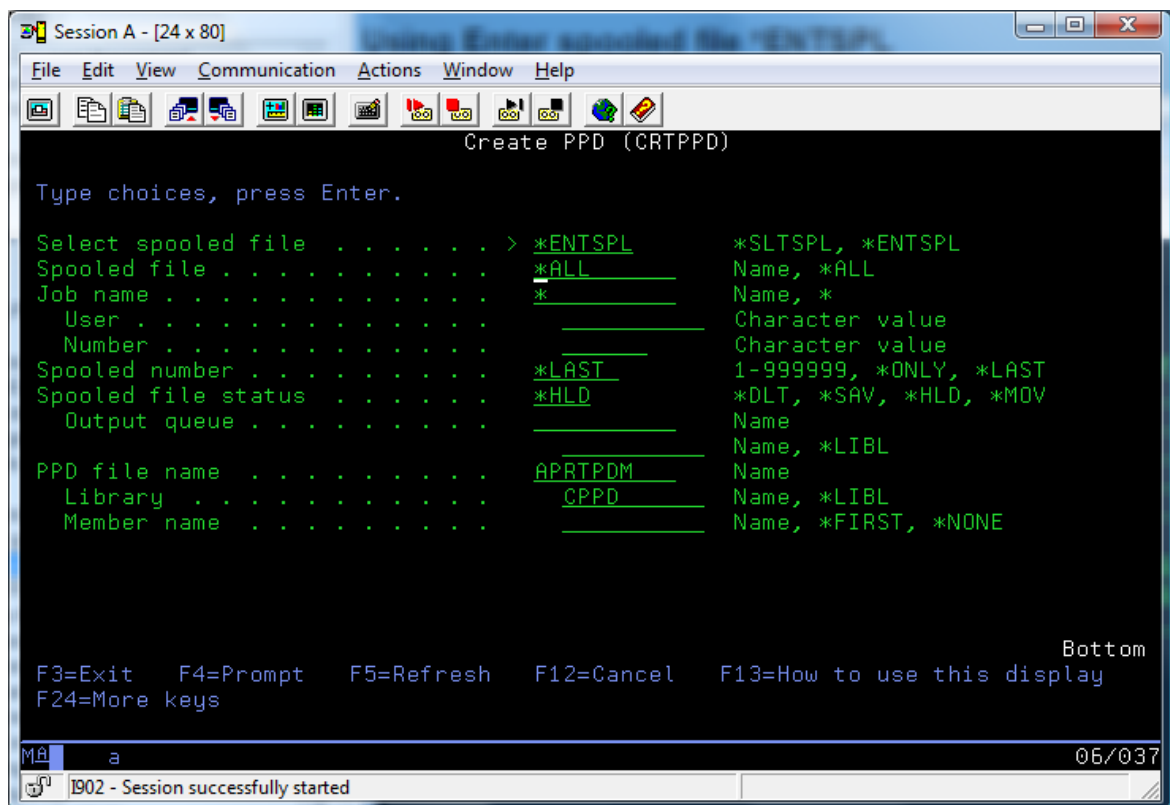
Library

The default library name is CPPD and should not be changed.

Member name

Specify the name of the PPD file containing the PPD instructions for converting this spooled file.

11.5.5.2 Using Enter spooled file *ENTSPL



Select spooled file (FILE)

Enter the name of your spooled file or ***ALL**. Specify the name of the spooled file to be converted using CRTPPD. The spooled file can be specified uniquely in the following parameters, or use **'*'** in the Job number to select the last spooled file created in the current job (See the IBM CPYSPLF command for more details of selecting using ***** in the Job number).

Job name (JOB)

Enter the specific Job name relating to the spooled file or ***** to select the current job.

User

If a Job name is specified then you must enter the specific User name relating to the spooled file.

Number

If a Job name is specified then you must enter the specific Job number relating to the spooled file.

Spooled number (SPLNBR)

Enter the specific spooled number relating to the spooled file (1 – 9999), ***ONLY** to select the ONLY available spooled number (error if more than one) or ***LAST** to select the LAST spooled number created by the Job.

Spooled file status (SPLSTS)

Select the final spooled file(s) status. Enter ***DLT** if you wish to delete the selected spooled file(s) after processing, ***SAV** to set the selected spooled file(s) status to SAVED after processing, ***HLD** to set selected spooled file(s) status to HELD after processing and ***MOV** to move the spooled file to another Output queue. If you use ***MOV** you must then enter the **Output queue** and **Library (MOUTQ)** for the move.

PPD file name (PPDNAM)

The default file name is APRTPDM and should not be changed.

Library

The default library name is CPPD and should not be changed.

Member name

Specify the name of the PPD file containing the PPD instructions for converting this spooled file.

11.5.5.3 Embedding CRTPPD command in a CLP program

Make sure that you have the **CPPD** library in your library list before you edit the CLP source.

Add the **CRTPPD** command where you want to run it in the CLP program e.g.

```
CPPD\CRTPPD#1
```

If you press **F4** on the line of source where you have entered the above command you will be prompted for the remaining CRTPPD parameters so that you can complete them as required.

If you wish to pick a spool file that has just been produced by the program that you are adding the CRTPPD command to then you may wish to change the **Select spooled file** parameter to be ***ENTSPL** see the topic [Using Enter spooled file *ENTSPL](#) for details.

Using ***** for the **Job name** will pick up the information for the current job and specifying ***LAST** as the **Spooled number** should pick up the last spool file generated by the current job – hopefully the one you are after. All you should need to enter will be the **Member name** i.e. the name of the PPD file.

Immediately after the line of code where you have the **CPPD\CRTPPD** you should really have the following line:

```
MONMSG MSGID(PPD0000)
```

What this will do is to check for ALL error messages [prefixed with PPD] that are sent by the CRTPPD command (see [CRTPPD Error Messages](#) for details). All this will do is to prevent the CLP program from throwing up an error it won't fix the problem if your CRTPPD command did not work so you need to decide if this is what you want to do.

If you wish the program to stop if there is an error then you should add the following line instead:

```
MONMSG MSGID(PPD0025 PPD0149)
```

This will just monitor for the “Completed Successfully” message PPD0025 and the “No output generated” message PPD0149 which you can get if you are using the [Advanced Reformatting Utility](#) as the actual PPD process does not produce the output the Advanced Reformatting Utility does.

```
PGM
Existing CLP -----
/* Run CRTPPD command */
CPPD/CRTPPD SFILE(*ENTSPL) PPDNAM(PPDNAME/CPPD/APRTPDM)
MONMSG      MSGID(PPD0025 PPD0149)
/* End of CRTPPD processing */
ENDPGM
```

You will also need to have the CPPD library in the library list when you compile the CLP program.

Notes

Note #1: If you specify the library name before the CRTPPD command as above then you will not need to add the library CPPD to the library list of the job that will be running the CLP program. Adding the library list before the command makes sure that the command is run from the CPPD library.

The CRTPPD command itself should have the **Product Library** set to CPPD which will make sure that everything that the command calls will be picked up from the CPPD library e.g.

If you run DSPCMD CPPD/CRTPPD from a command line and then press Page Down you should see the Product Library set.

11.5.5.4 CRTPPD Error Messages

Message ID	Message Text
PPD0011	No document selected.
PPD0021	File &1 in library &2 not found.
PPD0022	Member &3 in file &1 library &2 not found.
PPD0024	Create print page definition selection error.
PPD0025	Create print page definition completed successfully.
PPD0033	Create print page definition not successful.
PPD0038	Error found on OVRPRTF command.
PPD0051	Override print file error. Device type *AFPS.
PPD0052	Data stream not valid.
PPD0062	Unable to read the spooled file.

PPD0063	Output queue &1 not found in library &2.
PPD0067	Unable to open PC document HFAXOUT or QRCDOUT.
PPD0111	Not all emails sent.
PPD0142	Output queue authority error.
PPD0146	Create print page definition completed but exit program not found.
PPD0149	Create print page definition completed but no output generated.
PPD0184	Create print page definition completed but exit program failed.
PPD0190	Create print page definition completed but warning message(s) issued.

11.5.6 RUNPPD - Manually run a PPD file

This command must be run on the IBM i and is a much simpler version of the [CRTPPD command](#). Make sure that you have the CPPD library in your library list. To do this, enter the following command: -

```
ADDLIBLE CPPD
```

If the library already exists in your library list, you will receive an error message, which you may ignore.

Next enter **RUNPPD** and press **F4=Prompt**.

You will now be able to enter selection criteria and the spooled file or files matching the selection criteria will be selected and converted.

For example:

```
RUNPPD USRDTA(COBCUS) PPDNAM(COBCUS)
```

Here we have specified the **User data** and the **PPD member name** as highlighted above.

Command Parameters

Spooled file user (USER)

The User profile who owns the spooled files to be selected.

```
*CURRENT      The signed on User profile
*ALL          Select spooled files for all Users.
Name          Enter a specific User's ID.
```

Output queue (OUTQ)

The print output queue from which the spooled files will be selected.

```
*ALL          Select spooled files for all output queues.
Name          Enter a specific output queue name.
```

```
LIB
```


If you enter an Output queue then you will also need to enter the name of the library where the output queue resides.

*LIBL The Output queue resides in the current library list.

Name Enter a specific Library name.

User Data (USRDTA)

The User specified data used to select the spooled files.

*ALL Select all spooled files regardless of user data.

Character value Select only specified user data.

PPD Member name (PPDNAM)

Enter the name of the PPD file containing the PPD instructions for converting this spooled file.

11.5.7 SNDFAXPPD Command

SNDFAXPPD provides the facility to send a spooled file to a single fax address whilst using the power of PPD to map your spooled file data and include form overlays. You create your PPD file in the normal way with a fax output device but instead of retrieving the fax number using the PPD file it is supplied in the command in the DEST keyword.

Command Parameters

Spooled file (FILE)

The name of the spooled file(s) to be selected is displayed and can be changed, if required.

User (USRPRF)

The User profile used to select the spooled files is displayed and can be changed, if required.

*CURRENT The signed on User profile

*ALL Select spooled files for all Users.

Name Enter a specific User's ID.

Output queue (OUTQ)

The print output queue and library name from which the spooled files will be selected.

*ALL Select spooled files for all output queues.

Name Search the named library for the output queue.

Form type (FORMTYPE)

The form type used to select the spooled files.

*ALL Select all form types

*STD Select the 'Standard' form type.

Name Select a specific form type.

User data (USRDTA)

The User specified data used to select the spooled files.

*ALL Select all spooled files regardless of user data.

Character value Select only specified user data.

Spooled file status (SPLSTS)

Determines the status of the spooled file after it has been processed.

*DLT Deletes the selected spooled file(s).

*SAV Set selected spooled file(s) to SAVED after processing.

*HLD Holds the selected spooled files(s).

PPD file/library and member name (PPDNAM)

Specify the name of the PPD file to be used to convert the spooled file.

PPD file name

Use the PPD file name containing the PPD member to be used for converting this spooled file. The default file name is AP RTPDM and should not be changed.

Library

Use the PPD library name containing the PPD file to be used for converting this spooled file. The default library name is CPPD.

Member name

Use the PPD member name containing the PPD instructions for converting this spooled file.

Destination (DEST)

Enter the destination for all the documents. This should be a valid fax number.

11.5.8 SNDFAXP Command

Overview

SNDFAXP or the 'Send fax from spooled file' command can be used as a command within a CLP program, the parameters entered here are exactly the same, the advantage is that no programming is required as the Cobwebb Fax Spooled file fax monitor checks the spooled file and runs the command from the parameters entered here.

The SNDFAXP command is used to send a fax from a specified spooled file or to select one or more spooled files using the selection criteria.

Although SNDFAXP can be used 'manually' from a command line, it has been designed for inclusion in a CL program to send faxes automatically, following the production of one or more spooled files, e.g. a Purchase Order print program.

Alternatively a subset of SNDFAXP is provided with the Spooled file monitor program (see '[Work with spooled file monitor](#)'). Each spooled file can contain one or more faxes.

Spooled Files can be selected using the User Profile, the Output Queue, the Form Type, or User Data. The selected spooled files will be processed using the destination details extracted from the text.

A Cobwebb Fax 'Fax Form' can be specified, thus allowing a form outline to be overlaid over the text.

One or more fax destinations can be specified in the command, either by specifying the Fax number or by using a Cobwebb Fax directory entry. Alternatively the destination can be extracted from within the spooled file data.

A number of additional parameters can be specified, giving access to most of the features provided in the Cobwebb Fax programming API, allowing print programs to be used to send faxes as well as printing reports or documents, without the need to amend the source program.

The SNDFAXP command provides a wide variety of options. To make the command easier to use it is structured to show only those parameters which relate to the options selected.

Note: Only text (or SCS) spooled files can be processed.

Command Parameters

Select spooled file (SFILE)

The **SNDFAXP** command is used to send a fax from the spooled file selected according to the spooled file monitor selection criteria. The spooled file can contain one or more faxes. This parameter is always ***SLTSPLF**.

***SLTSPLF** Select the spooled file.

***ENTSPL** No longer applicable

Spooled file (FILE)

The name of the spooled file(s) to be selected is displayed and can be changed, if required.

User (USRPRF)

The User profile used to select the spooled files is displayed and can be changed, if required.

Output queue (OUTQ)

The name of the print output queue and library name is displayed and can be changed, if required.

Form type (FORMTYPE)

The form type to be selected is displayed and can be changed, if required.

User data (USRDTA)

The User specified data to be selected is displayed and can be changed, if required.

Spooled file status (SPLSTS)

Sets the spooled file status after it has been processed.

***DLT** Deletes the selected spooled file(s) after processing.

***SAV** Set selected spooled file(s) to SAVED after processing.

***HLD** Set selected spooled file(s) to HELD after processing.

Cover page (CRTCVRP)

Create a fax cover page? (**Not implemented so leave this as *NO**)

ROTATE - Rotation

0 Portrait

1 Landscape

Font Group (FNTGRP)

The name of the font group to be used. This can either be *USRPRF to use the default font group for the user or a specific font group that has been set up in the 'Work with font groups' option.

Fax form file name (FAXFRM)

(Default file ASTDDOC in CPPD).

Enter the Fax form file name/library/member name of the Fax form. The Cobwebb Fax Standard Text File 'ASTDDOC' is normally used for Fax forms.

Name Enter a specific Fax Form file name, normally ASTDDOC in library 'CPPD'.

*NONE There is no form selected

Library

Enter a specific library name containing the Fax Form file.

Member name

Enter a specific member containing the Fax Form.

Destination (DST)

The destination of the fax. Leave as *SLTDST.

*SLTDST Select the destination from the text of the spooled file.

*ENTDST No longer applicable.

First page of new document (SLTPAG)

This part of the command is used to specify the start of each new fax in a multi fax spooled file. Each fax can be one or more pages long. The start of a new fax can be when the 'Compare data text' is found on the page, or by specifying a field on the page which is compared with the next page, if the comparison (EQ/NE) is true then it is a new fax. If a 'compare data position' is specified the field will either be on the 'compare data line number' or on the first line found with a string matching the 'compare data text'. Note: The text string must be exactly as found in the spooled file, including the correct case.

Compare data text

Enter the text, which if found anywhere on the page indicates the first page of a new fax, e.g. 'Page 1'.

Compare data line number

Enter the line number containing the data to be compared to indicate a new fax.

Compare data position

Enter the start position in the line to be used for comparison.

Compare data field length

Enter the number of characters to be compared (max30).

Comparison

Enter the required comparison, either EQ=Equal, or NE=Not Equal.

Destination from spooled file (SLTDST)

Select destination from spooled file This part of the command covers the selection of the Fax destination from the data in the spooled file itself. This is usually an Account number or name (rather than a fax number). The appropriate Account number or names can be set up as Cobwebb

Fax directory entries. Note: The message 'No destinations found' means that the place which was specified in the spooled file is blank, try again with another line number.

Destination text

Enter destination text. The destination text identifies the line on the spooled file which contains the Fax destination for Example 'YOUR ACCOUNT NO.' again the text must be correct, and is case sensitive.

or destination line number

As an alternative to the destination text the line on which the destination is to be found can be specified. It must be the same for all documents selected.

First position of destination

Enter first position of destination. This defines the exact print position of the first position of the destination.

Destination field length

Enter destination field length. This defines the length of the of the destination. The maximum length is 19 characters, which is the same as the Cobwebb Fax directory entry.

Fax number or directory entry

- 1 or blank for Fax number (no directory look up).
- 2 to look up the destination in the Cobwebb Fax Directory.
- 3 to look up the destination in the Cobwebb Fax Directory with the directory entry right justified.
- 4 to call the user exit program specified in the 'Directory exit program' and 'library' parameters. The default is the program GETFAXNO in *LIBL. You must either modify the sample program GETFAXNO in QUSRTOOL in library CPPD or write your own. The input parameters are DIR (20) the directory key to look up. The fields which can be returned from the look up are : FAXNO (20), CMPNY (50) the 'To' field, TO (20) the 'Attn' field, REF (30) the 'Reference' field and FROM (30) the 'From' field.

The Fax number or Directory Entry parameter determines whether the fax number is in the text or whether it will be found in the Cobwebb Fax directory or a user directory. If the destination cannot be found in the Cobwebb Fax directory it will be put on the queue with the destination shown with an * in front and a status of QV (invalid destination). If the fax number cannot be found in the User directory, or if it is blank, an entry will be put on the queue with a blank fax number with the destination key shown in the 'Attn' field.

All documents on the spooled file will therefore create a queue record (unless fax no = NOFAX) so that documents do not get 'lost'.

NOTE 1: if a fax number of 'NOFAX' is used a fax will not be created for this directory entry (no queue record will be created).

NOTE 2: the user exit program GETFAXNO can be found in source file 'QUSRTOOL' in library CPPD.

Directory exit program (EPROG)

If 'Fax number or directory entry' equals '4' (Exit program), the Directory exit program name is entered here. The default program name is 'GETFAXNO'.

Library

Enter the library name where the Exit program will be found.

Time to send (SNDTIME)

Enter time to send the fax 'hhmm', if blank the fax will be sent immediately.

Date to send (SNDDATE)

Enter date to send the fax 'yymmdd', if blank the fax will be sent immediately.

From (FROM)

From, up to 30 characters will be included on the queue record (From) and optionally in the text of the fax. This is controlled by the Fax header page format specified in the Cobwebb User Profile associated with the USRID field of this command. The From field can be extracted from the spooled file by specifying the position of the data on the first page of each new fax as follows: ?a,b,c where a, b and c are 1,2 or 3 digit numeric fields separated by commas. a=the line number of the data, b=the position, c=the length. OR ??a,b,c where a=scan field which identifies the line number. The resulting text will be placed in the From field (max 30 chs).

To (TO)

To or company name, up to 30 characters will be included on the queue record and optionally in the text of the fax. The To field can be extracted from the spooled file by specifying the position of the data on the first page of each new fax, as follows: ?a,b,c where a, b and c are 1,2 or 3 digit numeric fields separated by commas. a=the line number of the data, b=the position c=the length. OR ??a,b,c where a=scan field which identifies the line number. The resulting text will be placed in the To field (max 30 chs).

Attention (ATTN)

Attention, up to 30 characters which will be included on the queue record and optionally in the text of the fax. The Attention field can be extracted from the spooled file by specifying the position of the data on the first page of each new fax, as follows: ?a,b,c where a, b and c are 1,2 or 3 digit numeric fields separated by commas. a=the line number of the data, b=the position c=the length. OR ??a,b,c where a=scan field which identifies the line number. The resulting text will be placed in the Attention field (max 30 chs).

Reference (REF)

The Reference data, up to 30 characters which will be included on the queue record and optionally in the text of the fax. The Reference field can be extracted from the spooled file by specifying the position of the data on the first page of each new fax as follows: ?a,b,c where a, b and c are 1,2 or 3 digit numeric fields separated by commas. a=the line number of the data, b=the position c=the length. OR ??a,b,c where a=scan field which identifies the line number. The resulting text will be placed in the Reference field (max 30 chs).

User name (USRID)

Enter a User name. This is the User name which is displayed on the Cobwebb queue and is used to look up the Cobwebb User file. The Logo and Department code can be selected from the Cobwebb User file based on the User name entered here.

Name Enter a specific User name

*CURRENT Use the current User name

*NONE No User name

User ID (QDEN)

Enter User ID (if required). If the User id is used in addition to the User name a message will be returned to the User ID specified, via SNADS. See [SNDAPI 'QRCD'](#) for special use of this field.

User address (QDGN)

Enter User address (if required). This is used together with the User ID to return a message to the originator, via SNADS.

Priority (PRTY)

Cobwebb Fax priority. 0 = Hold (put fax on queue but do not send). 13 = Fax is put on queue at the appropriate priority.

Public authority (PAUT)

Cobwebb Fax public authority. Determines who can view the Fax on the Cobwebb queue.

Cover page logo (LOGO)

Enter the logo number which will cause the appropriate logo to be included before the first line of text. If left blank the User name will be used to select the Cobwebb User file record, if found and if it contains a default logo (type 2) the default logo will be used from Cobwebb User file.

Cover page signature (SIGN)

Enter a logo number (signature) which will cause the appropriate logo to be included after the last line of text in the fax. If the signature is left blank the User name will be used to select the Cobwebb User file record, if found and if it contains a default logo (2) the default logo will be used from Cobwebb User file.

Department (DEPT)

Enter the Department code (only required if Cobwebb Fax costing in use). If left blank the Department code from the Cobwebb User file will be used (if not blank).

Start printing on line (PRTLIN)

Enter the start printing line number. This can be used to start the printing of the Fax on a different line than the first line number of the selected spooled file. Note: The first line of a printed form may take into account skipping over a pre-printed heading, a fax logo does not count as print lines, use this parameter to resolve this difference. If you require to remove blank lines in the text, this can be done when creating the form by using the *@ command with F17 on.

Transparency on (TRNON)

Not used at present.

Transparency off (TRNOFF)

Not used at present.

Transmission mode (TRNSMD)

Not used at present.

11.5.9 SNDPPDEML Command

SNDPPDEML provides the facility to send an email directly to your SMTP Mail Server. You can type your message text, add an attachment and address the email to one recipient. This command has been superseded by [SNDPPDEML3](#) which allows you to send multiple attachments to multiple recipients. **Note:** These email will NOT be written to the Cobwebb Queue.

Command Parameters

Originator Email Address (ORGADR)

Enter the email address you wish to appear as the Sender email.

Recipient Details (RCPADR)

Enter the email address for the person your wish to receive the email.

Originator Name (ORGNAM)

Enter the name you wish to appear as the Sender.

Recipient Name (RCPNAM)

Enter the name of the recipient.

Subject of Email (SUBJECT)

Enter text you wish to be the subject of your email.

Email message (MESSAGE)

Enter text you wish to be the email message.

Attachment File path and name (FILE)

Enter path and file name of the attachment if required. E.g. '/QLDS/CPDP/Test.pdf'.

Attachment name if different (ATTNAM)

Enter an alternate name for the attachment to be used when sending.

Use MSF (USEMSG)

Decide if you wish to use the IBM Mail Server Framework.

- 0 Use the Cobwebb SMTP client (default).
- 1 Use the IBM Mail Server Framework.

SMTP Server Name (SMTPSN)

Enter the name or IP address of your SMTP Mail Server.

SMTP Server Port (SMTPSP)

Enter the port number of your SMTP Mail Server.

Return Value (RTNVAL)

The return value from POSTIE.

Additional Parameters**Confirmation Mode (CNFMOD)**

Select if you wish to use email confirmation.

- 00 No message confirmation (default).
- 10 User Defined confirmation
- 20 Delivery Request confirmation
- 30 Read Receipt confirmation

Message ID (MSGID)

Reference number for the email on the queue.

Authentication User Id (AUUSER)

Authentication User Id.

Authentication Password (AUPWD)

Enter the password for the Authentication User Id.

From Code Page (FCODPG)

Enter the From codepage.

To Code Page (TCODPG)

Enter the To codepage.

XLate Attachment (XLATT)

Translate Attachment.

- 0 Translate attachment (default).
- 1 Do not translate the attachment

11.5.10 SNDPPDEML3 Command

SNDPPDEML3 provides the facility to send an email directly to your SMTP Mail Server. You can type your message text, add up to 26 attachments and address the email to up to 20 recipients.

Notes:

- The **SMTP Server Name, Port, Encryption Type, Authentication Userid** and **Authentication Password** are automatically retrieved from the [Email System Parameters](#).
- These email will NOT be written to the Cobwebb Queue but sent directly to your SMTP Mail Server.

Command Parameters**Originator Email Address (ORGADR)**

Enter the email address you wish to appear as the Sender email.

Originator Name (ORGNAM)

Enter the name you wish to appear as the Sender.

Recipient Details (RCPADR)

Enter the email recipients you wish to receive the email. You may enter up to twenty recipients.

Recipient Type

Enter the type of recipient e.g. TO, CC, BCC - you must have at least one "TO" recipient.

Recipient Address

Enter the email address for the person you wish to receive the email.

Recipient Name

Enter the name of the recipient.

Subject of Email (SUBJECT)

Enter the text you wish to be the subject of your email.

Email message (MESSAGE)

Enter the text you wish to be the email message. If you wish to include more than 1024 bytes of data in your Message or to include carriage returns, then you may specify an HTML or TXT file to use as the message text. You do this by specifying a **%FILE** parameter in the Message entry e.g. **%**

FILE"/test/message.html" where **/test/message.html** is the path to the document you wish to use. **Note:** **%FILE** must be in uppercase if you wish to use this function.

Attachment Details (ATTMNT)

Enter the details of up to 26 attachments.

Attachment File path and name

Enter path and file name of the attachment if required. E.g. '/QLDS/CPD/Test.pdf'.

Attachment name if different

Enter an alternate name for the attachment to be used when sending.

Use MSF (USEMSG)

Decide if you wish to use the IBM Mail Server Framework.

- 0** Use the Cobwebb SMTP client (default).
- 1** Use the IBM Mail Server Framework.

SMTP Server Name (SMTPSN)

Enter the name or IP address of your SMTP Mail Server.

SMTP Server Port (SMTPSP)

Enter the port number of your SMTP Mail Server.

SMTP Encryption Type (SMTPEN)

From version 6.2.81. Decide the type of encryption you wish to use to send email.

- 0** No encryption (default).
- 1** Use SSL/TLS encryption.
- 2** Use STARTTLS.

Return Value (RTNVAL)

The return value from POSTIE3.

Return Status (RTNSTS)

The return status for each recipient.

Additional Parameters

Confirmation Mode (CNFMOD)

Select if you wish to use email confirmation.

- 00** No message confirmation (default).
- 10** User Defined confirmation
- 20** Delivery Request confirmation
- 30** Read Receipt confirmation

Queue Reference (MSGID)

Reference number for the email on the queue.

Authentication User Id (AUUSER)

Authentication User Id.

Authentication Password (AUPWD)

Enter the password for the Authentication User Id.

From codepage (FCODPG)

Enter the From codepage.

To codepage (TCODPG)

Enter the To codepage.

XLate Attachment (XLATT)

Translate Attachment.

- 0 Translate attachment (default).
- 1 Do not translate the attachment

Use HTML in msg (UHTML)

Do you wish to use HTML in the message body?

- 0 Do not use HTML (default).
- 1 Use HTML

Trim Attachment (TRIM)

Do you wish to Trim your attachment?

- 0 Don't trim (default).
- 1 Trim attachment

11.5.11 WRKQARC - Archive Queue Entry

Allows a user to **Archive** a Queue entry, move an entry from the Archive back to the **Queue**, **Reset** a Busy message [TQSTS = '*'] or **Confirm** an email reply for an Email message. This is the same as entering **8=Archive** beside a message on the Cobwebb Queue.

Command requires the original **Queue Reference** in the format S000846 or E003245.

Note: This command is only available from version 6.2 of the **Cobwebb Server**.

Example

```
WRKQARC QREF(E003253)
```

Validation

The user needs to be authorised to the message on the queue - please see [How the Queue Authority Works](#) for details. Also the **Queue Status** [TQSTS] can **only** be the following:

'R' = Received, 'S' = Sent, 'D' = Deleted or '*' = Locked.

Messages**Success**

FAX0063	Message &1 archived
FAX0064	Message &1 now on queue
MSG0103	Reset busy queue entry &1.

MSG0104 Confirm email reply for &1.

Failure

FAX0011 Option not valid for queue entry

FAX0015 Not authorised to queue entry

FAX0031 Queue entry &1 locked or not found

11.5.12 WRKQCPY - Copy Queue Entry

Allows a user to **Copy** a Queue entry. This is the same as entering **3=Copy** beside a message on the Cobwebb Queue and creates a new message with the same owner as the original message.

Command requires the original **Queue Reference** in the format S000846 or E003245.

Note: This command is only available from version 6.2 of the **Cobwebb Server**.

Example

```
WRKQCPY QREF(E003253)
```

Validation

The user needs to be authorised to the message on the queue - please see [How the Queue Authority Works](#) for details. Also the **Queue Status** [TQSTS] **cannot** be the following:

'R' = Received, 'A' = Active, 'D' = Deleted or '*' = Locked:

Messages

Success

EML0003 Email &1 queued to &2

FAX0012 Fax &1 queued to &2

Failure

FAX0011 Option not valid for queue entry

FAX0015 Not authorised to queue entry

FAX0031 Queue entry &1 locked or not found

MSG0102 Cannot allocate new reference number

11.5.13 WRKQDEL - Delete Queue Entry

Allows a user to **Delete** a Queue entry. This is the same as entering **4=Delete** beside a message on the Cobwebb Queue.

Command requires the original **Queue Reference** in the format S000846 or E003245.

Note: This command is only available from version 6.2 of the **Cobwebb Server**.

Example

```
WRKQDEL QREF(E003253)
```

Validation

The user needs to be authorised to the message on the queue - please see [How the Queue Authority Works](#) for details. Also the **Queue Status** [TQSTS] **cannot** be the following:

'R' = Received, 'S' = Sent, 'A' = Active, 'D' = Deleted or '*' = Locked:

Messages

Success

FAX0019 Queue entry &1 deleted.

Failure

FAX0011 Option not valid for queue entry

FAX0015 Not authorised to queue entry

FAX0031 Queue entry &1 locked or not found

11.5.14 WRKQPTY - Change Queue Entry Priority

Allows a user to change the **Priority** of a Queue entry. If you change the priority of a **Held** message to either **1, 2 or 3** the message will be released. This is the same as entering **1=Select** beside a message on the Cobwebb Queue and either changing the **Priority** or pressing **F5=Release**.

Command requires the original **Queue Reference** in the format S000846 or E003245 and a **Priority** 0 - 3 for the message..

Note: This command is only available from version 6.2 of the **Cobwebb Server**.

Example

```
WRKQPTY QREF(E003253) QPTY(0)
```

Validation

The user needs to be authorised to the message on the queue - please see [How the Queue Authority Works](#) for details. Also the **Queue Status** [TQSTS] **cannot** be the following:

'R' = Received, 'S' = Sent, 'A' = Active, 'D' = Deleted or '*' = Locked:

Messages

Success

MSG0101 The priority for message &1 has been changed

Failure

FAX0011 Option not valid for queue entry

FAX0015 Not authorised to queue entry

FAX0031 Queue entry &1 locked or not found

MSG0043 Invalid priority for user - or priority is blank

11.5.15 WRKHLQD - Work with Held Email

Requirement

You wish to test that the email output from a Cobwebb Design (PPD) is correct before you go live and send the email to external recipients but you don't want to have to change the Email Output Device details in the PPD to perform the test.

Solution

Firstly you run the PPD in [Test Mode](#) which will automatically hold any email output on the Cobwebb Queue without you having to actually change the [Email Output Device](#) in the PPD.

Now you can view the Cobwebb Queue via the [Work with Queue](#) and check that the Recipient information is correct (Option 1) but you cannot see what the attachment looks like without sending the email to yourself.

Again you don't want to have to change all the Recipient information in your PPD in order to send the email to a different Recipient i.e. you.

*From version 6.2.88 - **WRKHLQD** displays all Held emails that have never been sent, grouped by PPD Name, User Name and Date Queued. If there is a description for the PPD then this is also displayed.*

Options

Select one of the following options.

Note: If there is more than one email on the queue with the same PPD Name, User Name and Date Queued then, any option you take will be applied to all emails in the group.

[2=Change Recipient email details](#)

Allows you to enter a different recipient email address & name, say your own, so that you can check if the attachment is correct. It will also remove any additional email addresses that may have been written to the Cobwebb Queue so that only one email is sent.

4=Archive

This option will delete and archive all emails in the group. Once they have been archived you will not be able to retrieve them to send them again.

6=Release emails

Releases all emails in the group regardless of whether or not you have changed the Recipient details so be careful it is what you want to do. Normally you would first select [Option 2](#) to change the Recipient details before releasing them.

Entries

A display of all Held emails that have never been sent, grouped by PPD Name, User Name and Date Queued. If there is a description for the PPD then this is also displayed.

Function keys

F3=Exit Exits the Work with held email queue entries.

F5=Refresh Refreshes the list of entries

Page Up	Scrolls up through the list
Page Down	Scrolls down through the list

11.5.15.1 Work with Held Email Details

This information is displayed when changing Held Email Recipient details - Option 2 from the [WRKHLDQ](#) command.

Entries

Recipient Email address

The email address that you wish to send your group of email to.

Recipient Name

The name of the email recipient.

Note: If you don't wish to release the email at the same time as changing the recipient then press **F10** and then you can select **Option 6** to release the email(s) when you are ready.

Function Keys

F12=Cancel	Cancels the Work with Held email update.
F10=Confirm	To confirm the change to the Recipient email details for the group. You can then manually release the email later using Option 6 from the previous screen.
F20=Confirm and Release	To confirm the change to the Recipient email details and also release the email(s) on the Cobwebb Queue.

11.5.16 CHGSPLFS - Change Spooled Files Status

From version 6.2.66 - This command will allow you to change the status of multiple spool files with the same **Spool File Name** in a specified **Output Queue**.

This command can be found on the [Cobwebb Tools Menu - Option 5](#). Alternatively, with library **CPPD** in your Library List, enter **CHGSPLFS** on a command line and press **F4=Prompt**.

Command Parameters

Output Queue (OUTQ)

The name of the Output Queue where the spool files you wish to change reside.

Library (OUTQLIB)

The name of the Library where the *Output Queue* resides.

Spool File Name (FILE)

The Spool File Name used to select the spool files to change.

User Data (USRDTA)

The User specified data used to select the spool files. If you leave the default of ***ALL** then the User Data of the selected spool files will not be checked, otherwise you may enter the User Data

that you wish to be used for selecting the spool files. **Note:** This must be an exact match including case.

User Name (USRNAME)

The User Name used to select the spool files. If you leave the default of ***ALL** then the User Name of the selected spool files will not be checked, otherwise you may enter the User ID that you wish to be used for selecting the spool files.

Spooled file status (STATUS)

The spool file status used to select the spool files. If you leave the default of ***ALL** then the status of the selected spool files will not be checked, otherwise you may enter one of the other valid options ***READY**, ***HELD** or ***SAVED**.

Hold status (ACTION)

This is the spool file status to be applied to all of the selected spool files. If you leave the default of ***YES** then the status of all the selected spool files will all be set to **Held** (***HLD**), otherwise selecting ***NO** will release all the selected spool files.

Change after days old (DAYS)

This option will allow you to specify how old a spool file needs to be before being included in the change. Say you want to change all invoices from the previous days output you would enter a **1** here and this would pick up any matching spool file of one day or older. Entering a **0** will not check the age of the spool file. If you leave the default of **999** then nothing will happen unless you have spool files more than 999 days old.

11.5.17 DLTSPFLS - Delete Spooled Files

From version 6.2.66 - This command will allow you to delete multiple spool files with the same **Spool File Name** in a specified **Output Queue**.

This command can be found on the [Cobwebb Tools Menu - Option 6](#). Alternatively, with library **CPPD** in your Library List, enter **DLTSPFLS** on a command line and press **F4=Prompt**.

Command Parameters

Output Queue (OUTQ)

The name of the Output Queue where the spool files you wish to delete reside.

Library (OUTQLIB)

The name of the Library where the *Output Queue* resides.

Spool File Name (FILE)

The Spool File Name used to select the spool files to delete.

User Data (USRDTA)

The User specified data used to select the spool files. If you leave the default of ***ALL** then the User Data of the selected spool files will not be checked, otherwise you may enter the User Data that you wish to be used for selecting the spool files. **Note:** This must be an exact match including case.

User Name (USRNAME)

The User Name used to select the spool files. If you leave the default of ***ALL** then the User Name of the selected spool files will not be checked, otherwise you may enter the User ID that you wish to be used for selecting the spool files.

Spooled file status (STATUS)

The spool file status used to select the spool files. If you leave the default of ***ALL** then the status of the selected spool files will not be checked, otherwise you may enter one of the other valid options ***READY**, ***HELD** or ***SAVED**.

Change after days old (DAYS)

This option will allow you to specify how old a spool file needs to be before being deleted. Say you want to delete all invoices from the previous days output you would enter a **1** here and this would pick up any matching spool file of one day or older. Entering a **0** will not check the age of the spool file. If you leave the default of **999** then nothing will happen unless you have spool files more than 999 days old.

11.5.18 DUP SPLF - Duplicate & Change Spool File Attributes

This command will allow you to duplicate an existing spooled file whilst at the same time changing some of the spooled file attributes.

This command can be found on the [Cobwebb Tools Menu - Option 9](#). Alternatively, with library **CPPD** in your Library List, enter **DUPSPLF** on a command line and press **F4=Prompt**.

Command Parameters

Spooled file name (SPLFILE)

The name of the spooled file you wish to duplicate.

Job name (JOB)

Enter the specific Job name relating to the spooled file or ***** to select the current job.

User

If a Job name is specified then you must enter the specific User name relating to the spooled file.

Number

If a Job name is specified then you must enter the specific Job number relating to the spooled file.

Spooled number (SPLNBR)

Enter the specific spooled number relating to the spooled file (1 – 9999), ***ONLY** to select the ONLY available spooled number (error if more than one) or ***LAST** to select the LAST spooled number created by the Job.

Lines per inch (LPI)

Use ***SAME** to keep the same LPI as the original spooled file or else enter a new value - press **F4=Prompt** for list of valid entries.

Characters per inch (CPI)

Use ***SAME** to keep the same CPI as the original spooled file or else enter a new value - press **F4=Prompt** for list of valid entries.

Font (FONT)

Use ***SAME** to keep the same Font as the original spooled file or else enter a new value - press **F4=Prompt** for list of valid entries.

Page rotation (PAGRTT)

Use ***SAME** to keep the same Page Rotation as the original spooled file or else enter a new value - press **F4=Prompt** for list of valid entries.

Output Queue (OUTQ)

Use ***SAME** to keep the same Output Queue & Library or else enter a new value - press **F4=Prompt** for list of valid entries.

Source drawer (DRAWER)

Use ***SAME** to keep the same Source drawer or else enter a new value - press **F4=Prompt** for list of valid entries.

Formtype (FORMTYPE)

Use ***SAME** to keep the same Forms Type or else enter a new value - press **F4=Prompt** for list of valid entries.

User data (USRDTA)

Use ***SAME** to keep the same User Data or else enter a new value.

Hold file (HOLD)

Use ***SAME** to keep the same value or use ***YES** to Hold or ***NO** to Release.

Save file (SAVE)

Use ***SAME** to keep the same value or use ***YES** to Save or ***NO** to not Save.

Print on both sides (DUPLEX)

Use ***SAME** to keep the same value or else enter a new value - press **F4=Prompt** for list of valid entries.

Output bin (OUTBIN)

Use ***SAME** to keep the same value or else enter a new value - press **F4=Prompt** for list of valid entries.

NEW User (NEWUSER)

Use ***SAME** to keep the same User Id or else enter a new value. This must be a valid IBM i User Id.

NEW Spooled file name (NEWSPLNAME)

Use ***SAME** to keep the same Spooled file name or else enter a new name.

Delete source file after copy (DLTSPLF)

Use ***NO** to keep the original Spooled file or ***YES** to delete it.

11.5.19 MOVSPLFS - Move Spooled Files

From version 6.2.66 - This command will allow you to move multiple spool files with the same **Spool File Name** in from specified **Output Queue** to another Output Queue.

This command can be found on the [Cobwebb Tools Menu - Option 7](#). Alternatively, with library **CPPD** in your Library List, enter **MOVSPLFS** on a command line and press **F4=Prompt**.

Command Parameters

From - Output Queue (FOUTQ)

The name of the Output Queue you wish to move the spool files from.

From - Library (FOUTQLIB)

The name of the Library where the *From Output Queue* resides.

From - Spool File Name (FFILE)

The Spool File Name used to select the spool files to move.

From - User Data (FUSRDTA)

The User specified data used to select the spool files. If you leave the default of ***ALL** then the User Data of the selected spool files will not be checked, otherwise you may enter the User Data that you wish to be used for selecting the spool files. **Note:** This must be an exact match including case.

From - User Name (FUSRNAM)

The User Name used to select the spool files. If you leave the default of ***ALL** then the User Name of the selected spool files will not be checked, otherwise you may enter the User ID that you wish to be used for selecting the spool files.

From - Status (FSTATUS)

The spool file status used to select the spool files. If you leave the default of ***ALL** then the status of the selected spool files will not be checked, otherwise you may enter one of the other valid options ***READY**, ***HELD** or ***SAVED**.

To - Output Queue (TOUTQ)

The name of the Output Queue where you wish move the spooled file to.

To - Library (TOUTQLIB)

The name of the Library where the To Output Queue resides.

Merge after days old (DAYS)

This option will allow you to specify how old a spool file needs to be before being included in the move. Say you want to move all invoices from the previous days output you would enter a **1** here and this would pick up any matching spool file of one day or older. Entering a **0** will not check the age of the spool file. If you leave the default of **999** then nothing will happen unless you have spool files more than 999 days old.

11.5.20 MRGSPLFS - Merge Spool Files

From version 6.2.64 - This command will allow you to merge multiple spool files with the same **Spool File Name** in a specified **Output Queue**.

Notes:

- You may only merge Printer Device Type ***SCS** spool files with a **Single Byte** character set.
- Spool files are processed in chronological order and all attributes (*apart from those overridden by the command*) will be taken from the first spool file processed.

This command can be found on the [Cobwebb Tools Menu](#) - **Option 8**. Alternatively, with library **CPPD** in your Library List, enter **MRGSPLFS** on a command line and press **F4=Prompt**.

Command Parameters**From - Output Queue (FOUTQ)**

The name of the Output Queue you wish to merge the spool files from.

From - Library (FOUTQLIB)

The name of the Library where the *From Output Queue* resides.

From - Spool File Name (FFILE)

The Spool File Name used to select the spool files to merge.

From - User Data (FUSRDTA)

The User specified data used to select the spool files. If you leave the default of ***ALL** then the User Data of the selected spool files will not be checked, otherwise you may enter the User Data that you wish to be used for selecting the spool files. **Note:** This must be an exact match including case.

From - User Name (FUSRNAM)

The User Name used to select the spool files. If you leave the default of ***ALL** then the User Name of the selected spool files will not be checked, otherwise you may enter the User ID that you wish to be used for selecting the spool files.

From - Status (FSTATUS)

The spool file status used to select the spool files. If you leave the default of ***ALL** then the status of the selected spool files will not be checked, otherwise you may enter one of the other valid options ***READY**, ***HELD** or ***SAVED**.

From - Update Status (FTIDY)

The spool file status to be applied to all of the selected From spool files. If you leave the default of ***HLD** then the status of the selected From spool files will be **Held** (***HLD**), otherwise you may enter one of the other valid options ***RLS** or ***DLT** which will either change the status to **Ready** (***RDY**) or **Delete** the spool file respectively.

To - Output Queue (TOUTQ)

The name of the Output Queue where you wish the generated spool file to be written. If you wish the spool file to be generated in the same output queue then you may use ***FROMOUTQ**.

To - Library (TOUTQLIB)

The name of the Library where the To Output Queue resides. If you wish to use the same library as for the From Output Queue then you may use ***FROMLIB**.

To - Spool File Name (TFILE)

The Spool File Name you wish to be given to the generated spool file. If you wish to use the same file name as the original spool files you may use ***FROMFILE**.

To - User Data (TUSRDTA)

The User specified data to be assigned to the generated spool file. You may either enter your new User Data here. If you entered a value for the *From User Data* [i.e. not ***ALL**] then you may specify ***FROMUSRD** to apply the same user data as was on the original spool file.

To - Hold Status (TSTATUS)

If you wish the generated spool file to be Held on the Output Queue then specify ***YES** otherwise enter ***NO**.

Merge after days old (DAYS)

This option will allow you to specify how old a spool file needs to be before being included in the merge. Say you want to merge all invoices from the previous days output you would enter a **1** here and this would pick up any matching spool file of one day or older. Entering a **0** will not check

the age of the spool file. If you leave the default of **999** then nothing will happen unless you have spool files more than 999 days old.

11.5.21 RTVPRTF - Retrieve Printer File Details

From version 6.2.78 - This command allows you to retrieve the details of the records and fields that exists in the selected Printer File. **Please Note:** This can only be used with externally defined Printer Files. The results can help with designing your PPD where you may not have all the information in your spooled file page.

This command can be found on the [Cobwebb Tools Menu - Option 4](#). Alternatively, with library CPPD in your Library List, enter **RTVPRTF** on a command line and press **F4=Prompt**.

Command Parameters

Printer File Name (FILE)

Enter the name of the Printer File whose details you wish to display.

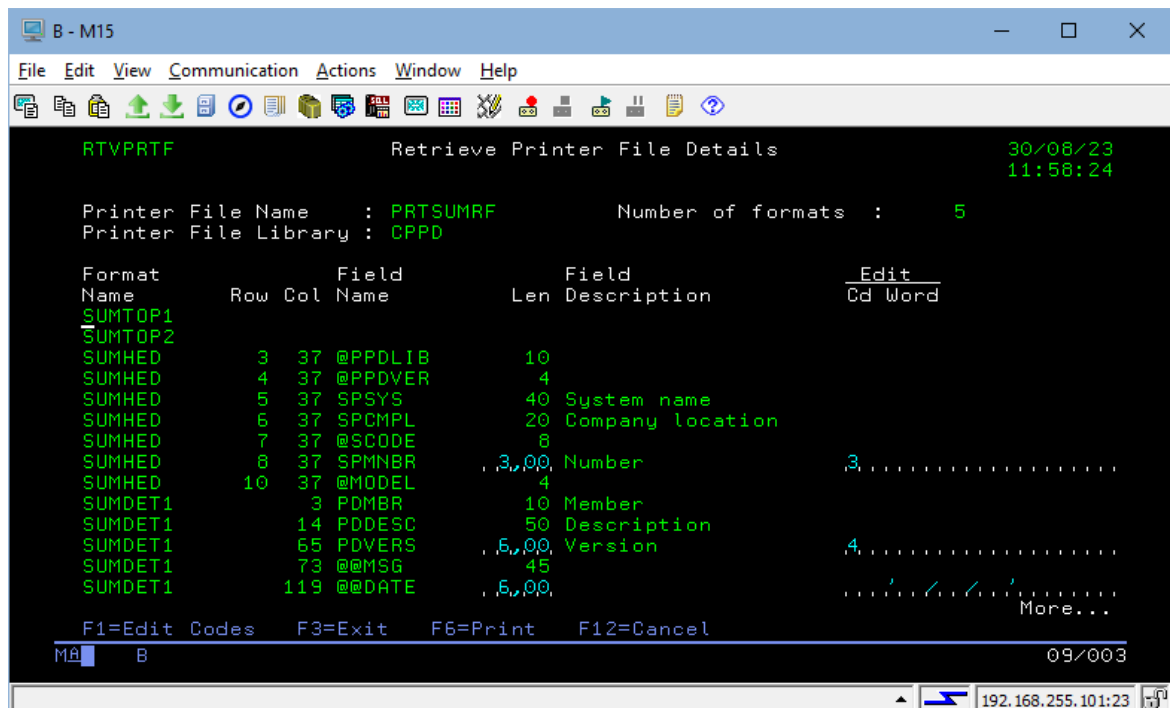
Library

The library name where the above Printer File resides.

Running the Command

The following screen shot is the result of running the following command on the Server.

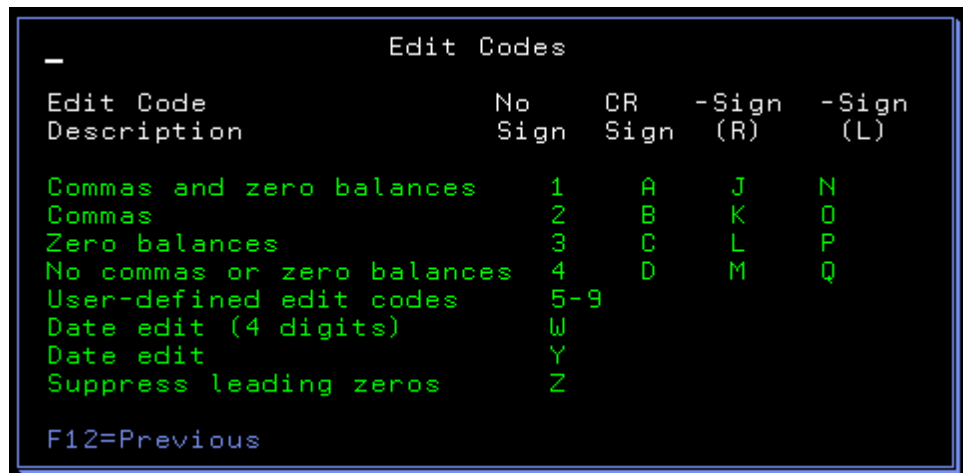
RTVPRTF FILE(CPPD/PRTSUMRF)



The **Format Name** is a section of the spool file and in the above example there are 4, **SUMTOP1** and **SUMTOP2** which do not have any field information, **SUMHED** for Header information and **SUMDET1** for detail information. In some instances the **Row** number not displayed as this can be set at run time, but the **Column** Number is set. In the above example you can see **SPCMPL**, which is the company location and you can see that it can be up to **20** characters in length.

Function Keys

F1=Edit Codes Displays the meaning of the Edit codes.



Edit Code Description	No Sign	CR Sign	-Sign (R)	-Sign (L)
Commas and zero balances	1	A	J	N
Commas	2	B	K	O
Zero balances	3	C	L	P
No commas or zero balances	4	D	M	Q
User-defined edit codes	5-9			
Date edit (4 digits)	W			
Date edit	Y			
Suppress leading zeros	Z			

F12=Previous

F3=Exit Exits the command

F6=Print Prints the Printer file details (*from version 6.2.87*)

F12=Cancel Cancels the command

11.5.22 SCANSPLF - Search Spool Files for Text

From version 6.2.57 -This command will search an Output Queue for spool files that contain a supplied text string. Since there is a limit on User Spaces that are over 16mb spool files that are over the limit will not be searched.

This command can be found on the [Cobwebb Tools Menu - Option 3](#). Alternatively, with library CPPD in your Library List, enter **SCANSPLF** on a command line and press **F4=Prompt**.

Note: This command and its associated programs are Open Source developed by [Dryan Dietz](#). Cobwebb have included the source in the file **QUSRTOOLLE** in the **CPPD** library.

Command Parameters

Search in Output Queue (OUTQ)

Enter the name of the Output Queue that you wish to search.

Library Name

The library name where the above Output Queue resides.

Text (quotes for U/L case) (SRCHTEXT)

Enter the text string that you wish to search for. This text string needs to be placed inside single quotes if you wish to search for a phrase or text in lowercase for instance.

Running the Command

The following screenshot is the result of running the following command on the Cobwebb IBM i.

```
SCANSPLF OUTQ(TEST/TESTSUITE) SRCHTEXT('Joe Bloggs')
```

```

KIM                               Scan Spool Files for Text                               5/11/14
S65DC3A3      OutQ= TEST/TESTSUITE      Nbr Found =      12      15:18:56
2=Change 3=Hold 4=Delete 5=Display 6=Release      Txt 'Joe Bloggs'
File      User      User Data      Sts      Pages      Form Type      Occurs
- TEST91      QPRTJOB      TEST91      RDY      5      *STD      1
- TEST10      QPRTJOB      TEST10      HLD      5      *STD      1
- TEST16      QPRTJOB      TEST16      HLD      5      *STD      1
- TEST20      QPRTJOB      TEST20      HLD      5      *STD      1
- TEST17      QPRTJOB      TEST17      HLD      5      *STD      1
- TEST21      QPRTJOB      TEST21      HLD      5      *STD      1
- TEST25      QPRTJOB      TEST25      HLD      5      *STD      1
- TEST5       QPRTJOB      TEST5       HLD      5      *STD      1
- TEST7       QPRTJOB      TEST7       HLD      5      *STD      1
- TEST86      QPRTJOB      TEST86      HLD      5      *STD      1
- TEST44      QPRTJOB      TEST44      HLD      5      *STD      1
- TEST4       QPRTJOB      TEST4       HLD      5      *STD      1

F3/F12=Exit      F5=Refresh

Bottom

MA      a      MJ      05/002
1902 - Session successfully started

```

As you can see the command returns a list of spool files that contain the supplied string. Some of the options from the WRKSPLF command have also been exposed such as **2=Change**, **3=Hold**, **4=Delete**, **5=Display** & **6=Release**.

11.5.23 SNDDSEML Command

SNDDSEML provides the facility to send a **Docstore Document** directly to your **SMTP Mail Server** using the CHTTTPD Web Services. **Note:** These email will NOT be written to the Cobwebb Queue. *This command has been included from version 6.2.84.*

Note: Make sure parameters with spaces or lowercase letters are enclosed in quotes e.g. 'Test Docstore'.

Command Parameters

URL to Docstore Message API (URL)

Enter the URL to the Docstore Message API e.g. <http://localhost:6400/message/>

Docstore User Name (USRNAM)

Enter the User Name to access the Docstore message API.

Docstore User Password (USRPWD)

Enter the Password for the User Name (case sensitive).

Sender Name (SNDNAM)

Enter the name you wish to appear as the Sender.

Sender Email Address (SNDADR)

Enter the email address you wish to appear as the Sender email.

Recipient Name (RCPNAM)

Enter the name of the Recipient.

Recipient Details (RCPADR)

Enter the email address for the person you wish to receive the email.

Subject of Email (SUBJECT)

Enter text you wish to be the subject of your email.

Email message (MESSAGE)

Enter the text you wish to be the email message. If you wish to include more than 1024 bytes of data in your Message or to include carriage returns, then you may specify an HTML or TXT file to use as the message text. You do this by specifying a **%FILE** parameter in the Message entry e.g. **%FILE"/test/message.html"** where **"/test/message.html"** is the path to the document you wish to use. **Note:** **%FILE** must be in uppercase if you wish to use this function.

Use HTML in msg (UHTML)

Do you wish to use HTML in the message body?

0 Do not use HTML (default).

1 Use HTML

Docstore Name (DSNAME)

Enter the name of the Docstore where your document resides - *this is case sensitive*.

Docstore Document ID (DOCID)

Enter the Docstore Document ID for the document you wish to email.

Troubleshooting

A message will be written to the joblog if the API fails. You can also make the program more verbose and write all of the parameters, passed to the **SNDDSEML** program, to the joblog by turning on **TRACE** mode. This can help you to see if there are any errors with the data in the parameters such as case (passwords are case sensitive).

To turn on TRACE mode use [CHGTSTMOD](#).

11.5.24 STOREDOC - File in Docstore

This command must be run on the IBM i and is can be used to manually move a document into the Cobwebb Docstore. Make sure that you have the CPPD library in your library list. To do this, enter the following command: -

```
ADDLIBLE CPPD
```

If the library already exists in your library list, you will receive an error message, which you may ignore.

Next enter **STOREDOC** and press **F4=Prompt**.

You will now be able to enter the path to your document and the Docstore details for where you wish to store the document..

For example:

```
STOREDOC FILPATH('/test/')
```



```
FILNAME('Invoice_1234')
FILEXT(PDF)
DOCSTORE('My Docstore')
DOCTYPE('Invoice')
DOCDESC('Invoice %PARM1 for Customer %PARM2')
FILTYP(PDF)
DOCKEY('INV1234' 'ABC001' '2012-06-01')
```

Command Parameters

FILPATH - File Path

Enter the IFS folder path where your document is currently stored. Enter just the path e.g. /test/

FILNAME - File Name

Enter the file name of the document you wish to store. Enter just the file name without its extension.

FILEXT - File Extension

Enter the file extension for your document e.g. PDF, TXT.

DOCSTORE - Docstore Name

Enter the name of the Docstore where you wish to store your file.

DOCTYPE - Document Type

Enter the Document Type for this document to be stored under in the above Docstore name.

DOCDESC - Docstore Description

This is the document description, and can use parameter replacement to make the description variable. **%PARM1** refers to the first parameter on the Parameters tab etc.

E.g. Invoice %PARM1 for Customer %PARM2 on date %PARM3

The description is the field used for basic searching in Cobwebb Docstore, so it's a good idea to try and get it to contain all the key information of the file that people will generally be searching on.

FILTYPE - File Type - *Optional*

Enter the file type for your document. This only needs to be supplied if your document extension is not a common one e.g. PDF, TXT, CSV etc. Either enter the type e.g. PDF, TXT, CSV, JPG, JPEG, DOC, DOCX, XLS or XLSX, or enter the number corresponding to your document type e.g.

- 1 PDF
- 2 TXT
- 3 CSV
- 4 JPG
- 5 DOC
- 6 XLS

DOCKEY - First 10 Key Values - in order

Enter the first 10 key values to store in the correct order.

DOCKEYS - Last 8 Key Values - in order

Enter the last 8 key values to store in the correct order.

DOCOWN - Document Owner

This must be a valid Server User Id and will be used as the owner of the document in Docstore. If left blank this will default to the owner of the document being uploaded.

AUTLST - Authorisation List

If you wish to use Authorisation lists to determine who has access to this document then enter a valid Authorization List to be used for the document in Docstore.

PUBAUT - Public Authority

Please either leave this entry blank or enter any value from the supplied list. This will be used to define the public authority for the document in Docstore.

READO - Set as Read-only

Entering a 'Y' here will set the Read-only flag for the document in Docstore.

HALT - Halt job on error

Entering a 'Y' here will display an inquiry message in QSYSOPR message queue requiring a response when certain Docstore failures are encountered; such as moving the file into the Docstore and the folder does exist or cannot be accessed.

KEEPFL - Keep original file

Entering a 'Y' here will keep the original file. The default is to delete the file after successfully storing in Docstore. *From Version 6.2.70*

11.5.25 FLRTIDY - Folder Housekeeping

From version 6.2.76 - This command must be run on the IBM i and can be used to delete old files from a folder on the IFS. This can be quite useful if you wish to tidy up folders used by the [Cobwebb Folder Monitor](#).

If you wish to tidy multiple folder you may wish to configure these via the [Work with Folder Housekeeping](#) on the **Cobwebb Tools** menu. *Online* entries will then be processed by the **FOLDERTIDY** job that runs in the [Cobwebb Job Scheduler](#) (unless you have removed this entry).

Note: The Folder Housekeeping selects files at the **root** folder entry (i.e. not sub folders) and will only process ***STMF** files.

Make sure that you have the CPPD library in your library list. To do this, enter the following command: -

```
ADDLIBLE CPPD
```

If the library already exists in your library list, you will receive an error message, which you may ignore.

Next enter **FLRTIDY** and press **F4=Prompt**.

You will now be able to enter the path to the folder you wish to house-keep, together with a date type and days to retain if you are not happy with the defaults.

For example:

```
FLRTIDY PATH( '/test/success' ) TYPE(M) DAYS(30)
```

When the command runs an entry will be written to the joblog specifying the number of files that have been deleted. If you require the actual name of each file being deleted then you will need to change the Job Switch **U8** on to enable Trace mode.

Command Parameters

Folder path (PATH)

The folder path from which the files will be selected for deletion e.g. /test/success.

Date Type to check against (TYPE)

The type of date for the file you wish to be used for comparison. **M**=Last Modified date, **A**=Last Accessed date and **C**=Last Status Changed date. If you right click on a file in your folder and select **Properties** you will see the different dates.

Default = **M**

Number of days to retain (DAYS)

This allows you to specify how old a file needs to be before being included for deletion. Say you want to delete all files from the previous days output you would enter a **1** here and this would pick up any matching file of one day or older. Entering a **0** will not check the age of the file i.e delete ALL files. If you leave the default of **999** then nothing will happen unless you have files more than 999 days old.

Default = **30**

11.5.26 ARCFTPLOG - Archive FTP Log file

From version 6.2.87 - **ARCFTPLOG** provides the facility to archive old records from the [FTP Folder Monitor](#) log file AFTPLOG. If you wish to run this automatically you could add an entry to call this command to the [Cobwebb Job Scheduler](#).

Note: This will delete old records but not free up space in the file. The [RGZPPDQ](#) command will reorganise all files in library CPPD with deleted records, or you can manually run the following command (with library CPPD in your library list) when the CPPD subsystem is not running:

```
RGZPFM AFTPLOG
```

Command Parameters

DAYS - No of days to retain

Specify a number of days. Entries, that match the requirements, older than this date will be archived.

CLRS - Clear Successful entries

If you enter a "Y" then entries with status "S" for Successful are selected.

CLRF - Clear Failed entries

If you enter a "Y" then entries with status "F" for Failed are selected.

11.5.27 CHGPPDAUT - Update PPD Security

When you request a Security Code from Cobwebb you will be emailed a command string calling this command with all your security details. Make sure that you have the library **CPPD** in your library list, then paste the command string into a command line and press enter. [*from version 6.2.24*]

The [PPD Security](#) screen will be displayed with all of the entries, including the Access Code. Press enter to update your Security details.

Command Parameters

System Name (SYSTEM)

This name is used as part of the security to identify the company, and is usually the company name.

Location (LOCATE)

The location identifies the company location.

Country Code (COUNTR)

The Country Code identifies the country of installation e.g. UK

Expiry date (EXPIRY)

If a demonstration copy of the software is provided an expiry date is used to identify the end of the trial period. A permanent copy of the software has a blank expiry date. After the expiry date the software will not create spooled files. Cobwebb also supply a "Term" licence which will also have an expiry date.

Term (TERM)

This entry is only used if an Expiry Date has been entered. It is used to determine if the licence is a "Term" licence or a "Temporary / Demonstration" licence. Enter a "Y" if you have a "Term" licence or "N" for a "Temporary / Demonstration" licence. The only difference is in the message that is sent to **QSYSOPR** when the licence is nearing its Expiry Date.

Print Page Designer (DESIGN)

A Y indicates that you can create output using a PPD e.g. [CRTPPD](#), [RUNPPD](#) or the [Spooled File Monitor](#).

AFP Print feature (ADVPR)

A Y indicates the AFP print feature is authorised. This enables use of Graphics overlays, fonts barcodes etc.

PC Designer (PCDSGN)

A Y indicates that you may upload Cobwebb Designs to the IBM i from the [Cobwebb Designer](#).

Fax interface (FAXINT)

A Y indicates the [Cobwebb Fax](#) interface is authorised.

Number of lines (LINES)

The number of authorised fax lines.

Number of PC users (PCUSER)

The number of PC Users authorised to use the Cobwebb Fax PC Windows Software.

Email interface (EMLINT)

A **Y** indicates the [Cobwebb Email](#) interface is authorised.

File interface (FILINT)

A **Y** indicates the [Cobwebb File](#) interface is authorised.

XML interface (XMLINT)

A **Y** indicates the [Cobwebb XML](#) interface is authorised.

Web interface (WEBNT)

A **Y** indicates the [Cobwebb Web Service](#) interface is authorised.

PDF interface (PDFINT)

A **Y** indicates the [Spool-a-matic](#) PDF interface is authorised.

Docstore (DOCSTR)

A **Y** indicates the [Cobwebb Docstore](#) module is authorised.

Access code (CODE)

The access code provided by Cobwebb Communications Ltd.

11.5.28 CHGTSTMOD - Change Test Mode

From version 6.2.66 - This command will allow you to switch either [Test Mode](#) (U7) and/or [Trace Mode](#) (U8) mode on or off when you are testing a Cobwebb Design (PPD) interactively.

The **Test** and **Trace** modes will only be enabled for your interactive session i.e. when you either call **CRTPPD** or **RUNPPD** to test your Cobwebb Design (PPD).

This command can be found on the [Cobwebb Tools Menu - Option 10](#). Alternatively, with library **CPPD** in your Library List, enter **CHGTSTMOD** on a command line and press **F4=Prompt**.

Command Parameters

Test Mode (TMODE)

Select ***NO** to turn **Test** mode off, ***YES** to turn it on or, from Cobwebb Server > 6.2.82, ***JOB** to use the current U7 setting for the job.

Trace Mode (TRACE)

Select ***NO** to turn **Trace** mode off, ***YES** to turn it on or, from Cobwebb Server > 6.2.82, ***JOB** to use the current U8 setting for the job.

11.5.29 DLTORPHAND - Delete orphaned messages

From version 6.2.24 - This command must be run on the IBM i and allows you to **Print** & optionally **Delete** any orphaned **Fax** or **Email Message text** or **Additional Email Destinations**. When we talk about "orphaned" we mean where the main Queue record [AFAXQ] has been deleted. You may run the command without the **Delete** option to print details of any orphaned records before proceeding to delete them.

Please end the CPPD subsystem before running this command e.g.

```
ENDSBS CPPD
```

The files that will be checked are:

AFAXDOC - If you select Message Type = Fax or All. This holds the Fax Message details.

AEMDOC - If you select Message Type = Email or All. This holds the Email Message details.

AFAXQEA - If you select Message Type = Email or All. This holds the Additional Email Destinations.

Make sure that you have the CPPD library in your library list. To do this, enter the following command: -

```
ADDLIBLE CPPD
```

If the library already exists in your library list, you will receive an error message, which you may ignore.

Next enter **DLTORPHAND** and press **F4=Prompt**.

Command Parameters

Select Message Type (MSGTYP)

The type of Message that you wish to check for orphaned records.

- F** Fax Messages only
- E** Email Messages and Additional Destinations only
- A** All Messages and Additional Destinations

Remove Orphaned Records? (REMOVE)

This command will print details of any orphaned messages for the selected Message Type. If you wish to actually Delete these orphaned records then enter a Y here.

- Blank** Simply Print details - uses QSYSPRT to your default Output Queue.
- Y** Print and Delete details.

11.5.30 PRTXMLSPL - Print XML Cross References

This command must be run on the IBM i and can be used to print an XML File, that has been pre-configured via the [Work with XML Cross References](#), to a spooled file. *Requires Cobwebb Server version 6.2.82 or above (with a licence to the [Cobwebb XML](#) module) and IBM i OS V6R1M0 or above.*

Note: If you wish to automate the printing of your XML files then this can be done via the [Cobwebb Folder Monitor](#) using the Folder Monitor program [FMXML2SPL](#).

Make sure that you have the CPPD library in your library list. To do this, enter the following command: -

```
ADDLIBLE CPPD
```

If the library already exists in your library list, you will receive an error message, which you may ignore.

Next enter **PRTXMLSPL** and press **F4=Prompt**.

Running this command will create a spooled file called **PRTXMLSPLF** in the Output Queue **QPRINT** in library **CPPD**. For example:

- The first two lines detail the **XML Cross Reference ID** that has been used, the **Document No** if there is more than one document in your XML and the path to the XML file that has been printed.
- The area outlined in red contains the type of line being printed e.g. ***H** = Field Heading, ***D** = Field Data and ***B** = a blank line.

- The area outlined in blue shows the **Label ID** for the line.
- The areas outlined in yellow are example **Field Headings** being printed.
- *From version 6.2.88.* The area outlined in pink shows how you can **wrap text** to a given length which then writes the remaining text over the following lines.
- *From version 6.2.88.* If you wanted to print the area outlined in green at the top of every page (the first two lines are always included) then you would enter 'ADD1,ADD2,ITEM' in the **HDRLAB** parameter and 'N' in the **INCLDT** paramter.

```

PRTXMLSPL: Extract an XML File to Spool File File ID: ZUGFERD          Document No: 0000000
File Path: /test/XML2SPLTest/example/ZUGFERD-invoice 2.xml
  
```

H	ADD1	Supplier	Buyer		
D	ADD1	Bauer Engineering	Kunden AG Mitte		
D	ADD1	Kleindorf 18	Kundenstrase 15		
D	ADD1	Zollikon	Frankfurt		
D	ADD1	8702	69876		
H	ADD2	Sup Inv	Inv Date	Cur	
D	ADD2	20150201	20120313	EUR	
H	ITEM	Code	Qty	VAT %	Price
D	ITEM	TB100A4	20	19.00	9.90
D	ITEM				
D	ITEM				
D	ITEM				
D	ITEM				
D	ITEM				
D	ITEM				
D	ITEM				
D	ITEM				
D	ITEM				
D	ITEM	TB100A5	50	20.00	12.50
D	ITEM	Lorem Ipsum is simply dummy text			
D	ITEM	TB100A6	50	20.00	12.50
D	ITEM	Lorem Ipsum is simply dummy text			

Command Parameters

File ID Name (FILEID)

The File ID from the [Work with XML Cross References](#) to use as the print configuration for your chosen XML file.

File Path Name (FILENAME)

The full path to the XML file that you wish to print e.g. /test/XML/MyTest.xml

Print - Page Length (PAGLEN)

The page length for the generated spooled file. Valid entries are 1-255.

Default = 66

Print - Overflow Line (OVRFLW)

The overflow line for the generated spooled file. Valid entries are 1-255 but this entry must be less than or equal to the **Page Length**.

Default = 60

Comma sep Label IDs for header (HDRLAB)

From version 6.2.88. If you wish to print the data for a Label ID as a header on subsequent pages then you may specify a comma separated list of Label IDs (no spaces) in the same case as they are entered in the [Work with XML Cross Reference Details](#). For obvious reasons these should be Labels IDs that appear first in our output. You may specify up to 10 different Label IDs. This can be useful if you wish to have the Address information appearing on every page. **Note:** Any Headers and Blank lines will also be included.

Include data for last hdr lab (INCLDT)

From version 6.2.88. If you have specified a list of Label IDs to include as a header then you have the option, by specifying 'N' here, to only include the field headers and not the data for the last Label ID in the list. This can be useful if you wish to include the heading for say your Invoice Lines on every page but you obviously wouldn't want to include the data.

(ERROR)

This is just used by the program when it is being called via the Folder Monitor and may be ignored.

11.5.31 RSTPPDQ - Restore Cobwebb Queue

The **RSTPPDQ** command is provided to allow you to restore a previously saved Cobwebb Queue, via [SAVPPDQ](#), to a specific library.

1. First you will need to create a library into which you can restore your Cobwebb Queue.
2. Now use the **RSTPDDQ** command to restore the version of the Cobwebb Queue you wish to investigate,
3. Add the library containing the restored Cobwebb Queue to your library list [higher up than library CPPD].
4. Call **WRKQ** to display the Cobwebb Queue.

Command Parameters**SAVLIB - Save file library**

From version 6.2.30 you will no longer see this entry as the Cobwebb Queue objects are now saved directly from library CPPD.

Prior to v6.2.30 - This is the name that you gave to the temporary "Save file library" used in the [SAVPPDQ](#) command.

SAVF - Save file

Enter the name of your Save File which holds the version of the Cobwebb Queue that you wish to restore.

LIB - Library

Enter the name of the library where your Save File may be found.

RSTLIB - Restore to library

Enter a valid library name into which you wish to restore the Cobwebb Queue objects. This library must already exist.

11.5.32 FMNOTIFYP - Print Folder Monitor Notifications

Cobwebb Server Version > 6.2.82. This command must be run on the IBM i and can be used to **Print & Delete Folder Monitor Notifications** that have been written via the [Cobwebb Folder Monitor](#) using the Folder Monitor program [FMNOTIFY](#).

The **Folder Monitor Notifications** file contains the **Folder Monitor Name**, **File Path** and **Date Time** that the Notification record was written to the file. Running the command will **Print & Delete** this information and will skip to a new page on change in **Folder Monitor Name**. This

can be useful if you wish to monitor a "failed" folder and send an email notification of the failure(s) (*using a Cobwebb Design*). Example print output:

```
FMNOTIFYP                               Print Folder Monitor Notifications
Monitor Name: MONITOR1
File Path
-----
/test/failed/Document 1.txt
/test/failed/Document 2.txt
```

The command can be scheduled to run, as often as you wish, via the [Cobwebb Job Scheduler](#). The resultant print can then be processed by a Cobwebb Design to send an email with the details to the relevant person.

Make sure that you have the **CPPD** library in your library list. To do this, enter the following command: -

```
ADDLIBLE CPPD
```

If the library already exists in your library list, you will receive an error message, which you may ignore.

Next enter **FMNOTIFYP** and press **F4=Prompt**.

By default this command will create a spooled file called **FMNOTIFYPR** in the Output Queue **QPRINT** in library **CPPD**.

Command Parameters

Output Queue Name (OUTQ)

The Output Queue where you wish the generated output to be written. *Default QPRINT.*

Output Queue Library (OUTQL)

The Library where the Output Queue resides. *Default CPPD.*

User Data (USRDTA)

The User Data for the generated output. *Default FMNOTIFYP.*

11.5.33 WRKGEND - Work with General Directory

Cobwebb Server Version > 6.2.82. This command must be run on the IBM i and can be used to supply a Filter to the [Work with General Directory](#) to prevent users from maintaining entries except those that match the supplied filter. The General Directory is often used to direct output from a Cobwebb Design and by using the filters you could restrict users to only changing those entries that relate to their output.

Make sure that you have the CPPD library in your library list. To do this, enter the following command: -

```
ADDLIBLE CPPD
```

If the library already exists in your library list, you will receive an error message, which you may ignore.

Next enter **WRKGEND** and press **F4=Prompt**.

Command Parameters

Filter for Key 1 (FILTER1)

Specify a Filter for Key 1 that cannot be changed in [Work with General Directory](#). If this is specified then only entries matching this filter may be viewed or maintained.

Filter for Key 2 (FILTER2)

Specify a Filter for Key 2 that cannot be changed in [Work with General Directory](#). If this is specified then only entries matching this filter may be viewed or maintained.

Filter for Key 3 (FILTER3)

Specify a Filter for Key 3 that cannot be changed in [Work with General Directory](#). If this is specified then only entries matching this filter may be viewed or maintained.

11.5.34 CRTPPDPTF - Create a PPD PTF

This command must be run on the IBM i and can be used to create a PTF of objects (programs, files etc.) that are required to be applied to a system. This would normally be run by a Cobwebb Consultant and the PTF supplied to the customer in the form of a **CPPDPTF** file which should be placed in the **QDLS/PPD** folder on the IBM i. These PTFs can then be restored using the [RSTPPDPTF](#) command.

If you have several objects to include then it is usually easiest to copy all objects that you wish to include into a separate library before creating the PTF. **Note:** All objects that you wish to include must exist in the same library.

Make sure that you have the CPPD library in your library list. To do this, enter the following command: -

```
ADDLIBLE CPPD
```

If the library already exists in your library list, you will receive an error message, which you may ignore.

Next enter **CRTPPDPTF** and press **F4=Prompt**.

Command Parameters

Object names to save (OBJ)

The name of the objects that you wish to be saved. You may enter up to twenty objects but they must all be found in the same library.

Library (LIB)

The library name where your objects reside.

Object types (OBJTYP)

If you only wish to save a specific object type then you can enter it here, otherwise just leave the default of ***ALL** to save all object types.

CPPD Object Owner (OBJOWN)

The user profile you wish to be the owner of the objects in the PTF - should be left as **CPPDOBJOWN**.

CPPD Object Owner [*SECADM] (SECOWN)

The user profile you wish to be the owner of the objects in the PTF requiring ***SECADM** authority - should be left as **QSECOFR**.

CPPD System User [SBS jobs] (SYSUSR)

The user profile you wish to be assigned to any Job Descriptions in the PTF - should be left as **CPPDMM**.

Save file (SAVF)

The name of the Save file that you wish to use to create this PTF. The Save file will be created if it is not found or cleared if it is found. The default is **CPPDPTF** and this will be created in the library **QTEMP**.

Document (DOC)

Enter the name of the document to which you wish to copy your PTF data. The default entry is **CPPDPTF**. If the document already exists then the previous data will be overwritten. If you wish to use the [RSTPPDPTF](#) command to restore you PTF then we suggest that this is left as **CPPDPTF**.

Folder (FLR)

Enter the name of the folder where the document should be created. The default is the folder **CPPD**.

Target Release (TGTRLS)

Enter the release of the operating that you wish to be able to restore to. The current default is v6R1M0 but this may change via a Cobwebb Server upgrade if required.

11.5.35 RSTPPDPTF - Restore a PPD PTF

This command must be run on the IBM i and can be used to restore a PTF of objects (programs, files etc.) that have been previously created using the [CRTPPDPTF](#) command. You will have been asked to copy the supplied PTF (**CPPDPTF**) into the **QDLS/PPD** folder on your IBM i.

Note: If you change either the filename or the folder then this will need to be reflected in the **Document** & **Folder** parameters respectively.

Make sure that you have the CPPD library in your library list. To do this, enter the following command: -

```
ADDLIBLE CPPD
```

If the library already exists in your library list, you will receive an error message, which you may ignore.

Next enter **RSTPPDPTF** and press **F4=Prompt**.

Command Parameters

Object names to restore (OBJ)

Enter the name of the objects that you wish to restore. You may enter up to twenty objects but they must all be found in the same library. You may specify ***ALL** to restore all objects.

Saved library (SAVLIB)

Enter the name of the library from which the previously entered objects were saved. This should be left as **CPPDPTF** if the PTF was created using the [CRTPPDPTF](#) command.

Object types (OBJTYP)

Select the types of objects to be restored or leave as ***ALL** to restore all object types.

Save file (SAVF)

Enter the name of the Save file that you wish to use to restore this PTF. The Save file will be created if it is not found or cleared if it is found. The default Save file is **CPPDPTF** and this will be created in the library **QTEMP**.

Document (DOC)

Enter the name of the document from which you wish to restore your PTF data. The default entry is **CPPDPTF**.

Folder (FLR)

Enter the name of the folder where the document may be found. The default is folder **CPPD**.

Restore to library (RSTLIB)

Enter the name of the library to which you wish to restore the selected objects. If the PTFs you have been sent apply to changes for the Cobwebb Server software then this library should be **CPPD**. Sometimes, if you have been sent a PTF of a variety of objects someone of which may be bespoke, you will be asked to enter **QTEMP** here and then move the restored objects to the relevant libraries afterwards. Please check any documentation sent with your PTF for details.

11.6 Cobwebb Monitor Programs

In order to facilitate running a task which is not spool file driven Cobwebb have created the following Monitor programs which will run in the CPPD subsystem:

Cobwebb Folder Monitor

The [Cobwebb Folder Monitor](#) is a utility that will monitor an IFS or QNTC folder at a frequency defined by the **Poll interval** and call a specified **Program to call** each time a file is found. If the file is processed successfully it is deleted, or moved to a defined **Success Folder** otherwise it is moved to the defined **Failed Folder**.

This can be useful if you wish put files in a folder that you wish to store in the [Cobwebb Docstore](#) or maybe FTP to a different Server.

Cobwebb Job Launcher Monitor

From Cobwebb Server Version 6.2.70 - The [Cobwebb Job Launcher Monitor](#) is a utility that will call a specified **Program to call** at a frequency defined by the **Poll interval**. This can be useful if you wish to run a program say every hour and don't want to have to code this process.

This was initially written to run the [LREFUPD](#) job which investigates Docstore entries which are missing an Item Reference (LREF) key as it wasn't available when the document was stored. It uses the information from the Document Keys to extract the Item Reference from Aurora and update the LREF Document Key with the information.

11.6.1 Cobwebb Folder Monitor

The **Cobwebb Folder Monitor** is a utility that will monitor an IFS folder at a frequency defined by the "Poll interval" and call a specified "Program to call" each time a file is found. If the file is processed successfully it is deleted, or moved to a defined "Success Folder" otherwise it is moved to the defined "Failed Folder".

This can be useful if you wish put files in a folder that you wish to store in the Cobwebb Docstore or maybe FTP to a different Server.

For details on how to create a program to process the files from the folder being monitored please see [Creating a bespoke Folder Monitor program](#) or you can ask Cobwebb to create one for you.

From Version 6.2.62 - Cobwebb supply a selection of [Monitor Types](#) which have their own specific Programs and Parameters which can be used - please see [Supplied Folder Monitor programs](#) for details.

Configuring CPPD to use the Cobwebb Folder Monitor

There are two ways to configure CPPD to use the Cobwebb Folder Monitor:

1. Add a [Work with Folder Monitor](#) entry - from v6.2.37.
2. [Add a bespoke Autostart job to the CPPD Subsystem](#) - prior to v6.2.37.

FLRMON Parameters

Note: These details are only required if you are on a version of Cobwebb Server prior to v6.2.37 and need to call the Folder Monitor (FLRMON) by adding a bespoke Autostart job, otherwise you would add a new Folder Monitor via the [Work with Folder Monitor](#) menu option.

Parameter	Length	Description	Example
Required			
PARAM1	255	Folder to Monitor	'/test/flrmon'
PARAM2	255	Failed Folder	'/test/flrmon/failed'
PARAM3	10	Monitor Program to call	'PRTTUTC' See Creating a bespoke Folder Monitor program for details.
Optional			
PARAM4	10	Program library	COBEXIT
PARAM5	3	Poll interval (mins)	10 [Default 5 mins]
PARAM6	3	Poll interval (secs)	30
PARAM7	10	EBCDIC Code page used for file name conversions.	1146 [Default 1146]
PARAM8	10	The Locale used for file name conversions.	EN_GB [Default EN_GB] Use "WRKOBJ OBJ(QSYS/*ALL) OBJTYPE(*LOCALE)" to see currently installed locales. Use "DSPSYSVAL SYSVAL(QLOCALE)" to see current locale.
PARAM9	1	Call regardless	'Y' [Default 'N']

		(Should the Monitor program be called every poll interval even when there are no files to be processed?)	
--	--	--	--

Example Call

CALL PGM(FLRMON) PARM('/test/flrmon' '/test/flrmon/failed' 'PRTXTFC' 'COBEXIT' '1')

The above example would monitor the folder **/test/flrmon** every **one minute**. For each file found it will call the call the program **COBEXIT/PRTXTFC** with two parameters – the path to the file (CHAR 255) and the return code (CHAR 1). When the program returns, if the return code is 0x00 then the program is deemed successful and the file is deleted. Otherwise the program is deemed to have failed and the file is moved to the failed folder, in this case **/test/flrmon/failed**.

Note: FLRMON was designed to be run in a subsystem and if run interactively will only check the folder once before exiting.

11.6.1.1 Supplied Folder Monitor programs

Cobwebb supply the following Folder Monitor programs in the **CPPD** library. These should be used in conjunction with the relevant Monitor Type as defined in the table below.

Program Name	Monitor Type	Description	Cobwebb Version
FMDOCS TORE	*DOC	Stores the submitted files into Cobwebb Docstore where the information for any Document Type Keys is extracted from the filename by specifying the key separator and key sequence in the Folder Monitor Parameters. See Cobwebb Folder Monitor Types for details.	<i>From version 6.2.63</i>
FMEMAIL	*STD	Using the email details written to a .TXT file with the same name as the .PDF attachment, send individual email to multiple recipients directly via your SMTP Mail Server.	<i>From version 6.2.87</i>
FMFTP	*FTP	Sends the file via the Cobwebb FTP , based on the supplied parameters. See Cobwebb Folder Monitor Types for details. You can then use the FMNOTIFY Folder Monitor to monitor the "failed" folder, and the FMNOTIFYFP command to produce a spooled file of any failed documents, so that you can be notified if the FTP should fail. Please also see FTP Troubleshooting for details on where to look for the spooled files produced by the FTP process.	<i>From version 6.2.63</i>
FMJAVA	*JAVA	Call the Java archive (.jar) specified in the JAVA_CLS parameter when creating your Java Folder Monitor entry. See Cobwebb Folder Monitor Types for details.	<i>From version 6.2.78</i>
FMNOTIFY	*STD	Write a record of the file path to a Folder Monitor Notifications file. This information can be printed (and deleted) using the command FMNOTIFYFP . This can be useful if you wish to monitor for failures as you	<i>From version 6.2.83</i>

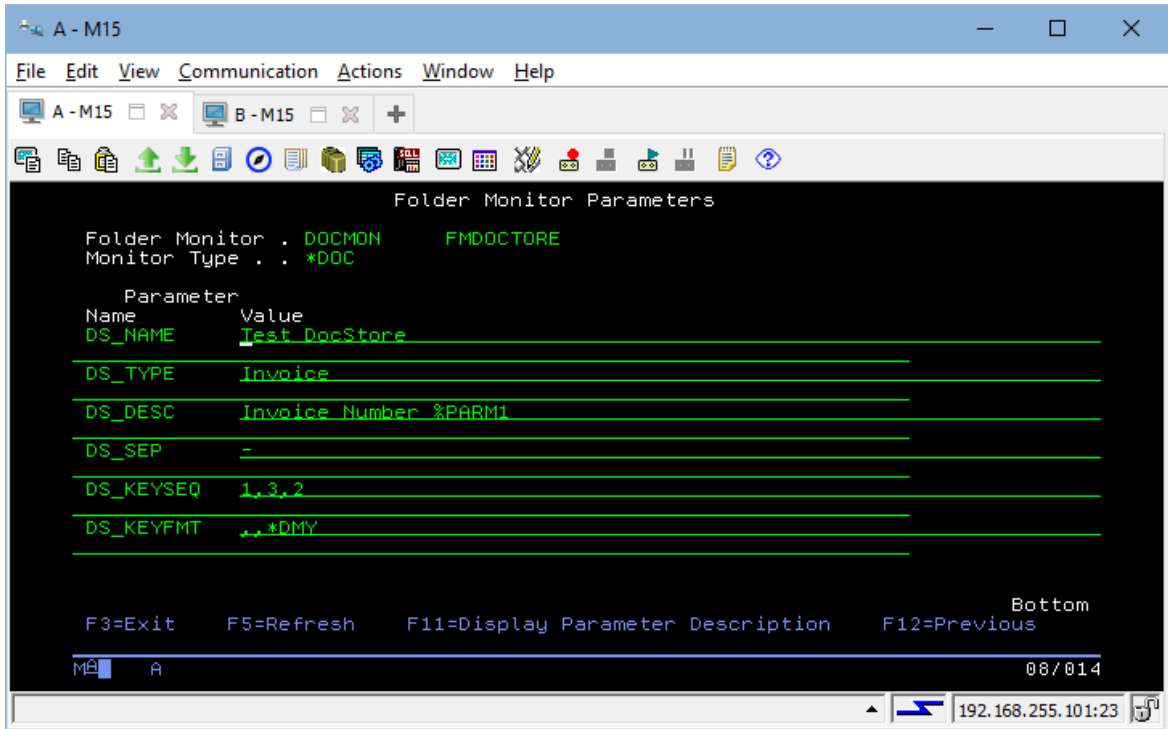
		can monitor a "failed" folder and then use a Cobwebb Design to email the relevant person.	
FMTXT2 SPL	*STD	Create a Spooled File from a .TXT file. You may override the Spooled File attributes using the Folder Monitor Parameters.	From version 6.2.79
FMXML2 SPL	*STD	Requires Cobwebb XML module. Create a Spooled File from a .XML file which has had XML Cross References created. You may override the Spooled File attributes using the Folder Monitor Parameters. <i>Requires IBM i OS V6R1M0 or above.</i>	From version 6.2.82
FMWEB POST	*WEB	Used by the Web Service Folder Monitor to Post the file to a Web Service based on the supplied parameters. This program has been designed to work with the Cobwebb File Exit Program COBFILIDX which can be used in your Cobwebb Design to generate an IDX file in the same folder as the file output to hold the Key Values. Note: This Folder Monitor program will automatically move all files of the same name to the Fail folder or the Success folder if specified. See Cobwebb Folder Monitor Types for details. Note: If you are posting to HTTPS you may need to refer to Configuring SSL on IBM i .	From version 6.2.79
FMWEB XML	*WEB	Used by the Web Service Folder Monitor to Post an XML file to a Web Service based on the supplied parameters and capture the response XML. This program has been designed to work with the Cobwebb File Exit Program COBFILIDX which can be used in your PPD to generate an IDX file in the same folder as the file output to hold the Key Values. Note: This Folder Monitor program will automatically move all files of the same name, except for the generated .ret, to either the Success or Fail folder if specified. See Cobwebb Folder Monitor Types for details. Note: If you are posting to HTTPS you may need to refer to Configuring SSL on IBM i .	From version 6.2.83

11.6.1.1.1 Docstore Folder Monitor

From v6.2.63 Cobwebb supply a **Docstore Folder Monitor** program **FMDOCSTORE** which stores files into [Cobwebb Docstore](#) where the information for any [Document Type Keys](#) is extracted from the file name. The **Keys** are extracted from the file name by specifying the **Key separator** and **Key sequence** in the Folder Monitor Parameters. **Note:** From v6.2.79 there is also an [FMWEBPOST](#) Folder Monitor where you can supply Key information in an IDX (Index) file of the same name as the PDF.

Once you have created your new Folder Monitor entry to call the **FMDOCSTORE** program you will need to [change the Monitor Type](#) to ***DOC** by pressing **F22**, selecting the entry from the list and pressing **F10** to update.

Then you can press **F10** to maintain the parameters (*as these are Monitor Type specific*).



The **DS_SEP** parameter allows you to specify the key separator that has been used in the file name. The default is "-".

The **DS_KEYSEQ** parameter allows you to specify a comma separated list of the order the **Document Type Key** fields appear in the file name. This is only required if the order of the keys in the file name is not the same as the order of the keys for the Document Type. For instance, if your Document Type has keys of Invoice Number, Invoice Date and Customer Number but they appear in the file name in the order Invoice Number, Customer No, Invoice Date then you would specify 1, 3, 2 as in the above screen shot.

The **DS_KEYFMT** parameter allows you to specify a comma separated list of the format of any Date key field in the order it exists in the file name e.g. ,*,DMY if the third field is a date. The valid date format entries are: *DMY, *DMYY, *MDY, *MDYY, *YMD, *YYMD, *CYMD. The program will convert this date into the ***ISO** format required for Docstore.

For example, using the parameters in the above screen shot a file name of '1234567-ABC001-130922.PDF' would extract '1234567' as Document Type Key **1**, 'ABC001' as Document Type Key **3** and '130922' as as Document Type Key **2**, but as this has also been specified as a **date** key this will be converted to '2022-09-13'.

Please see [Cobwebb Folder Monitor Types](#) for details on all of the parameters.

11.6.1.1.2 Email Folder Monitor

Scenario

You wish to send a document, designed using the Cobwebb Designer, to multiple email addresses as individual emails, but you have no idea how many addresses may be required for each document. This is not achievable using the power of the Cobwebb Designer alone.

Solution

From version 6.2.87

Step 1 - First Cobwebb Design

Create a Cobwebb Design over your spooled file using the [Advanced Reformatting Utility](#) (ADVRFMT). This doesn't have to be a complicated design just outputting [*HDR](#) and [*DET](#) lines from the spooled file.

As the ADVRFMT does not need the **Output pane** in the Cobwebb Designer, you can use this to write the email details for each document to be output as a .TXT file - please see the topic [The .TXT file](#) for details. If you are splitting your document on say Invoice number, then you will have a separate .TXT file for each invoice, perhaps using the invoice number as the file name. When writing the information for your .TXT file output:

- First write the email details that are not going to change for each email to the .TXT file such as Subject, Email From etc.
- Next extract the recipient email details for your output, either from the spooled file or by using an Exit program, and write them to the .TXT file.
- Add a [File Output Device](#) to write this information to a folder on the IBM i giving the .TXT file the same name as you are going to give the .PDF file in the second Cobwebb Design.

Step 2 - Second Cobwebb Design

This Cobwebb Design is created over the ADVRFMT output from your first design. Design the PDF output as required and write the .PDF to the same folder as the .TXT file with the same name just a different file extension i.e. PDF.

Example File names: INV001.TXT and INV001.PDF

Step 3 - FMEMAIL Folder Monitor

Configure a Folder Monitor, as a ***STD** Monitor Type, over the folder where you have written your .TXT and .PDF files. Specify the **Program to call** as **FMEMAIL** and add a filter for files with a .PDF extension. In this way you can be sure that both files will exist when the program runs as the .TXT file is written by the 1st PPD.

```

View Folder Monitor entry
Press Enter.
Monitor Name . . . . . FMEMAIL
Monitor Description . . . . . Test Email Folder Monitor
Folder to Monitor . . . . . /test/kim/fmemail
Failed folder . . . . . /test/kim/fmemail/fail

Program to call . . . . . FMEMAIL
Program Library . . . . . QCPPOSRG02

Polling interval . . . . . Mins Secs
Default 5 mins
1
Job Description . . . . . FLRMON
Library . . . . . *LIBL
EDD01C Code Page . . . . . Default
1146
Locale . . . . . EN_GB
Call if no file . . . . . Y=Yes

Status . . . . . Online
F3=Exit F12=Previous F10=View Parameters
01/001
192.168.255.101:23

View Folder Monitor entry
Press Enter.
Monitor Name . . . . . FMEMAIL
Monitor Description . . . . . Test Email Folder Monitor
Success folder . . . . . /test/kim/fmemail/success

Include Files Filter. *.pdf
Exclude Files Filter.

F3=Exit F12=Previous
01/001
192.168.255.101:23

```

Once the program finds a PDF file it looks for a file of exactly the same name (case sensitive) with a .TXT extension. It then reads this file, extracting all the email details for sending out the PDF file as an attachment.

Once the email details have been gathered, the program calls our SMTP Client (POSTIE3) to send the email(s) directly to the SMTP Mail Server, without putting them on the Cobwebb Queue. If

there is an error then a message is written to the joblog for the Folder Monitor and the .TXT & PDF files are both moved to the **failed** folder configured for the Folder Monitor.

Notes:

1. If you don't want to use the .TXT extension then change **PARM1** for the Folder Monitor and enter the extension required without the dot e.g. "IDX".
2. Switching on **Trace Mode** (U8) for the Folder Monitor job running in the CPPD subsystem will write all the information extracted from the .TXT file to the joblog. This can help if you need to debug your output.
3. Switching on **Test Mode** (U7) for the Folder Monitor job running in the CPPD subsystem will run the program but not call POSTIE3 i.e. no email will be sent.

The .TXT File

The .TXT file needs to contain the following information making sure that there is a carriage return after the last entry i.e. a blank line or any line at all. We have just output the word END in our example to make sure there is a carriage return.

Apart from the **EMLTOADR** each keyword may only be specified once in the .TXT file. You may specify as many **EMLTOADR** keywords as you wish to send email.

Please note that the keywords before the = must be entered exactly as described and in uppercase e.g.

```
EMLFMADR=support@cobwebb.com
EMLFMNAM=Cobwebb Test
SUBJECT=Test for FMEMAIL
BODY=%FILE"/test/html/COB_BODY.html"
EMLTOADR=Your Username                               test1@cobwebb.com
EMLTOADR=Test                                         test@cobwebb.com
END
```

Keyword	Description	Max Len	Example
EMLFMADR=	From Email Address	256	support@cobwebb.com
EMLFMNAM=	From Name	50	Cobwebb Test
SUBJECT=	Email Subject	256	Test for FMEMAIL
BODY=	Email Body	1024	%FILE"/test/html/COB_BODY.html"
EMLTOADR=	Recipient Email Name & Address	315	Please see Formatting the EMLTOADR line below for details

Formatting the EMLTOADR line

- The first 9 characters contain EMLTOADR=
- The next 50 characters contain the Email To Name (i.e. starting at position 10)
- The next 256 characters contain the Email To Address (i.e. starting at position 60)

E.g.

```

      1      2      3      4      5      6
    7      8
123456789012345678901234567890123456789012345678901234
5678901234567890
    
```

```

EMLTOADR=Your Username
test1@cobwebb.com
    
```

Notes:

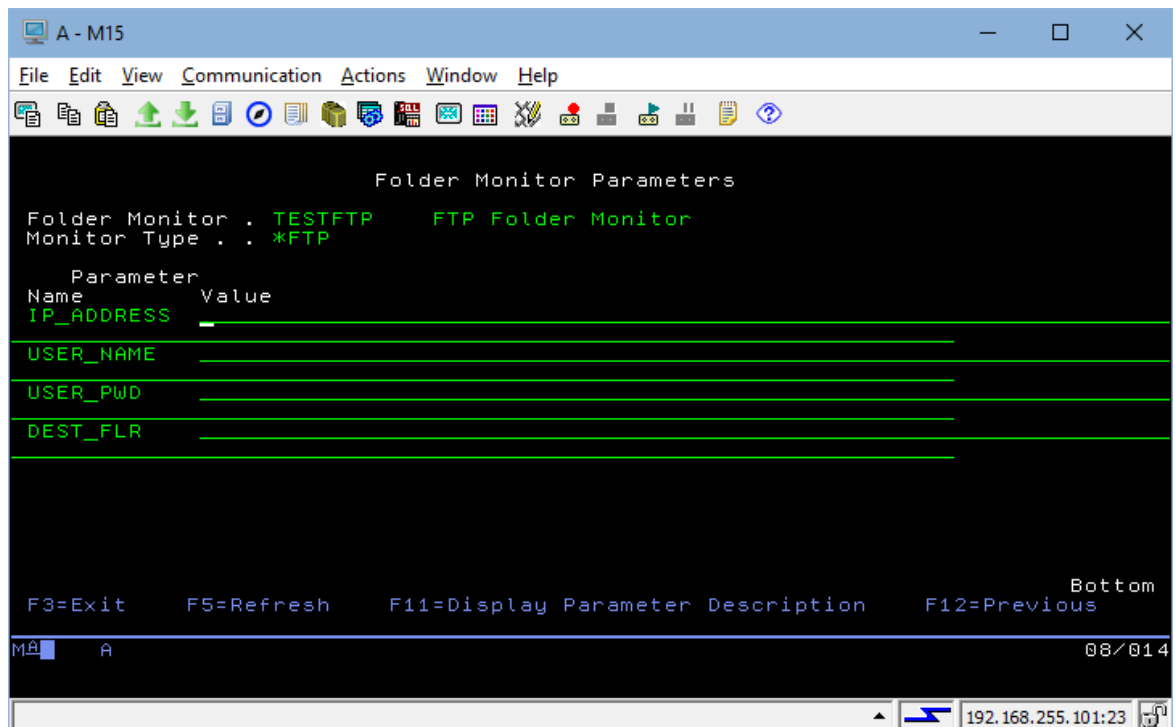
1. If you leave the **Email To Name** blank the program will extract the characters from the email address up to the @ character to use as the name. It will also replace any '.' or '_' with a space.
2. If you do need to leave the **Email To Name** blank the **Email To Address** must still be specified from position 60 in the .TXT file.

11.6.1.1.3 FTP Folder Monitor

From version 6.2.63 Cobwebb supply an **FTP Folder Monitor** program **FMFTP** which FTPs the files using [Cobwebb FTP](#), based on the supplied parameters.

Once you have created your new Folder Monitor entry to call the **FMFTP** program you will need to [change the Monitor Type](#) to ***FTP** by pressing **F22**, selecting the entry from the list and pressing **F10** to update.

Then you can press **F10** to maintain the parameters (*as these are Monitor Type specific*).



Please see [Cobwebb Folder Monitor Types](#) for details on all of the parameters.

The **FMFTP** program writes a record to an FTP Log file **AFTPLOG** with a Status of "S" for Success or "F" for Failed. If the Status is "F" then the **Error code** and **Reason** will also be populated.

Note: There is a logical view over this file called **AFTPLOGL1** which just includes failed records if you should wish to query it.

From version 6.2.87 - You can use the [ARCFTPLOG](#) command to archive old records from the FTP Log file. **Note:** This will delete old records but not free up space in the file. To do that you will need to run the following command (with library CPPD in your library list) when the CPPD subsystem is not running:

```
RGZPFM AFTPLOG
```

If you wanted to be notified of any FTP failures you can configure the [FMNOTIFY](#) Folder Monitor to monitor the "failed" folder, and the [FMNOTIFYFP](#) command to produce a spooled file of any failed documents, so that you can be notified if the FTP should fail.

Other useful topics are:

- [FTP Commands](#)
- [FTP Troubleshooting](#)

11.6.1.1.4 Java Folder Monitor

From v6.2.78 Cobwebb supply a **Java Folder Monitor** program **FMJAVA** which will call the Java archive (.jar) specified in the **JAVA_CLS** parameter when creating your Java Folder Monitor entry.

Once you have created your new Folder Monitor entry to call the **FMJAVA** program you will need to [change the Monitor Type](#) to ***JVA** by pressing **F22**, selecting the entry from the list and pressing **F10** to update.

```

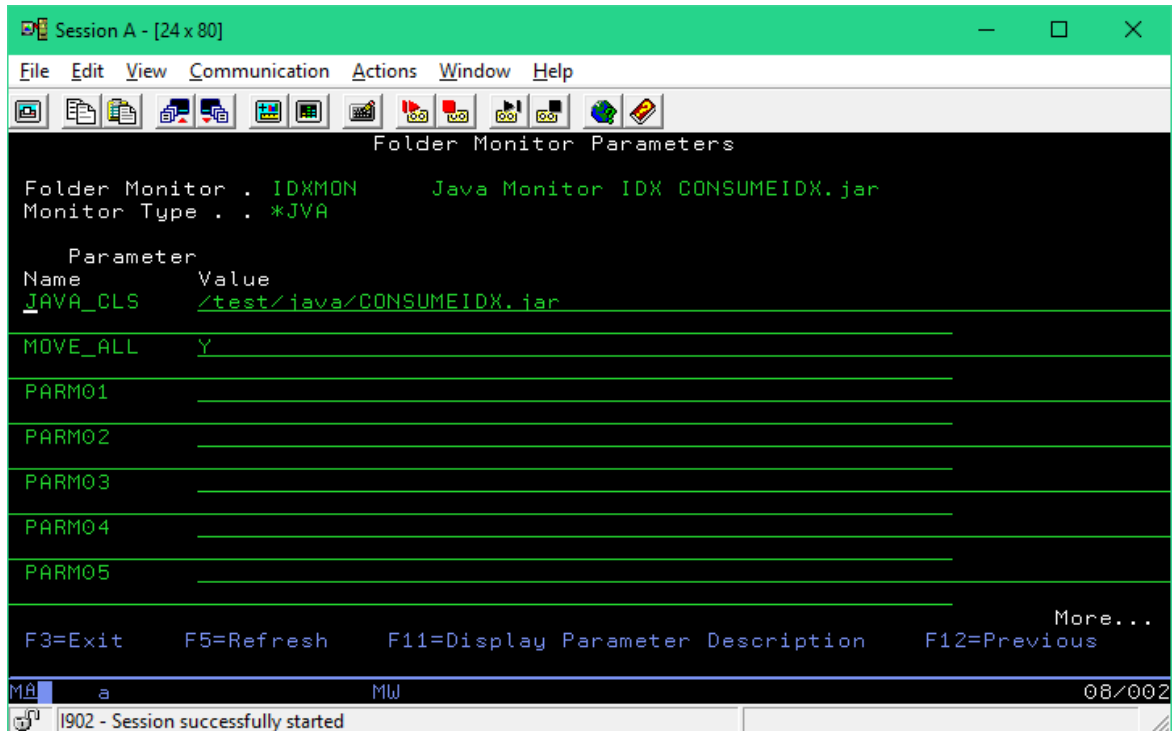
Session A - [24 x 80]
File Edit View Communication Actions Window Help
Change Folder Monitor entry
Type choices, press Enter.
Monitor Name. . . . . IDXMON
Monitor Description . Java Monitor IDX_CONSUMEIDX.jar
Folder to Monitor . . /test/IDM/FLRMON
Failed folder . . . . /test/IDM/FLRMON/failed
Program to call . . . FMJAVA
Program Library. . . *LIBL
Polling interval. . . Mins Secs
                    5      Default 5 mins
Job Description . . . FLRMON
Library. . . . . . . *LIBL
EDCDIC Code Page . . . . . Default
                    1146
Locale . . . . . . . EN_GB
Call if no file . . . Y=Yes
Status. . . . . . . Online
F3=Exit   F7=OnLine   F8=Offline   F12=Cancel   F10=Maintain Parameters
F22=Change Monitor Type
MA a MW 19/034
I902 - Session successfully started

```

Then you can press **F10** to maintain the parameters (*as these are Monitor Type specific*).

The **JAVA_CLS** parameter is a required entry as this determines which .jar file will be called. The **MOVE_ALL** parameter is only required if you wish the Folder Monitor to move more than one file (of the same name) to the success or fail folder i.e. if you are monitoring for .idx files but .pdf files

are also being written to the same folder for storing in your archiving system - see [Cobwebb Folder Monitor Types](#) for more details on all of the parameters.



The **FMJAVA** program will retrieve the **Java Class** parameter and set the correct **Class Path** and then call the Java program **com.cobwebb.cppd.FlrMonExitPgm** passing in the following parameters:

- File Path
- Fail Folder
- Success Folder
- PARM01 - PARM16 (from the **Folder Monitor Parameters**)

Jar File Requirements

In order for the **FMJAVA** program to work successfully the Java archive (**.jar**) file should contain one class called **com.cobwebb.cppd.FlrMonExitPgm**, with one function called **call()** e.g.

```

package com.cobwebb.cppd;

public class FlrMonExitPgm {
    public static int call(String[] args) {
        return(0); //0=success, everything else is a fail
    }
}

```

11.6.1.1.5 Notify Folder Monitor

From version 6.2.83 Cobwebb supply a **Folder Monitor** program **FMNOTIFY** which writes a record of each file path to a **Folder Monitor Notifications** file. This information can be printed (and deleted) using the command [FMNOTIFYP](#). This can be useful if you wish to monitor for

failures as you can monitor a "failed" folder and then use a Cobwebb Design to email the relevant person. This Folder Monitor uses the ***STD** Monitor Type.

The **FMNOTIFYP** command to print the details, can also be scheduled to run, as often as you wish, via the [Cobwebb Job Scheduler](#).

11.6.1.1.6 Print TXT file Folder Monitor

From version 6.2.79 Cobwebb supply a **Folder Monitor** program **FMTXT2SPL** which creates an IBM i Spooled File from a .TXT file. This Folder Monitor uses the ***STD** Monitor Type.

You may override the Printer file **FMTXT2SPLP** generated by **FMTXT2SPL** by specifying the following Parameters. If any of the parameters are left blank then the defaults will be used.

Please Note: There is no validity checking in the [Folder Monitor Parameter Maintenance](#), as it has to handle any information for any parameter type, so you must make sure that you enter a valid override value for the **CRTPRTF** command.

Parameter Overrides

Parameter	Description	Default	Notes
PARM1	Output queue	QPRINT	If entered then must be a valid Output Queue name - will default to QPRINT in CPPD if Output Queue and Library not valid.
PARM2	Output queue library	CPPD	If entered then must be a valid Library name - will default to QPRINT in CPPD if Output Queue and Library not valid.
PARM3	User-specified data	FMTXT2SPL	The USRDTA for the generated spooled file.
PARM4	Page Size (Length)	65	1 - 255
PARM5	Page Size (Width)	256	1 - 256
PARM6	Overflow line number	60	1 – 255 but must be less than Page Size(Length)
PARM7	Characters per inch	20	5, 10, 12, 15, 18, 20
PARM8	Lines per inch	8	6 or 8

11.6.1.1.7 Print XML file Folder Monitor

From version 6.2.79 Cobwebb supply a **Folder Monitor** program **FMXML2SPL** which creates an IBM i Spooled File from a .XML file, which has had [XML Cross References](#) created. This Folder Monitor uses the ***STD** Monitor Type.

Note: Requires the following:

- The [Cobwebb XML](#) module
- IBM i OS V6R1M0 or above

You may override the Printer file **PRTXMLSPLF** generated by **FMXML2SPL** and configure page headings by specifying the following Parameters. If any of the parameters are left blank then the defaults will be used.

Please Note: There is no validity checking in the [Folder Monitor Parameter Maintenance](#), as it has to handle any information for any parameter type, so you must make sure that you enter a valid override value for the **CRTPRTF** command.

Parameter	Description	Default	Notes
PARM1	File ID		Mandatory - The File Id linking this XML file with its XML Cross References .
PARM2	Output queue	QPRINT	If entered then must be a valid Output Queue name - will default to QPRINT in CPPD if Output Queue and Library are not valid.
PARM3	Output queue library	CPPD	If entered then must be a valid Library name - will default to QPRINT in CPPD if Output Queue and Library are not valid.
PARM4	User-specified data	File ID	The USRDTA for the generated spooled file.
PARM5	Page Size (Length)	66	1 - 255.
PARM6	Overflow line number	60	1 - 255 but must be less than Page Size(Length).
PARM7	Include Labels in page header		A comma separated list of Labels to be included in the header of each page e.g. ADD1,ADD2. See Notes below for details.
PARM8	Include data for last header Label		N = No. See Notes below for details.

Notes:

From version 6.2.88. In **PARM7**, you can specify a comma separated list of Label IDs that you wish to include in the page header should a document overflow onto more than one page. There is also the option to specify an 'N' in **PARM8** if you wish to include the field headings from the last page header label in PARM7 but not the data. This can be useful if you wish to include the heading for say your Invoice Lines on every page but you obviously wouldn't want to include the data.

11.6.1.1.8 Web Service Monitor

Cobwebb supply two **Web Service Folder Monitor** programs:

- [FMWEBPOST](#)
- [FMWEBXML](#)

Note: Once you have created your new Folder Monitor entry for either of the above programs you will need to [change the Monitor Type](#) to ***WEB** by pressing **F22**, selecting the entry from the list and pressing **F10** to update. Once you have changed the **Monitor Type** you can press **F10**

to maintain the parameters (*as these are Monitor Type specific*). Please see [Cobwebb Folder Monitor Types](#) for details on all of the parameters.

FMWEBPOST

From v6.2.79 Cobwebb supply a **Web Service Folder Monitor** program **FMWEBPOST** which will POST a file to the supplied **URL** using **Key Values** read from an **IDX** file. If the **URL** to the Web Service is longer than 132 characters then this can be split over the first two parameters.

Note: Characters must be escaped e.g. blank is %20.

This program has been designed to work with the supplied **File Exit Program** [COBFILIDX](#) which can be used in your PPD to generate an **IDX** file in the same folder as the file output to hold the **Key Values**. It will POST the file specified in the **Path**, **Filename** and **Extension** parameters in the **.IDX** file.

You must provide the **Parameter Name** for the **File** value. You can additionally supply up to **12 Key Names** where the **Key Value** will be retrieved from the **.IDX** file. If the Web Service requires a **User Name** and **Password** this can also be configured.

The **URL**, **User Name**, **Password** and **Parameter Name for the File value** may all be overridden in your PPD file if required.

You will need to pick the Monitor Type ***WEB** and specify an **Include Files Filter** of ***.idx** so that it only processes the **.idx** files and the program will store the **.pdf**.

Note: This Folder Monitor program will automatically move all files of the same names to either the Success or Fail folder if specified.

```

Session A - [24 x 80]
File Edit View Communication Actions Window Help
Folder Monitor Parameters
Folder Monitor . WEBMONIDX  IDX Docstore Monitor
Monitor Type . . *WEB

Parameter
Name      Value
WS_URL1   http://localhost:6400/docStore/store/TEST%20DocStore/document/
WS_URL2
WS_USER   WebUserkim
WS_PWD    WebUserPwd
WS_FILPNAM document
WS_PARM06 docType
WS_PARM07 description
More...
F3=Exit  F5=Refresh  F11=Display Parameter Description  F12=Previous
1902 - Session successfully started 14/024

```

FMWEBXML

From version 6.2.83 - Cobwebb supply a **Web Service Folder Monitor** program **FMWEBXML** which will POST an XML file to the supplied **URL** using **Key Values** read from an **IDX** file. If the **URL** to the Web Service is longer than 132 characters then this can be split over the first two parameters. **Note:** Characters must be escaped e.g. blank is %20. The **XML Response** will be returned as the same name as the original .xml file but with a .ret extension.

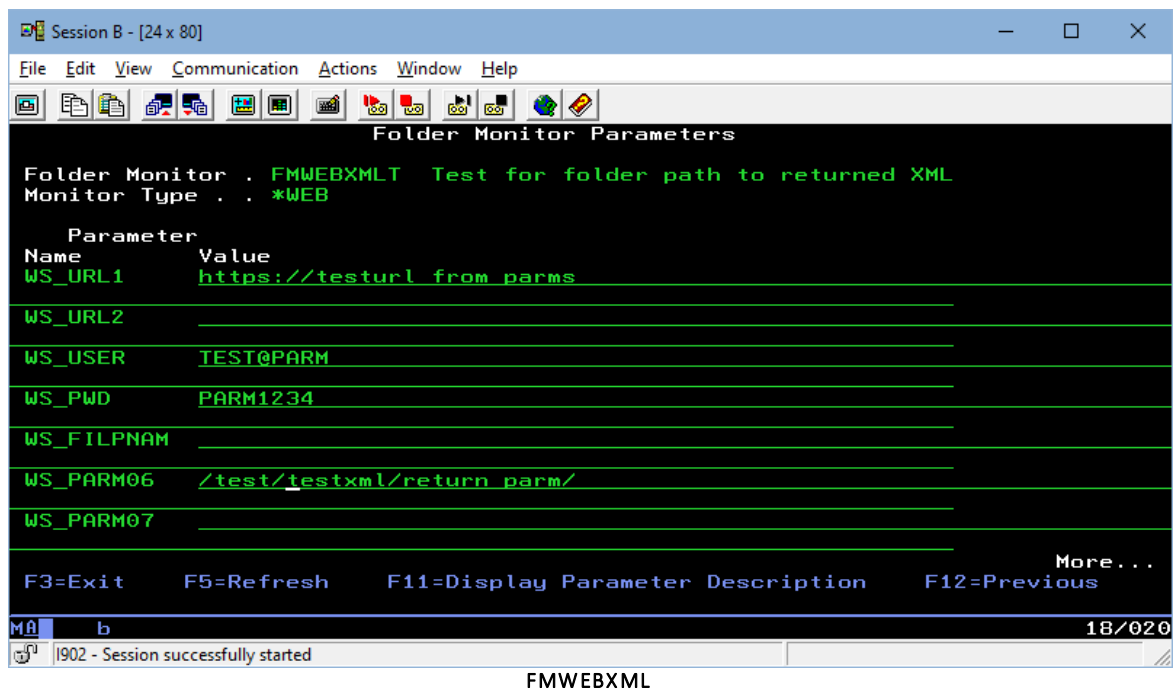
This program has been designed to work with the supplied **File Exit Program** [COBFILIDX](#) which can be used in your PPD to generate an IDX file in the same folder as the file output to hold any override values. It will POST the file specified in the **Path**, **Filename** and **Extension** parameters in the .IDX file.

You can additionally supply a **path to save the Response XML** to a chosen location in **WS_PARM06** e.g./test/testsuite/xmlresponse/ otherwise this will default to the path of the original file. If the Web Service requires a **User Name** and **Password** this can also be configured.

The **URL**, **User Name**, **Password** and **path for the Response XML** may all be overridden in your .IDX file if required.

You will need to pick the Monitor Type ***WEB** and specify an **Include Files Filter** of ***.idx** so that it only processes the **.idx** files and the program will store the **.pdf**.

Note: This Folder Monitor program will automatically move all files, except for the generated .ret file, of the same names to either the Success or Fail folder if specified.



11.6.1.2 Creating a bespoke Folder Monitor program

When you are creating your program to process the files in the folder being monitored by [FLRMON](#) you must have the following two parameters defined. **Note:** The **Return Code** is set to **x'01'** when the monitor program is called.

Parameter	Type	Length	Description	Supported CPPD Version
File Path	CHAR	255	File path including file name e.g. /QDLS/test/file.txt	

Return Code	CHA R	1	x'00' = Success - move file being processed to success folder if defined	
			x'01' = Fail - move file being processed to fail folder	
			x'02' = Leave file in the same folder to be reprocessed	6.2.78+
			x'10' = Success - move ALL files with same filename (<i>but different extensions</i>) to success folder if defined	6.2.78+
			x'11' - Fail - move ALL files with same filename (<i>but different extensions</i>) to fail folder	6.2.78+
			Anything other than the above = Fail i.e. as if x'01' returned	

You will also need to make sure to pass back the correct **Return Code** in order that the folder monitor knows what to do with the file after the program has finished processing. If you are satisfied that you have correctly processed the file then set the **Return Code** to **x'00'** (or **x'10'** to move all files) otherwise set it to anything else other than **x'02'** and the file will be moved to the **Failed** folder.

If you are accessing files / programs outside the CPPD library then you will need to make sure that you create a **Job Description** to include any additional libraries.

We have supplied a **FLRMON** Job Description that you can copy which has the correct **User** and **Job Queue** entries to run in the [CPPD Subsystem](#); all you will then need to do is to add the extra libraries and make sure that you add this Job Description to your Folder Monitor entry in [Work with Folder Monitor](#) or to your SBMJOB command if you are [adding a bespoke Autostart job](#).

Referencing Folder Monitor Parameters in your Folder Monitor Program

From Version 6.2.62 - When an **Online** folder monitor is running in the CPPD Subsystem the **Job Name** will be the **Folder Monitor Name**. You can therefore retrieve the **Folder Monitor Name** by referencing the **Program Status Data Structure** to retrieve the Job Name e.g.

```
*
D                               SDS
D @JobName                       244     253
```

This can then be used to retrieve the required parameter values by using each pre-defined parameter name from [AFLRMONP](#). By the use of parameters you should be able to use the same base Folder Monitor program to monitor several folders where the only difference is a couple of variables. Take FTP for instance; you may wish to create a program to FTP details from a folder to another server where the only difference is the IP Address, User Name and Password. To save you having to create several almost identical programs you can access previously stored parameters to hold the varying information.

Note: We have provided some sample source **FMSAMPLE** in QUSRTOOLLE in library CPPD based on using the *STD Folder Monitor Type which you can copy for your program - *from Version 6.2.72*.

11.6.2 Cobwebb Job Launcher Monitor

From Cobwebb Server Version 6.2.70 - The **Cobwebb Job Launcher Monitor** is a utility that will call a specified "Program to call" at a frequency defined by the "Polling interval". This can be useful if you wish to run a program say every hour and don't want to have to code this process. If the "Polling interval" is left blank then the job will only run once when the CPPD subsystem starts.

In order for a Job to be launched by the **Cobwebb Job Launcher Monitor** (JOBMON) into the CPPD subsystem you will first need to configure it using [Work with Job launcher](#) and set it to "Online".

For details on how to create your own program to be called by the **Cobwebb Job Launcher Monitor** please see [Creating a bespoke Job Launcher program](#).

Cobwebb supply a selection of [Launcher Types](#) which have their own specific Parameters which can be used in your Job Launcher program. The *REF Launcher Type has its own Job Launcher program, [LREFUPD](#), which may be used.

11.6.2.1 Supplied Job Launcher programs

Cobwebb supply the following Job Launcher programs in the **CPPD** library. These should be used in conjunction with the relevant Launcher Type as defined in the table below.

Program Name	Launcher Type	Description
LREFUPD	*REF	Checks for entries in a Docstore where the LREF Docstore Key needs updating. It then uses the defined Docstore Keys for Company Number, Supplier Account, Supplier Reference and Item Type to lookup Aurora to see if an Item Reference has now been allocated. If it has then the Docstore Key will be updated with this value. See Update Docstore Item Reference for details.
CHGAFA XQ	*STD	Checks the Cobwebb Queue for entries with a Scheduled Release Date / Time - <i>from version 6.2.87</i> . See Release Scheduled Emails for details.

11.6.2.2 Creating a bespoke Job Launcher program

When you are creating your program to be launched in the CPPD subsystem by [JOBMON](#) you must have the following parameter defined.

Parameter	Type	Length	Description
Return Code	CHAR	1	'0' = Success Anything else = Fail

Any other parameters that you need must be added via the **Maintain Job Launcher Parameters** when you add an entry to launch your program to the [Work with Job Launcher](#) and then code added to your program to retrieve these parameters.

If you are accessing files outside the CPPD library then you will need to make sure that you create a **Job Description** to include any additional library.

We have supplied a **JOBLMON** Job Description that you can copy which has the correct **User** and **Job Queue** entries to run in the [CPPD Subsystem](#); all you will then need to do is to add the extra libraries and make sure that you add this Job Description to your Job launcher entry in [Work with Job Launcher](#).

Referencing Job Launcher Parameters in your Program

When an **Online** job launcher program is running in the CPPD Subsystem the **Job Name** will be the **Launcher Name**. You can therefore retrieve the **Launcher Name** by referencing the **Program Status Data Structure** to retrieve the Job Name. This can then be used to retrieve the required parameter values by using each pre-defined parameter name from [AJOBLAUP](#). By the use of parameters you should be able to use the same base Job Launcher program where the only difference is a couple of variables. Take the **LREFUPD** program for instance; you may wish to monitor more than one Docstore Library which has different Document Keys. To save you having to create several almost identical programs you can access previously stored parameters to hold the varying information.

Below we have some sample code which assumes you are using the ***STD** Launcher Type.

```

FAJOBLAUP  IF  E          K DISK
*
* Variables
D @@PrmN           S                like(JPPRMN)
D @@Parm1          S                132A
D @@Parm2          S                132A
*
* Parameters
D YOURPGM          PR                ExtPgm('YOURPGM')
D  RetCode         S                1A
*
D YOURPGM          PI
D  RetCode         S                1A
*
* Program Status Data Structure
D                      SDS
D  @JobName        S                244    253

/free
// Retrieve value for PARM1 parameter
eval @@PrmN = 'PARM1';
Chain (@@JobName : @@PrmN) AJOBLAUPR;
If %Found;
    eval @@Parm1 = JPPRMV;
EndIf;

// Retrieve value for PARM2 parameter
eval @@PrmN = 'PARM2';
Chain (@@JobName : @@PrmN) AJOBLAUPR;
If %Found;
    eval @@Parm2 = JPPRMV;
EndIf;

// Add your code

```

```
// End the program

*inlr = *on;
return;

/End-free
```

11.6.2.3 Update Docstore Item Reference

Overview

When the document is originally scanned into Docstore the **Item Reference** (LREF) is not available in Aurora. In order to update the Docstore Key with the correct value when it becomes available in Aurora we have written an **LREFUPD** program.

What this program does is to check for any Document Keys which require updating in a specified Docstore. This program is designed to be run via the [Cobwebb Job Launcher Monitor](#) (JOBMON) where it will run in the CPPD subsystem at a frequency defined by the "Polling interval".

This program is entirely configured by the use of **Parameters** which are maintained via the [Work with Job Launcher](#).

Parameters

Parameter	Length	Description	Example
DOC_LIB	10	Docstore Library name that you wish to search.	DOCSTORE01
CO_NO	10	The Docstore Key that holds the Company Number for retrieving the Item Reference from Aurora.	COMPANY
SUP_NO	10	The Docstore Key that holds the Supplier Account for retrieving the Item Reference from Aurora.	SUP_ACC
SUP_REF	10	The Docstore Key that holds the Supplier Reference for retrieving the Item Reference from Aurora.	SUP_REF
ITM_TYP	10	The Docstore Key that holds the Item Type for retrieving the Item Reference from Aurora.	ETYP
ITM_REF		The Docstore Key that holds the Item Reference. This is the Key whose value will be checked to see if it matches the COMP_TEXT and if it does will check to see if Aurora has been updated with an Item Reference.	LREF
COMP_TEXT	8	The Text that has been applied to the ITM_REF Docstore Key when the document was originally scanned into Docstore.	*NOTSET*

NOTFND_TXT	8	The Text to be applied to the ITM_REF if the Item Reference cannot be found in Aurora after the defined number of days (NOTFND_DYS). If the NOTFND_TXT is left blank then the entry will be continually checked regardless of the number of days entered for the NOTFND_DYS .	*NOTFND*
NOTFND_DYS	3	The number of Days to keep checking Aurora for a valid Item Reference after the document was created in Docstore. If, after the defined number of days, the Item Reference still cannot be found in Aurora then the ITM_REF Docstore Key will be updated with the value specified for the NOTFND_TXT .	1 - 999 Default is 1

Configuration

1. [Create the customer COBGETLREF program](#). As each installation of Aurora / System 21 is different, the program that checks the PLSUPREF (Item Reference) file in Aurora will need to be compiled for each customer requiring to use this functionality.
2. [Create a Job Description](#) to specify the Libraries required for the job.
3. [Add an entry to the Work with Job Launcher](#) and the define the parameters to match your Docstore. Once this entry is set to "Online" the next time you start the CPPD subsystem the Job will be launched.
4. Once the job is running, check the Joblog for any errors in your configuration. Entries prefixed **LREFUPD**: could be potential problems with your configuration.

Step 1 - Create the custom COBGETLREF program

We have provided the source for the program **COBGETLREF** in the **QUSRTOOLLE** source file in library CPPD. We would suggest that you:

- Copy the source to library **COBEXIT** (which is the library name that is most commonly used for Cobwebb Exit Programs) into the source file where you keep the source for your exit programs.
- Add the correct Aurora library (i.e. where the PLSUPREF logical file resides) to your library list.
- Compile this program into the library **COBEXIT**.

Note: Please do not compile it into library CPPD otherwise this will be lost when you next upgrade your Cobwebb Server software.

Step 2 - Create a Job Description to run the Job

Copy the supplied **JOBLMON** Job Description into **COBEXIT** and call it something like **LREFUPD**. Now you need to add the following extra libraries to the initial library list:

DOCSTORE - required as an entry is written to the Docstore Log

COBEXIT - required to call the program **COBGETLREF**

AULT1Fn - Aurora library where the file **PLSUPREF** resides.

Step 3 - Add Job Launcher entry with Parameters

You need to create a Job Launcher entry for the **LREFUPD** program to run using the **Cobwebb Job Launcher Monitor**. This can be found from the [Cobwebb Main Menu - PPD File Maintenance - Option 12. Work with Job Launcher](#).

- Use **Option 1 =Create** to create your new entry and specify the:
 - Program to call = **LREFUPD**
 - Program Library = *LIBL
 - Polling interval = the number of minutes / seconds you wish the Job Launcher Monitor to wait before calling the program again.
 - Job Description = The Job Description you have just created e.g. LREFUPD.
 - Library = This is the library where the above Job Description resides e.g. COBEXIT.
- Once you have created the entry you need to use **2=Revise** the entry.
- Press **F22** to set the **Launcher Type** to *REF and press **F10=Update** before you try to enter the parameters.
- Now press **F10** to enter your Parameters. All of the parameters on the first page are mandatory.
- Don't forget to page down to set the **NOTFND_TXT** text and **NOTFND_DYS** as these appear on the second page of the Parameter list.
- When you are happy use **7=Online** to set the Status *Online* ready for the job to be run in the CPPD subsystem the next time it is started.

11.6.2.4 Release Scheduled Email

Overview

From version 6.2.87. When creating your Cobwebb Design you can choose to enter **Date** and **Time** variables in either the [Email From](#) or [Email Subject](#) which can then be used to set the **Defer delivery Date** and **Time** on the **Cobwebb Queue**. You would set the **Priority** to 'Held' in the Cobwebb Design to write the Email to the Cobwebb Queue as Held.

Then when the **Release Scheduled Email** Job Launcher program (CHGAFAXQ) runs it will validate the **Date** and **Time** variables and, if valid, set the [Defer delivery Date](#) and **Time** for the entry and release it. The email will then wait until this Date / Time is reached before being sent.

The format for adding the **Date** and **Time** variables into either the [Email From](#) (default) or [Email Subject](#) parameters are as follows and may be anywhere within the string:

%DYYYYMMDD (mandatory)

%THHMMSS (optional)

Note: If you do not supply a **Time** variable then the Defer Delivery Time will remain at the time the email was written to the Cobwebb Queue.

These parameters will then be stripped from the **Email From** or **Email Subject** parameters when the **CHGAFAXQ** Job Launcher runs. E.g.

Cobwebb Communications %D20221214%T104700

will become

Cobwebb Communications

The program **CHGAFAXQ** is designed to be run via the [Cobwebb Job Launcher Monitor](#) (JOBMON), using the ***STD** Launcher Type, where it will run in the CPPD subsystem at a frequency defined by the "Polling interval".

The Parameters

The **CHGAFAXQ** program will assume that the **Date** and **Time** variables will be in the Email **FROM** unless you specify ***SUBJECT** in the Job Launcher **PARM1**.

If the **Date** or **Time** should be invalid then the message on the Queue will be left as **Held** and the **Status** will be changed to **W=Wait**. The other option is for the message to just be released now and sent without the Date / Time variables being stripped from the text. If you prefer this option then you will need to set the Job Launcher **PARM2 = *YES**.

If you do not want the **Date** or **Time** variables to be removed from the Email From or Subject then you may specify ***LEAVE** in the Job Launcher **PARM3**.

This program is entirely configured by the use of **Parameters** which are maintained via the [Work with Job Launcher](#).

Parameter	Length	Description	Example
PARM1	8	The Email parameter holding the Date / Time variables - default = *FROM	Blank, *FROM, *SUBJECT
PARM2	4	Release the Email on the Queue if the Date or Time are invalid - default = blank to leave as Held with a Status of W=Wait	Blank, *YES
PARM3	6	Do not strip the Date / Time variables from the Email parameter - default = blank to strip the variables.	Blank, *LEAVE

11.6.3 Parameter File Definition

From Version 6.2.62 - The parameters for a specific **Folder Monitor Name** are held in the file **AFLRMONP** and are uniquely keyed on **Folder Monitor Name** and **Parameter Name**.

A					CCSID(65535)
A					REF(AFLDREF)
A					UNIQUE
A	R	AFLRMONPR			TEXT('Folder Monitor Parameters')
A		FPMNAM	R		REFFLD(MNAM)
A		FPPRMN	R		REFFLD(PRMN)
A		FPPRMV	R		REFFLD(PRMV)
A	K	FPMNAM			
A	K	FPPRMN			

From Version 6.2.70 - The parameters for a specific **Job Launcher Name** are held in the file **AJOBLAUP** and are uniquely keyed on **Launcher Name** and **Parameter Name**.

A					CCSID(65535)
---	--	--	--	--	--------------

A					REF (AFLDREF)
A					UNIQUE
A	R	AJOBLAUPR			TEXT ('Job Launcher Parameters')
A		JPMNAM	R		REFFLD (MNAM)
A		JPPRMN	R		REFFLD (PRMN)
A		JPPRMV	R		REFFLD (PRMV)
A	K	JPMNAM			
A	K	JPPRMN			

11.6.4 Creating your own Parameter Maintenance program

If you wish to use your own program for your **Folder Monitor / Job Launcher Monitor** rather than using the supplied program then it MUST have the following parameters; if not the program will fail when you call it by pressing **F10** to **View** or **Maintain** your parameters.

Alternatively look at the following which will allow you to use the supplied Cobwebb Parameter maintenance programs:

- [Adding your Monitor Type to the selection list](#)
- [Adding your Launcher Type to the selection list](#)

	*				
C		*ENTRY	PList		
C			Parm		@@MNAM
C			Parm		@@MTYP
C			Parm		Option

- **@@MNAM** is a **10A** field and is the Name of your Folder Monitor / Job Launcher.
- **@@MTYP** is a **4A** field and is the Type of Folder Monitor / Launcher e.g. *DOC, *FTP, *STD, *REF etc. this is used by the supplied maintenance program to look up the required parameter names and will probably not be used in your bespoke program.
- **Option** is a **1A** field and is the Option being performed e.g. **2=Change** or **5=View** as the maintenance program is only ever called in these two scenarios. When your program writes entries to the Parameters file the value passed in in **@@MNAM** must be written to the field **FPMNAM** or **JPMNAM** for the Folder Monitor or Job Launcher Monitor respectively.

Please refer to the [Parameter File Definition](#) full details of the Parameters file.

Adding your Monitor Type to the selection list

If you wish you can add a new entry to the list of [Monitor Types](#) displayed when you press **F4=Prompt** when [Changing the Monitor Type](#). If you do this then you will be able to maintain the parameters without writing your own program.

You need to add a Unique entry to the **AFLRMONT** file - please don't use the first character of the **FTMTYP** as an **asterisk** as this is reserved for Cobwebb use.

Note: There is no maintenance program for this file but we have provided some sample source **ADDFLRMT** in QUSRTOOLLE in library CPPD which you can modify and compile.

A					CCSID (65535)
A					REF (AFLDREF)
A					UNIQUE
A	R	AFLRMONTR			TEXT ('Folder Monitor Types')
A		FTMTYP	R		REFFLD (MTYP)
A		FTMPGM	R		REFFLD (MPGM)

```

A          FTMPGL      R          REFFLD(MPGL)
A          FTTDSC      R          REFFLD(MDSC)
A          COLHDG('Monitor Type'
'Description')
A          FTPRMN      180A      COLHDG('Parm' 'Name' 'ARRAY
18*10')
A          FTPRMD      2376A     COLHDG('Parm' 'Desc' 'ARRAY
18*132')
A          K FTMTYP

```

Adding your Launcher Type to the selection list

If you wish you can add a new entry to the list of [Launcher Types](#) displayed when you press **F4=Prompt** when [Changing the Launcher Type](#). If you do this then you will be able to maintain the parameters without writing your own program.

You need to add a Unique entry to the **AJOBLAUT** file - please don't use the first character of the **JTMTYP** as an **asterisk** as this is reserved for Cobwebb use.

Note: There is no maintenance program for this file but we have provided some sample source **ADDJOBLT** in QUSRTOOLLE in library CPPD which you can modify and compile.

```

A          CCSID(65535)
A          REF(AFLDREF)
A          UNIQUE
A          R AJOBLAUTR      TEXT('Job Launcher Types')
A          JTMTYP      R          REFFLD(MTYP)
A          JTMPGM      R          REFFLD(MPGM)
A          JTMPGL      R          REFFLD(MPGL)
A          JTTDSC      R          REFFLD(MDSC)
A          COLHDG('Job Type'
'Description')
A          JTPRMN      180A      COLHDG('Parm' 'Name' 'ARRAY
18*10')
A          JTPRMD      2376A     COLHDG('Parm' 'Desc' 'ARRAY
18*132')
A          K JTMTYP

```

11.7 Cobwebb FTP

Cobwebb supply a suite of programs to allow you to FTP file output from Cobwebb Design. At present this is just in the form of the program **FTPSEND** which is used by the supplied Cobwebb FTP programs outlined below.

Note: We supply a sample File Exit program called **ARCHIVEFTP** in file **QUSRTOOLLE** in library **CPPD**.

From version 6.2.57 - [COBFILEFTP File Exit Program](#) which will allows you to FTP your File output.

From version 6.2.64 - **FMFTP** [Cobwebb Folder Monitor](#) program which sends the file via FTP based on the supplied parameters. See [Cobwebb Folder Monitor Types](#) for details.

FTPSEND

This program uses the FTP instructions detailed in the [FTP Commands](#) where the **UserName** & **Password** are replaced by those supplied and the **PUT** by the supplied Output path. If you have any problems then please see [FTP Troubleshooting](#) for details.

If you wish to write you own File Exit program then this program is the program that you need to call from your API or Print Exit program passing in the following parameters:-

Field Name	Description	Length	Type	Comment
IPADR	IP address or Host Name of remote server	132	A	Required
USRNAM	User name for logon onto remote server	132	A	Required
USRPWD	Password for user name	132	A	Required
INPATH	Input path including file name	256	A	Required
OUTPTH	Output path including file name for remote server	256	A	
ERRRSN	Error reason	132	A	Returned
ERRVAL	Error code returned	3	A	Returned

User Name and Password

You may either have a valid user name and password which are case sensitive or if the remote FTP server allows you may use the user name ANONYMOUS and a valid email address as the password.

Input/Output path

For a Physical file on the Server

If you wish to send a physical file / member then the format of the path should be as follows:

`/QSYS.LIB/XXXXXXXXX.LIB/YYYYYYYYY.FILE/ZZZZZZZZ.MBR`

where

`XXXXXXXXX` is the library name where the file resides

`YYYYYYYYY` is the file name

`ZZZZZZZZZ` is the member name (if required)

For a Save file on the Server

If you wish to send a save file then the format of the path should be as follows:

`/QSYS.LIB/XXXXXXXXX.LIB/YYYYYYYYY.SAVF`

where

`XXXXXXXXX` is the library name where the file resides

`YYYYYYYYY` is the save file name

For Document in a Folder on the Server

If you wish to send a Document from a folder in QDLS then the format of the path should be as follows:

/QDLS/XXXXXXXX/YYYYYYYY

where

XXXXXXXX is the folder name (if you have subfolders then enter each subfolder prefixed by a "/")

YYYYYYYY is the document name

For a file in the Server route directory

If you wish to send a file in the Server route directory then the format of the path should be as follows:

/XXXXXXXX/YYYYYYYY

where

XXXXXXXX is the directory (if you have subdirectories then enter each subdirectory prefixed by a "/")

YYYYYYYY is the file name

For a file in the QOpenSys File system

If you wish to send a file to the QOpenSys file system for the UNIX world then the format of the path should be as follows:

/QOpenSys/XXXXXXXX/YYYYYYYY

where

XXXXXXXX is the directory

YYYYYYYY is the file name

11.7.1 COBFILEFTP

From version 6.2.57 - This exit program must be called by a **File Output Device** and is used to FTP the generated file to an alternate destination. This program uses the [FTPSEND](#) program.

Parameter	Length	Description	Example
PARAM1	132	IP Address of the FTP Server	You could also enter a DNS - see Using DNS for FTP
PARAM2	132	User ID Valid User ID to log on to the FTP Server	[See Notes below for details]
PARAM3	132	User Password Password for the above User ID.	[See Notes below for details]
PARAM4	132	Output path This is the path to where you wish the file to be put on the FTP Server	/QDLS/XXXXXXXX or /XXXXXXXX/ If this is left blank then the file will be put in the root folder.

PARM5	132	Fail folder If you enter a valid path here then if the FTP process fails the file will be copied to this folder. If left blank then the failed file will not be copied.	'test/ftp/fail/'
PARM6	132	Success folder If you enter a valid path here then if the FTP process is successful the file will be copied to this folder. If left blank then the successfully sent file will not be copied.	'test/ftp/success/'
PARM7 - 10	132	Not used	
PARM11 - 20	64	Not used	

Notes:

You may either have a valid User Id and Password which are case sensitive or, if the remote FTP server allows, you may use the User Id **ANONYMOUS** and a valid email address as the password.

11.7.2 FTP Commands

The [Cobwebb FTP](#) program will issue the following FTP commands built up from the supplied data:

```

UserName Password
Locsite Namefmt 1
BINARY
PUT /Path/FileName
QUIT

```

11.7.3 FTP Troubleshooting

If the FTP process has failed you will find the following:

- A message in the joblog **"Error sending files via FTP"**. If you press F1 on the message you will see the reason for the failure
- A print of the **FTP log** for each document that failed. This is written to File Name **QSYSPRT** with User Data **FTPLOGPRT** and will be sent to the output queue defined in the **FTPLOGOUTQ** data area. Also in library **QTEMP**, for the job running the FTP commands, there will be a file called **APPDFTP**. This will have two members:
 - FTPCMDS** – containing the last FTP instructions
 - FTPLOG** – FTP conversation

FTPLOGOUTQ Data Area Definition

This data area holds the library name and output queue name for the error log produced by the FTP function e.g.

	From	To	Description	Default Value
FTPOUTQL	1	10	Output Queue Library Name	CPPD
FTPOUTQ	11	20	Output Queue Name	QPRINT

You may change the data area to hold a different **Output Queue** and **Library Name** but they must be valid.

Resolving Errors

229 Entering Extended Passive Mode. No response from remote host; all connections closed.

This error usually happens if you have not configured your Firewall to allow **FTP Passive mode**. Please see the following extract from the [IBM Manual](#).

FTP on IBM i is a Passive mode FTP Client when transferring something directly to/from the IBM i Platform. By FTP Specification, sessions only occurs over TCP not UDP communications.

As in all FTP protocol there is a Command Channel and a Data Channel involved to provide the file transfer process. Port 21 is the command port by Architectural definition. To start the connection to setup the characteristics of the FTP session, ie the source IP Address requests the destination IP Address to connect on its port 21. The Firewall must be configured to allow this source IP/local arbitrary port number to connect to destination IP Address/port 21. As this is passive FTP, the port for data is not port 20 (as it is in Active FTP) but an arbitrary high number port that the server returns back to the FTP Client (in response to the PASV command the client sends to the server) for the FTP Client to use in connecting and sending data over. You have to ensure the firewall is not filtering/blocking either flow.

11.7.4 Using DNS for FTP

When using **Cobwebb FTP** you can use a DNS instead of an IP Address. In order to do this you will need to make sure that your Server is configured to point to a DNS Server. Whilst Cobwebb do not pretend to be experts in this field we can give you a couple of pointers if you require help in setting this up.

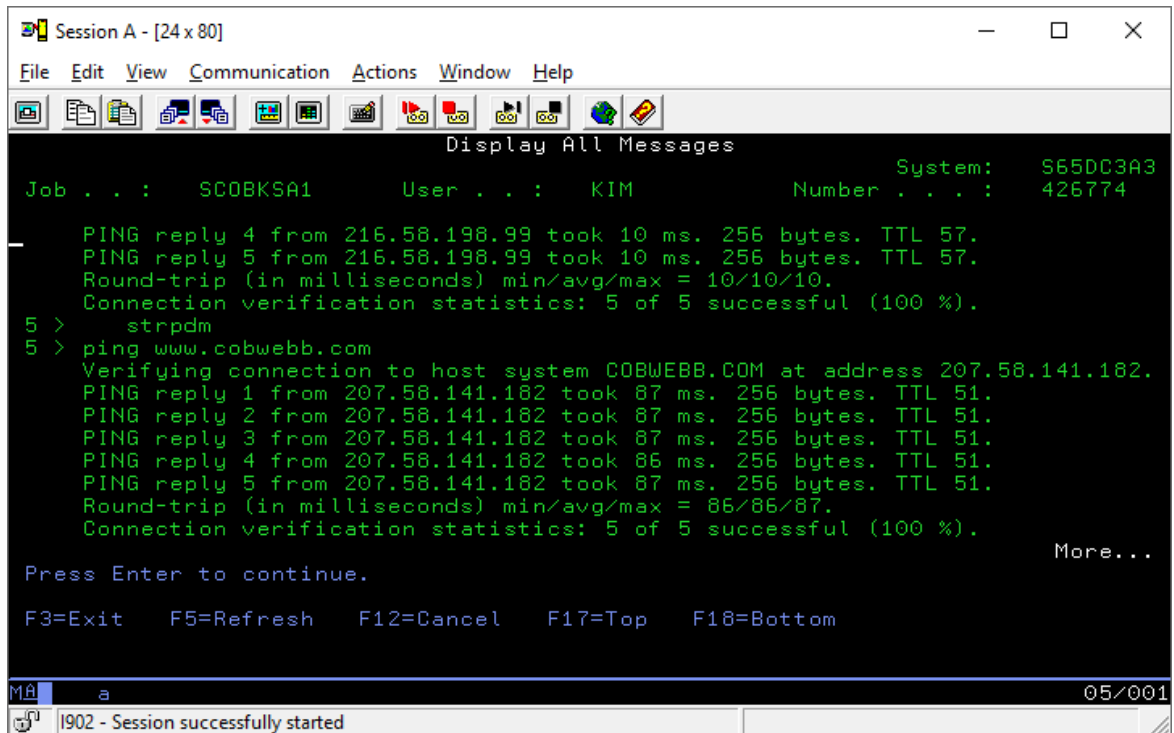
Please Note: If you are going to open up your Server via DNS then you need to think about the security risks as traffic can travel both ways. There may also be other considerations such as if your Server is on a different subnet.

Checking to see if DNS configured for your Server

From a command prompt on your Server try to ping an external website e.g.

```
ping www.cobwebb.com
```

If you display the joblog you should see various messages, which if you scroll through them, should end with a successful connection e.g.



```
Session A - [24 x 80]
File Edit View Communication Actions Window Help
Display All Messages
Job . . . : SCOBKSA1      User . . . : KIM          System: S65DC3A3
Number . . . : 426774

PING reply 4 from 216.58.198.99 took 10 ms. 256 bytes. TTL 57.
PING reply 5 from 216.58.198.99 took 10 ms. 256 bytes. TTL 57.
Round-trip (in milliseconds) min/avg/max = 10/10/10.
Connection verification statistics: 5 of 5 successful (100 %).
5 > strpdm
5 > ping www.cobwebb.com
Verifying connection to host system COBWEBB.COM at address 207.58.141.182.
PING reply 1 from 207.58.141.182 took 87 ms. 256 bytes. TTL 51.
PING reply 2 from 207.58.141.182 took 87 ms. 256 bytes. TTL 51.
PING reply 3 from 207.58.141.182 took 87 ms. 256 bytes. TTL 51.
PING reply 4 from 207.58.141.182 took 86 ms. 256 bytes. TTL 51.
PING reply 5 from 207.58.141.182 took 87 ms. 256 bytes. TTL 51.
Round-trip (in milliseconds) min/avg/max = 86/86/87.
Connection verification statistics: 5 of 5 successful (100 %).

Press Enter to continue.
F3=Exit  F5=Refresh  F12=Cancel  F17=Top  F18=Bottom

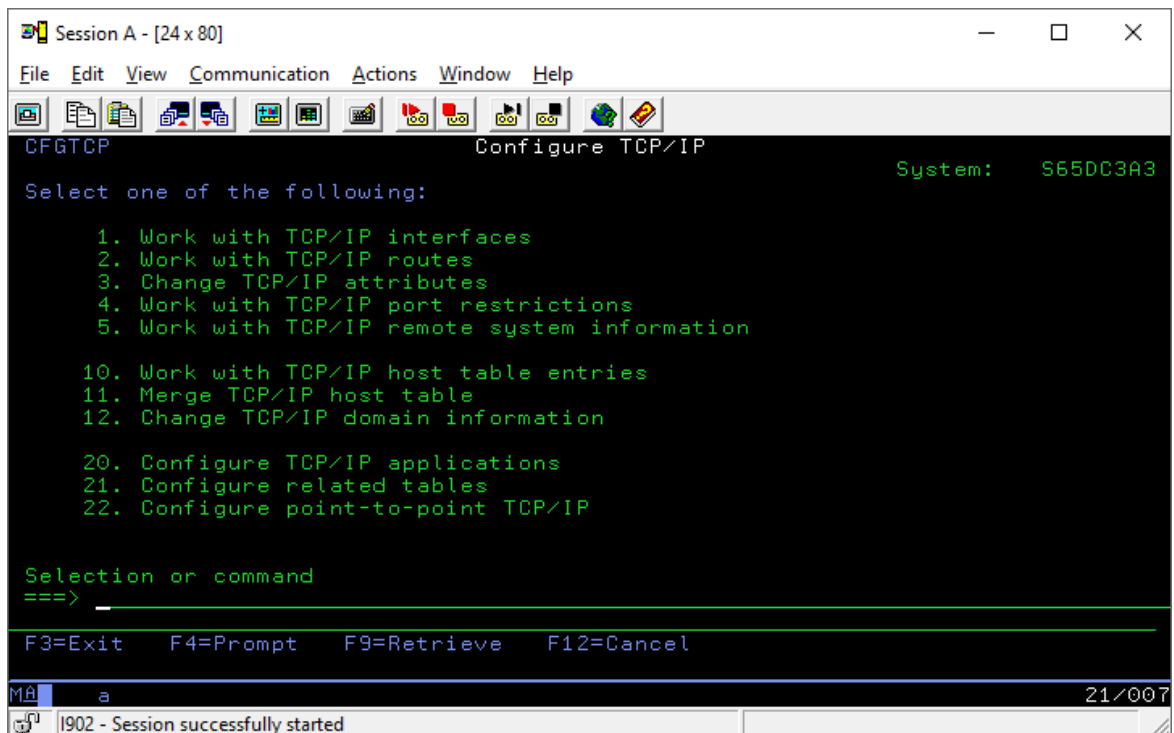
MA a 05/001
|902 - Session successfully started
```

Configuring DNS on your Sever

You will need to be logged on to the Server with a user profile that has *IOSYSCFG special authority.

From a command prompt on your Server enter the following:

```
CFGTCIP
```



```
Session A - [24 x 80]
File Edit View Communication Actions Window Help
CFGTCIP Configure TCP/IP
System: S65DC3A3
Select one of the following:

  1. Work with TCP/IP interfaces
  2. Work with TCP/IP routes
  3. Change TCP/IP attributes
  4. Work with TCP/IP port restrictions
  5. Work with TCP/IP remote system information

 10. Work with TCP/IP host table entries
 11. Merge TCP/IP host table
 12. Change TCP/IP domain information

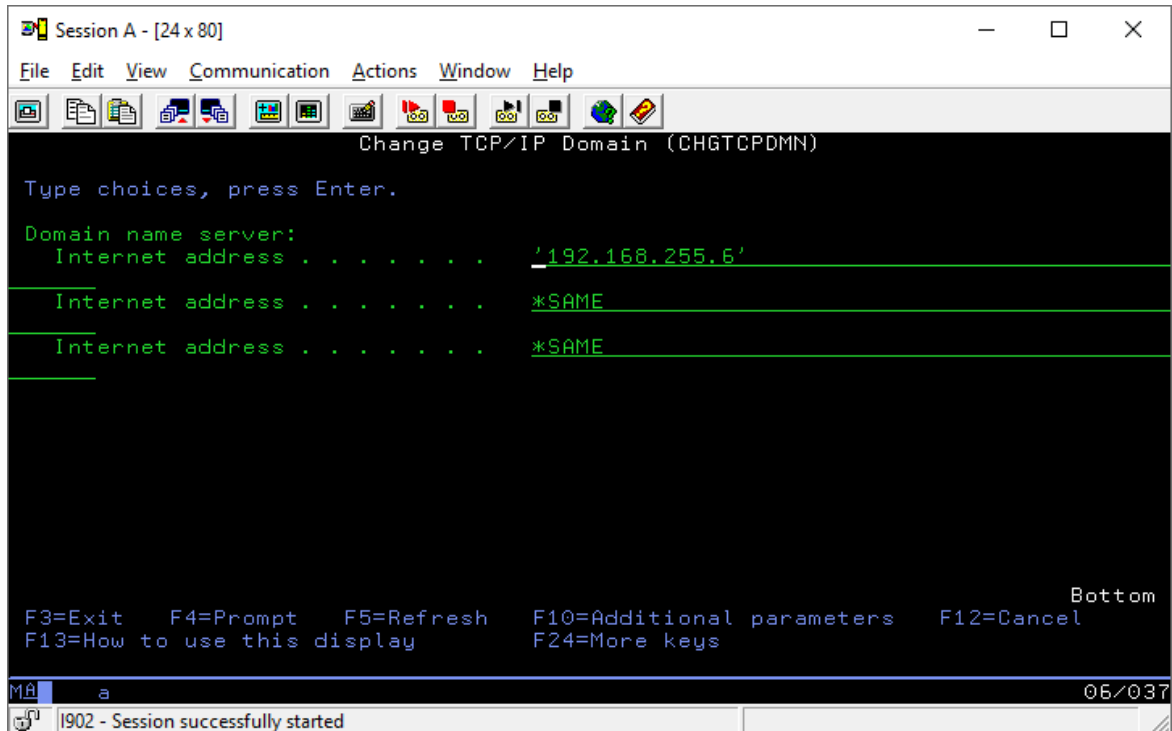
 20. Configure TCP/IP applications
 21. Configure related tables
 22. Configure point-to-point TCP/IP

Selection or command
===>

F3=Exit  F4=Prompt  F9=Retrieve  F12=Cancel

MA a 21/007
|902 - Session successfully started
```

Select **Option 12. Change TCP/IP domain information** and page down to display the DNS Server addresses e.g.



```
Session A - [24 x 80]
File Edit View Communication Actions Window Help
Change TCP/IP Domain (CHGTCPDMN)
Type choices, press Enter.
Domain name server:
Internet address . . . . . '192.168.255.6'
Internet address . . . . . *SAME
Internet address . . . . . *SAME
Bottom
F3=Exit F4=Prompt F5=Refresh F10=Additional parameters F12=Cancel
F13=How to use this display F24=More keys
MA a 06/037
1902 - Session successfully started
```

You need to enter the IP address of your **Local DNS Server** in the first entry and any others in the following two entries (*which will quite often be provided by your ISP*).

If you are unsure of the IP address of your DNS then you can type the following from a command prompt on your PC.

```
ipconfig/all
```

Scroll through the list until you find the **DNS Servers** entry. This will give you the IP address to use.


```
Command Prompt

Ethernet adapter vEthernet (Virtual Ethernet Switch):

    Connection-specific DNS Suffix  . : cobwebb.dom
    Description . . . . . : Hyper-V Virtual Ethernet Adapter
    Physical Address. . . . . : 20-47-47-E6-67-22
    DHCP Enabled. . . . . : Yes
    Autoconfiguration Enabled . . . . : Yes
    IPv4 Address. . . . . : 192.168.255.90(Preferred)
    Subnet Mask . . . . . : 255.255.255.0
    Lease Obtained. . . . . : 20 July 2016 09:09:29
    Lease Expires . . . . . : 21 July 2016 09:09:28
    Default Gateway . . . . . : 192.168.255.200
    DHCP Server . . . . . : 192.168.255.6
    DNS Servers . . . . . : 192.168.255.6
                           8.8.4.4
                           208.67.222.220
    NetBIOS over Tcpip. . . . . : Enabled

Ethernet adapter Bluetooth Network Connection:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :
    Description . . . . . : Bluetooth Device (Personal Area Network)
    Physical Address. . . . . : B4-6D-83-F9-40-24
    DHCP Enabled. . . . . : Yes
```

11.8 Cobwebb Kofax Export Connectors

Overview

Cobwebb have created a variety of **Kofax Export Connectors** but the main ones are documented here.

- [Kofax Connector to call an IBM i program](#)
- [Kofax Connector for System21](#)

11.8.1 Kofax Connector to call IBM i program

Overview

Cobwebb have developed an Export Connector for Kofax called **COB400XC** that calls a IBM i program passing information from the scanned document. The IBM i program can either run in the same job as the Cobwebb Kofax Connector or be submitted as a separate job. This connector enables the information scanned by Kofax to be printed, IBM i databases to be updated, message to be sent etc.

On the Server

You will need to create a program of the same name that has been specified in the **Cobwebb Kofax Export Connector** and that has the same parameters as listed in the **Parameter List** below. You may pass back an **Error Message** in the last parameter and, provided that the program is not running as a submitted job, this information will be passed back to the Cobwebb

Kofax Connector to report an error for that Kofax batch of documents. If you wish to access files outside of the CPPD library then you will either need to create a CL program to add the relevant library list information or add.

Parameter List

When writing your program on the server to receive the data from the **Cobwebb Kofax Export Connector** you will need to specify the following parameters.

Note: If the command is submitted from CHTTPD [the Cobwebb Web Server], the max length of each parameter can only be 190.

Parameter	Len	Type	Input/ Output	Description
Delimiter	1	A	In	If the information passed in the following 20 parameters needs to be split into separate fields then the delimiter character will be specified here.
Parameter 01	980	A	In	Data which may or may not be split using the specified Delimiter character.
Parameter 02	980	A	In	Data which may or may not be split using the specified Delimiter character.
Parameter 03	980	A	In	Data which may or may not be split using the specified Delimiter character.
Parameter 04	980	A	In	Data which may or may not be split using the specified Delimiter character.
Parameter 05	980	A	In	Data which may or may not be split using the specified Delimiter character.
Parameter 06	980	A	In	Data which may or may not be split using the specified Delimiter character.
Parameter 07	980	A	In	Data which may or may not be split using the specified Delimiter character.
Parameter 08	980	A	In	Data which may or may not be split using the specified Delimiter character.
Parameter 09	980	A	In	Data which may or may not be split using the specified Delimiter character.
Parameter 10	980	A	In	Data which may or may not be split using the specified Delimiter character.
Parameter 11	980	A	In	Data which may or may not be split using the specified Delimiter character.

Parameter 12	980	A	In	Data which may or may not be split using the specified Delimiter character.
Parameter 13	980	A	In	Data which may or may not be split using the specified Delimiter character.
Parameter 14	980	A	In	Data which may or may not be split using the specified Delimiter character.
Parameter 15	980	A	In	Data which may or may not be split using the specified Delimiter character.
Parameter 16	980	A	In	Data which may or may not be split using the specified Delimiter character.
Parameter 17	980	A	In	Data which may or may not be split using the specified Delimiter character.
Parameter 18	980	A	In	Data which may or may not be split using the specified Delimiter character.
Parameter 19	980	A	In	Data which may or may not be split using the specified Delimiter character.
Parameter 20	980	A	In	Data which may or may not be split using the specified Delimiter character.
Error Message	128	A	Out	Any error message that you wish to return to the Cobwebb Kofax connector to identify the failure of the program. If the program is successful then this must be NULL filled.

Sample Programs

COB400XC

Cobwebb supply a sample RPGLE program **COB400XC** which will print the contents of Parameters 1 - 20 using the **QSYSPRT** print file with *User Data* of **COB400XC**. If a Delimiter has been used, the program splits the parameter string into its component parts before printing each component. You will find the source for the program COB400XC in the source file **QUSRTOOLLE** in library **CPPD**.

The program will also pass back the contents of Parameter 20 in the Error Message as this program may be used to check that the Cobwebb Kofax Connector is working correctly.

Note: As the parameters can be up to 980 bytes in length they may be printed over up to four lines in the spool file.

COB400SBJ

The Kofax Cobwebb Export connector is called within a multi-threaded environment. This limits what you can do within the export connector. If you wish to operate in the more traditional single

threaded environment then you can use the sample program **COB400SBJ** to submit the job. Sample source for this program may be found in the source file **QUSRTOOL** in library **CPPD**.

COB400XCC

Cobwebb also supply a sample CLP program **COB400XCC** which could be used to add any libraries required see the source file **QUSRTOOL** in library **CPPD**. This would only work outside the multi-threaded environment.

Example

When the Cobwebb Kofax Export Connector calls the Exit Program for a number of item lines e.g.

Part No	Description	Quantity	UOM	Unit Price	Disc.	Total value
123456	Test 1	1	EA	1.10		1.10
234567	Test 2	2		0.50		1.00
345678	Test 3	3	BX	2.00	0.50	4.50

The value for all of the **Part Nos** will be in Parameter 01, the **Description** in Parameter 02 etc. so this is how the parameters would look when being passed to the Exit Program:

Delimiter = ,

Parameter 01 = 123456,234567,348678

Parameter 02 = Test 1,Test 2,Test 3

Parameter 03 = 1,2,3

Parameter 04 = EA,,BX (Notice that the blank entry is still passed to keep the order)

Parameter 05 = 1.10,0.50,2.00

Parameter 06 = ,,0.50 (Again blank entries passed to keep the order)

Parameter 07 = 1.10,1.00,4.50

11.8.2 Kofax Connector for System21

Introduction

The Cobwebb Kofax Export Connector for System21, or **Cobs21xc** for short, is an export connector for Kofax Capture (*now Tungsten Capture*) and KTM that will take the data retrieved from a document and submit it to the Infor System21 Invoice API.

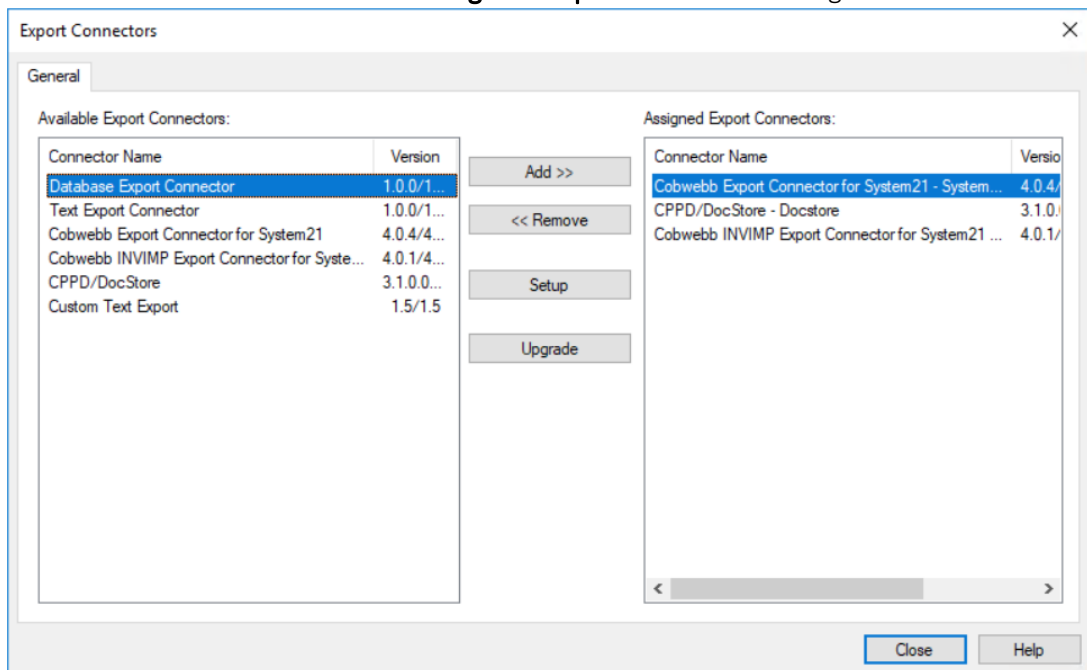
Prerequisites

- Download and run the [Kofax Connector for System21](#) installer.
- A licence to use the Cobwebb Kofax Export Connector for System21 (Cobs21xc). Please contact [Sales](#) for details.

Configuration

- Open the **Kofax Capture Administration** application.
- Under the **Batch** tab expand the **Batch Class** to display the **Document Class** (indented).
- Right click on the **Document Class** and select **Export Connectors** from the context menu.

- Select the **Cobwebb Export Connector for System 21** from the **Available Export Connections** and **Add >>** to the **Assigned Export Connectors** e.g.



- Now select the Cobwebb Export Connector for System21 in the Assigned Export Connectors and click **Setup**.

Setup

General tab

- On the **General** tab configure the following details:

Cobwebb Export Connector for System21 Setup

General

Batch Class: DAN Test - cobS21xc v4

Document Class: Invoice122

Export Connector Instance Name: test

System21 Server Details

Server Name: M15

Username: DANIEL

Password: *****

API Library: INFOR

Sanitise Character Data

Codepage: 20285

Replacement Character: ?

License Status: Licensed

Version: 4.0.2

OK Cancel

Export Connector Instance Name

Enter a unique name for the Export Connector instance.

System21 Server Details

Enter the details for your System21 Server in the entries provided.

Sanitise Character Data

Version 4.0.2 released 9/7/19 added the ability to clean up the data before it is submitted to System21. This is important because the System21 database will reject invalid characters, thus rejecting the whole batch.

Confusingly, invalid characters can look very similar to valid characters, e.g:

Bad Character	Comment
—	285 codepage has -
“	285 codepage has "
”	285 codepage has "

Codepage

If blank then no sanitising takes place. Choose a codepage from the list of [Valid Codepages for Sanitise Character Data](#). Two codepage values in particular are worth noting:

20127 - US-ASCII (7-bit)

This codepage has a very limited set of characters, which makes it very compatible. It also does a good job of finding suitable substitutions. For example the open quote “ is replaced by the standard quote " .

The Codepage matching the System21 AIP File

See [Identifying System21 AIP file Codepage](#) for details.

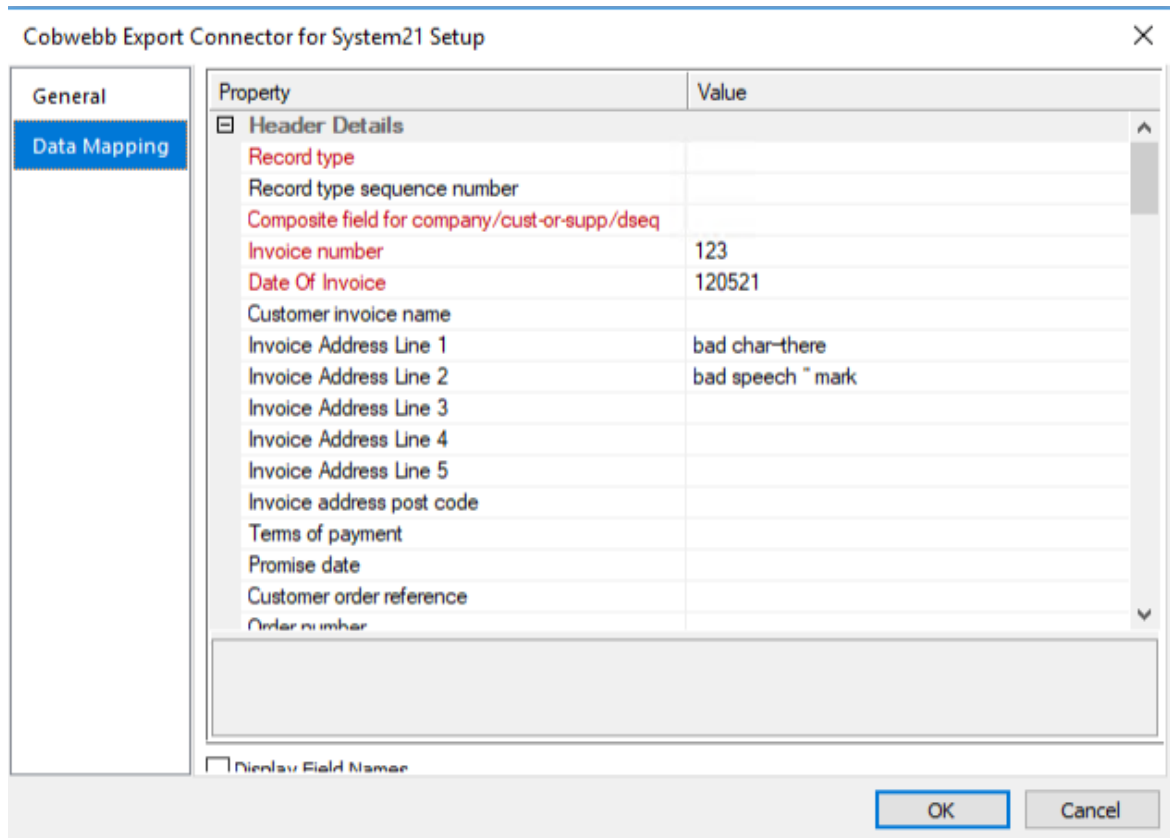
Using this codepage should deliver the most reliable results and will allow all characters that the System21 AIP allows. For example the 285 codepage includes £, é and ö. However, it seems to do a worse job of finding suitable substitutions. Experience has shown that this will result in more invalid characters being replaced by the **Replacement Character**. For example the open quote “ is replaced by the **Replacement Character**.

Replacement Character

If an invalid character is found, and no substitute is identified, then replace the invalid character with this **Replacement Character**.

Data Mapping tab

This is where you can map your data e.g.



11.8.2.1 Valid Codepages for Sanitise Character Data

(Taken from the Microsoft Webpage: [Code Page Identifiers](#)) Commonly used CCSIDs are highlighted in the following table.

Identi	Additional information

fi r	
37	IBM EBCDIC US-Canada
43 7	OEM United States
50 0	IBM EBCDIC International
70 8	Arabic (ASMO 708)
70 9	Arabic (ASMO-449+, BCON V4)
71 0	Arabic - Transparent Arabic
72 0	Arabic (Transparent ASMO); Arabic (DOS)
73 7	OEM Greek (formerly 437G); Greek (DOS)
77 5	OEM Baltic; Baltic (DOS)
85 0	OEM Multilingual Latin 1; Western European (DOS)
85 2	OEM Latin 2; Central European (DOS)
85 5	OEM Cyrillic (primarily Russian)
85 7	OEM Turkish; Turkish (DOS)
85 8	OEM Multilingual Latin 1 + Euro symbol
86 0	OEM Portuguese; Portuguese (DOS)
86 1	OEM Icelandic; Icelandic (DOS)
86 2	OEM Hebrew; Hebrew (DOS)
86 3	OEM French Canadian; French Canadian (DOS)
86 4	OEM Arabic; Arabic (864)

86 5	OEM Nordic; Nordic (DOS)
86 6	OEM Russian; Cyrillic (DOS)
86 9	OEM Modern Greek; Greek, Modern (DOS)
87 0	IBM EBCDIC Multilingual/ROECE (Latin 2); IBM EBCDIC Multilingual Latin 2
87 4	ANSI/OEM Thai (ISO 8859-11); Thai (Windows)
87 5	IBM EBCDIC Greek Modern
93 2	ANSI/OEM Japanese; Japanese (Shift-JIS)
93 6	ANSI/OEM Simplified Chinese (PRC, Singapore); Chinese Simplified (GB2312)
94 9	ANSI/OEM Korean (Unified Hangul Code)
95 0	ANSI/OEM Traditional Chinese (Taiwan; Hong Kong SAR, PRC); Chinese Traditional (Big5)
10 26	IBM EBCDIC Turkish (Latin 5)
10 47	IBM EBCDIC Latin 1/Open System
11 40	IBM EBCDIC US-Canada (037 + Euro symbol); IBM EBCDIC (US-Canada-Euro)
11 41	IBM EBCDIC Germany (20273 + Euro symbol); IBM EBCDIC (Germany-Euro)
11 42	IBM EBCDIC Denmark-Norway (20277 + Euro symbol); IBM EBCDIC (Denmark-Norway-Euro)
11 43	IBM EBCDIC Finland-Sweden (20278 + Euro symbol); IBM EBCDIC (Finland-Sweden-Euro)
11 44	IBM EBCDIC Italy (20280 + Euro symbol); IBM EBCDIC (Italy-Euro)
11 45	IBM EBCDIC Latin America-Spain (20284 + Euro symbol); IBM EBCDIC (Spain-Euro)
11 46	IBM EBCDIC United Kingdom (20285 + Euro symbol); IBM EBCDIC (UK-Euro)
11 47	IBM EBCDIC France (20297 + Euro symbol); IBM EBCDIC (France-Euro)

11 48	IBM EBCDIC International (500 + Euro symbol); IBM EBCDIC (International-Euro)
11 49	IBM EBCDIC Icelandic (20871 + Euro symbol); IBM EBCDIC (Icelandic-Euro)
12 00	Unicode UTF-16, little endian byte order (BMP of ISO 10646); available only to managed applications
12 01	Unicode UTF-16, big endian byte order; available only to managed applications
12 50	ANSI Central European; Central European (Windows)
12 51	ANSI Cyrillic; Cyrillic (Windows)
12 52	ANSI Latin 1; Western European (Windows)
12 53	ANSI Greek; Greek (Windows)
12 54	ANSI Turkish; Turkish (Windows)
12 55	ANSI Hebrew; Hebrew (Windows)
12 56	ANSI Arabic; Arabic (Windows)
12 57	ANSI Baltic; Baltic (Windows)
12 58	ANSI/OEM Vietnamese; Vietnamese (Windows)
13 61	Korean (Johab)
10 00 0	MAC Roman; Western European (Mac)
10 00 1	Japanese (Mac)
10 00 2	MAC Traditional Chinese (Big5); Chinese Traditional (Mac)
10 00 3	Korean (Mac)

10 00 4	Arabic (Mac)
10 00 5	Hebrew (Mac)
10 00 6	Greek (Mac)
10 00 7	Cyrillic (Mac)
10 00 8	MAC Simplified Chinese (GB 2312); Chinese Simplified (Mac)
10 01 0	Romanian (Mac)
10 01 7	Ukrainian (Mac)
10 02 1	Thai (Mac)
10 02 9	MAC Latin 2; Central European (Mac)
10 07 9	Icelandic (Mac)
10 08 1	Turkish (Mac)
10 08 2	Croatian (Mac)
12 00 0	Unicode UTF-32, little endian byte order; available only to managed applications
12 00 1	Unicode UTF-32, big endian byte order; available only to managed applications

20 00 0	CNS Taiwan; Chinese Traditional (CNS)
20 00 1	TCA Taiwan
20 00 2	Eten Taiwan; Chinese Traditional (Eten)
20 00 3	IBM5550 Taiwan
20 00 4	TeleText Taiwan
20 00 5	Wang Taiwan
20 10 5	IA5 (IRV International Alphabet No. 5, 7-bit); Western European (IA5)
20 10 6	IA5 German (7-bit)
20 10 7	IA5 Swedish (7-bit)
20 10 8	IA5 Norwegian (7-bit)
20 12 7	US-ASCII (7-bit)
20 26 1	T.61
20 26 9	ISO 6937 Non-Spacing Accent
20 27 3	IBM EBCDIC Germany

20 27 7	IBM EBCDIC Denmark-Norway
20 27 8	IBM EBCDIC Finland-Sweden
20 28 0	IBM EBCDIC Italy
20 28 4	IBM EBCDIC Latin America-Spain
20 28 5	IBM EBCDIC United Kingdom
20 29 0	IBM EBCDIC Japanese Katakana Extended
20 29 7	IBM EBCDIC France
20 42 0	IBM EBCDIC Arabic
20 42 3	IBM EBCDIC Greek
20 42 4	IBM EBCDIC Hebrew
20 83 3	IBM EBCDIC Korean Extended
20 83 8	IBM EBCDIC Thai
20 86 6	Russian (KOI8-R); Cyrillic (KOI8-R)
20 87 1	IBM EBCDIC Icelandic

20 88 0	IBM EBCDIC Cyrillic Russian
20 90 5	IBM EBCDIC Turkish
20 92 4	IBM EBCDIC Latin 1/Open System (1047 + Euro symbol)
20 93 2	Japanese (JIS 0208-1990 and 0212-1990)
20 93 6	Simplified Chinese (GB2312); Chinese Simplified (GB2312-80)
20 94 9	Korean Wansung
21 02 5	IBM EBCDIC Cyrillic Serbian-Bulgarian
21 02 7	(deprecated)
21 86 6	Ukrainian (KOI8-U); Cyrillic (KOI8-U)
28 59 1	ISO 8859-1 Latin 1; Western European (ISO)
28 59 2	ISO 8859-2 Central European; Central European (ISO)
28 59 3	ISO 8859-3 Latin 3
28 59 4	ISO 8859-4 Baltic
28 59 5	ISO 8859-5 Cyrillic

28 59 6	ISO 8859-6 Arabic
28 59 7	ISO 8859-7 Greek
28 59 8	ISO 8859-8 Hebrew; Hebrew (ISO-Visual)
28 59 9	ISO 8859-9 Turkish
28 60 3	ISO 8859-13 Estonian
28 60 5	ISO 8859-15 Latin 9
29 00 1	Europa 3
38 59 8	ISO 8859-8 Hebrew; Hebrew (ISO-Logical)
50 22 0	ISO 2022 Japanese with no halfwidth Katakana; Japanese (JIS)
50 22 1	ISO 2022 Japanese with halfwidth Katakana; Japanese (JIS-Allow 1 byte Kana)
50 22 2	ISO 2022 Japanese JIS X 0201-1989; Japanese (JIS-Allow 1 byte Kana - SO/SI)
50 22 5	ISO 2022 Korean
50 22 7	ISO 2022 Simplified Chinese; Chinese Simplified (ISO 2022)
50 22 9	ISO 2022 Traditional Chinese

50 93 0	EBCDIC Japanese (Katakana) Extended
50 93 1	EBCDIC US-Canada and Japanese
50 93 3	EBCDIC Korean Extended and Korean
50 93 5	EBCDIC Simplified Chinese Extended and Simplified Chinese
50 93 6	EBCDIC Simplified Chinese
50 93 7	EBCDIC US-Canada and Traditional Chinese
50 93 9	EBCDIC Japanese (Latin) Extended and Japanese
51 93 2	EUC Japanese
51 93 6	EUC Simplified Chinese; Chinese Simplified (EUC)
51 94 9	EUC Korean
51 95 0	EUC Traditional Chinese
52 93 6	HZ-GB2312 Simplified Chinese; Chinese Simplified (HZ)
54 93 6	Windows XP and later: GB18030 Simplified Chinese (4 byte); Chinese Simplified (GB18030)
57 00 2	ISCII Devanagari

57 00 3	ISCII Bangla
57 00 4	ISCII Tamil
57 00 5	ISCII Telugu
57 00 6	ISCII Assamese
57 00 7	ISCII Odia
57 00 8	ISCII Kannada
57 00 9	ISCII Malayalam
57 01 0	ISCII Gujarati
57 01 1	ISCII Punjabi
65 00 0	Unicode (UTF-7)
65 00 1	Unicode (UTF-8)

11.8.2.2 Identifying System21 AIP file Codepage

If you wish to find the codepage (CCSID) used by the System21 AIP file then this is what you can do.

First find the library where the System21 AIP file **API32** resides.

```
WRKOBJ OBJ(*ALLUSR/AIP32) OBJTYPE(*FILE)
```

Now that you know the library name you can display the File Field Descriptors for **API32** e.g.

```
DSPFFD FILE(AULT2F3/AIP32) - where AULT2F3 is the library where your AIP32 file resides.
```

Page down and you will see the **CCSID** e.g.

```

File . . . . . : QPDSPPFD                                     Page/Line 1/27
Control . . . . :                                          Columns 1 - 130
Find . . . . . :
*.....1.....2.....3.....4.....5.....6.....7.....8.....9.....0.....1.....2.....3
Field Data      Field Buffer  Buffer  Field  Column
Type Type      Length Length Position Usage  Heading
RTP32 CHAR       1       1       1      Both   Record
                                         type
Field text . . . . . : Record type
Coded Character Set Identifier . . . . : 285
ATSK32 PCKED    2  0    2    2      Both   Record
                                         type
                                         sequence
Field text . . . . . : Record type sequence number
Editing Information
Edit code . . . . . : Z
CDAC32 CHAR      15    15    4      Both   Composite
                                         field
                                         for
                                         company/cust-or-supp/dseq
Field text . . . . . : Composite field for company/cust-or-supp/dseq
Coded Character Set Identifier . . . . : 285
INVN32 CHAR     20    20    19     Both   Invoice
                                         Number
F3=Exit  F12=Cancel  F19=Left  F20=Right  F24=More keys
a                                               03/022
|902 - Session successfully started

```

11.9 Fonts

There are over 100 fonts supplied with PSF/400, they are held in library **QFNTCPL** which must be available on the IBM i. Most of these fonts are very similar. There is one 10 cps reverse image font. The most effective fonts for printing and faxing are the Gothic Roman series. The bold fonts fax well. Fonts are available in 10, 12 and 15 characters per inch. The Proprinter 5pt is the largest font available in QFNTCPL. Additional font libraries may be purchased from IBM. The IBM i font collection includes Typographic Fonts for Times Roman and Helvetica. (Install library QFNT300LAI for printing and QFNT240 for faxing)

Each font can be specified using either the Font Character Set Name or the Font Global Identifier (FGID), or both.

The FGID is used to print a fax on an IBM i AFP printer if an FGID has been entered, if not the font specified in the Font Character Set name is downloaded to the printer from the IBM i.

The only disadvantage to using a downloaded font is the time taken to download the fonts to the printer.

To specify the correct FGID i.e. an FGID similar to the font specified as a Font Character Set Name it is necessary to have details of the resident fonts held in the printer including the Type Face, Width, Character Set and Code Page.

Note: It may be difficult to find a resident printer font which looks the same as the IBM i downloaded font.

For the more technically minded here are some points of interest:-

1. The IBM i automatically determines the FGID's of the resident fonts stored in the printer.
2. If an FGID is specified which is not a resident printer font, the IBM i will decide on the nearest match to a resident font in the printer, and use that font.
3. If an FGID is specified with no equivalent Font Character Set, the IBM i will decide on the nearest Font Character Set to download.

For a full explanation of Working with Fonts see the *AS/400 Guide to Printing (SC41 8194)*, Appendix E.

Catering for Double Byte Characters

CPPD has the ability to cater for spooled files with single byte, double byte and a mixture of both single and double byte characters.

Firstly you would set up your document language defaults by selecting the **Page Setup** option from the **File** Menu and clicking on the **Language** tab.

Select the default **Font** and **Codepage** details for your document. If you wish to see the double byte characters in the Cobwebb Designer then you will need to select the relevant "**Display Font Character Set**" from the dropdown list.

Selecting the correct font

Where the spooled file is made up of just one character set, either all single byte or all double byte, then you would choose your font based upon the **Primary Downloadable** or **Resident Font** data. (This information may be displayed by clicking on the **Edit** button when you are selecting your font.)

Where you are creating output from a spooled file containing both single and double byte characters you should choose a font where the **Primary** font information is used for the single byte characters and the **Secondary** information is used for the double byte characters.

11.9.1 The use of Fonts in CPPD

The use of fonts within a Word Processing package on a PC is well known and often used.

Fonts when used in a Server environment are not used so often, both because printing of Spooled Files and the choice of font is handled automatically by the IBM i, and also because it requires specialist knowledge to know how to use a different font than the default offered by IBM.

Note: that Cobwebb Fax will only print faxes on an AFP capable printer.

IBM i comes complete with a font library **QFNTCPL**. Use **GO LICPGM** with Option **10 'Display Installed Licensed Programs'** to see if 5763SS1 OS/400 AFP Compatibility Fonts is installed. If not you will need to install this program from your IBM supplied software installation tapes. See **GO LICPGM** option **11**.

To display a list of available fonts use the command **WRKFNTRSC** with library name **QFNTCPL**. Most of the fonts in **QFNTCPL** are included in the Cobwebb Fax Fonts groups **FONT1 FONT13**. To print a sample of each font change the Font group of your Userid to one of the above and create a test fax using text e.g. the Standard Text 'FONTS'.

Additional Fonts are available in Licensed Program ID 5648113 AFP Font Collection for OS/400. This program can be ordered from IBM Direct.

Fonts are an important consideration when using Cobwebb Fax. This is because:

- a) Some fonts look much better on the received fax than others, e.g. it is advisable to use a BOLD font.
- b) A choice of font sizes can make a fax look more professional.
- c) If you want to make the printed document look as similar as possible to the faxed document then careful choice of fonts is essential.

Cobwebb Fax has been designed to make it possible to choose whether you use the fonts held in your AFP printer, which gives faster printing, or whether you use downloaded fonts which can give a more exact copy of the fax as received by a fax machine.

Cobwebb Fax allows you to specify up to 10 fonts in any document. These fonts are held together as a Cobwebb Fax 'Font Group'. Within a document you can specify which of the 10 you want to use by using the Cobwebb Fax 'Text Enhancement' characters #F0 to #F9.

A Cobwebb Fax System Font Group can be specified, this is used unless a Font Group is specified on the Cobwebb User Profile.

A Font Group can be specified on the Cobwebb Fax 'Send Fax from Spooled File' command thus allowing a different font group to be specified for each document.

The standard IBM i font library QFNTCPL contains many similar fonts; the standard sizes are 5, 10, 12 and 15 characters per inch. If a document is currently being printed on A4, Letter, American Quarto, or larger size paper some thought is required to get a suitable font so that the maximum fax size of 8 inches is not exceeded.

Cobwebb Fax Font Groups also provide a choice of Portrait/Landscape for the text (Font rotation), lines spacing, lines per page, default margin, fax page size, transmission mode, a default font for spooled files, and the font library name.

See System Maintenance '[Work with font groups](#)' for details of how to set up a new font group.

11.10 Barcode Types supported by CPPD

The following matrix lists the barcode types supported by CPPD.

Barcode Type	Valid Characters	Modifier	Valid Data Length
Code 39 (3-of-9 Code), MHI/AIM USD-3	0123456789 ABCDEFGHIJKLM NOPQRSTUVWXYZ -.\$/+% and the space character. A total of 43 valid input characters.	X'01' - Present the barcode without a generated check digit. X'02' - Generate a check digit and present it with the barcode.	Symbology: unlimited BCOCA range: 0 to 50 characters (see Note 1)
MSI (Modified Plessey Code)	0123456789	X'01' - Present the barcode without check digits generated by the printer. Specify 3 to 15 digits of input data. X'02' - Present the barcode with a generated IBM modulo-10 check digit. This check digit will be the second check digit; the first check digit is the last byte of the BSA data. Specify 2 to 14 digits of input data.	3 to 15 characters for Modifier X'01' 2 to 14 characters for Modifier X'02' 1 to 13 characters for all other modifiers

Barcode Type	Valid Characters	Modifier	Valid Data Length
		<p>X'03' - Present the barcode with two check digits. Both check digits are generated using the IBM modulo-10 algorithm. Specify 1 to 13 digits of input data.</p> <p>X'04' - Present the barcode with two check digits. The first check digit is generated using the NCR modulo-11 algorithm; the second using the IBM modulo-10 algorithm. The first check digit equals the remainder; exception condition EC-0E00 exists if the first check-digit calculation results in a value of 10. Specify 1 to 13 digits of input data.</p> <p>X'05' - Present the barcode with two check digits. The first check digit is generated using the IBM modulo-11 algorithm; the second using the IBM modulo-10 algorithm. The first check digit equals the remainder; exception condition EC-0E00 exists if the first check-digit calculation results in a value of 10. Specify 1 to 13 digits of input data.</p> <p>X'06' - Present the barcode with two check digits. The first check digit is generated using the NCR modulo-11 algorithm; the second using the IBM modulo-10 algorithm. The first check digit equals 11 minus the remainder; a first check digit value of 10 is assigned the value zero. Specify 1 to 13 digits of input data.</p> <p>X'07' - Present the barcode with two check digits. The first</p>	

Barcode Type	Valid Characters	Modifier	Valid Data Length
		<p>check digit is generated using the IBM modulo-11 algorithm; the second using the IBM modulo-10 algorithm. The first check digit equals 11 minus the remainder; a first check digit value of 10 is assigned the value zero. Specify 1 to 13 digits of input data.</p> <p>X'08' - Present the barcode with two check digits. The first check digit is generated using the NCR modulo-11 algorithm; the second using the IBM modulo-10 algorithm. The first check digit equals 11 minus the remainder; exception condition EC-0E00 exists if the first check-digit calculation results in a value of 10. Specify 1 to 13 digits of input data.</p> <p>X'09' - Present the barcode with two check digits. The first check digit is generated using the IBM modulo-11 algorithm; the second using the IBM modulo-10 algorithm. The first check digit equals 11 minus the remainder; exception condition EC-0E00 exists if the first check-digit calculation results in a value of 10. Specify 1 to 13 digits of input data.</p>	
UPC/CGPC - Version A	0123456789	X'00' - Present the standard UPC-A barcode with a generated check digit. The data to be encoded consists of eleven digits. The first digit is the number-system digit;	11 characters

Barcode Type	Valid Characters	Modifier	Valid Data Length
		<p>the next ten digits are the article number. Specify 11 digits of input data. The first digit is the number system character; the remaining digits are information characters.</p>	
<p>UPC/CGPC - Version E</p>	<p>0123456789</p>	<p>X'00' - Present a UPC-E barcode symbol. Of the 10 input digits, six digits are encoded. The check digit is generated using all 10 input data digits. The check digit is not encoded; it is only used to assign odd or even parity to the six encoded digits. Specify 10 digits of input data. Version E suppresses some zeros that can occur in the information characters to produce a shorter symbol. All 10 digits are information characters; the number system character should not be specified (it is assumed to be 0).</p>	<p>10 characters</p>
<p>UPC - Two-digit Supplemental (Periodicals)</p>	<p>0123456789</p>	<p>X'00' - Present a UPC two-digit supplemental barcode symbol. This option assumes that the base UPC Version A or E symbol is presented as a separate barcode object. The bar and space patterns used for the two supplemental digits are left-odd or left-even parity, with the parity determined by the digit combination. Specify 2 digits of input data.</p> <p>X'01' - The two-digit UPC supplemental barcode symbol is preceded by a UPC Version A, Number System 0, barcode symbol. The barcode</p>	<p>2 characters for Modifier X'00' 13 characters for Modifier X'01' 12 characters for Modifier X'02'</p>

Barcode Type	Valid Characters	Modifier	Valid Data Length
		<p>object contains both the UPC Version A symbol and the two-digit supplemental symbol. The input data consists of the number system digit, the ten-digit article number, and the two supplement digits, in that order. A check digit is generated for the UPC Version A symbol. The two-digit supplemental barcode is presented after the UPC Version A symbol using left-hand odd and even parity as determined by the two supplemental digits. Specify 13 digits of input data.</p> <p>X'02' - The two-digit UPC supplemental barcode symbol is preceded by a UPC Version E symbol. The barcode object contains both the UPC Version E symbol and the two-digit supplemental symbol. The input data consists of the ten-digit article number and the two supplemental digits. The barcode object processor generates the six-digit UPC Version E symbol and a check digit. The check digit is used to determine the parity pattern of the six-digit Version E symbol. The two-digit supplemental barcode symbol is presented after the Version E symbol using left-hand odd and even parity as determined by the two digits. Specify 12 digits of input data.</p>	
UPC - Five-digit Supplemental (Paperbacks)	0123456789	X'00' - Present the UPC five-digit supplemental barcode symbol. This option assumes	5 characters for Modifier X'00'

Barcode Type	Valid Characters	Modifier	Valid Data Length
		<p>that the base UPC Version A or E symbol is presented as a separate barcode object. A check digit is generated from the five supplemental digits and is used to assign the left-odd and left-even parity of the five-digit supplemental barcode. The supplemental check digit is not encoded or interpreted. Specify 5 digits of input data.</p> <p>X'01' - The five-digit UPC supplemental barcode symbol is preceded by a UPC Version A, Number System 0, barcode symbol. The barcode object contains both the UPC Version A symbol and the five-digit supplemental symbol. The input data consists of the number system digit, the ten-digit article number, and the five supplement digits, in that order. A check digit is generated for the UPC Version A symbol. A second check digit is generated from the five supplement digits. It is used to assign the left-hand odd and even parity of the five-digit supplemental barcode symbol. The supplement check digit is not encoded or interpreted. Specify 16 digits of input data.</p> <p>X'02' - The five-digit UPC supplemental barcode symbol is preceded by a UPC Version E symbol. The barcode object contains both the UPC Version E symbol and the five-digit supplemental symbol. The</p>	<p>16 characters for Modifier X'01'</p> <p>15 characters for Modifier X'02'</p>

Barcode Type	Valid Characters	Modifier	Valid Data Length
		input data consists of the ten-digit article number and the five-digit supplemental data. The barcode object processor generates the six-digit UPC Version E symbol and check digit. The check digit is used to determine the parity pattern of the Version E symbol. The five-digit supplemental barcode symbol is presented after the Version E symbol. A second check digit is calculated for the five-digit supplemental data and is used to assign the left-hand odd and even parity. The supplement check digit is not encoded or interpreted. Specify 15 digits of input data.	
EAN-8 (includes JAN-short)	0123456789	X'00' - Present an EAN-8 barcode symbol. The input data consists of seven digits: two flag digits and five article number digits. All seven digits are encoded along with a generated check digit.	7 characters
EAN-13 (includes JAN-standard)	0123456789	X'00' - Present an EAN-13 barcode symbol. The input data consists of twelve digits: two flag digits and ten article number digits, in that order. The first flag digit is not encoded. The second flag digit, the article number digits, and generated check digit are encoded. The first flag digit is presented in HRI form at the bottom of the left quiet zone. The first flag digit governs the A and B number-set pattern of the bar and space coding of the six digits	12 characters

Barcode Type	Valid Characters	Modifier	Valid Data Length
		to the left of the symbol centre pattern.	
Industrial 2-of-5	0123456789	X'01' - Present the barcode without a generated check digit. X'02' - Generate a check digit and present it with the barcode.	Symbology: unlimited BCOCA range: 0 to 50 characters (see Note 1)
Matrix 2-of-5	0123456789	X'01' - Present the barcode symbol without a generated check digit. X'02' - Generate a check digit and present it with the barcode.	Symbology: unlimited BCOCA range: 0 to 50 characters (see Note 1)
Interleaved 2-of-5, AIM USS-I 2/5	0123456789	X'01' - Present the barcode symbol without a check digit. X'02' - Generate a check digit and present it with the barcode.	Symbology: unlimited BCOCA range: 0 to 50 characters (see Note 1)
Codabar, 2-of-7, AIM USS-Codabar	0123456789 -\$.:/. +ABCD 16 characters plus 4 start/stop characters (ABCD) (See Note 2)	X'01' - Present the barcode without a generated check digit. The input data consists of a start character, digits to be encoded, and a stop character, in that order. Start and stop characters can be A, B, C, or D, and can only be used at the beginning and end of the symbol. X'02' - Generate a check digit and present it with the barcode. The input data consists of a start character, digits to be encoded, and a stop character, in that order. Start and stop characters can be A, B, C, or D, and can only be used at the beginning and end of the symbol.	Symbology: unlimited BCOCA range: 0 to 50 characters (see Note 1)
Code 128, AIM USS-128	All characters defined in the	X'02' - Code 128 symbol using original start-character algorithm.	Symbology: unlimited

Barcode Type	Valid Characters	Modifier	Valid Data Length
	Code 128 code page	X'03' - Code 128 symbol using the start-character algorithm that supports UCC/EAN 128.	BCOCA range: 0 to 50 characters (see Note 1)
EAN Two-digit Supplemental	0123456789	<p>X'00' - Present the EAN two-digit supplemental barcode symbol. This option assumes that the base EAN-13 symbol is presented as a separate barcode object. The value of the two digit supplemental data determines their bar and space patterns chosen from number sets A and B. Specify 2 digits of input data.</p> <p>X'01' - The two-digit supplemental barcode symbol is preceded by a normal EAN-13 barcode symbol. The barcode object contains both the EAN-13 symbol and the two-digit supplemental symbol. The two-digit supplemental barcode is presented after the EAN-13 symbol using left hand odd and even parity as determined by the two supplemental digits chosen from number sets A and B. Specify 14 digits of input data.</p>	<p>2 characters for Modifier X'00'</p> <p>14 characters for Modifier X'01'</p>
EAN Five-digit Supplemental	0123456789	<p>X'00' - Present the EAN five-digit supplemental barcode. This option assumes that the base EAN-13 symbol is presented as a separate barcode object. A check digit is calculated from the five supplemental digits. The check digit is also used to assign the bar and space patterns from number sets A and B for the five supplemental digits. The</p>	<p>5 characters for Modifier X'00'</p> <p>17 characters for Modifier X'01'</p>

Barcode Type	Valid Characters	Modifier	Valid Data Length
		<p>check digit is not encoded or interpreted. Specify 5 digits of input data.</p> <p>X'01' - The five-digit supplemental barcode symbol is preceded by a normal EAN-13 barcode symbol. The barcode object contains both the EAN-13 symbol and the five-digit supplemental symbol. A check digit is generated from the five-digit supplemental data. The check digit is used to assign the bar and space patterns from number sets A and B. The check digit is not encoded or interpreted. Specify 17 digits of input data.</p>	
<p>POSTNET</p>	<p>0123456789</p>	<p>X'00' - Present a POSTNET ZIP Code barcode symbol. The ZIP Code to be encoded is defined as a five-digit, numeric (0–9), data variable to the BSA data structure. The POSTNET ZIP Code barcode consists of a leading frame bar, the encoded ZIP Code data, a correction digit, and a trailing frame bar.</p> <p>X'01' - Present a POSTNET ZIP+4 barcode symbol. The ZIP+4 code to be encoded is defined as a nine-digit, numeric (0–9), data variable to the BSA data structure. The POSTNET ZIP+4 barcode consists of a leading frame bar, the encoded ZIP+4 data, a correction digit, and a trailing frame bar.</p> <p>X'02' - Present a POSTNET Advanced Barcode (ABC) barcode symbol. The ABC code</p>	<p>5 characters for Modifier X'00'</p> <p>9 characters for Modifier X'01'</p> <p>11 characters for Modifier X'02'</p> <p>11 characters for Modifier X'04' BCOCA range for Modifier X'03': 0 to 50 characters (see Note 1)</p>

Barcode Type	Valid Characters	Modifier	Valid Data Length
		<p>to be encoded is defined as an eleven-digit, numeric (0–9), data variable to the BSA data structure. The POSTNET ABC barcode consists of a leading frame bar, the encoded ABC data, a correction digit, and a trailing frame bar.</p> <p>X'03' - Present a POSTNET variable-length barcode symbol. The data to be encoded is defined as an n-digit, numeric (0–9), data variable to the BSA data structure. The barcode symbol is generated without length checking; the symbol is not guaranteed to be scannable or interpretable. The POSTNET variable-length barcode consists of a leading frame bar, the encoded data, a correction digit, and a trailing frame bar.</p> <p>X'04' - Present a PLANET Code symbol. The PLANET Code is a reverse topology variation of POSTNET that encodes 11 digits of data; the first 2 digits represent a service code (such as, 21 = Origin Confirm and 22 = Destination Confirm) and the next 9 digits identify the mailpiece. A 12th digit is generated by the printer as a check digit. The PLANET Code symbol consists of a leading frame bar, the encoded data, a check digit, and a trailing frame bar.</p>	
Royal Mail RM4SCC	0123456789 ABCDEFGHIJKLM NOPQRSTUVWXYZ	X'00' - Present a RM4SCC barcode symbol with a generated start bar, checksum character, and stop	Symbology: unlimited BCOCA range: 0 to 50 characters (see Note 1)

Barcode Type	Valid Characters	Modifier	Valid Data Length
		bar. The start and stop bars identify the beginning and end of the barcode symbol and also the orientation of the symbol.	
	0123456789 ABCDEFGHIJKLM NOPQRSTUVWXYZ abcdefghijklm nopqrstuvwxyz	X'01' - Dutch KIX variation – Present a RM4SCC barcode symbol with no start bar, no checksum character, and no stop bar.	
Japan Postal Barcode	0123456789 ABCDEFGHIJKLM NOPQRSTUVWXYZ - (hyphen)	X'00' - Present a Japan Postal Barcode symbol with a generated start character, checksum character, and stop character.	Symbology: 7 or more BCOCA range: 7 to 50 characters (see Note 1) No length checking done; refer to the modifier X'01' description
	0123456789 CC1,CC2,CC3,CC4, CC5,CC6,CC7,CC8 - (hyphen) start, stop	X'01' - Present a Japan Postal Barcode symbol directly from the barcode data.	
Data Matrix Requires Special Function Parameters	Any one-byte character or binary data	X'00' - Present a Data Matrix Barcode symbol using Error Checking and Correcting (ECC) algorithm 200.	Symbology: up to 3116 depending on whether the data is character or numeric; refer to the symbology specification BCOCA range: 0 to 3116 characters (see Note 1)
MaxiCode Requires Special Function Parameters	Any one-byte character allowed by the symbol mode; see on page 81	X'00' - Present a MaxiCode barcode symbol.	Symbology: up to 93 alphanumeric characters per symbol depending on encoding overhead or up to 138 numeric characters per symbol; refer to the symbology specification BCOCA range: 0 to 138 characters

Barcode Type	Valid Characters	Modifier	Valid Data Length
PDF417 Requires Special Function Parameters	Any one-byte character or binary data	X'00' - Present a full PDF417 barcode symbol. X'01' - Present a truncated PDF417 barcode symbol, for use in a relatively clean environment in which damage to the symbol is unlikely. This version omits the right row indicator and simplifies the stop pattern into a single module width bar.	Symbology: up to 1850 text characters, 2710 ASCII numeric digits, or 1108 bytes of binary data per symbol depending on the security level; refer to the symbology specification BCOCA range: 0 to 2710 characters
Australia Post Barcode	0123456789	X'01' - Standard Customer Barcode (format code = 11)	8 digits
	0123456789	X'02' - Customer Barcode 2 using Table N (format code = 59)	8–16 digits
	0123456789 ABCDEFGHIJKLM NOPQRSTUVWXYZ abcdefghijklm nopqrstuvwxyz (space) # (number sign)	X'03' - Customer Barcode 2 using Table C (format code = 59)	8–13 characters
	0123456789 for sorting code 0–3 for customer information	X'04' - Customer Barcode 2 using proprietary encoding (format code = 59)	8–24 digits
	0123456789	X'05' - Customer Barcode 3 using Table N (format code = 62)	8–23 digits
	0123456789 ABCDEFGHIJKLM NOPQRSTUVWXYZ abcdefghijklm nopqrstuvwxyz (space) # (number sign)	X'06' - Customer Barcode 3 using Table C (format code = 62)	8–18 characters
	0123456789 for sorting code 0–3	X'07' - Customer Barcode 3 using proprietary encoding (format code = 62)	8–39 digits

Barcode Type	Valid Characters	Modifier	Valid Data Length
	for customer information		
	0123456789	X'08' - Reply Paid Barcode (format code = 45)	8 digits
QR Code Requires Special Function Parameters	Any one-byte character or binary data	X'02' - Present a Model 2 QR Code Barcode symbol as defined in AIM International Symbology Specification — QR Code.	7,089 characters depending on the size and type of the data; refer to the symbology specification
Code 93	0123456789 ABCDEFGHIJKLM NOPQRSTUVWXYZ -./+% space character a – representing Shift 1 b – representing Shift 2 c – representing Shift 3 d – representing Shift 4 A total of 47 valid input characters.	X'00' - Present a Code 93 barcode symbol as defined in AIM Uniform Symbology Specification — Code 93.	Symbology: unlimited BCOCA range: 0 to 50 characters (see Note 1)
USPS Four-State	0123456789	X'00' - Present a USPS Four-State barcode symbol with no Routing ZIP Code. The input data for this barcode symbol must be 20 numeric digits. X'01' - Present a USPS Four-State barcode symbol with a 5-digit Routing ZIP Code. The input data for this barcode symbol must be 25 numeric digits; the valid values for the Routing ZIP Code are 00000–99999. X'02' - Present a USPS Four-State barcode symbol with a 9-digit Routing ZIP Code. The input data for this barcode	20 digits for Modifier X'00' 25 digits for Modifier X'01' 29 digits for Modifier X'02' 31 digits for Modifier X'03'

Barcode Type	Valid Characters	Modifier	Valid Data Length
		<p>symbol must be 29 numeric digits; the valid values for the Routing ZIP Code are 000000000–999999999.</p> <p>X'03' - Present a USPS Four-State barcode symbol with an 11–digit Routing ZIP Code. The input data for this barcode symbol must be 31 numeric digits; the valid values for the Routing ZIP Code are 00000000000–99999999999.</p>	

Note 1: All BCOCA receivers must support at least the BCOCA range. Some receivers support a larger data length.

Note 2: Some descriptions of Codabar show the characters “T,N,*,E” as stop characters (representing the stop characters “A,B,C,D”), but the Codabar symbology actually only allows “A,B,C,D” as start and stop characters. This alternate representation (“T,N,*,E”) is used only to distinguish between the start and stop characters when describing a Codabar symbol; when coding a BCOCA Codabar symbol, start and stop characters must be represented using A, B, C, or D. 3.

Note 3: The data for the UPC and EAN symbologies is numeric and of a fixed length, but not all numbers of the appropriate length are valid. This is because the coding scheme is designed to uniquely identify both a product and its manufacturer. The first part of the symbol represents the manufacturer and is defined in the symbology specification (not all numbers are valid in this part of the symbol). The second part of the symbol represents a unique product identifier code assigned by the manufacturer. Refer to the appropriate symbology specification for more details.

Data retrieved from the [IBM Barcode Object Content Architecture Reference](#).

11.11 Printing to Thermal Label Printers

Output to a Zebra (or any other thermal / label printer) is a simple enough process, providing you know the ZPL language or have a piece of software that you export the ZPL from.

Your design will need to include a lot of lines of [Static Text](#) on the output pane with the **ZPL code** and **embedded data** copied from the spooled file if needed. You can create all this by hand if needed by using the ZPL manuals, but this can be a bit labour intensive.

There are many programs available which facilitate the designing of thermal labels compatible with each printer model. You can then export out the code into a text document which in turn can be output to the Cobwebb Designer.

Once you have this text file of code, this can be imported into your design as multiple lines of static text by selecting [Import Text File](#) from the **Insert** menu in the Cobwebb Designer. This can then be edited as required to include the data from the spooled file.

We have added a [Sample PPD](#) of using ZPL printing with data copied from a spooled file to the Cobwebb Knowledgebase.

11.11.1 Creating a Thermal Printer Output Queue

From a **Command Prompt** on the Server enter the following:

```
CRTOUTQ OUTQ(CPPD/CPPDTH) RMTSYS(*INTNETADR) RMTPRTO('LPT1')
CNNTYPE(*IP) DESTTYPE(*OTHER) MFRTYPMDL(*WSCST)
WSCST(CPPD/CPPDTH1) INTNETADR('Your IP') SEPPAGE(*NO)
TEXT('CPPD Thermal Printing output queue')
```

Replace **Your IP** with the IP Address of the Printer.

11.11.2 Creating a Workstation Customising Object - Code Page 850

Output Queues used for Thermal Label printing may need to be configured to use a **Workstation Customising Object** which has been created especially to change the code page to 850 so Cobwebb have provided one called **CPPDTH1** in library **CPPD**, which you may use. The source for this has also been provided in file **QTXTSRC** in library **CPPD**.

This **CPPDTH1** WSCST has been altered to add the following two lines:

```
:DFTASCCP
      ASCIICP=850. /* SET THE OUTPUT CODEPAGE TO 850 (ZPL
DEFAULT) */
```

These two lines set the default ASCII codepage to 850. Without these two lines being added, the half sign (½) and possibly other characters would not print.

Amend the Output Queue to use the CPPDTH1 WSCST

If you are happy to use the supplied **CPPDTH1** WSCST then all you need to do is to amend the output queue to use it by setting these fields as shown:

```
CHGOUTQ OUTQ(OUTQLIB/OUTQ) WSCST(CPPD/CPPDTH1)
```

Creating a different Workstation Customising Object

If you wish to create a different Workstation Customising Object then you can use the supplied source for the CPPDTH1 object from **QTXTSRC** in library **CPPD**.

Copy the source and call is something different, make the required changes and then create a new object using the following command:

```
CRTWSCST WSCST(COBEXIT/CPPDTH850) SRCMBR(CPPDTH850)
TEXT('Thermal Printer WSCST with CODEPAGE=850')
SRCFILE(CPPD/QTXTSRC) AUT(*LIBCRTAUT) REPLACE(*YES)
```

Note: This creates a CPPDTH850 WSCST object in library COBEXIT from a source member CPPDTH850 in file CPPD/QTXTSRC (amend as needed).

The IBM website includes [Instructions for Modifying a Workstation Customizing Object \(WSCST\)](#) which might be worth reading and it includes a video.

11.12 Configuring remote LAN attached Printers

IBM provides the definitive resource for this information on their website, see [Information on Printers from Various Manufacturers](#). Their values are accurate and up-to-date and should take precedence over any values in the examples below.

Using Host Print Transform

There are two methods of configuring LAN attached printers on the IBM i when using CPPD with Host Print Transform:-

1. Creating a Device Description for the remote printer
2. Creating an Output queue for the remote printer

A **Printer Device Description** should be used wherever possible. This is because a Printer Device Description (*LAN) uses the IBM or HP System Driver Program (depending on whether the printer is IBM or HP compatible). The System Driver Program (SYSDRVPGM) uses the appropriate Printer Job Language thus maintaining contact with printer and maintaining the status of printing on the IBM i output queue.

Using an **Output Queue** and defining the IP address of the printer uses the LPR/LPD printer daemon resulting in control over the spooled file being lost once it has been sent to the output device, and therefore no status is retained on the IBM i output queue.

Significant performance problems may be experienced printing to an output queue. This is because at least 6MB of memory is required per LPR/LPD printer job. Sufficient amount of memory may not be allocated to the spool subsystem QSPL. See System Value **QPFRADJ** for details of auto-tuning (if you are short of IBM i memory the best solution is to get some more!

Note: IBM recommend **QPFRADJ** Option 3). Use **WRKSYSSTS** to check on memory usage, **QSPL** is usually the third entry down (Use F11 to confirm). A symptom of lack of memory is the spooled file goes to status PND and stays there (no message is produced).

The following device description HP4DEV has been created for an HP4 Laserjet. When creating a Device Description the page size A4 can be specified, otherwise the default is 'Letter'. If the printer is a Lexmark use the IBM System Driver Program. If you are using a non IBM, HP or Lexmark printer try both System Driver Programs, if neither work you will need to use an output queue.

- [Example Create Printer Device - HPT](#)
- [Example Create Output Queue - HPT](#)

Using PDF Direct

If you wish to print PDF direct to your printer then the best way is to create a Device Description for the printer. You need to make sure that the **TRANSFORM** parameter is set to ***NO**. Click on the link below to see an Example

- [Example Create Printer Device - PDF Direct](#)

11.12.1 Example Create Printer Device - HPT

Create the device description for the remote printer using the **CRTDEVPRT** command. Create an output queue of the same name, vary on the printer device and use the **STRPRTWTR** command to start the remote printer.

CREATE DEVICE DESC (PRINTER) (CRTDEVPRT)

```

DEVICE DESCRIPTION . . . . . DEVD           > HP4DEV
DEVICE CLASS . . . . . DEVCLS           > *LAN
DEVICE TYPE . . . . . TYPE             > 3812
DEVICE MODEL . . . . . MODEL           > 1
LAN ATTACHMENT . . . . . LANATTACH     > *IP
PORT NUMBER . . . . . PORT             > 9100

```

```

ONLINE AT IPL . . . . . ONLINE          *YES
FONT:
  IDENTIFIER . . . . . > 011
  POINT SIZE . . . . . *NONE
FORM FEED . . . . . FORMFEED > *AUTOCUT
SEPARATOR DRAWER . . . . . SEPDRAWER *FILE
SEPARATOR PROGRAM . . . . . SEPPGM *NONE
  LIBRARY . . . . .
PRINTER ERROR MESSAGE . . . . . PRTERMSG *INQ
MESSAGE QUEUE . . . . . MSGQ QSYSOPR
  LIBRARY . . . . . *LIBL
ACTIVATION TIMER . . . . . ACTTMR 1000
INACTIVITY TIMER . . . . . INACTTMR > *SEC15
TYPE OF PARITY . . . . . PARITY > *NONE
STOP BITS . . . . . STOPBITS > 1
HOST PRINT TRANSFORM . . . . . TRANSFORM > *YES
MANUFACTURER TYPE AND MODEL . . MFRTPMDL > *HP4 (or listed printer F4)
PAPER SOURCE 1 . . . . . PPRSRC1 > *A4
PAPER SOURCE 2 . . . . . PPRSRC2 > *A4
ENVELOPE SOURCE . . . . . ENVELOPE *MFRTPMDL
ASCII CODE PAGE 899 SUPPORT . . ASCII899 *NO
CHARACTER IDENTIFIER:
  GRAPHIC CHARACTER SET . . . . . *SYSVAL
  CODE PAGE . . . . .
REMOTE LOCATION:
  NAME OR ADDRESS . . . . . > '111.222.333.444'
WORKSTATION CUSTOMIZING OBJECT WSCST > *NONE
  LIBRARY . . . . . >
USER-DEFINED OPTIONS . . . . . USRDFNOPT *NONE
  + for more values
USER-DEFINED OBJECT:
  OBJECT . . . . . *NONE
  LIBRARY . . . . .
  OBJECT TYPE . . . . .
DATA TRANSFORM PROGRAM . . . . . USRDATFM *NONE
  LIBRARY . . . . .
SYSTEM DRIVER PROGRAM . . . . . SYSDRVPGM > *HPPJLDRV or *IBMPLJDRV
TEXT 'DESCRIPTION' . . . . . TEXT > 'Cobwebb/PPD printer device'
    
```

11.12.2 Example Create Output Queue - HPT

If the Writers to auto-start (AUTOSTRWTR) parameter is 1 the writer will start automatically.

If there is a problem with the Writer :-

- End the writer using ENDWTR CPPDLANQ - where CPPDLANQ is the name of the writer.
- CHGOUTQ CPPDLANQ (if required)
- Then STRRMWTR CPPDLANQ.

Example of creating an output queue for OUTQ CPPDLANQ in CPPD

Create Output Queue (CRTOUTQ)

```

Output queue . . . . . OUTQ > CPPDLANQ
  Library . . . . . > CPPD
Maximum spooled file size:
  Number of pages . . . . . *NONE
  Starting time . . . . .
  Ending time . . . . .
  + for more values
Order of files on queue . . . . . SEQ *FIFO
    
```

```

Remote system . . . . . RMTSYS > *INTNETADR
Remote printer queue . . . . . RMTPRTO > *NONE
Writers to autostart . . . . . AUTOSTRWTR > 1
Queue for writer messages . . . MSGQ QSYSOPR
  Library . . . . . *LIBL
Connection type . . . . . CNNTYPE > *IP
Destination type . . . . . DESTTYPE > *OTHER
Host print transform . . . . . TRANSFORM *YES
Writers to autostart . . . . . AUTOSTRWTR > 1
Queue for writer messages . . . MSGQ QSYSOPR
  Library . . . . . *LIBL
Connection type . . . . . CNNTYPE > *IP
Destination type . . . . . DESTTYPE > *OTHER
Host print transform . . . . . TRANSFORM *YES
Manufacturer type and model . . MFRTYPMDL > *HP4 (as required)
Workstation customising object WSCST > *NONE
  Library . . . . . >
Internet address . . . . . INTNETADR > '111.222.333.444'
Destination options . . . . . DESTOPT *NONE
Print separator page . . . . . SEPPAGE > *NO
User defined option . . . . . USRDFNOPT *NONE
      + for more values
User defined object: USRDFNOBJ
  Object . . . . . *NONE
  Library . . . . .
  Object type . . . . .
User driver program . . . . . USRDRVPGM *NONE
  Library . . . . .
Text 'description' . . . . . TEXT > 'Cobwebb/PPD Output queue'
      Additional Parameters
Display any file . . . . . DSPDTA *NO
Job separators . . . . . JOBSEP 0
Operator controlled . . . . . OPRCTL *YES
Data queue . . . . . DTAQ *NONE
  Library . . . . .
Authority to check . . . . . AUTCHK *OWNER
Authority . . . . . AUT *US

```

11.12.3 Example Create Printer Device - PDF Direct

Create the device description for the remote printer using the **CRTDEVPRT** command. This will create an output queue of the same name. Vary on the printer device and use the **STRPRTWTR** command to start the remote printer.

The following is an example of a CRTDEVPRT command to create a remote printer for PDF Direct printing.

```

CRTDEVPRT DEVD(LEXPDF) DEVCLS(*LAN) TYPE(3812) MODEL(1)
LANATTACH(*IP) PORT(9100) FONT(011) FORMFEED(*AUTOCUT)
PRTERMSG(*INFO) MSGQ(QSYSOPR) INACTTMR(*SEC15)
PARITY(*NONE) STOPBITS(1) TRANSFORM(*NO)
RMTLOCNAME('192.168.255.194') USRDFNOPT(*IBMSHRCNN)
SYSDRVPGM(*IBMSNMPDRV) PUBLISHINF(*DUPLEX *COLOR
*UNKNOWN *UNKNOWN *BLANK (*PDF *PCL *PS)) TEXT('Lexmark
C510DN PDF Direct')

```

The entries highlighted in red would need to be configured for your environment.

11.13 QNTC Configuration

Introduction

The **QNTC** file system is a subdivision of the **IFS** (Integrated File System) that enables the IBM i to access file and device shares on a remote Windows Server. Using the **QNTC** file system, your IBM i can read and write files that reside physically on a Windows Server.

NetServer/QNTC and SMB (Server Message Block) Support

IBM do not support SMB V3.0 in any current OS release. Support for SMB V2.0 has been included in V7R3 and is available as a PTF for V7R2. Please see the [IBM Support](#) page for details.

Pre-Requisites

To use **QNTC**, the only software you need other than the base operating system is **IBM TCP/IP Connectivity Utilities**

To check whether you have this installed you can do the following:

- **GO LICPGM**
- Select **Option 10 – Display Licensed Programs**.
- Look for: **nnnnTC1 *COMPATIBLE IBM - TCP/IP Connectivity Utilities**
where the number **nnnn** will vary with your IBMi Version and the description may be slightly different e.g. for V6R1M0 it is:
5761TC1 *COMPATIBLE IBM TCP/IP Connectivity Utilities for i5/OS

Configuration

Setting up **QNTC** can be tricky and for full QNTC configuration information please refer to the IBM Knowledgebase. However, here is a quick overview of the steps you need to follow to set up QNTC.

- On your **Windows Server**:
 - Configure your Windows Server **Domain / Workgroup Name**
 - Configure a **Windows User** that has permission to WRITE to the required folder on the Windows Server e.g. **CPPDQNTC**.
Note 1: The **User Name** and **Password** must be restricted to 10 characters as this must EXACTLY match a User Id on the IBM i.
Note 2: If your IBM i is set to the default password level of '0' (System Value QPWDLV), this causes QNTC to send an all lower-case password on the authentication attempt, then your password must be all lower-case to match.
- On your **IBM i**:
 - Configure your [IBM i NetServer Domain name](#) to match your **Windows Server Domain / Workgroup Name**.
 - Configure a IBM i **User Id** that EXACTLY matches the **Windows User** (*Name and Password*) e.g. **CPPDQNTC**. You may wish to limit the functionality of this user by using any or all of the following:
 - INLPGM(*NONE) - No program is called when the user signs on.

- INLMNU(*SIGNOFF) - The system signs off the user when the program completes. As we are specifying *NONE for the initial program then the user will just be signed off.
- LMTCPB(*YES) - The program, menu, and current library values cannot be changed on the sign-on display. Commands cannot be run when issued from a command line or by selecting an option from a command grouping menu such as CMDADD, but can still be run from a command entry screen.
- GRPPRF(*NONE) - No group authority is given.
- ATNPGM(*NONE) - No ATTN key handling program is used by this user.
- PWDEXPITV(*NOMAX) - The password does not expire. Only set this if you are happy for the password for this user to never expire. This would need to be set in conjunction with the Windows User password expiration policy.

Note: It is vital that your IBM i User Id is recognised by the Windows Server as a valid network logon id, and that the passwords are the same on both the IBM i and the Windows Server. It may well be advisable to create a special user on the two platforms specifically for the purpose of communicating between them using QNTC. You can then ensure that when the password needs to be changed, it is changed on both systems, if this needs to be done manually.

Testing your Configuration

To test your connection, first ensure that you are logged on to the IBM i using the User Id you have just created, then run the following command on the IBM i.

```
WRKLNK ' /QNTC / * '
```

This could take several minutes to complete the first time it is run. Your Windows Server should appear on the list. If it doesn't, you may be able to manually establish a connection using command

```
CRTDIR ' /QNTC / <servername> '
```

substituting the name of your Windows Server for <servername>.


```

Session A - [24 x 80]
File Edit View Communication Actions Window Help
Work with Object Links

Directory . . . . : /QNTC

Type options, press Enter.
  2=Edit  3=Copy  4=Remove  5=Display  7=Rename  8=Display attributes
 11=Change current directory ...

Opt  Object link      Type      Attribute  Text
---  -
  ---  DANYOGA           DDIR
  ---  EDGE             DDIR
  ---  MILO             DDIR
  ---  M15             DDIR
  ---  SION            DDIR
  ---  SUPER1          DDIR
  ---  VOSTRO          DDIR
  ---  VPC-DANYOGA2    DDIR

Parameters or command
===>

F3=Exit  F4=Prompt  F5=Refresh  F9=Retrieve  F12=Cancel  F17=Position to
F22=Display entire field  F23=More options

10/002
1902 - Session successfully started

```

Find your Windows Server in this list and choose **5=Display** to display your file shares on the server. If the file shares don't appear, double-check that your User IDs and Passwords match exactly on both systems and that you have correctly Shared your folder.

You access the QNTC file system by including QNTC and the name of your Windows Server and share name in the path name you specify on the **TOSTMF** (To Stream File) parameter of the **CVTDBFSTMF** command.

For example, let's imagine you have a Windows Server and you have decided that this is a convenient place to save the output so that all of your users can have shared access to the data. Let's imagine that this server is called **WindowsServer** and that it has a file share name set up called **FileStore**. Below the share name, there is a directory called **CustData**. If you wanted to convert data from your customer file and save it as an Excel spreadsheet in this location under the file name **customer_file.xls**, you would run a command something like this:

CVTDBFSTMF FROMFILE(custfile)

TOSTMF('/QNTC/WindowsServer/FileStore/CustData/customer_file.xls')

TOFMT(*XLS)

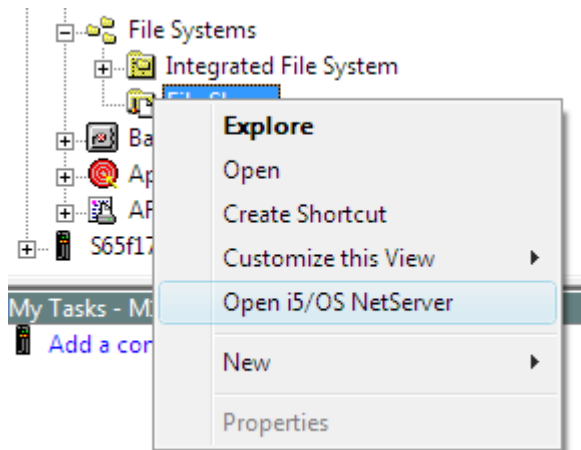
Note that the path name starts with **/QNTC**. This indicates to the IBM i that you are referring to the QNTC File System. Following **/QNTC** is the name of the Windows Server to which the data is to be sent: **WindowsServer**. Next comes the name of the file share: **FileStore**. After that is the name of the folder below the share: **CustData**. Finally we have the name of the file itself: **customer_file.xls**.

11.13.1 Configure NetServer Domain Name

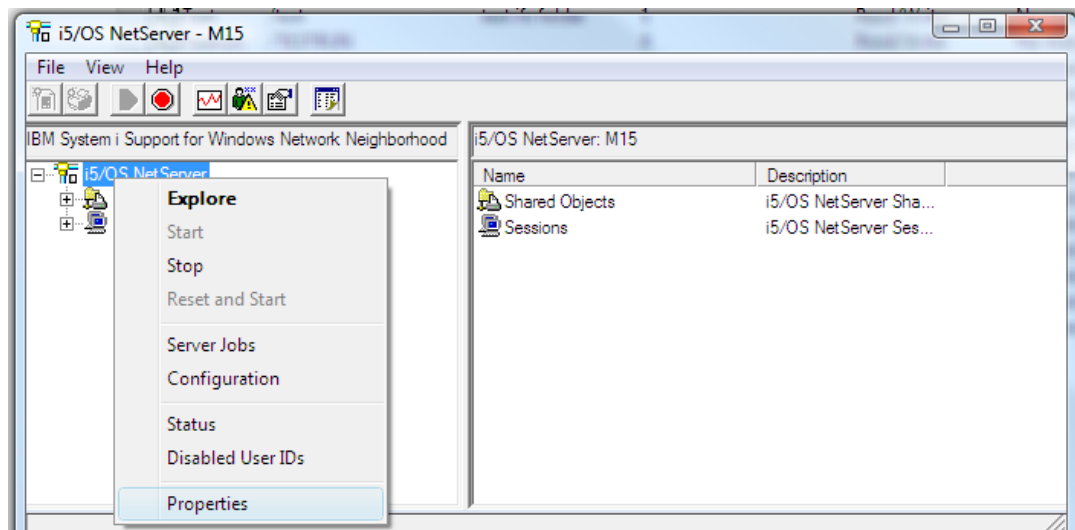
Please note that the following steps were illustrated using IBM i Navigator V6R1M0.

NetServer is the function on the IBM i that provides support for the Windows Network Neighbourhood. The **IBM i Navigator** can be used to Setup and Manage NetServer.

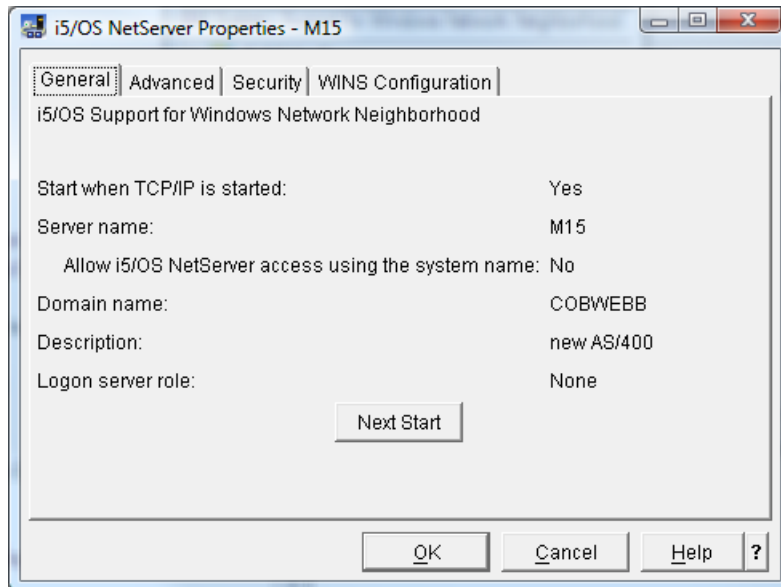
- Open **IBM i Navigator**
- Expand the **My Connections** node, by clicking on the plus beside the entry in the tree, and find the entry for your IBM i.
- Expand the entry for your **IBM i** in the same way. If you have not logged on to your IBM i you will be asked to provide a User Id and Password.
- Expand **File Systems** entry and then right-click on **File Shares** and choose **Open i5/OS NetServer** from the context menu to display the **NetServer** window. (Alternatively you can click on **File Shares** in the tree and there will then be a link in the bottom right panel to **Manage i5/OS NetServer** shares which will open the same dialog.)



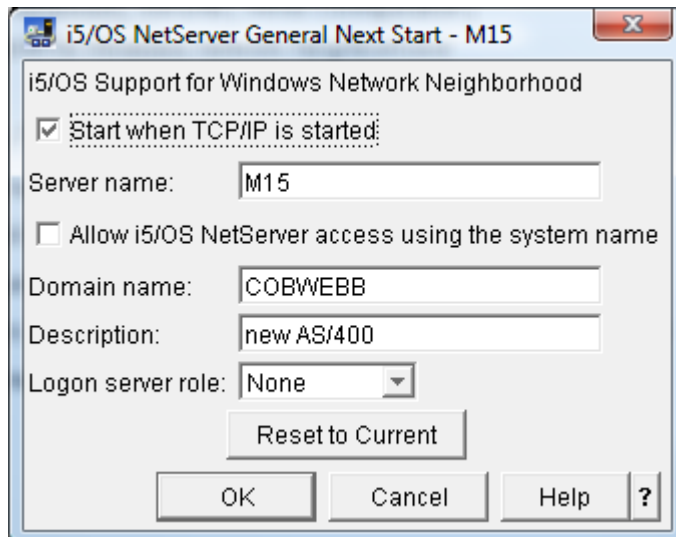
The NetServer window is displayed.



- Right-click on **i5/OS NetServer** and choose **Properties** (or select **Properties** from the **File** menu).



- In the **NetServer Properties** window click the **General** tab (*this will normally be displayed by default*) and press the **Next Start** button.

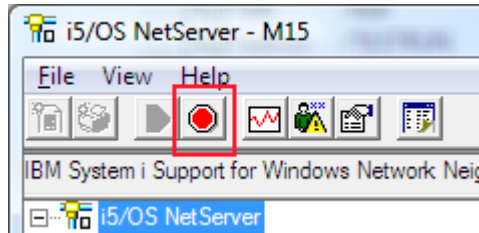


The **Next Start** appears where you can set properties that will be used the next time NetServer is restarted.

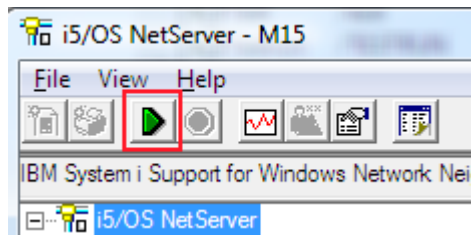
- In the **Domain name** field, enter a name that matches the **Domain Name / Workgroup** of the Windows Server that you wish to access.
- Click **OK** to close the **Next Start** dialog and then **OK** again to close the **Properties** window.

Now you need to **Stop** and **Restart** NetServer.

- To stop NetServer click on the **Stop** button (*red circle icon highlighted below*) or by selecting **Stop** from the **File** menu.



- Once NetServer has fully ended the **Start** button (*green arrow icon highlighted below*) will be enabled. **Note:** You might need to select **Refresh** from the **View** menu before the Start button or menu option are enabled.



- Click the **Start** icon or select **Start** from the **File** menu.

You should have now successfully configured your IBM i **NetServer Domain name** to match your **Windows Server Domain / Workgroup Name**.

11.13.2 QNTC and CPPD

When using CPPD to write to QNTC you need to be aware of the following:

- The format of the [File Path](#)
- The **User Profile** information when using the:
 - [Spooled File Monitor](#) to write to QNTC
 - [CRTPPD](#) command to write to QNTC
 - [Folder Monitor](#) to write to QNTC

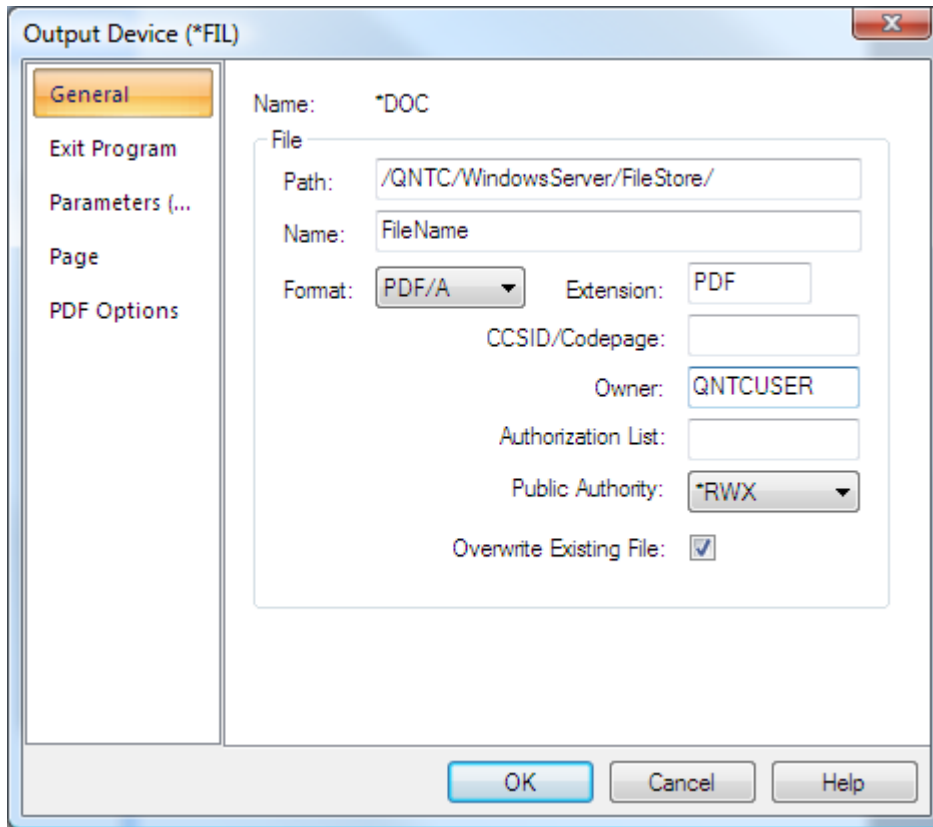
File Path format

When specifying a **File Path** to QNTC in your **PPD**, **Folder Monitor**, **File Exit Program** etc. it must be in the following format:

/QNTC/WindowsServer/FileStore

where **WindowsServer** is the name of your Windows Server and **FileStore** is the folder where you wish to store your files.

For example in a **File Output Device** the path for storing your ***FIL** output would be as in the screenshot:



Using the Spooled File Monitor

If you are using the [Spooled File Monitor](#) (SPLMON) to write files to QNTC then this will be using the user **CPPDMM** by default unless you have specified an **Owner** in the **File Output Device** in your PPD (see above screenshot for an example where the **Owner** is specified as **QNTCUSER**).

Note: You must make sure that this user is recognised by the Windows Server where you wish to store your files - see [QNTC Configuration](#) for details.

Using the CRTPPD Command

If you are using the [CRTPPD](#) command to write files to QNTC then you must be signed on to the IBM i with a user that is recognised by the Windows Server where you wish to store your files - see [QNTC Configuration](#) for details.

Using the Folder Monitor

If you are using the [Folder Monitor](#) to write files to QNTC then you need to specify a **Job Description** which has a **User Profile** that is recognised by the Windows Server where you wish to store your files - see [QNTC Configuration](#) for details. **Note:** The supplied Folder Monitor Job Description **FLRMON** uses the **CPPDMM** user by default.

11.13.3 Troubleshooting QNTC

Check IBM i Password is correct

From an IBM i session sign in as the user you created when [configuring QNTC](#) e.g. **CPPDQNTC**.

Check Windows Password is correct

In windows explorer try to connect to

```
\\WINDOWSFILESERVER\FILESTORE
```

where **WindowsFileServer** is the name of your Windows Server and **FileStore** is the folder where you wish to store your files.

Permission Denied Error

This could be in the form of a CPDB053 error "Error exchanging security information..." with an Error code 3401 which resolves to a "Permission Denied". This happens when the file server is rejecting the provided credentials.

A common cause of a "Permission Denied" error is because the Windows user password is not in all lower-case. The default password level on an IBM i is '0' (System Value QPWLVL) which causes QNTC to send an all lower-case password on the authentication attempt. If your Windows user password is not all lower case then Administrators should consider changing the IBM i password level to 3.

Check IBM i can resolve Server name

From an IBM i session enter the following

```
PING WINDOWSFILESERVER
```

where **WindowsFileServer** is the name of your Windows Server.

Check IBM i can see any QNTC servers

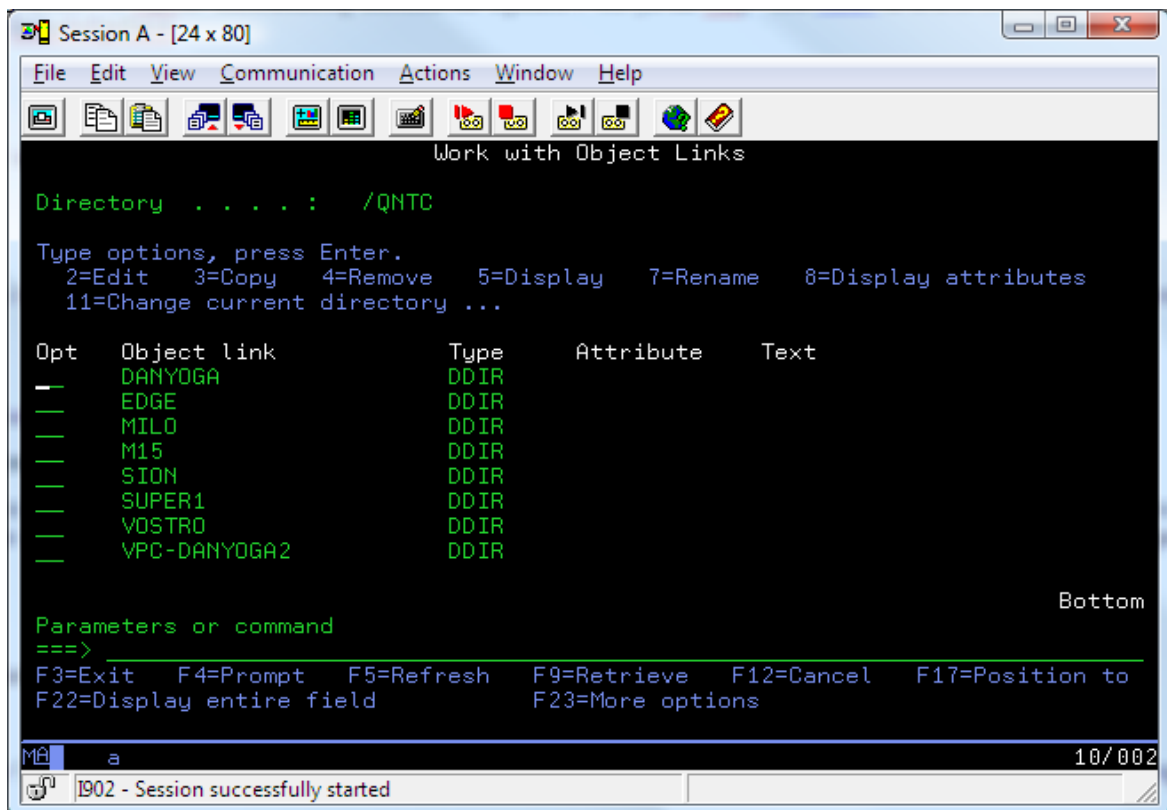
From an IBM i session log on using the User Id that you created when [configuring QNTC](#) e.g. **CPPDQNTC**, then run the following command on the IBM i:

```
WRKLNK OBJ ( ' /QNTC / * ' )
```

This could take several minutes to complete the first time it is run. Your Windows Server should appear on the list. If it doesn't, you may be able to manually establish a connection using command

```
CRTDIR ' /QNTC / <WINDOWSFILESERVER> '
```

substituting the name of your Windows Server for <WINDOWSFILESERVER>.



Find your Windows Server in this list and choose **5=Display** to display your file shares on the server. If the file shares don't appear, double-check that your User IDs and Passwords match exactly on both systems and that you have correctly Shared your folder.

Other information may be found under [Testing your Configuration](#).

Other Information from IBM

Sometimes you can encounter problems writing files to the QNTC file system after upgrading IBM i to V5R1M0. When the error is present, the message IFS1001 "Error 0 opening IFS object." is generated.

IBM's explanation and solution are:

Release 5.10 added the function of NetServer to have the codepage default to 0. This allows NetServer to interpret the correct codepage for transferring files. This has had a negative impact on QNTC since it does not handle the 0 codepage. A workaround has been to change the NetServer properties through **IBM i Navigator**.

Go to the **Advanced** tab of NetServer Properties. Press the **Next Start** button. Now you should be able to change the codepage to **1252**.

Unfortunately since QNTC is part of the IFS there is no way to restart QNTC without performing a complete IPL of the IBM i Server. Once the NetServer properties are changed you will need to IPL so QNTC can be loaded with the new changes.

11.14 Notify API (NFYAPI)

Overview

If you wish to perform a function dependent upon the status of a fax or e-mail being sent successfully or not from the Cobwebb queue then you can monitor the data queue **NFYMSGQ**.

If the data queue does not already exist in library CPPD then you can create it using the following command:

CRTDTAQ DTAQ(CPPD/NFYMSGQ) MAXLEN(29) TEXT('Notify Message Queue')

The response entry is added to data queue **NFYMSGQ** in the following format:

Position	Field	Description
1 - 6	TQREF	The Cobwebb Fax or EML Reference number
7 - 13	MSGID	The Cobwebb Fax or EML response message from message file QUSRMSG in library CPPD FAX0059 = Fax Sent successfully FAX0024 = Fax Failed to send PPD0150 = E-mail Sent successfully PPD0151 = E-mail Failed to send
14 - 21	USRID	User Id = NFYAPI
22 - 29	USRADR	User Address

The **MSGID** can be used to determine whether or not the message has been sent successfully and whether it was a fax or e-mail. The Cobwebb message reference number **TQREF** can be used to access the Cobwebb queue (**AFAXQ** in library **CPPD**) and complete details of the message retrieved.

To enable **Cobwebb Fax** and **Cobwebb Email** to write information to this data queue you need to specify the **USERID** in your CPPD output device as **NFYAPI**. (See below)

The image shows two side-by-side screenshots of the 'Output Device' configuration dialog boxes. The left dialog is titled 'Output Device (*FAX)' and the right is 'Output Device (*EML)'. Both dialogs have a 'General' tab selected and show the following fields:

- From:** ?007.021.013
- To:** ?008.021.013
- Attention:** ?009.021.013
- Reference:** ?010.021.013
- User name:** *CURRENT
- User ID:** NFYAPI
- User Address:** (empty field)
- Department:** (empty field)
- Transparency on:** (empty field)
- Transparency off:** (empty field)

The right dialog also includes a 'Message Format' dropdown menu set to 'Text' and a 'Postmaster Email' field (empty).

Once the status of a message on the Cobwebb queue has changed to either 'S' for **Sent** or 'W' for **Failed** then a record will be written to the NFYMSGQ data queue. You can then write a program to monitor this data queue. A sample program has been provided in the file **QUSRTOOL** in library **CPPD** called **NFYAPI**.

Sample Program NFYAPI

This program monitors the data queue **NFYMSGQ** until Shutdown (the sub-system is ended). If a record is retrieved, the program checks the **Message Id** entry in the data queue (**MSGID**) and the Status of the message on the Cobwebb queue (TQSTS) and, if they agree, sends a message to message queue **QSYSOPR**.

To run this job in the CPPD subsystem you can call the following command:

```
SBMJOB CMD(CALL PGM(NFYAPI)) JOB(NFYAPI) JOB(*LIBL/ CPPD)
```

12 Frequently Asked Questions

Have a look through the following list and see if any of these questions relate to what you are trying to discover. If you find one then click on the link for details.

- [How do I request a new Security Code?](#)
- [How do I find out what is new or been fixed in the latest version of the Cobwebb Server or Designer software?](#)
- [How do I clear my browser cache for a website?](#)
- [Which Ports must be allowed in a Firewall when using Cobwebb Document Management?](#)
- [How do I move the Cobwebb Server software to another Server?](#)
- [Which OS400 Versions \(IBM i\) are support by the Cobwebb Server software?](#)
- [How do I generate an SSL Certificate and Private Key using OpenSSL & Microsoft Active Directory Certificate Services?](#)
- [How do I configure SSL on IBM i \(i.e. create a *SYSTEM Certificate Store\)?](#)
- [How do I add custom Options to the WRKSPLF command?](#)
- [How can I configure Print notification of failed emails?](#)
- [I click OK on the Windows SmartScreen \(Windows 8.1\) when installing the Cobwebb Designer from the Cobwebb website using Internet Explorer and nothing happens?](#)
- [Why is the yellow shading of Static Text boxes bigger than the text in the Cobwebb Designer?](#)
- [How do I retrieve the Aurora User Output Queue & Library?](#)
- [What are the implications for CPPD when upgrading from System 21 to Aurora?](#)
- [How do I upload my Cobwebb Designs to the IBM Server?](#)
- [How do I export an image from Microsoft Word?](#)
- [How do I view ALL messages on the Cobwebb Queue not just my own?](#)
- [How do I create a Thermal Printer Output Queue?](#)
- [How do I create a Workstation Customising Object for Code Page 850?](#)

- [How can I display my own logo in the Cobwebb Web Server?](#)
- [How do I prevent text being squashed on the left of the page in my PDF output?](#)
- [How do I create a 2D barcode with more than 132 characters?](#)
- [How do I work out which QSQRVR jobs relate to the Cobwebb software?](#)
- [How can I create a Dynamic Email Message body?](#)

12.1 Requesting a new Cobwebb Server Security Code

For your Live Cobwebb Server

You may be moving the Cobwebb Server software to a new server or your Cobwebb Server licence may have expired. To request a new Security Code from Cobwebb please do the following from an IBM i session.

ADDLIBLE CPPD

GO CPPD

Select option **4** [PPD Security](#)

From Version 6.2.24 - **Press F14=Command string** and this will display a screen with all of the Security details.

Now you need to copy the details from the screen so, either select the details from the screen with your mouse and press **Ctrl C** or, select **Copy** from the **Edit** menu and this will copy the entire screen. Now **Paste** these details into an email and send this to [Cobwebb Support](#).

You will be emailed a [CHGPPDAUT](#) command string with all your security details. From version 6.2.24 of the Cobwebb Server software all you need to do is to make sure that you have the library **CPPD** in your library list, then paste the command string into a command line and press enter. Alternatively you can manually enter the information into the [PPD Security](#) (option 4 from the CPPD menu.)

For your Disaster Recovery (DR) Server

If your Disaster Recovery server does not have CPPD installed then, in addition to providing Cobwebb with the above details from your Live Cobwebb server, you will need to provide the following from your DR server:

Description	Example
System Serial Number	65DC3A3
Model	M15
Logical Partition	1

System Serial Number

Enter **DSPSYSVAL QSRLNBR** on a command line to return the following:

```
Serial number . . . . : 65DC3A3
```

Model

Enter **DSPSYSVAL QMODEL** on a command line to return the following:

```
Model number . . . . . : M15
```

Partition

In order to retrieve the Partition information you must be logged on to the Server with a User with *SECADM authority.

Enter **GO SERVICE** on a command line and select **Option 6. Display service registration information.**

```
Logical partition . . . . . : 1
```

Requesting a new Spool-a-matic Licence

If you need a new licence key for Spool-a-matic then we will need the following information from you:

Description	Example
System Serial Number	65DC3A3
Processor Group	P05
Model	M15
Operating System Version	V6R1M0
Spool-a-Matic Version	V2R5M0

This information may be retrieved by using the following two commands:

WRKLICINF

Enter **WRKLICINF** on a command line to return the following:

```
System serial number . . . . . : 65DC3A3
Processor group . . . . . : P05
License Term: V6R1M0
```

Page down until you find the entry "**2A55SAM VnRnMn 5001 Spool-a-Matic - Gumbo Software, Inc**" which will give you the **Spool-a-Matic Version** that you have installed.

DSPSYSVAL QMODEL

Enter **DSPSYSVAL QMODEL** on a command line to return the following:

```
Model number . . . . . : M15
```

12.2 What's New in Cobwebb Document Management

Whenever there is a new version of the **Cobwebb Server** or **Designer** software the [What's New in Cobwebb Document Management](#) document is updated to reflect the latest changes.

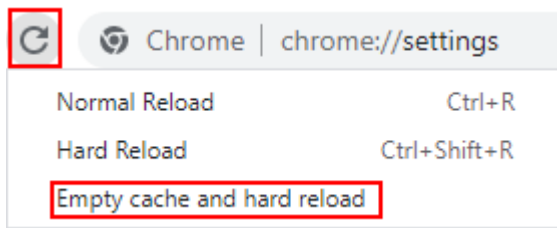
This is a cumulative document which may be downloaded from the Cobwebb Support site by clicking the above link and downloading the attachment.

12.3 Clear all browser cache for a specific website

You may need to clear the browser cache for a number of reasons such as a Docstore update may also require the client browsers to refresh some files used by Docstore. If this doesn't happen automatically then the user will notice layout issues with the Docstore website. To fix this issue the user should clear their **Docstore** browser cache. The steps for this differ between browsers so here are some guidelines.

Google Chrome

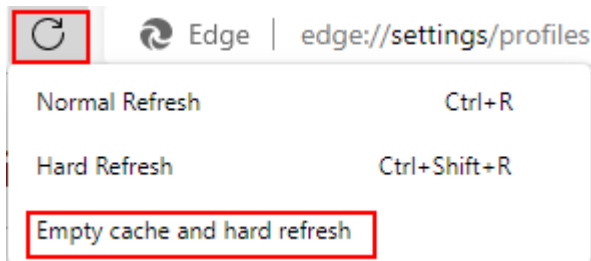
- Open Google Chrome and browse to the website whose cache you wish to clear
- Press **F12** to show the Developer tools
- Right click on the **Reload** toolbar button and select "**Empty cache and hard reload**"



- Press **F12** to hide the Developer tools

Microsoft Edge

- Open Microsoft Edge and browse to the website whose cache you wish to clear
- Press **F12** to show the Developer tools
- Right click on the **Reload** toolbar button and select "**Empty cache and hard reload**"



- Press **F12** to hide the Developer tools

Firefox

- Open Firefox and go to **Settings**
- Select the **Privacy & Security** tab
- Scroll to locate **Cookies and Site Data**
- Click **Manage Data**
- Select or search for the website from the list and click **Remove Selected**
- In order to remove all data, in **Cookies and Site Data**, click on **Clear Data** and then **Clear** the specific data

Safari

- Open Firefox and select the **Gear** icon (Settings) and open **Preference**
- Select **Privacy**
- Click **Details**
- Search for the website you wish to clear the cookies for and select **Remove**

Internet Explorer 11

- Browse to the website whose cache you wish to clear
- Press **F12** to show the Developer tools and select the **Network** tab
- Click the **Clear cache** button or press **Ctrl+R**
- Press **F12** to hide the Developer tools

Internet Explorer 8, 9, and 10

- Browse to the website whose cache you wish to clear
- Press **F12** to show the Developer tools
- Click on **Cache** on the Developer Tools menu bar
- From the drop down menu, select "**Clear browser cache for this domain**". This will clear all the cache specific to the currently open website
- Similarly, go to **Cache > Clear cookies for domain** in Developer Tools to clear cookies of the current website.
- Press **F12** to hide the Developer tools

12.4 Create Dynamic HTML Email Message Body

Overview

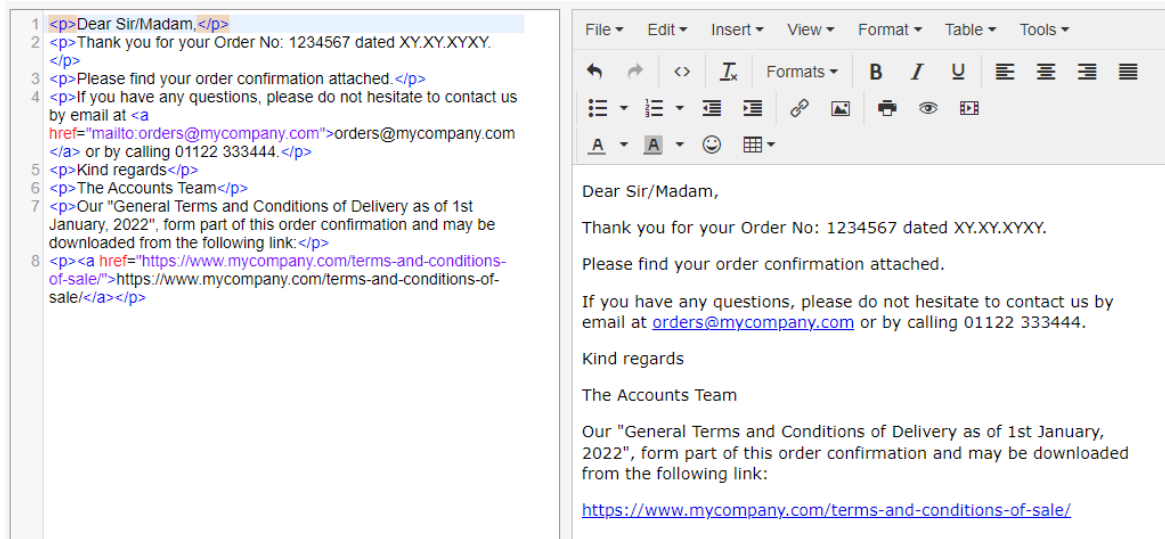
Often when sending documents via email customers would like to have the Email body as HTML and also include data from the spooled file such as Order Number, Invoice Number etc. If you are putting the spooled file through the [Advanced Reformatting Utility](#) (or a pre-process SCS PPD), then there is a very simple way of producing this message body.

- [Step 1 - Design the HTML](#)
- [Step 2 - Add the HTML to your Cobwebb Design](#)
- [Step 3 - Add the HTML File to your Final Cobwebb Design](#)
- [Step 4 - Tidy up](#)

Step 1 - Design the HTML

There are various HTML Editors out there but we have found this one to be the simplest to use <https://html5-editor.net/>. **Note:** This creates basic HTML but without adding fonts.

Here you type what you want in the right hand pane, including formatting, hyperlinks etc. and the HTML is generated in the left hand pane.

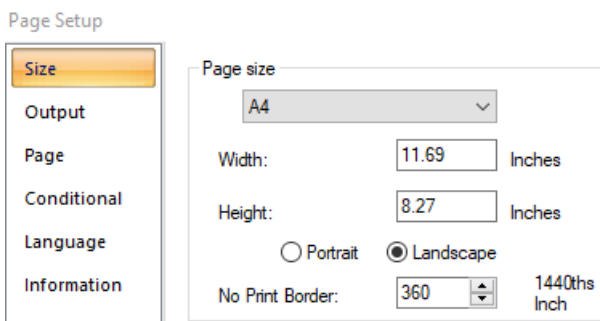


Step 2 - Add the HTML to your Cobwebb Design

Normally the PPD calling the [Advanced Reformatting Utility \(ADVRFMT\)](#) doesn't actually use the **Output Pane** in the [Cobwebb Designer](#). This means that it can be used to design your HTML.

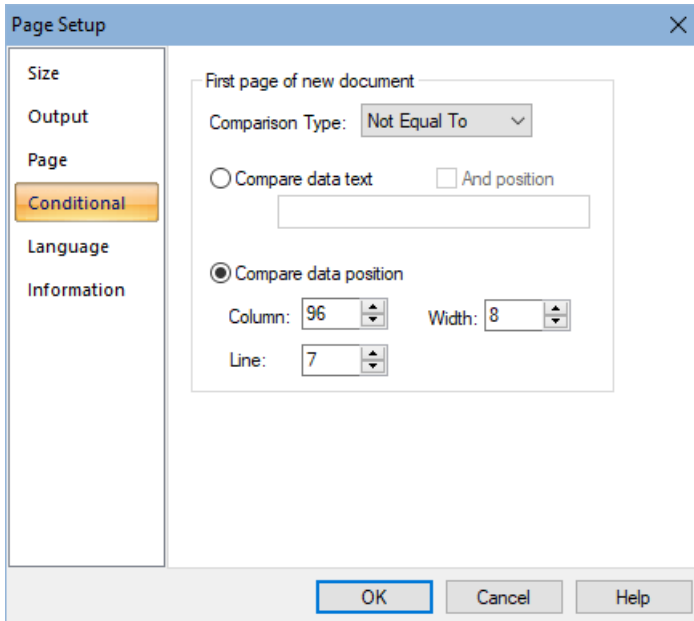
Configure the PPD Page Setup

In order to be able to fit more of the HTML across the page we would suggest that you change the [File > Page Setup](#) to **Landscape**.



You should also configure the [Conditional](#) tab to set the **Compare data position** for defining the first page of a new document. **Note:** This would normally have been done anyway to split up the Advanced Reformat output.

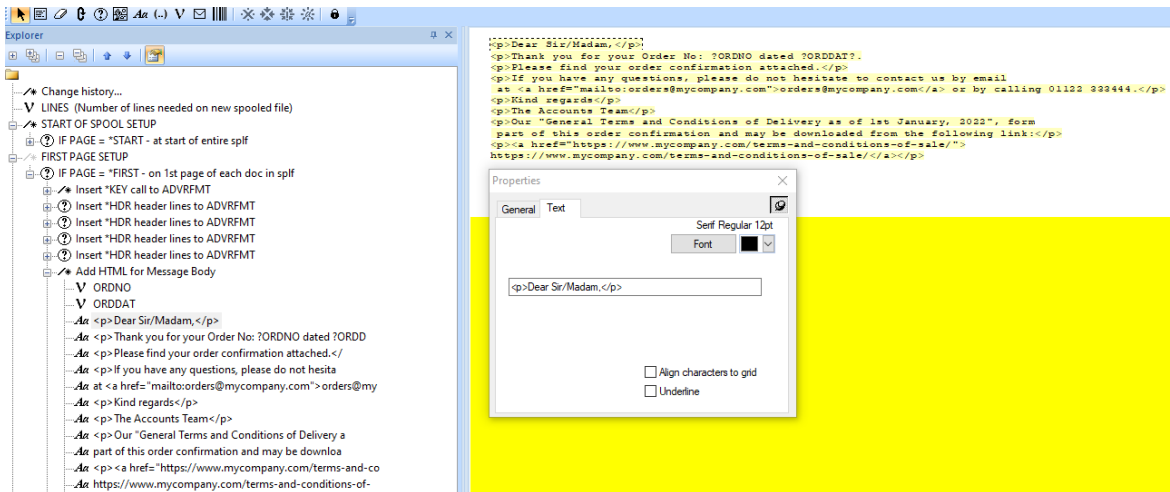
Here we are using the position of the **Order Number** on the spooled file.



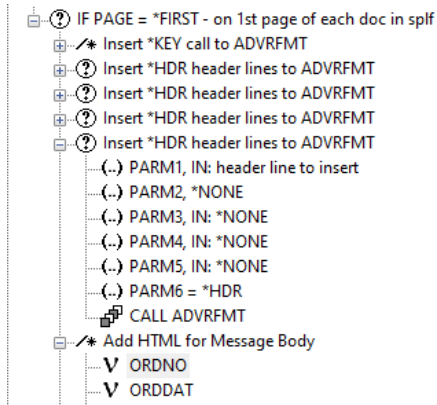
Add HTML as Static Text

This would normally be added under a **Page=*FIRST Condition** as you would need to create a different HTML file for each Email output. In this example we are splitting the spooled file by **Order Number** so the message body will be different for each order.

The HTML is added to the **Output Pane** using the [Static Text](#) element but you need to take care that you are not adding too much of the HTML to a Static Text i.e. you can see everything on the Output Pane. It is easy to split the text and add a new Static Text element to include the remaining text.



[Multiple Variable Substitution](#) can be used to concatenate HTML and data such as **Order Number, Order Date** etc. from the spooled file. To do this you would first create a [Variable](#) for each piece of data you wish to include e.g. ORDNO & ORDDAT in our screen shot.



Despatch note	0295587/0
Our order	0295587
Date	31/07/15
Your ref.	11983
Date	21/07/15
Customer	CLESUR /
~~~~~ ~~~~~ ~~~~~	
ntity	Quantity
	despatched
~~~~~ ~~~~~ ~~~~~	

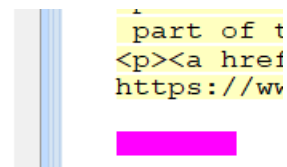
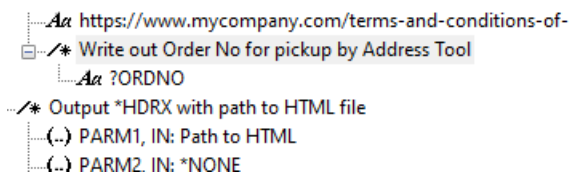
Then use the **Static Text** element to output the **Variable** to the page i.e. ?ORDNO e.g.

```
<p>Dear Sir/Madam.</p>
-----
<p>Thank you for your Order No: ?ORDNO dated ?ORDDAT?..</p>
<p>Please find your order confirmation attached.</p>
<p>If you have any questions, please do not hesitate to contact us by e
at <a href="mailto:orders@mycompany.com">orders@mycompany.com</a> or k
```

Note: If there needs to be a character rather than a space after the Variable, as in the case of **ORDDAT** which has a full stop, then you need to add an extra ? at the end of the variable name e.g. ?ORDDAT?.

Write the File Name to the Output pane

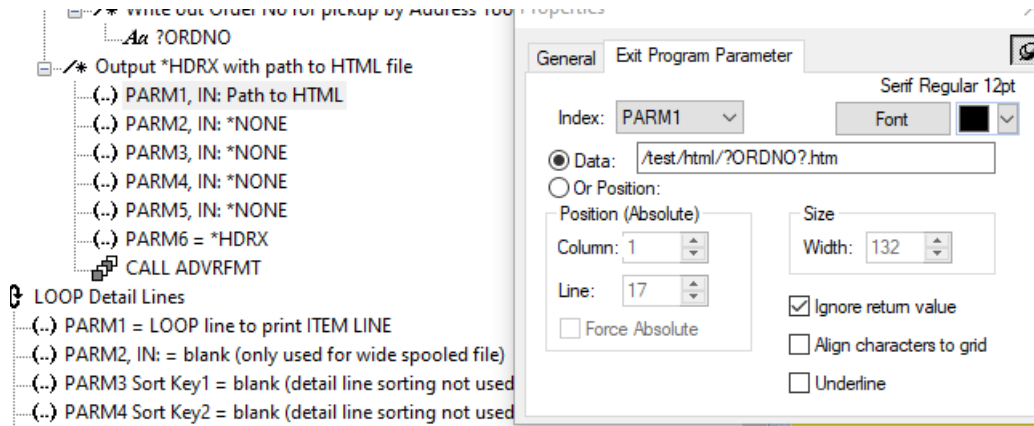
Unfortunately you cannot use the **Multiple Variable Substitution** when defining [Address](#) elements in an **Output Device** so the Order Number (which is going to be the File Name) needs to be written to the Output Pane. This will be removed later when creating the [File Output Device](#) so just add it somewhere after your HTML.



Add a *HDRX Call to ADVRFMT for path to HTML

It is a good idea to add the path to the HTML file onto the spooled file generated by the Advanced Reformatting Utility as then, if you need to change the path, you only need to do this in one PPD and not both. This path will then be used in the [final PPD](#) as the path to the HTML for the Message Body in the Email Output Device.

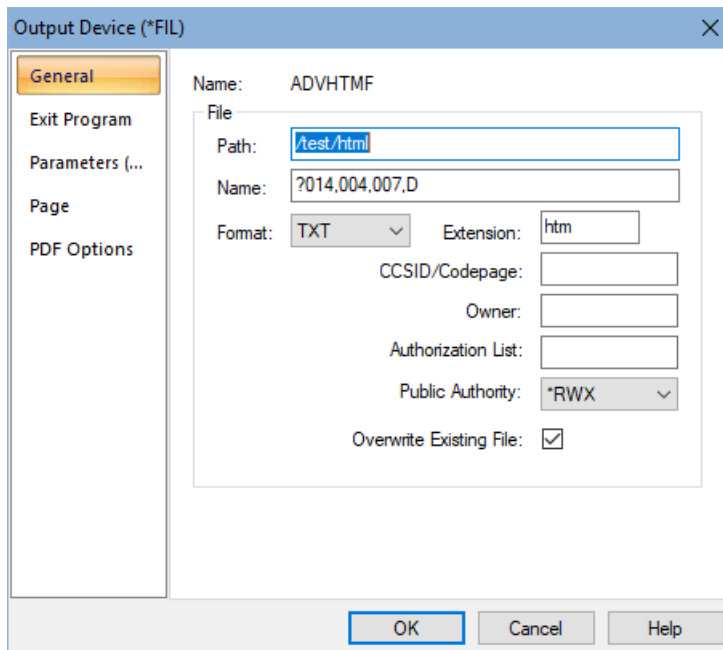
This information can be output to the Spooled File generated by the Advanced Reformatting Utility using a [*HDRX](#) call to ADVRFMT e.g.



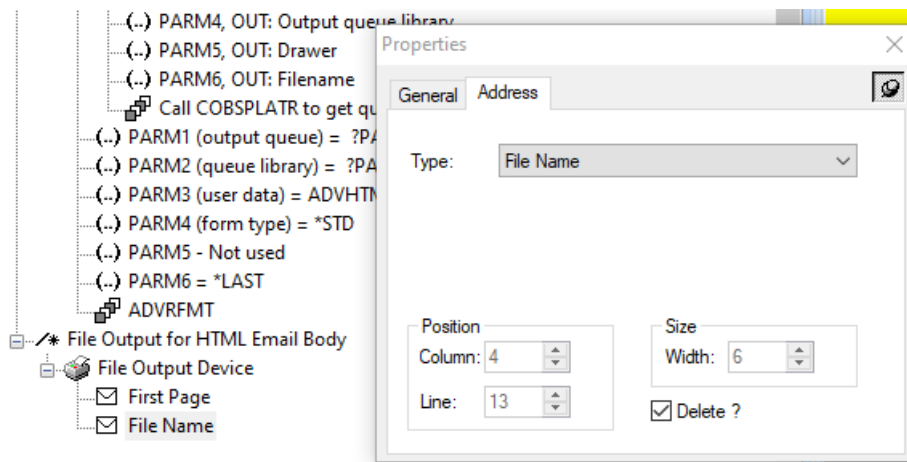
Note: You could use other types of ADVRFMT call such as *DET or *TRL but we have used *HDRX. Also the extension needs to be .htm as only 3 characters possible in a [File Output Device](#).

Include a File Output Device

You then add a [File Output Device](#) and give the file a unique name such as the **Order Number** so that it doesn't get overwritten by anything else.



Here we are using the Order Number output to the Output Pane for both the **First Page** and **File Name** parameters. The **Extension** should be HTM as only 3 characters are allowed for this.



Note: As shown above, make sure that you have the **First Page** element before the **File Name** and then tick the **Delete** box for the **File Name** parameter otherwise this will be output to the HTML.

Example HTML Output

Source created by PPD

```

0295587.htm
1
2
3 <p>Dear Sir/Madam,</p>
4 <p>Thank you for your Order No: 0295587 dated 31/07/15.
5 <p>Please find your order confirmation attached.</p>
6 <p>If you have any questions, please do not hesitate to contact us by email
7 at <a href="mailto:orders@mycompany.com">orders@mycompany.com</a> or by calling 01122 333444.</p>
8 <p>Kind regards</p>
9 <p>The Accounts Team</p>
10 <p>Our "General Terms and Conditions of Delivery as of 1st January, 2022", form
11 part of this order confirmation and may be downloaded from the following link:</p>
12 <p><a href="https://www.mycompany.com/terms-and-conditions-of-sale/">
13 https://www.mycompany.com/terms-and-conditions-of-sale/</a></p>
14
15

```

File displayed in Browser

Dear Sir/Madam,

Thank you for your Order No: 0295587 dated 31/07/15.

Please find your order confirmation attached.

If you have any questions, please do not hesitate to contact us by email at orders@mycompany.com or by calling 01122 333444.

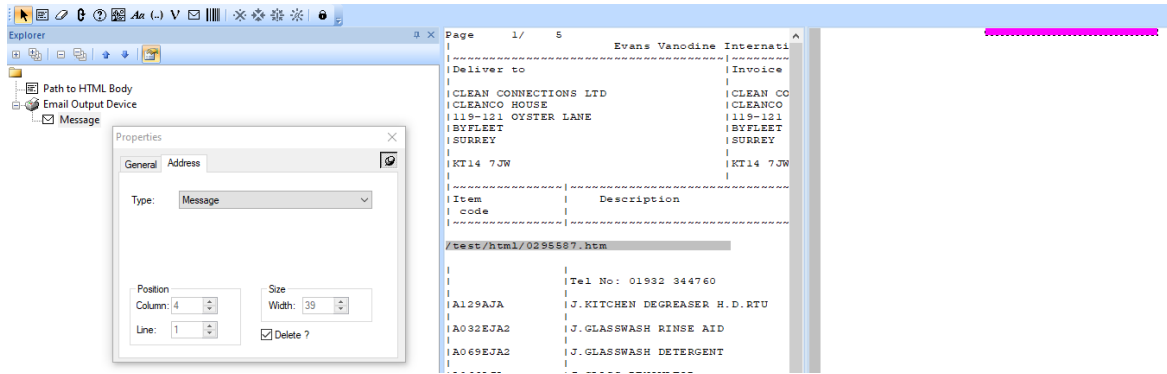
Kind regards

The Accounts Team

Our "General Terms and Conditions of Delivery as of 1st January, 2022", form part of this order confirmation and may be downloaded from the following link:
<https://www.mycompany.com/terms-and-conditions-of-sale/>

Step 3 - Add the HTML File to your Final Cobwebb Design

Next, in the PPD that processes the output from the [Advanced Reformatting Utility](#), you can specify the path to the HTML file in the [Email Output Device](#).



Here we have added the output from the ***HDRX** call to ADVRFMT to the top of the Output Pane, where we won't be outputting any actual information required for the email. We have then defined this as a **Message Address** element and selected to **Delete** it from the Output pane afterwards.

Step 4 - Tidy up

The HTML files will remain in the folder where you created them and will never be deleted. If you wish to automatically tidy this folder then you could use the [Folder Housekeeping](#) function in the Cobwebb Server software but care would need to be taken not to delete files where the Email may have failed to send.

12.5 Ports used by Cobwebb Document Management

When there is a Firewall between your PC and the IBM i, certain ports need to be open when using Cobwebb Document Management.

Application	Ports
Cobwebb Designer	3772, 3773
Cobwebb Docstore	6443 (HTTPS), 6400 (HTTP)
IBM i Access	449, 8471-8476 (<i>see table below for details</i>)
5250 Emulation	23
Cobwebb FTP	21 (<i>Others may be required if Passive FTP is enabled on the IBM i, which it almost always is</i>)

The following is a summary of the main **IBM i Access** ports that may be significant - for the full list please see the [IBM Support page](#).

PC Function	Ports
Server Mapper	449
Database Access	8471 (<i>Used by Kofax validation</i>)
Data Queues	8472

IFS Access using IBM i Navigator	8473
Network Printers	8474
Remote Command	8475
Signon Verification	8476

Example Error

The following is an error received when [Exporting your Design](#) from the **Cobwebb Designer** using sockets

Failed to Create Data Channel, Error Code is: 100xx

Reason - This was because port 3772 had been unblocked but port 3773 had not. Firewalls etc. need both ports (3772 & 3773) unblocked for Cobwebb Designer Export to work when the [Use Sockets Server option](#) is used. The **PCSRVI** (SOXSVR) job, running in the [CPPD Subsystem](#), listens for connections on port 3772. When a file store request is made, a separate connection is created on port 3773.

Test Connection to an IBM i Port using TELNET

In the following examples please replace **<server_address>** with the DNS Name or IP Address of your IBM i.

- Open a Command Prompt on your PC.

Port not open scenario

Enter:

```
telnet <server_address> 3773
```

Response:

```
Connecting To <server_address>...Could not open connection to the host, on port 3773: Connect failed
```

Port open scenario

Enter:

```
telnet <server_address> 3772
```

Response:

```
Accepted - Black screen
```

12.6 Generate a Certificates using OpenSSL and Microsoft Active Directory Certificate Services

In order access the [Cobwebb Web Server](#) using **HTTPS** you may either:

- Use the supplied default certificate and key which has been created using a Self-Signing Certificate - this is not the ideal solution as you will receive varying security errors depending upon the browser you are using e.g. "This site is not secure" or "Your connection is not private".

- Generate a Certificate for the Server using a Certificate Authority - this gives you true https security.

Prerequisites

- **OpenSSL** - or other software capable of generating private keys and certificate requests. Windows binaries can be found in the [openssl wiki](#) and pick a download location. For example select <https://indy.fulgan.com/SSL/> and then the **openssl-1.0.2r-x64_86-win64.zip**.
- A **Certificate Authority** - Here at Cobwebb we have installed the **Microsoft Active Directory Certificate Services**. Installation instructions are beyond the scope of this document, but there are many walk through's on the internet, like [this](#) and [this](#).

Assumptions

This topic assumes that you will be using **OpenSSL** and **Microsoft Active Directory Certificate Services**. In our examples we are using the following so you will need to replace this with your own details.

Please create the two folder locations as these will be required in the following steps.

Server Name e.g. M15.cobwebb.local

Open SSL Installation folder C:\Users**User.Name**\Documents\OpenSSL (*replacing User.Name with your Windows User Name*)

SSL Certificate storage location C:\Users**User.Name**\Documents\Certificates (*replacing User.Name with your Windows User Name*)

Steps to Generate your Certificate

There are various steps that need to be taken to create a certificate for use with the Cobwebb Web Server and these are outlined below:

- [Download and install OpenSSL](#)
- [Create a Private Key](#)
- [Create an SSL Configuration file](#)
- [Create a Certificate Request](#)
- [Request a Certificate from a Certificate Authority](#)
- [Install & Configure the SSL Certificate and Key on the Cobwebb Web Server](#)

Download and Install OpenSSL

Browse to the [openssl wiki](#) where the Windows binaries can be found. We selected the <https://indy.fulgan.com/SSL/> and then the **openssl-1.0.2r-x64_86-win64.zip**.

Download the .zip file and extract to the OpenSSL installation folder you have just created.

Create a Private Key

We are going to use **OpenSSL** to create a **Private Key** which will be used to create your **Certificate Request**.

From a command prompt run the following replacing the **User.Name** and **Server.Name** with your replacements:

```
"C:\Users\User.Name\Documents\OpenSSL\openssl" genpkey -
algorithm RSA -out "C:
\Users\User.Name\Documents\Certificates\Server.Name.key" -
pkeyopt rsa_keygen_bits:4096
```

Note: You can ignore the warning about not being able to open the config file.

This should generate a file **C:**

\Users\User.Name\Documents\Certificates\Server.Name.key beginning with the text:

-----BEGIN PRIVATE KEY-----

Create an SSL Configuration file

Now we need to create an **SSL Configuration file** for the server **C:**

\Users\User.Name\Documents\Certificates\Server.Name.openssl.cnf.

- **Open** a Text Editor such as Notepad ++
- **Copy** the following contents and paste into the Text Editor
- **Replace** the entries in red with your details and removing / adding entries for your configuration - see [Entries Explained](#) below for details on each configuration entry.
- **Save** the file as **Server.Name.openssl.cnf** in the **C:**

```
\Users\User.Name\Documents\Certificates\
[ req ]
default_bits          = 2048
prompt                = no      #If this is set to yes the
command will prompt you, with the values in
'req_distinguished_name' set as suggestions (but you will
still need to type them in)
distinguished_name    = req_distinguished_name
req_extensions        = req_ext
[ req_distinguished_name ]
C                    = UK
ST                   = Kent
L                    = Tonbridge
O                    = Cobwebb
OU                   = IT
CN                   = server.domain
[ req_ext ]
subjectAltName       = @alt_names
[alt_names]
DNS.1                 = server.domain
DNS.2                 = server
```

Entries Explained

Note: If you require further information please see [Open SSL Configuration](#).

**[req]
section**

- C Country Name
- ST State or Province
- L Locality
- O Organisation
- OU Organisation Unit / attribute
- CN The fully qualified domain name of your Cobwebb Web Server - This entry is mandatory.

[req_ext] This section is only required if you wish to configure a Multiple Domain Certificate where you will then need to specify each Domain Name or IP Address

DNS.1 Domain Name 1

DNS.2 Domain Name 2

IP.1 IP Address 1

IP.2 IP Address 2

Create a Certificate Request

The next step is to use the **Private Key** and **SSL Configuration file** that we have just created to create a **Certificate Request**.

From a command prompt run the following replacing the **User.Name** and **Server.Name** with your replacements

```
"C:\Users\User.Name\Documents\OpenSSL\openssl" req -new -key
"C:\Users\User.Name\Documents\Certificates\Server.Name.key" -
out "C:
\Users\User.Name\Documents\Certificates\Server.Name.csr" -
config "C:
\Users\User.Name\Documents\Certificates\Server.Name.openssl.cn
f" -nodes -sha256
```

Note: You can ignore the warning about not being able to open the config file

This should generate a .a file **C:**

\Users\User.Name\Documents\Certificates\Server.Name.csr beginning with the text:

```
-----BEGIN CERTIFICATE REQUEST-----
```

Request a Certificate

Use the generated **Certificate Request** to request a certificate from a Certificate Signing Authority. Here we are going to be using the **Microsoft Active Directory Certificate Services**.

- Open the **.csr** file in a Text Editor such as Notepad++ and copy the contents to the clipboard.

- Browse to the Certificate Authority

Microsoft Active Directory Certificate Services – cobwebb-SPECIAL1-CA-1

Submit a Certificate Request or Renewal Request

To submit a saved request to the CA, paste a base-64-encoded CMC or

Saved Request:

Base-64-encoded certificate request (CMC or PKCS #10 or PKCS #7):

Certificate Template:

User ▼

Additional Attributes:

Attributes:

- Paste the contents of the Certificate Request into the box provided and select **Web Server** from the list of **Certificate Template** entries. **Note:** If you don't see the **Web Server** option then you may not have the correct permissions so please see [Granting Permission to the Web Server Template](#) below:
- Click **Submit**.

← → ↻ ⓘ Not secure | special1.cobwebb.local/certsrv/certifnsh.asp


Apps Cobwebb Home BugTracker- Home Inbox (34) - kstimps... D:

Microsoft Active Directory Certificate Services – cobwebb-SPECIAL1-CA-1

Certificate Issued

The certificate you requested was issued to you.

DER encoded or Base 64 encoded

 [Download certificate](#)
[Download certificate chain](#)

- Download either the **DER** or the **Base 64 encoded** certificate (The Cobwebb Web Server seems to support either) and select **Download certificate**.

- This should generate a **.cer** file in your Downloads folder beginning:

```
-----BEGIN CERTIFICATE-----
```

- Browse to your Downloads folder and rename the **certnew.cer** to **server_name.cer** e.g. **m15.cobwebb.local.cer** and copy it to your **Certificate Store** location e.g. **C:\Users\User.Name\Documents\Certificates**

Granting Permission to the Web Server template

Note: These steps are only required if you cannot see the **Web Server** entry when [Requesting a Certificate](#) above.

- On the **Certificate Server** machine:
- Right click on **Start** and choose **Run**
Certtempl.msc
- Right Click on the "Web Server" template and choose **Properties**
- Select the **Security** tab
- Make sure your user has **Write** and **Enrol** permissions

12.7 Configuring SSL on IBM i

To do anything with SSL (HTTPS communication or TLS secure SMTP for example) the IBM i needs a certificate store with at least a ***SYSTEM** certificate store.

Setting up the *SYSTEM certificate store in the Digital Certificate Manager

1. Start the **Digital Certificate Manager** (DCM) by typing:

```
STRTCPSVR SERVER(*HTTP) HTTPSVR(*ADMIN)
```

2. Connect to the **ADMIN** instance of the HTTP server by pointing your Web browser to:

```
http://your-system-name:2001
```

Note: If this fails try opening **http://your-system-name:2001/QIBM/ICSS/Cert/Admin/qycucm1.ndm/main0** which was suggested in the IBM document: [How to Create the *SYSTEM Store in DCM](#)

3. Click "**Digital Certificate Manager**"
4. Click "**Create New Certificate Store**" (in the Navigation frame on the left)

5. Follow the prompts to create a ***SYSTEM certificate store**

You do not need to create or assign any certificates unless required by the business partner that you will be communicating with. Usually this is only required when security is vital (such as when talking to a bank). Companies like UPS, for example, don't require you to send them any certificates.

12.7.1 Granting Users Permission to run SSL applications

In order to give your users proper permissions to run apps that use HTTPAPI/SSL you should give them access to the ***SYSTEM** certificate store.

1. Open **iSeries Navigator** (or, Operations Navigator)
2. Click your **iSeries** connection, then "Users and Groups"
3. To grant access to a group profile, click "**Groups**" - To grant access to an individual user, click "**All Users**"
4. Choose the user profile that you'd like to grant access to, right click on it, and choose "**Properties**"
5. Click the "**Capabilities**" button.
6. Select the "**Applications**" tab
7. Pull down the "**Access for**" list box, and select "**host applications**"
8. Expand the "**Digital Certificate Manager**" and check the box next to the "***SYSTEM certificate store**"

Note: Some people have reported that this procedure doesn't work. If it fails for you, see the [Alternative Solution](#) below.

Alternative Solution

Some have reported that the preceding instructions don't work, because the user doesn't have access to the underlying files in the IFS. To solve that problem, grant authority as follows.

In this example, we're giving a user named **USERA** access to the files. Change **USERA** to the required USERID when you do it.

```
CHGAUT OBJ('/') USER(USERA) DTAAUT(*RX)
CHGAUT OBJ('/QIBM') USER(USERA) DTAAUT(*RX)
CHGAUT OBJ('/QIBM/UserData') USER(USERA) DTAAUT(*RX)
CHGAUT OBJ('/QIBM/UserData/ICSS') USER(USERA) DTAAUT(*RX)
CHGAUT OBJ('/QIBM/UserData/ICSS/CERT') USER(USERA) DTAAUT(*RX)
CHGAUT OBJ('/QIBM/UserData/ICSS/CERT/SERVER') USER(USERA) DTAAUT(*RX)
CHGAUT OBJ('/QIBM/UserData/ICSS/CERT/SERVER/DEFAULT.KDB') USER(USERA) DTAAUT(*R)
CHGAUT OBJ('/QIBM/UserData/ICSS/CERT/SERVER/DEFAULT.RDB') USER(USERA) DTAAUT(*R)
```

Notes:

- If you wish to give all users access to run SSL programs, then you should change USER(**USERA**) to USER(***PUBLIC**). You can also use an Authorisation List (AUTL) if you like by specifying AUTL(your-autl) instead of USER(your-user)
- Adopted authority does not work in the IFS. Please grant permissions by the actual USERID, not the adopted one.

12.8 CPPD & IBM i Compatibility

The IBM i (OS400) has generally been very good at maintaining compatibility through upgrades.

Cobwebb Server software

IBM i Version	CPPD Version	Notes
V7R4M0	v6.2.80	Tested on 06/11/2019, earlier versions may also be compatible.
V7R3M0	v6.2.76	Tested on 01/12/2017, earlier versions may also be compatible.
V7R2M0	v6.2.61	Earlier versions may also be compatible.
V5R3M0 - V7R1M0	v6.2.87	The last CPPD Version compatible with these OS400 versions.
V7R1M0	v6.0.30	Minimum Version.
V5R3M0	v5.1.02	Minimum Version.
V4R5M0 - V5R2M0	v6.0.5	The last CPPD Version compatible with these OS400 versions.

Spool-a-Matic software

Spool-a-Matic have their own [downloads](#) page listing compatibility, basically the minimum versions are:

IBM i Version	Spool-a-Matic Version
V7R2M0	V2R8M0
V7R1M0	V2R7M0
V6R1M0	V2R5M0

12.9 Add Custom Options to WRKSPLF

Custom Options can be added to the **WRKSPLF** command using an **IBM i Exit Program** and **Exit Point QIBM_QNPS_SPLF**. This Exit Point is used by exit programs that process spooled files.

- [Step 1 - Check for existing WRKSPLF Exit Programs](#)
- [Step 2 - Create your bespoke Exit Program for WRKSPLF](#)
- [Step 3 - Add a new Exit Program for WRKSPLF](#)

If you no longer need an entry then you can [Remove an existing Exit Program from WRKSPLF](#).

Step 1 - Check for existing WRKSPLF Exit Programs

First you need to find out what has already been configured by using the following command.

```
WRKREGINF EXITPNT(QIBM_QSP_SPLF_LSTACT)
```

```

Session B - [24 x 80]
File Edit View Communication Actions Window Help
Work with Registration Information
Type options, press Enter.
 5=Display exit point  8=Work with exit programs

Exit
Point
Opt  Exit Point      Format      Registered  Text
-   QIBM_QSP_SPLF_LSTACT LASP0100    *YES        User-defined spooled file lis

Command
===>
F3=Exit  F4=Prompt  F9=Retrieve  F12=Cancel

MA  b                                     09/003
|902 - Session successfully started

```

Now use **Option 8=Work with Exit Programs** to look at the existing entries.

```

Session B - [24 x 80]
File Edit View Communication Actions Window Help
Work with Exit Programs
Exit point:  QIBM_QSP_SPLF_LSTACT      Format:  LASP0100
Type options, press Enter.
 1=Add  4=Remove  5=Display  10=Replace

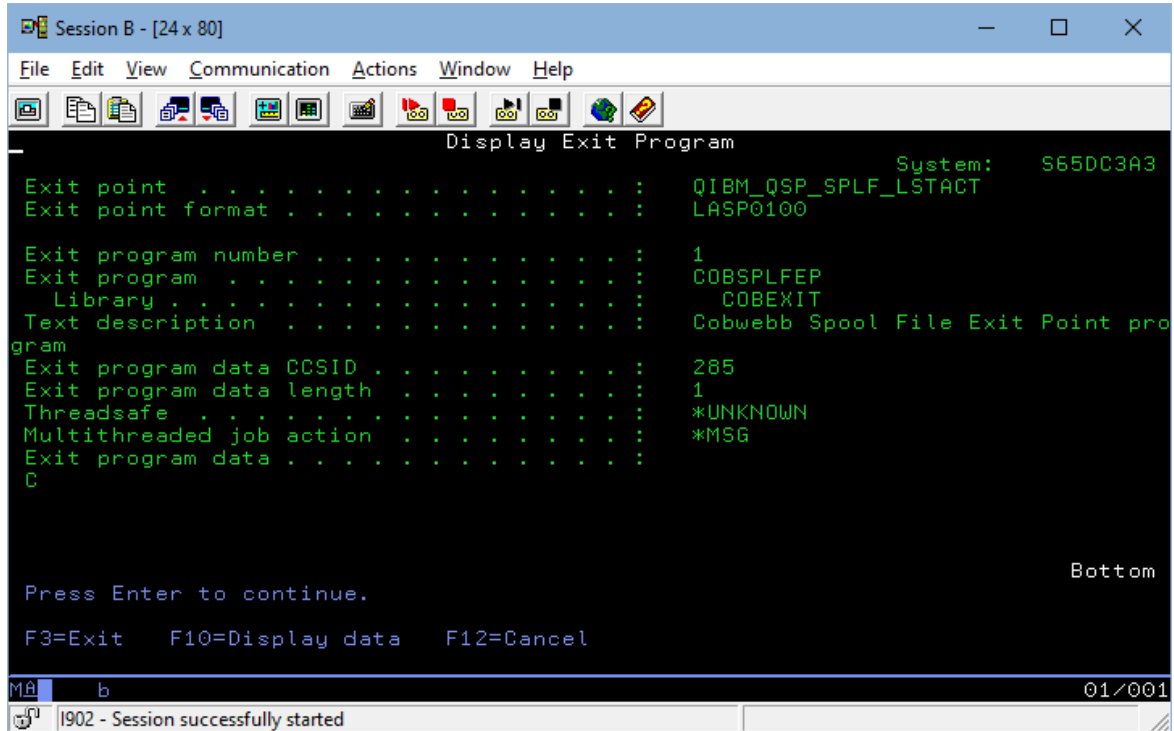
Exit
Program Number  Exit Program      Library
-             -
1             COBSPLFEP        COBEXIT
2             COBSPLFEP        COBEXIT
3             COBSPLFEP        COBEXIT
4             COBSPLFEP        COBEXIT

Command
===>
F3=Exit  F4=Prompt  F5=Refresh  F9=Retrieve  F12=Cancel

MA  b                                     11/002
|902 - Session successfully started

```

Here at Cobwebb we have four entries all calling the same program **COBSPLFEP** but passing a different entry ('C', 'D', 'E' or 'F') e.g here is a screen shot from selecting **Option 5** against number **1**.



Step 2 - Create your bespoke Exit Program for WRKSPLF

From Version 6.2.81 of the Cobwebb Server software, we have provided the source for our internal program **COBSPLFEP** that we use here at Cobwebb and you will find this in **QURSTOOLLE** in library **CPPD**. If you have a look at the program you will see that we have coded for the above four options to call four different commands e.g.

Option	Command	Description
C	CRTPPD	Create PPD Output
D	DUPSPLF	Duplicate a Spooled File
E	EDTSPLF	Edit a Spooled File (<i>currently only an internal tool here at Cobwebb</i>).
F	SNDFAXP	Send the Spooled File as a Fax

Decide which **Options / Commands** you wish to use - you can use any that can be called using the following spooled file information:

D	Spool_ID	DS		
D	Job_Name		1	10
D	User_Name		11	20
D	Job_Number		21	26
D	Splf_Name		27	36
D	Splf_Num		37	40B 0

Compile your program into a bespoke library on your IBM i (*not the CPPD library otherwise it will not exist after an upgrade of the Cobwebb Server software*).

Step 3 - Add a new Exit Program for WRKSPLF

To add a new Exit Program for WRKSPLF you need to do the following for each option you wish to use, one for each option:

Note: *ALLOBJ and *SECADM authorities required for this command.

```
ADDEXITPGM EXITPNT(QIBM_QSP_SPLF_LSTACT) FORMAT(LASP0100) PGMNBR(*LOW)
PGM(COBEXIT/COBSPLFEP) PGMDTA(*JOB 1 C)
```

The entries in red will need to match the Library/Program **COBEXIT/COBSPLFEP** and Option **C** that you wish to use.

Remove an existing Exit Program from WRKSPLF

There is a **RMVEXITPGM** command to remove an option if it is no longer required e.g.

```
RMVEXITPGM EXITPNT(QIBM_QSP_SPLF_LSTACT) FORMAT(LASP0100) PGMNBR(1)
```

The entry in red will need changing to be the number of the entry you wish to remove. **Note:** *ALLOBJ and *SECADM authorities also required for this command.

12.10 Configure Print Notification of Failed Emails

Within the Cobwebb Server Software there is an option to **Print failed messages**. You will then need to specify an **Output Device** for printing this information.

Step 1 - Create an Output Device

1. From the **Cobwebb Fax and Email Menu** select option **7**. System Maintenance > **1**. Maintenance Menu > **10**. Work with output devices.
2. Enter **1** to create a new Output Device. Leave the **Page Definition** blank, enter an **Output Device** name say FAILED and a **Description** and press Enter.
3. Select the **Output type** for the Output Device and press Enter. You need to select one of the Print types e.g. *SCS, *AFP or *HPT.
4. Complete the details for your printer and press Enter. Please see [Work with Output Device details](#) for a description of all the entries.

(Please Note: at present you need to press F3 to return to the list of Output Devices)

Step 2 - Change the System Parameter to Print failed messages

1. From the **Cobwebb Fax and Email Menu** select option **6**. Work with system parameters > **1**. System Parameters > **1**. System Parameters.
2. Change the **Print failed messages** entry to a **2** (or **3**) to print failed email (and fax)

3. Enter the name of the Output Device you have just created in the **Output device** entry
4. Press Enter.

Example Failed Email *SCS Output

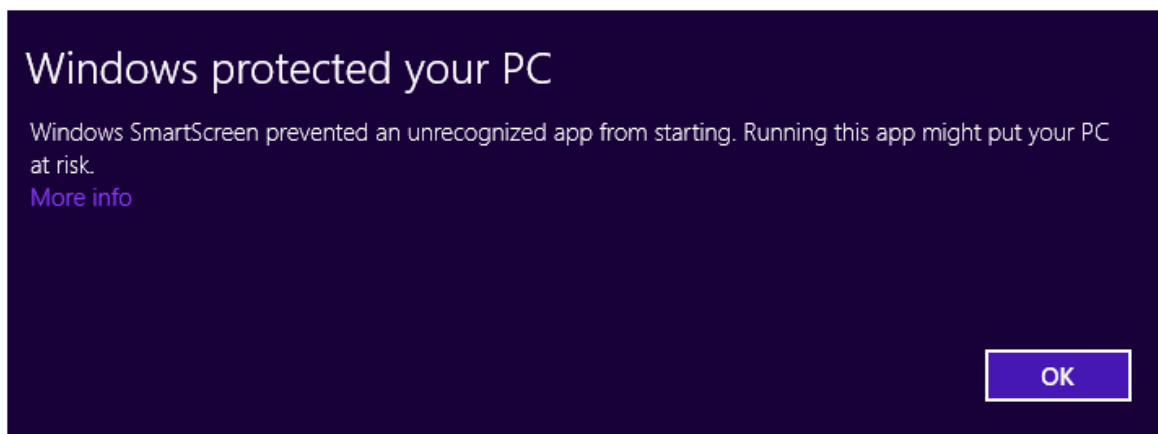
AFAX MESSAGE DETAILS
QUEUE REF E000000001
USER NAME QSECOFR
SENDER ADDRESS
test@cobwebb.com
RECIPIENT ADDRESS
test,bad@cobwebb.com
SUBJECT
Test failed email print
DATE AND TIME
2017/05/17 12:56:11

12.11 Getting around Windows SmartScreen Warning

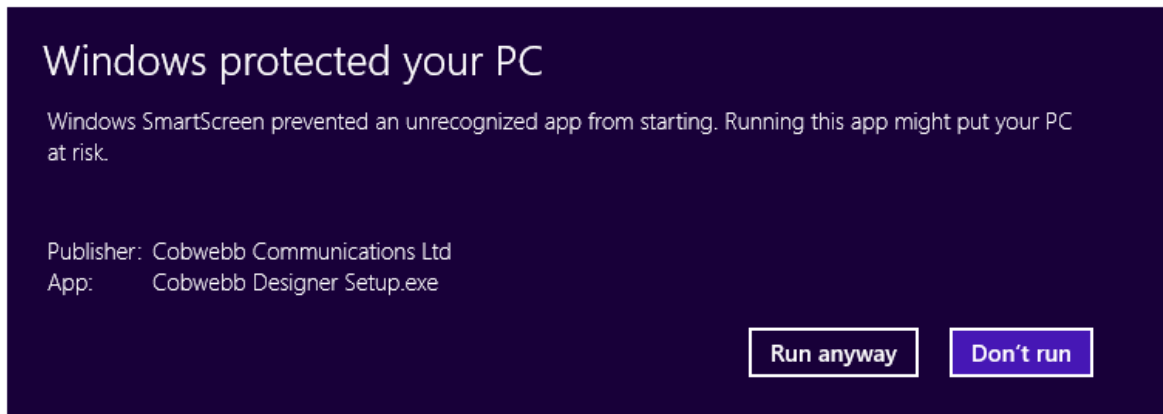
From **V7 (build 15)** the **Cobwebb Designer Setup.exe** installer has been signed. If you are on Windows 8.1 and using Internet Explorer to download the latest version from the Cobwebb website then you will see the following pop-up at the bottom of the page:



If you select **Run** (or **Save** and then **Run**) you will see the following Windows SmartScreen:



If you click **OK** then nothing happens. What you need to do is to click the **More info** link which will then display the following:



This gives you the details of the publisher and now you click **Run anyway** to start the installation.

For further details on installing the Cobwebb Designer software please see the topic [Installing the Cobwebb Designer](#).

12.12 Static Text Box Sizes

The yellow shaded area around the [Static Text](#) is the area that the text takes up in the virtual position 'grid' that sits behind every design. It can look odd when the Static Text font has characters that take up less space than this grid, but behind the scenes they still take up all the yellow area of the position grid e.g



In order to understand this better you can tick the **Aligned characters to grid** box which will show you the characters spaced out to fill the grid. Be careful because you won't normally want to leave this ticked.

If your chosen font size has characters which take up more space than the grid then the box will increase in size to cater for this.

Beware, Any text output over the yellow area will overwrite the static text.

By the way, the virtual position 'grid' is based on the **Characters per inch** and **Lines per inch** settings in the [Page Setup](#).

12.13 Aurora upgrade implications for CPPD

The only area to focus on when upgrading to Aurora from System 21 are any Exit Programs used within your Cobwebb Designs (PPD files).

Exit Programs are routines that facilitate the retrieval of data for inclusion on document output / conditional distribution.

- In Aurora the library names have changed, these therefore have to be altered within the Cobwebb Designs for any Exit Program calls. The Cobwebb Designer does have a **Find/Replace** option which may be useful to you.

- The ownership of the Exit Programs will have to be altered from **QPGMR** in System 21 to **AULOWNER** in Aurora. From a command line on your server you may use the following command replacing the **LIBRARY** and **PROGRAM** entries with the relevant information.

```
CHGOBJOWN OBJ ( LIBRARY / PROGRAM ) OBJTYPE ( *PGM )  
NEWOWN ( AULOWNER )
```

- You may get a “level check” error, in the SPLMON joblog, when calling the Exit Programs. This means that the Exit Programs need to be re-compiled over the Aurora files as the file layout has changed.

If you require any help with the above process please call or email support@cobwebb.co.uk and we will be please to assist you.

12.14 Uploading Cobwebb Designs


The following steps outline the process for uploading your Cobwebb Designs (PPD files) to the Server.

On the Server...

1. Get **Current XPD version** in use.
 - Sign into the Server you wish to upload the Cobwebb Designs to.
 - Add **CPPD** to your library list with the command **ADDLIBLE CPPD**
 - Enter the command **GO CPPD** to view the CPPD menu.
 - Select menu option [4. PPD Security](#)
 - Make a note of the **XPD Version** shown on the **CPPD System Security** screen.
 - Press **F3** to exit the menu without making any changes to the data.

On your PC...

2. **Install** the latest Cobwebb Designer
 - Download and install the latest version of the **Cobwebb Designer** software. See the following link for details:
[Installing the Cobwebb Designer](#)
3. **Configure** the Cobwebb Designer
 - Open the Cobwebb Designer application.
 - Select **Options** from the **View** menu.
 - Select the [Server](#) tab on the **Options** dialog.
 - Enter the information detailed below:
 - System Name:** Enter the system name or I.P. address to upload to. Installing the software would normally complete this entry automatically if it had access..
 - Use Sockets:** Ensure this check box is ticked / checked on.
 - XPD File Version:** Select the XPD File Version number noted previously.
 - Click **OK** to confirm the changes and close the **Options** dialog.
4. **Open** and **Upload** a Cobwebb Design
 - In the Cobwebb Designer, select **Open** from the **File** menu.

- Browse to the location of the PPD file to be uploaded and select **Open**.
- Select **Export PPD...** from the **File** menu or click on the **Export PPD** icon .
- Check the **Name** shown in the **Export to Server** dialog is the correct name you wish to upload. (*Maximum 10 characters, no spaces.*)
- Check the **Version** shown in the Export to Server dialog is the XPD version number entered previously.
- Ensure the **Automatically import into CPPD** check box is ticked / checked on.
- Select the **OK** button to upload the design to the Server. This will upload the PPD file and any graphics linked to it that are required.
- If you are updating an existing design, a message box will be displayed informing you that a design with this name already exists and would you like to replace it? Click **Yes** to update the existing design with the latest version.

***Note:** the Cobwebb Designer may become unresponsive when uploading the design but will respond once the upload is complete.*

- Repeat the above steps for each design to be uploaded.

12.15 Exporting an image from Microsoft Office

You may wish to also read the topic [Creating Images](#) for some useful tips on creating images for your Cobwebb Designs.

Create the image...

- Open the Microsoft Word or Excel document which contains the graphic or overlay you wish to export.
- Select **Print** from the **File** menu in MS Word.
- Select **Cobwebb PPD Printer** from the printers drop down menu.
- Select the **Properties** button.
- From the **Layout** tab, set the page layout to the correct orientation i.e Portrait or landscape.
- From the **Paper/Quality** tab ensure the **Black & White** radio button is selected to keep the image file size down if the overlay is black and white.
- Click **OK** to confirm these settings.
- Click **OK** on the **Print** dialog.
- In **Print to file** dialog select the **Save as type** drop down menu and change the type to **All Files**
- Select a **path** and enter the **File name** you wish to save the image as and ensure you add the **.PNG** file extension as part of the file name.

***Note:** Please remember when creating your image file name, that it needs to be eight characters or less in order for it to be successfully uploaded to the Server. We recommend you maintain the same, or related names for your Image Overlays and your PPD files.*

- Click **OK**

Updating existing images...

If you are updating an existing image ensure the exported image has the same name and file extension as the old image. Drag and drop the new image into the same folder as the older image to overwrite it.

Open the Cobwebb Design which requires the image to check the design is correctly linked to the image with no error messages or warnings.

Note: If you already have the Cobwebb Design open when updating the image you will need to select the image elements properties and select the **Reload** button to update the design.

You will then need to upload your design to the Server - see [Uploading Cobwebb Designs](#) for details.

12.16 View ALL entries on the Cobwebb Queue

Operator Profiles

When viewing the **Cobwebb Queue** by default only the user's own messages are displayed. Cobwebb users may display all queue entries (F7), they may not be authorised to view or work with all message content. All queue entries are displayed and are available to Cobwebb **Operators** (except *Public Authority 2=None*). To configure a user to be an Operator for the Cobwebb Queue please use the following steps.

- Add **CPPD** to your library list with the command **ADDLIBLE CPPD** and press Enter
- Enter command **GO CPPD** and press Enter
- Select option **80. Fax/Email menu**
- Select option **6. Work with system parameters**
- Select option [3. Operator Profiles](#)
- Add the User Id that you wish to be made an Operator Profile to the list.

Manager Groups.

You could instead create **Manager** groups where all users with the same *Manager* have access to each other's messages. Use the following steps to configure Managers.

- Enter command **GO CPPD** and press Enter
- Select option **80. Fax/Email menu**
- Select option **7. System maintenance**
- Select Option **1. Maintenance menu**
- Select Option [1. Work with user profiles](#)
- Place a **2** beside the user(s) to add to the group
- Add a **Manager** Name for the user here.

Note: If a User Id is used as the **Manager** and the **Manager** field on the Managers User Profile entry is left blank then users can access each others messages, but not the Manager's

12.17 Configure Spool-a-matic defaults

If you find that the text on the left edge of your PDF output is compressed then this could mean that you need to alter the defaults for Spool-a-matic, which is used to generate the PDF.

Note: After *Version 6.2.68* of the Cobwebb Server software, when you install Spool-a-matic, these defaults will be set automatically.

To check which defaults have been set for your version of Spool-a-matic please run the following from a command line on your server.

```
ADDLIBLE SPLAMATIC
GO SPLAMATIC
```

Select option **64 - Change Spool-A-Matic default**

Check the following entries are set as the recommended values and if not, correct them.

Description	Keyword / Recommended Value	Why?
Reference printer device & Refprtdev offset correction	REFPRTDEV(*AFPYES) REFOFFSET(0 0)	These two keywords prevent text near the edge of the page being 'pushed' into the page and overwriting other text. The Default for REFPRTDEV appears to be *HPTASCII which can cause problems.
PDF font imbedding	PDFFONTIMB(*TRUETYPE)	This allows embedded True Type fonts in the PDF.
PDF image process blending	PDFIMGPBL(*PREBLEND32)	This blends the 4 colour planes of a 32bit CMYK image into one plane. This decreases the size of the PDF and prevents each colour plane opening one after the other when the PDF is opened.

12.18 Populating 2D barcode with more than 132 characters

In the **Cobwebb Designer** the [Barcode Properties Data](#) box only allows you to enter up to 132 characters of data. With the advent of 2D barcodes these can require many more characters. The way to solve this problem is to add your barcode data into multiple [Variables](#) and then use a combination of the variables to populate the barcode **Data**.

For example, as Variables can only hold up to 132 characters, you would need to create several to make up the total number of characters for your barcode.

Use the following steps to create your Barcode element - here we will assume that our barcode data length is 204.

1. Create two **Variables** say **BCDATA1** and **BCDATA2**.
2. Populate the **Variables** with your barcode data.

This can either be done by manually typing the information into the **Data** box in the Variable Properties, picking up information from the Spooled File or using an **Exit program** to extract the information from a database. **Note:** If you were using an **Exit Program** you would first call the Exit Program to return the barcode data split over two (or

more) parameters e.g. PARM1 and PARM2, and then populate the **Variables** you have just created by entering ?PARM1 or ?PARM2 etc. in the **Data** box e.g.

The screenshot shows the 'Properties' dialog box with the 'Variable' tab selected. The 'Index' dropdown is set to 'BCDATA1'. The 'Data' field contains '?PARM1'. The 'Or Position' radio button is selected. Under 'Position (Absolute)', 'Column' is 5 and 'Line' is 27. The 'Size' field shows 'Width: 6'. The 'Force Absolute' checkbox is unchecked.

In the above scenario **PARM1** would contain the first part of the barcode (up to 132 characters) and **PARM2** the second part (again up to 132 characters).

- Once you have the barcode data stored in your **Variables** you can then concatenate this information in the **Data** box in your **Barcode** e.g. ?BCDATA1??BCDATA2? - for more details please refer to [Multiple Variable & Parameter substitution](#).

The screenshot shows the 'Properties' dialog box with the 'Barcode' tab selected. The 'Data' field contains '?BCDATA1??BCDATA2?'. The 'Or Position' radio button is selected. Under 'Position (Absolute)', 'Column' is 10 and 'Line' is 34. The 'Size' field shows 'Width: 204'. The font is set to 'Serif Regular 12pt'. The 'RoyalMail' dropdown is selected. The 'Settings' button is highlighted with a blue border.

- The last step is to change the **Width** of the barcode to **204** (or whatever is the correct length for the data in your two **Variables**) as shown above, because the Width automatically defaults to the width of the text typed in which isn't enough for the data which is stored in the variables.

12.19 QSQRVR Subsystem Customization

In some environments, it would be better to have SQL server mode work occur in the same subsystem as the job which is initiating the work. By default, QSQRVR prestart jobs use the QSYSWRK subsystem for all SQL server mode connections.

This can be changed so that the subsystem choice is made upon first use of SQL server mode within a job and does not change for the life of that job.

To **enable** the switch, you should use the following command:

```
ADDENVVAR ENVVAR(QIBM_SVRMODE_SBS) VALUE(' *SAME' ) LEVEL(*SYS)
```

This will mean that all SQL server mode work will occur in the **same** subsystem as the job which is initiating the work. Please note that this is system wide change.

To **disable** the switch, you should issue the following command:

```
RMVENVVAR ENVVAR(QIBM_SVRMODE_SBS) LEVEL(*SYS)
```

For further details please see <https://www.ibm.com/support/pages/qsqsvr-subsystem-customization>

13 Acknowledgements

Cobwebb Designer & Cobwebb Docstore	Developed by Daniel L. Webb
Cobwebb Server software	Developed and maintained by: Currently: Dave A. Payn Kim D. M. Stimpson Previously: Stacey C. Robinson Gerry Blackman
Kofax Bespoke Scripts	Developed by Daniel L. Webb & John G. Alabaster
Cobwebb Document Management User Guide & online Help	Written by Kim D. M. Stimpson - <i>with input from Peter, Daniel & Barney Webb</i>
IFS, and other code examples	Sourced from Scott C. Klement
HTTPAPI Service Program	Copyright (c) 2001-2012 Scott C. Klement <i>Licence information in member LICHTTP in file QURTOOL in library CPPD</i>
EXPAT Service Program	Copyright (c) 1998, 1999, 2000 Thai Open Source Software Center Ltd and Clark Cooper Copyright (c) 2001, 2002, 2003, 2004, 2005, 2006 Expat maintainers. <i>Licence information in member LICEXPAT in file QURTOOL in library CPPD</i>
CPPD images	Designed by Myf E. E. Webb
SCANSPLF Command	Developed by Dryan Dietz
DUPSLE Command	Developed by Herman Van der Staey

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