# AS/400, Power Systems
# Workstation Customization Object
# Installation and Setup Guide

**A Possible Alternative for IPDS Printing Using Standard Xerox Office Products**

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**XTOOLS1027**

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# Overview

The Work Station Customization Object (WSCO) is a look up table that the host print transform (HPT) uses to translate AS400 commands to the equivalent PCL code specific to a printer. For example, the AS400 application will request printing from drawer 1. To send the correct tray call to the printer, the HPT will look for drawer 1 in the product specific WSCO linked to that queue for the PCL tray code.

The XTOOLS*xxxx* library provides a source WSCO for each Xerox device supported.

**Note:** Throughout this document, XTOOLS*xxxx* indicates the current WSCO version (*xxxx* represents the release number of the library you download).

The library also contains commands that simplify the processes of compiling the WSCO and creating device descriptions or remote queues. These commands are built upon the standard IBM O/S commands and display the options that must be entered – they do not present those options that will use default settings.

## Audience

This document targets system administrators familiar with the AS/400 environment. A system administrator should plan to install the WSCO without requiring assistance from Xerox field personnel. The following section contains support information.

## Xerox Support

Contact Customer Support for Phaser products at 1-800-835-6100.

For all other products, you can reach Xerox Customer Support at 1-800-821-2797 (USA), TTY 1-800-855-2880 or at http://www.xerox.com.

Xerox Customer Support welcomes feedback on all documentation - send feedback via e-mail to: USA.DSSC.Doc.Feedback@mc.usa.xerox.com.

## References

*IBM AS/400 Printing V* (Red Book) – available on the IBM Web site.

Other documents about Xerox multifunction devices are available at the following URL: http://www.office.xerox.com/support/dctips/dctips.html.

## Prerequisites

- IBM i 7.3 or later.
- You must have IOSYSCFG permissions to create a device description queue.

# What the WSCO Can Modify

The WSCO can modify many print features including:

- Paper (input) tray
- Duplex
- Form merges
- Characters per inch
- Lines per inch
- Orientation (landscape or portrait)
- Type style or typeface
- Margins (top, bottom, left, right)

# What the WSCO Cannot Modify (see next section for possible solutions)

- The WSCO cannot modify and print an IPDS formatted file.
- It cannot process vector graphics or GOCA (Graphic Object Content Architecture – IBM's vector graphic format)

# Printing AFP Documents

The AS/400 has the ability to format a file for printing on an IPDS or an ASCII printer. The AS/400 writer looks at the Device Type in the "Device Description" file to determine which formatter to call. If the Device Type is *IPDS and AFP=*YES, then the writer hands the spool file to PSF. PSF queries the printer for print capabilities and spools the file to an IPDS printer. If the Device Type is 3812 and Host Print Transform (HPT)=*YES, then the writer hands the Spool file off to HPT. The HPT then looks at the WSCO for printer capabilities and spools the file to an ASCII printer.

Xerox devices do not support the IPDS format and require that the DEVICE TYPE in the "Printer File" be set to *AFPDS. No changes to the application are required. The one item that the HPT cannot process is vector graphics or GOCA (Graphic Object Content Architecture – IBM's vector graphic format) resources. GOCA is generated by using the CHRSIZE DDS keyword. For the same results, use the FONT keyword and select a scalable GFID (Global Font ID).

The Xerox supplied WSCO has pre-mapped the common AS400 fonts to standard PCL printer fonts. Fonts are easily added or changed in the WSCO if the application requires something different. Font support is documented in the AS/400 Version 5.1 *Printer Device Programming Manual*. You can select fonts in an AFPDS spool file by the DDS keyword FONT, or by using the default GFIDs indicated by the character per inch (CPI) value in the printer file. The FONT keyword also supports a *POINTSIZE parameter.

HPT does not require the presence of PSF on the AS/400. HPT and PSF can coexist at the same time, and drive the same printer. PSF provides its own writer, and HPT works through standard AS/400 writers.

PSF and HPT control the location of resources, such as fonts and overlays, in different ways. PSF uses a PSFCFG object to identify the library list. HPT does not have access to the PSFCFG. It requires all libraries that contain resources to be in the library list of the job or user who is printing the spool file.

# Installing the WSCO

## Downloading the Zip File

The XTOOLS*xxxx*.zip file contains an AS/400 save file and this installation document. The save file contains the library XTOOLS*xxxx*. The library and all of the contents are owned by user XRXUSR. Create a user profile called XRXUSR. To execute the XTOOLS*xxxx* commands, a user must have the same level of authority required to execute the IBM command CRTDEVPRT. You don't need to login as XRXUSR, but the profile must exist.

1. Use a Web browser in the Windows environment to access www.xerox.com.
2. Select **Support > Support & Drivers**.
3. In the **Search by Product** box, type in the printer model. Once it appears in the drop-down menu, select the correct printer model.
4. Select **Drivers & Downloads**.
5. In the **Operating System** box, select **IBM AS/400**.
6. Select **AS/400 Workstation Customization Object for Xerox Products**.
7. Follow the instructions to download XTOOLS*xxxx*.zip, and then unzip it using an application such as WinZip.

   **NOTE:** The XTOOLS*xxxx* library contains WSCOs for all supported Xerox products. It only needs to be downloaded once.

## Restoring the XTOOLS*xxxx* Save File to a Library

The following procedure requires that your user profile have save system authority (*SAVSYS) to restore the library. The authorities *ALLOBJ, *SPLCTL, and *IOSYSCFG are required to run the commands provided in XTOOLS*xxxx*, unless the administrator has made those commands public.

On the AS/400 command line, enter the following to create a save file in library QGPL, then press Enter:

1. CRTSAVF QGPL/XTOOLS*xxxx*
2. Open a Windows command prompt. Start an FTP session then type PWD to verify QGPL is your current library. If not, change the current library to QGPL. FTP the library XTOOLS*xxxx* you retrieved from the zip file to the save file QGPL/XTOOLS*xxxx* you created in step 1. You must set the FTP upload file type to BINARY.

   ftp>put XTOOLS*xxxx* XTOOLS*xxxx*
3. On the AS/400 command line, enter the following to restore the library XTOOLS*xxxx*:

   RSTLIB SAVLIB(XTOOLS*xxxx*) DEV(*SAVF) SAVF(QGPL/XTOOLS*xxxx*)
4. Add XTOOLS*xxxx* to your library list:

   ADDLIBLE XTOOLS*xxxx*

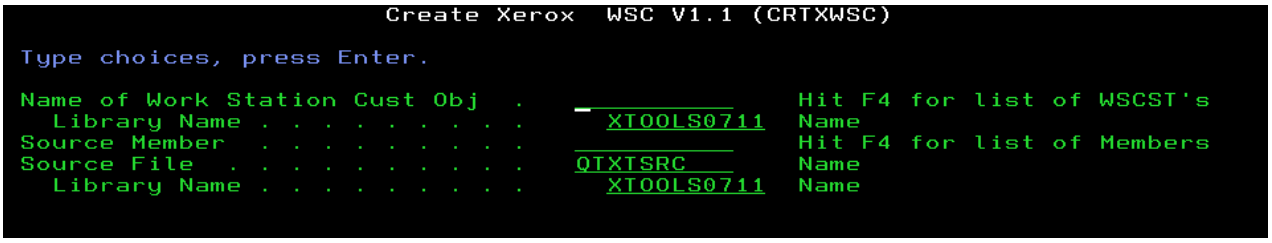
## Compiling a WSCO

**Note:** To access online help for each command, enter the command and press the Help (F1) key. To access context sensitive help, enter the command on the command line and press the Prompt key (F4), then place the cursor on a parameter and press Help (F1).

The process to create a WSCO requires that the source from the XTOOLS*xxxx* library is compiled for your AS/400 release. Use the command CRTXWSC to compile the WSCO and place the compiled file in the XTOOLS*xxxx* library.

1. Verify that XTOOLS*xxxx* is in your library list:

   DSPLIBL
2. Type **CRTXWSC** on the command line and press F4 to compile the WSCO for the device(s) you wish to test.




3. Enter the information below and press the ENTER key.

   **Name of Work Station Cust Obj**: A user-defined name that identifies the Xerox device. This will be the name of the compiled WSCO. Press F4 for a list of WSCOs in the specified library that have already been compiled.
   **Library Name**: Name of the library where the compiled WSCO is to be saved. It is recommended to store the compiled WSCO in the same library as the source.

   **Source Member**: The name of the WSCO that corresponds to the Xerox device for which this WSCO will be created. For choices, consult the WSCO column in the table in section “Mapping Paper Trays from AS/400 to PCL” later in this document. Press F4 for a list of available Xerox WSCOs.

   **Source File**: Enter QTXTSRC as shown in the sample screen above.

   **Library Name**: Enter XTOOLS*xxxx* as shown in the sample screen above. Change *xxxx* to match the version of the library that was downloaded.

## Creating a Device Description or a Remote Print Queue

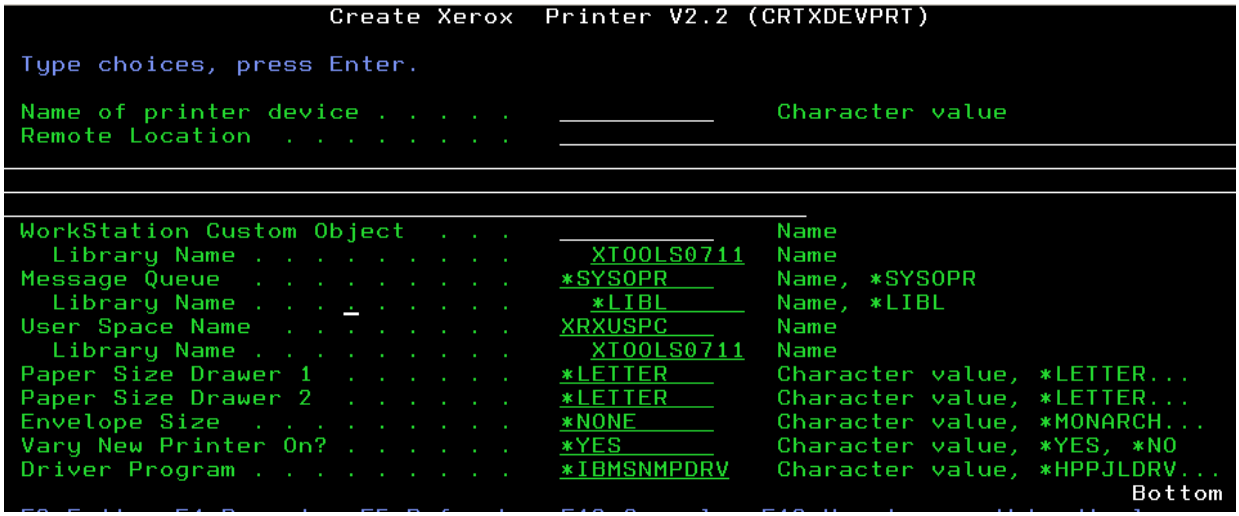
**Note**: The commands supplied are versions of the standard IBM commands but only offer the variables that require user input.

1. Type one of the following commands and press the ENTER key:
   - CRTXDEVPRT: creates a device description for a printer device (recommended for most devices to avoid unexpected results)
   - CRTXRMTQ: creates a remote print queue (for printing to lpr port 515)

   **Note:** The commands mentioned in step one above produce the same results as CRTDEVPRT or CRTOUTQ with the exception that lines that use default options are removed so only lines that require input are displayed. The following image displays how the command looks using sample data.

2. Enter the required values based on the command you use.

   a. If you use CRTXDEVPRT, a screen like the following one appears:




   Enter the information below:

   **Name of printer device**: User-defined name for the print queue.

   **Remote Location**: IP address or host name of Xerox device. If you use an IP address, surround it with single quotes. For example: **'111.111.1.100'**

   **WorkStation Custom Object**: The WSCST that was created when the user-defined WSCO was compiled. Press F4 to see the list.

   **Library Name**: The name of the library where the WSCST resides. Use the name that matches the version of the library that was downloaded. E.g. XTOOLS0924

   **Message Queue**: Location for saving error messages. *SYSOPR is the default but can be changed.

   **Library Name**: *LIBL is the default.

   **User Space Name**: XRXUSPC. This is used by the XSNMPDRV for Prepend and Postpend options and is ignored by other driver programs.

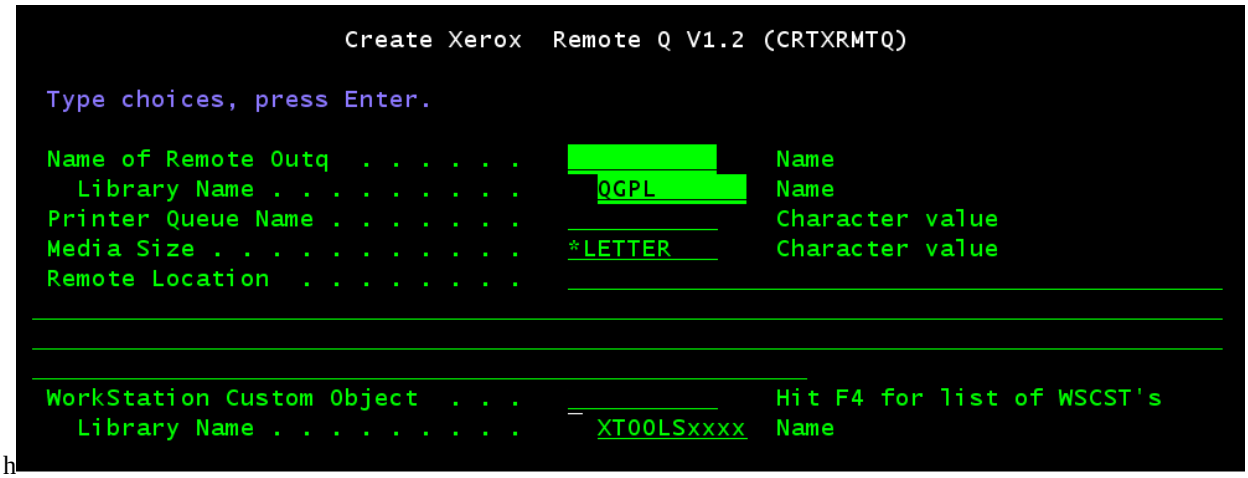
   **Library Name**: Same as the Library Name you specified for the WorkStation Custom Object above.

   **Paper Size Drawer 1, 2**: The default is *LETTER, which means an 8.5" x 11" paper size command will be sent to the printer. The printer will display a message to load the requested media size into the specified tray (drawer) if that media size is not currently loaded. (NOTE: For this to work with AFPDS spools, the page size of the spool must match the Paper Size Drawer value – otherwise, the spool's page size will override the Paper Size Drawer value.) If the tray will be used to print several different sizes of paper, then the WSCO can be modified to not send a media size and only send a specific tray request.

   **Vary New Printer On**? Yes

**Driver Program**: Enter ***IBMSNMPDRV** (default setting) for Xerox products. See Appendix 2 for using the optional Xerox supplied *XSNMPDRV.

b. If you use CRTXRMTQ, a screen like the following one appears:




h

Enter the information below:

**Name of Remote OUTQ**: User defined name of the remote queue.

**Library Name**: Name of the library where this queue is stored. QGPL is recommended, as shown in the sample screen above.

**Printer Queue Name**: If the Xerox device associated with this queue is a Document Centre or WorkCentre, enter 'lp' (include quote marks). If the Xerox device associated with this queue is a Phaser, enter AUTO.

**Media Size**: Specifies the media size associated with this remote queue. The default is *LETTER, which means an 8.5" x 11" paper size command will be sent to the printer when an SCS spool is released from the queue. Other supported values are *A4, *LEGAL, *LEDGER, *EXECUTIVE, *A3, *A5, *B4, and *B5. For this to work with AFPDS spools, the page size of the spool must match the queue's Media Size – otherwise, the spool's page size will override the Media Size.

**Remote Location**: The IP address or host name of the remote location. If you use an IP address, surround it with single quotes, for example, **'111.111.1.100'**.

**WorkStation Custom Object**: The WSCST that was created when the user-defined WSCO was compiled. Press F4 to see the list.

**Library Name:** The name of the library where the WSCST resides. Use the name that matches the version of the library that was downloaded. E.g. XTOOLS0924

3. Press ENTER when complete.
4. The queue is now ready to receive print jobs. Start the writer if it did not start automatically.

   **To start the writer for a device description:**
   - STRPRTWTR [Name of Printer Device]

   **To start the writer for a remote print queue:**
   - STRRMTWTR [Name of Remote OUTQ]
5. Repeat steps 1 through 4 for each Xerox device to be tested.

# Testing the Setup

Use an existing spool file or create a screen capture – move it to the print queue created in the previous section, and release it.

# Using the WSCO

## Mapping Paper Trays from AS/400 to PCL

A media source in an AS/400 printer file is indicated as a source drawer. Data description specifications (DDS) use the DRAWER keyword. The printer PCL command indicates the media source as a tray. AS/400 and PCL do not always use the same parameter value to refer to the same thing. DRAWER 1 may not map to TRAY 1.

The default settings for drawer to tray mapping are shown in the following table. The corresponding PCL code is also included. For example: the AS/400 printer file Source Drawer 2 selects tray 3 on the 3450 and the 4500, but selects tray 2 on the 4025 and the M20i. The PCL code for the 3450 drawer 2/tray 3 is “8” or ESC&l8H, for the 4500 drawer 2/tray 3 is “5” or ESC&l5H.

The WorkCentre products’ default settings for paper type and color are plain and white. If the AS/400 file attribute for Source Drawer is set for a specific WorkCentre input paper tray, make sure the tray description on the WCP is set to match the default type, which is plain. On the WCP, if the type parameter is other than the default type, the spool file pulls media from a tray that has the default type (plain), or is held for resources depending on the WCP model.

VersaLink and AltaLink products have standardized PCL5 tray parameters. Most models now include options to add additional media trays. In order to provide maximum flexibility, the AS/400 Work Station Customization Objects (WSCO) now contain all the tray selection parameters for mapping the AS/400 “Drawers” to Trays on the printer.

As an example, if the printer does not have a tray 4 and the AS/400 spool file is set for DRAWER 4, the printer will use the default tray. Unless the user has changed it, the default tray is set to AUTO TRAY Switch. This means that the printer will pull from a tray whose paper size matches the paper specified in the spool file. Typically, this is “Letter” (8.5 by 11 inches). On the other hand, if the spool file is set to DRAWER 9, the WSCO will not generate a tray call at all, and again, the printer will use the default, selecting a tray that contains the paper specified in the spool. In addition, tray 5 in the printer is actually the Bypass Tray. So, if the spool file has Drawer 5 or Envelope or Drawer 10 specified, the printer will select the Bypass Tray. The WSCO’s do not have DRAWER 7, 8, or 9 defined.

To provide the greatest flexibility, these WSCO’s all include Color Support. If the spool file specifies “color,” and the printer supports color, the spool will print in color. The spool will print in black and white if the printer does not support color printing.

# Product List

| Product | WSCO | PAPER | ENVELOPE | DRAWER R1 | DRAWER R2 | DRAWER R3 | DRAWER R4 | DRAWER R5 | DRAWER R6 | DRAWER R7 | DRAWER R8 | DRAWER R9 | DRAWER R10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **ALB80xx **** | XRXALX | Auto (I7H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 Bypass (I2H) | Tray 6 (I22H) | | | | Bypass (I2H) |
| **ALB81xx **** | XRXALX | Auto (I7H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 Bypass (I2H) | Tray 6 (I22H) | | | | Bypass (I2H) |
| **ALC80xx **** | XRXALX | Auto (I7H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 Bypass (I2H) | Tray 6 (I22H) | | | | Bypass (I2H) |
| **ALC81xx **** | XRXALX | Auto (I7H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 Bypass (I2H) | Tray 6 (I22H) | | | | Bypass (I2H) |
| **B1022** | XRX102X | Auto (I7H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | | | Tray 5 Bypass (I2H) | | | | | |
| **B1025** | XRX102X | Auto (I7H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | | | Tray 5 Bypass (I2H) | | | | | |
| **B31x** | XRXLED | Manual (I2H) | MPT (I6h1O) | Tray 1 (I1H) | Tray 2 (I4H) | Tray 3 (I5H) | Tray 4 (I20H) | Tray 5 (I21H) | | | | Multi Purpose Feeder (I8H) | Manual Paper (I2H) |
| **B410** | XRXLED | Manual (I2H) | MPT (I6h1O) | Tray 1 (I1H) | Tray 2 (I4H) | Tray 3 (I5H) | Tray 4 (I20H) | Tray 5 (I21H) | | | | Multi Purpose Feeder (I8H) | Manual Paper (I2H) |
| **B415** | XRXVLX | Auto (I7H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 Bypass (I2H) | Tray 6 (I21H) | | | | Bypass (I2H) |
| **B620** | XRXVLX | Auto (I7H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 Bypass (I2H) | Tray 6 (I21H) | | | | Bypass (I2H) |
| **B625** | XRXVLX | Auto (I7H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 Bypass (I2H) | Tray 6 (I21H) | | | | Bypass (I2H) |
| **CQ8560/70/80** | XRX85XX | Tray 2 (I1H) | MPT (I2H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 (I21H) | Tray 6 (I22H) | | | | | MPT (I4H) |
| **CQ8860/70/80** | XRX88XX | Tray 2 (I1H) | MPT (I2H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 (I21H) | Tray 6 (I22H) | | | | | MPT (I4H) |
| **CQ8700** | XRXCQ8700 | Tray 2 (I1H) | MPT (I2H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 (I21H) | Tray 6 (I22H) | | | | | MPT (I4H) |
| **CQ8900** | XRXCQ8900 | Tray 2 (I1H) | MPT (I2H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 (I21H) | Tray 6 (I22H) | | | | | MPT (I4H) |
| **CQ92xx NS** | XRXCQ92XX | Tray 1 (I1H) | MPT (I2H) | Tray 1 (I1H) | Tray 2 (I4H) | Tray 3 (I23H) | Tray 4 Bypass (I2H) | Tray 3 (I6H) | Tray 3 (I5H) | | | | Tray 4 Bypass (I2H) |

| Product | WSCO | PAPER | ENVELOPE | DRAWER1 | DRAWER2 | DRAWER3 | DRAWER4 | DRAWER5 | DRAWER6 | DRAWER7 | DRAWER8 | DRAWER9 | DRAWER10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CQ93xx | XRXCQ93XX | Auto (I7H) | MPT (I2H) | Tray 1 (I1H) | Tray 2 (I4H) | Tray 3 (I23H) | Tray 5 (I21H) | Tray 3 (I6H) | Tray 3 (I5H) | | | | Tray 4 Bypass (I2H) |
| C31x | XRXLED | Manual (I2H) | MPT (I6h1O) | Tray 1 (I1H) | Tray 2 (I4H) | Tray 3 (I5H) | Tray 4 (I20H) | Tray 5 (I21H) | | | | Multi Purpose Feeder (I8H) | Manual Paper (I2H) |
| C410 | XRXLED | Manual (I2H) | MPT (I6h1O) | Tray 1 (I1H) | Tray 2 (I4H) | Tray 3 (I5H) | Tray 4 (I20H) | Tray 5 (I21H) | | | | Multi Purpose Feeder (I8H) | Manual Paper (I2H) |
| C415 | XRXVLX | Auto (I7H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 Bypass (I2H) | Tray 6 (I21H) | | | | Bypass (I2H) |
| C620 | XRXVLX | Auto (I7H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 Bypass (I2H) | Tray 6 (I21H) | | | | Bypass (I2H) |
| C625 | XRXVLX | Auto (I7H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 Bypass (I2H) | Tray 6 (I21H) | | | | Bypass (I2H) |
| D95/110/125 | XRXDXXX | Auto (I20H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3(I5H) | Tray 4 (I8H) | Tray 5 (I2H) | Tray 6 (I21H) | Tray 7 (I22H) | Tray 8 (I39H) | | |
| EC8036/8056 | XRXALX | Auto (I7H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 Bypass (I2H) | Tray 6 (I22H) | | | | Bypass (I2H) |
| M118 | XRXM118 | Tray 2 (I1H) | MPT (I2H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 (I21H) | Tray 6 (I22H) | | | | | Tray 1 MPT (I4H) |
| M123 | XRXM123 | Tray 2 (I1H) | MPT (I2H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 (I21H) | Tray 6 (I22H) | | | | | Tray 1 MPT (I4H) |
| M20i | XRXM20I | Tray 1 (I1H) | MPT (I2H) | Tray 1 (I1H) | Tray 2 (I4H) | | | | | | | | MPT (I6H) |
| PE120 | XRXPE120 | Tray 1 (I1H) | MPT (I2H) | Tray 1 (I1H) | Tray 2 (I4H) | | | | | | | | MPT (I6H) |
| PH3200MFP NS | XRX3200MFP | Tray 2 (I1H) | MPT (I4H) | Tray 1 (I1H) | Tray 2 (I5H) | Tray 2 (I5H) | | | | | | | Tray 1 MPT (I4H) |
| PH3250 | XRX3250 | Tray 2 (I1H) | MPT (I2H) | Tray 1 (I1H) | Tray 2 (I5H) | Tray 1 (I1H) | | | | | | | MPT (I2H) |
| PH3300MFP NS | XRX3300MFP | Tray 1 (I1H) | MPT (I4H) | Tray 1 (I1H) | Tray 2 (I5H) | Tray 2 (I5H) | | | | | | | Tray 1 MPT (I4H) |
| PH3320/WC33xx | XRX33XX | Auto (I7H) | MPT (I4H) | Tray 2 (I2H) | Tray 3 (I5H) | Auto (I7H) | | | | | | | Tray 1 MPT (I4H) |
| PH3330 | XRX3330 | Auto (I7H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | | | | | | | | Bypass (I2H) |

| Product | WSCO | PAPER | ENVELOPE | DRAWER1 | DRAWER2 | DRAWER3 | DRAWER4 | DRAWER5 | DRAWER6 | DRAWER7 | DRAWER8 | DRAWER9 | DRAWER10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PH3450** | XRX3450 | Tray 2 (I1H) | MPT (I4H) | Tray 2 (I1H) | Tray 3 (I8H) | Tray 3 (I8H) | | | | | | | Tray 1 MPT (I4H) |
| **PH3500 NS** | XRX3500 | Tray 2 (I1H) | MPT (I4H) | Tray 2 (I1H) | Tray 3 (I8H) | Tray 3 (I8H) | | | | | | | Tray 1 MPT (I4H) |
| **PH3600** | XRX3600 | Tray 2 (I1H) | MPT (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | | | | | | | Tray 1 MPT (I4H) |
| **PH3610/WC3615/55** | XRX36XX | Auto (I7H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 Bypass (I2H) | | | | | Auto (I7H) |
| **PH3635MFP** | XRX3635MFP | Auto (I1H) | MPT (I2H) | Tray 1 (I1H) | Tray 2 (I4H) | Tray 1 (I1H) | | | | | | | MPT (I2H) |
| **PH4025** | XRX4025 | Tray 1 (I1H) | MPT (I6H) | Tray 1 (I1H) | Tray 2 (I4H) | Tray 3 (I5H) | Tray 4 (I20H) | Tray 5 (I21H) | | | | | Tray 1 MPT (I6H) |
| **PH4400 NS** | XRX4400 | Tray 1 (I1H) | MPT (I6H) | Tray 1 (I1H) | Tray 2 (I4H) | Tray 3 (I5H) | Tray 4 (I20H) | Tray 5 (I21H) | | | | | MPT (I8H) |
| **PH4500 NS** | XRX4500 | Tray 2 (I1H) | MPT (I2H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 (I21H) | Tray 6 (I22H) | | | | | Tray 1 MPT (I4H) |
| **PH4510** | XRX4510 | Tray 2 (I1H) | MPT (I2H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | | | | | | | Tray 1 MPT (I4H) |
| **PH4525** | XRX4525 | Tray 1 (I1H) | MPT (I6H) | Tray 1 (I1H) | Tray 2 (I4H) | Tray 3 (I5H) | Tray 4 (I20H) | Tray 5 (I21H) | | | | | Tray 1 MPT (I6H) |
| **PH4600/20/22** | XRX46XX | Auto (I7H) | MPT (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 (I9H) | Tray 6 (I22H) | Tray 6 (I22H) | | | | Tray 1 MPT (I4H) |
| **PH5400** | XRX5400 | Tray 1 (I1H) | MPT (I6H) | Tray 1 (I1H) | Tray 2 (I4H) | Tray 3 (I5H) | Tray 4 (I20H) | Tray 5 (I21H) | | | | | MPT (I8H) |
| **PH55xx** | XRX55XX | Tray 2 (I1H) | MPT (I2H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 (I21H) | Tray 6 (I22H) | | | | | Tray 1 MPT (I4H) |
| **PH55xx w/Staple & Punch** | XRX55XXSTP | Tray 2 (I1H) | MPT (I2H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 (I21H) | Tray 6 (I22H) | | | | | Tray 1 MPT (I4H) |
| **PH6120** | XRX6120 | Tray 1 (I1H) | MPT (I1H) | Tray 2 (I2H) | Tray 2 (I2H) | Tray 1 (I1H) | | | | | | | Tray 1 MPT (I1H) |
| **PH6128MFP** | XRX6128MFP | Tray 2 (I4H) | MPT (I2H) | Tray 2 (I4H) | Tray 3 (I1H) | | | | | | | | Tray 1 MPT (I2H) |
| **PH6130** | XRX6130 | Tray 1 (I1H) | MPT (I1H) | Tray 2 (I2H) | Tray 2 (I2H) | Tray 1 (I1H) | | | | | | | Tray 1 MPT (I1H) |

| Product | WSCO | PAPER | ENVELOPE | DRAWER1 | DRAWER2 | DRAWER3 | DRAWER4 | DRAWER5 | DRAWER6 | DRAWER7 | DRAWER8 | DRAWER9 | DRAWER10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PH6140 | XRX6140 | Tray 1 (I4H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 1 (I1H) | | | | | | | Tray 1 MPT (I2H) |
| PH6180 NS | XRX6180 | Tray 2 (I4H) | MPT (I2H) | Tray 2 (I4H) | Tray 3 (I1H) | | | | | | | | Tray 1 MPT (I2H) |
| PH6250 | XRX6250 | Tray 2 (I1H) | MPT (I2H) | Tray 2 (I1H) | Tray 3 (I4H) | Tray 4 (I5H) | | | | | | | Tray 1 MPT (I2H) |
| PH6280 | XRX6280 | Tray 2 (I4H) | MPT (I2H) | Tray 2 (I4H) | Tray 3 (I1H) | | | | | | | | Tray 1 MPT (I2H) |
| PH6300/50/60 NS | XRX63XX | Tray 2 (I1H) | MPT (I2H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 (I21H) | Tray 6 (I22H) | | | | | Tray 1 MPT (I4H) |
| PH6500/6505MFP | XRX65XX | Tray 1 (I4H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 Bypass (I2H) | Tray 6 (I22H) | | | | Tray 5 MPT (I2H) |
| PH6510 | XRX651X | Auto (I7H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | | | | | | | | Bypass (I2H) |
| PH6600/WC6605 | XRX66XX | Tray 1 (I4H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | | | | | | | | Bypass (I2H) |
| PH6700 | XRX6700 | Auto (I0H) | MPT (I4H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I20H) | Tray 5 (I6H) | Tray 6 (I22H) | | | | |
| PH7100/WC7120/7125/7132 | XRX71XX | Tray 1 (I4H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | | | | | | Tray 5 MPT (I2H) |
| PH7300 | XRX7300 | Tray 1 (I1H) | MPT (I6H) | Tray 1 (I1H) | Tray 2 (I4H) | Tray 3 (I5H) | Tray 4 (I20H) | Tray 5 (I21H) | | | | | MPT (I8H) |
| PH7400 NS | XRX7400 | Tray 2 (I1H) | MPT (I2H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 (I21H) | Tray 6 (I22H) | | | | | Tray 1 MPT (I4H) |
| PH7500 | XRX7500 | Tray 2 (I1H) | MPT (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 (I21H) | Tray 2 (I1H) | | | | | Tray 1 MPT (I4H) |
| PH7750 | XRX7750 | Tray 2 (I1H) | MPT (I2H) | Tray 2 (I1H) | Tray 3 (I4H) | Tray 4 (I5H) | | | | | | | Tray 1 MPT (I2H) |
| PH7760 NS | XRX7760 | Tray 2 (I1H) | MPT (I2H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 (I21H) | Tray 6 (I22H) | | | | | Tray 1 MPT (I4H) |
| PH7800 | XRX7800 | Auto (I0H) | MPT (I4H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I20H) | Tray 5 (I6H) | Tray 6 (I22H) | | | | |
| PH8400 NS | XRX8400 | Tray 2 (I1H) | MPT (I2H) | Tray 2 (I1H) | Tray 3 (I4H) | Tray 4 (I5H) | | | | | | | Tray 1 MPT (I2H) |
| PH8500/50/60/MFP NS | XRX85XX | Tray 2 (I1H) | MPT (I2H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 (I21H) | Tray 6 (I22H) | | | | | Tray 1 MPT (I4H) |

| Product | WSCO | PAPER | ENVELOPE | DRAWER1 | DRAWER2 | DRAWER3 | DRAWER4 | DRAWER5 | DRAWER6 | DRAWER7 | DRAWER8 | DRAWER9 | DRAWER10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PH8800/50/60/MFP NS** | XRX88XX | Tray 2 (I1H) | MPT (I2H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 (I21H) | Tray 6 (I22H) | | | | | Tray 1 MPT (I4H) |
| **PLB9100/9110/9125/9136 **** | XRXPLX | Auto (I7H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 Bypass (I2H) | Tray 6 (I22H) | Tray 7 (I23H) | | | Bypass (I2H) |
| **PLC9065/9070 **** | XRXPLX | Auto (I7H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 Bypass (I2H) | Tray 6 (I22H) | | | | Bypass (I2H) |
| **VLB400 **** | XRXVLX | Auto (I7H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | | | | | | | | Bypass (I2H) |
| **VLB405 **** | XRXVLX | Auto (I7H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | | | | | | | | Bypass (I2H) |
| **VLB6xx **** | XRXVLX | Auto (I7H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 Bypass (I2H) | Tray 6 (I21H) | | | | Bypass (I2H) |
| **VLB70xx **** | XRXVLX | Auto (I7H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 Bypass (I2H) | Tray 6 (I21H) | | | | Bypass (I2H) |
| **VLB71xx **** | XRXVLX | Auto (I7H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 Bypass (I2H) | Tray 6 (I21H) | | | | Bypass (I2H) |
| **VLC400 **** | XRXVLX | Auto (I760H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | | | | | | | Bypass (I2H) |
| **VLC405 **** | XRXVLX | Auto (I7H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | | | | | | | Bypass (I2H) |
| **VLC5xx **** | XRXVLX | Auto (I7H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 Bypass (I2H) | Tray 6 (I21H) | | | | Bypass (I2H) |
| **VLC6xx **** | XRXVLX | Auto (I7H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 Bypass (I2H) | Tray 6 (I21H) | | | | Bypass (I2H) |
| **VLC70xx **** | XRXVLX | Auto (I7H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 Bypass (I2H) | Tray 6 (I21H) | | | | Bypass (I2H) |
| **VLC71xx **** | XRXVLX | Auto (I7H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 Bypass (I2H) | Tray 6 (I21H) | | | | Bypass (I2H) |
| **VLC8000/9000 **** | XRXVLX | Auto (I7H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 Bypass (I2H) | Tray 6 (I21H) | | | | Bypass (I2H) |
| **WC3220** | XRXWC32XX | Tray 1 (I1H) | MPT (I4H) | Tray 1 (I1H) | Tray 2 (I5H) | Tray 3 (I8H) | | | | | | | Tray 1 MPT (I4H) |
| **WC3335/45** | XRX33X5 | Auto (I7H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | | | | | | | | Bypass (I2H) |
| **WC3550** | XRXWC3550 | Tray 1 (I1H) | MPT (I2H) | Tray 1 (I1H) | Tray 2 (I4H) | Tray 3 (I23H) | Tray 4 (I24H) | Tray 5 HiCap (I5H) | | | | | Tray 1 Bypass (I2H) |

| Product | WSCO | PAPER | ENVELOPE | DRAWER1 | DRAWER2 | DRAWER3 | DRAWER4 | DRAWER5 | DRAWER6 | DRAWER7 | DRAWER8 | DRAWER9 | DRAWER10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WC4150 NS** | XRXWC4150 | Tray 1 (I1H) | MPT (I2H) | Tray 1 (I1H) | Tray 2 (I4H) | Tray 3 (I23H) | Tray 4 (I24H) | | | | | | MPT (I2H) |
| **WC4250 NS** | XRXWC4250 | Tray 1 (I1H) | MPT (I2H) | Tray 1 (I1H) | Tray 2 (I4H) | Tray 3 (I23H) | Tray 4 (I24H) | Tray 5 HiCap (I7H) | | | | | Bypass (I2H) |
| **WC4260** | XRXWC4260 | Tray 1 (I1H) | MPT (I2H) | Tray 1 (I1H) | Tray 2 (I4H) | Tray 3 (I23H) | Tray 4 (I24H) | Tray 5 HiCap (I7H) | | | | | Bypass (I2H) |
| **WC4265** | XRXWC4265 | Auto (I7H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | HiCap Tray (I5H) | | | | | Bypass (I2H) |
| **WC5020** | XRXWC5020 | Auto (I20H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 (I2H) | Tray 6 (I21H) | | | | |
| **WC50xx** | XRXWC50XX | Tray 1 (I1H) | MPT (I6H) | Tray 1 (I1H) | Tray 2 (I4H) | Tray 3 (I23H) | Tray 4 (I24H) | | | | | | Tray 1 Bypass (I2H) |
| **WC51xx NS** | XRXWC51XX | Tray 1 (I1H) | MPT (I2H) | Tray 1 (I1H) | Tray 2 (I4H) | Tray 3 (I23H) | Tray 4 (I24H) | Tray 5 HiCap (I5H) | | | | | Bypass (I2H) |
| **WC52xx NS** | XRXWC52XX | Tray 1 (I1H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 (I2H) | Tray 6 (I21H) | | | | |
| **WC53xx** | XRXWC53XX | Auto (I20H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 (I2H) | Tray 6 (I21H) | | | | |
| **WC56xx NS** | XRXWC56XX | Tray 1 (I1H) | MPT (I2H) | Tray 1 (I1H) | Tray 2 (I4H) | Tray 3 (I23H) | Tray 4 (I24H) | Tray 5 HiCap (I7H) | | | | | Bypass (I2H) |
| **WC57xx** | XRXWC57XX | Tray 1 (I1H) | MPT (I2H) | Tray 1 (I1H) | Tray 2 (I4H) | Tray 3 (I23H) | Tray 4 (I24H) | Tray 5 HiCap (I5H) | | | | | Tray 1 Bypass (I2H) |
| **WC58xx** | XRXWC58XX | Auto (I7H) | MPT (I33H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 (I21H) | Tray 6 (I22H) | Tray 7 (I23H) | Inserter Tray (I32H) | | Auto (I7H) |
| **WC59xx** | XRXWC59XX | Auto (I7H) | MPT (I33H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 (I21H) | Tray 6 (I22H) | Tray 7 (I23H) | Inserter Tray (I32H) | | Auto (I7H) |
| **WC6400** | XRXWC64XX | Tray 2 (I4H) | MPT (I2H) | Tray 2 (I4H) | Tray 3 (I23H) | Tray 4 (I24H) | Tray 5 (I6H) | Tray 6 (I5H) | Tray 2 (I4H) | | | | Tray 1 Bypass (I2H) |
| **WC6515** | XRX651X | Auto (I7H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | | | | | | | | Bypass (I2H) |
| **WC6655** | XRX66XX | Tray 1 (I4H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | | | | | | | | Bypass (I2H) |
| **WC72xx** | XRXWC72XX | Tray 1 (I4H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 Bypass (I2H) | | | | | Auto (I20H) |
| **WC73xx NS** | XRXWC73XX | Tray 1 (I4H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 Bypass (I2H) | | | | | Auto (I20H) |

| Product | WSCO | PAPER | ENVELOPE | DRAWER1 | DRAWER2 | DRAWER3 | DRAWER4 | DRAWER5 | DRAWER6 | DRAWER7 | DRAWER8 | DRAWER9 | DRAWER10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WC74xx NS** | XRXWC74XX | Tray 1 (I4H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 Bypass (I2H) | Tray 6 (I21H) | | | | Auto (I20H) |
| **WC75xx** | XRXWC75XX | Auto (I7H) | MPT (I21H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 (I21H) | Tray 6 (I22H) | | | | Auto (I21H) |
| **WC76xx NS** | XRXWC76XX | Tray 1 (I1H) | MPT (I2H) | Tray 1 (I1H) | Tray 2 (I4H) | Tray 3 (I23H) | Tray 4 (I24H) | Tray 5 (I6H) | Tray 6 (I5H) | | | | Tray 1 Bypass (I2H) |
| **WC77xx** | XRXWC77XX | Tray 1 (I1H) | MPT (I2H) | Tray 1 (I1H) | Tray 2 (I4H) | Tray 3 (I23H) | Tray 4 (I24H) | Tray 5 (I6H) | Tray 6 (I5H) | | | | Tray 1 Bypass (I2H) |
| **WC78xx** | XRXWC78XX | Auto (I7H) | MPT (I33H) | tray 1 (I4H) | tray 2 (I1H) | tray 3 (I5H) | tray 4 (I8H) | tray 5 (I21H) | tray 6 (I22H) | Tray 7 (I23H) | | Inserter Tray (I32H) | Auto (I7H) |
| **WC79xx** | XRXWC79XX | Auto (I7H) | MPT (I33H) | tray 1 (I4H) | tray 2 (I1H) | tray 3 (I5H) | tray 4 (I8H) | tray 5 (I21H) | tray 6 (I22H) | Tray 7 (I23H) | | Inserter Tray (I32H) | Auto (I7H) |
| **WCC2424** | XRXC2424 | Tray 2 (I1H) | MPT (I2H) | Tray 2 (I1H) | Tray 3 (I4H) | Tray 4 (I5H) | | | | | | | Tray 1 MPT (I2H) |
| **WCP** | XRXWCP | Tray 1 (I1H) | MPT (I2H) | Tray 1 (I1H) | Tray 2 (I4H) | Tray 3 (I23H) | Tray 4 (I24H) | Tray 5 HiCap (I5H) | | | | | Tray 1 Bypass (I2H) |
| **X4112/27** | XRX41XXCP | Auto (I20H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 (I2H) | Tray 6 (I21H) | Tray 7 (I22H) | Tray 8 (I39H) | | |
| **XC550/560/570** | XRXWC5XX | Auto (I7H) | MPT (I2H) | Tray 1 (I4H) | Tray 2 (I1H) | Tray 3 (I5H) | Tray 4 (I8H) | Tray 5 (I21H) | Tray 6 (I22H) | | | | Tray 5 MPT (I21H) |

**NS** = No longer supported by Xerox, although the recommended WSCO should still work.

** **AL = AltaLink, VL = VersaLink, PL = PrimeLink**

## Changes in this release:

- The VersaLink C620 device has been added as XRXVLX.

# Appendix

## Xerox Supplied Command Definitions

Commands 1-3 are front ends or pre-processing objects and invoke the IBM command to create each object. Commands 4 and 5 are used to capture a spool file that allows Xerox technical support to re-create a problem for troubleshooting. The commands adhere to the IBM SAA standard for AS/400. They support F5 for Refresh, F3 for Exit and F12 for Cancel. They also support context sensitive online help via F1 and Prompting via F4. The source code to these programs and commands are included and are in the files QCLSRC, QRPGSRC, QTXTSRC, QCMDSRC, QPNLSRC and QCSRC.

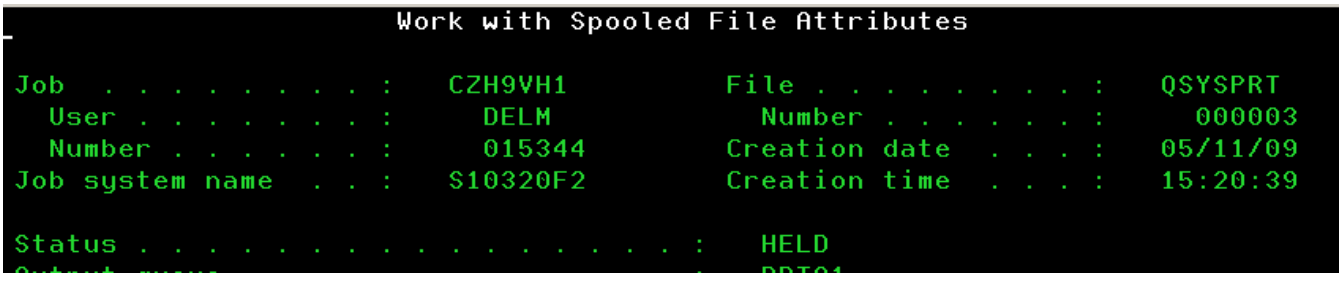
1. **CRTXDEVPRT** This command creates a Device Description for a printer. The Xerox command only requires the parameters that apply specifically to a Xerox printer. It also offers online help for each parameter and an explanation of the choices. This command enables printing using either the SNMP or HPPJL protocol. This command enables printing using one of two driver programs the IBM SNMP driver, the HP PJL Driver. The IBM SNMP driver and the HP PJL driver are System Driver programs supplied by IBM.
2. **CRTXRMTQ** This command creates a Remote Output Queue and Remote Writer. This command enables printing using the LPR protocol.
3. **CRTXWSC** This command creates the Work Station Customization Tables used in the two previous commands. The host print transform uses these tables to convert the EBCDIC AFPDS (IBM's Advanced Function Presentation Data Stream) or SCS (IBM's SNA Character String) data stream to ASCII PCL that prints on Xerox devices.
4. **XRXGETSPLF** This command invokes the **XRXSAVSPLF** command, then automatically creates the save file and invokes SAVOBJ to save the user space to the save file.
5. **XRXSAVSPLF** This command allows the capture of a spool file to a user space.
6. **CALL COLRTEST** Will create a spool file using the 6 colors available for printing in the default output queue.

## Capturing a Spool File to Send to Xerox, Pre-v6.1 Systems

The command to use is **XRXGETSPLF.**

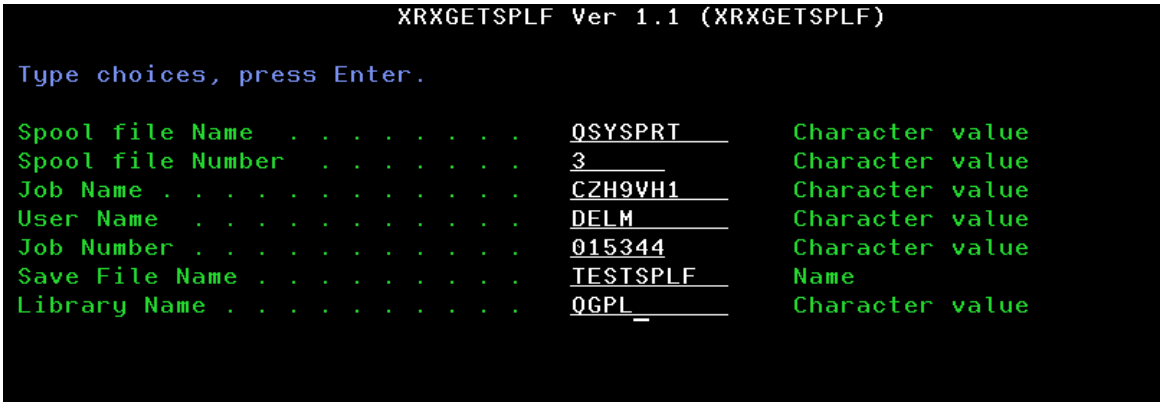
The first step is to get the spool file characteristics.

To prepare a "spool file" for email, open the print queue (**WRKOUTQ <queuename>**), select the spooled file and press 8 to display the file attributes. The following shows the top of the screen:




Record the five items listed at the top of the page – file Name, file Number, Job Name, User Name, and Job number.

At a command line type **XRXGETSPLF** and press **F4** to list the fields that require data. Enter the data from the previous screen as shown in the example below. Specify a Save File Name and Library QGPL. Press enter to create a save file.




From a PC or email server, use the FTP command with the transfer file type set to BINARY to get the “save file” from the AS400. Open a DOS Command window (Start/Run/CMD). Change directory to that of where you wish to put the file from the AS400. Then, ftp from your AS400:

ftp xx.xx.xx.xx (xx.xx.xx.xx represents the IP address of the AS400)

Login to the AS400 with the proper user credentials.

At the ftp prompt, type ‘binary’

At the ftp prompt, type ‘PWD’ (to make sure the current library is QGPL). Change to QGPL, if necessary.

At the ftp prompt, type ‘get filename’ (where filename is the file that was saved on the AS400 from the XRXGETSPLF command)

The “save file” can then be emailed to Xerox technical support for analysis.

## Capturing an Outq and its Spool File(s) to Send to Xerox, v6.1 or Later

Since v6.1, the AS400 has the ability to save an output queue and its spool file(s) to a save file.

1. Create a save file: CRTSAVF savefilelibraryname/savefilename
2. A user can either create a new output queue with CRTOUTQ and move spool files to it, or just save an existing output queue. If there are a large number of spool files in the queue, perhaps moving some to a new queue might be better. Move spool files with the CHGSPLFA command. If the spool files are moved to a different queue, they will have to be moved back.
3. Save the output queue with the SAVOBJ command: SAVOBJ OBJ(queuename) LIB(libname) DEV(*SAVF) OBJTYPE(*OUTQ) SAVF(savefilelibraryname/savefilename) SPLFDTA(*ALL)
4. The critical keyword is SPLFDTA. The default is *NONE. If not changed, no spool files will be saved.
5. The next step will be on a PC with access to the AS400. It does not need to be connected to the AS400, but it needs to be on the same network. If you can ping the AS400, you can FTP.
6. The user will run CMD.EXE on the PC and have a command window open. Make note of the current directory. This is where FTP will put the save file.
7. Enter: FTP as400ipaddress
8. The user will need to login to the AS400.
9. Enter BIN to transfer the file in BINARY, because the save file is in hex.
10. Enter: get savefilelibraryname/savefilename savefilename (the second savefilename is the name for the savefile on the PC)
11. If FTP returns an error message “501 Unknown extension,” then use the following sequence:
12. FTP as400ipaddress
13. Type BIN or BINARY
14. cd savefilelibraryname.LIB
15. Get savefilename.FILE savefilename.FILE (the second name is the name for the PC)
16. Please email the save file to Xerox as an attachment.

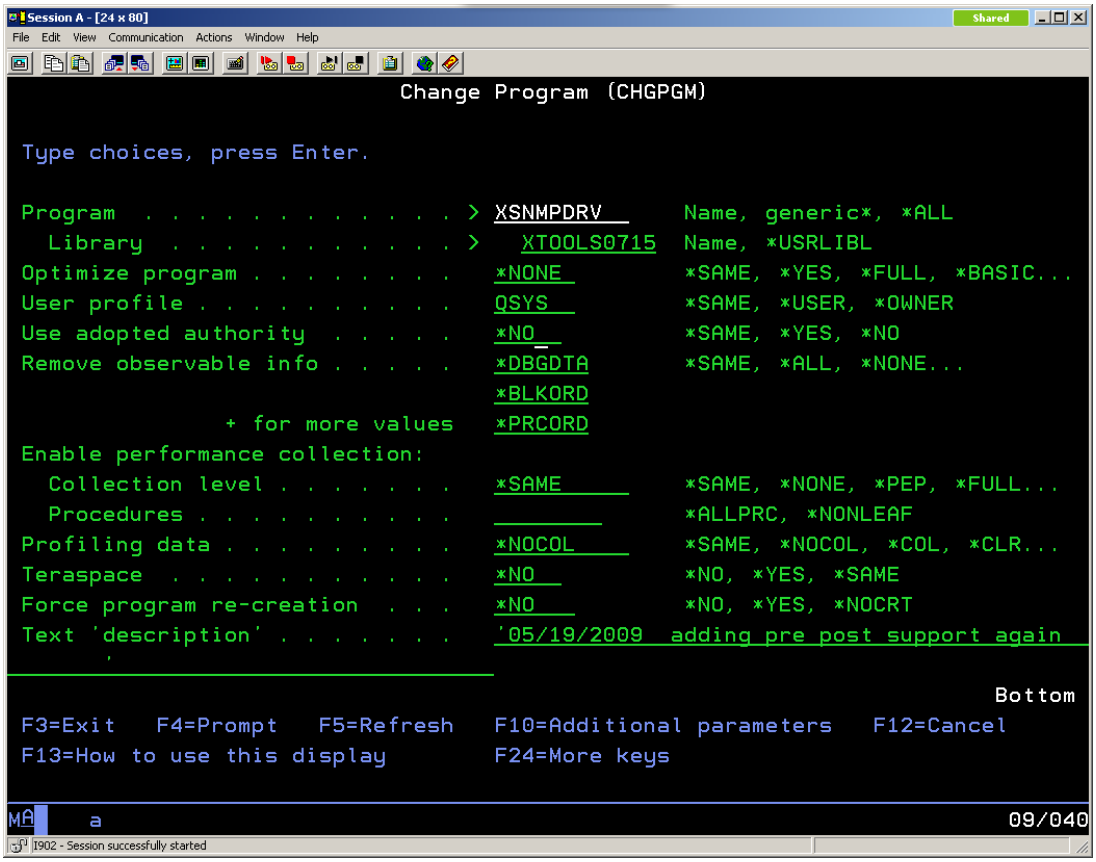
## CRTXDEVPRT Driver Program Option

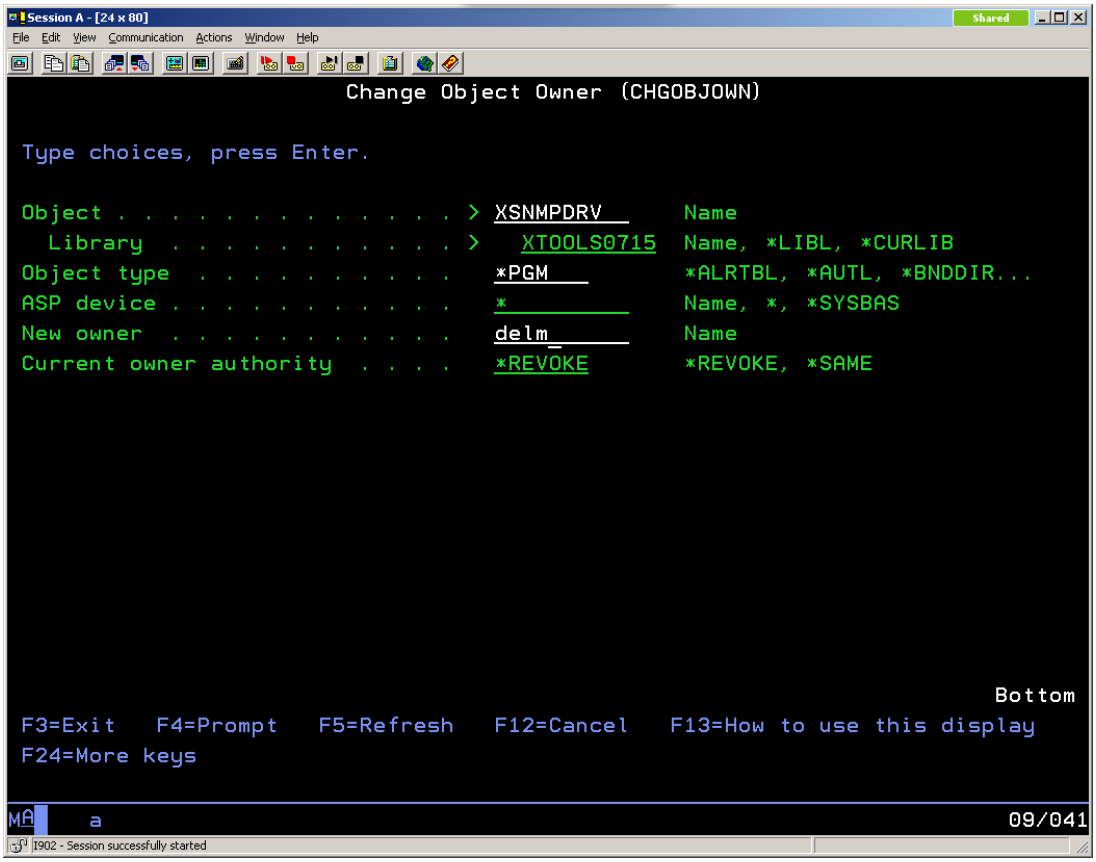
When using the CRTXDEVPRT you have the choice of using the IBM supplied drivers IBMSNMPDRV, HPPJLDRV or the Xerox driver called XSNMPDRV that is modeled after the IBMSNMPDRV but has some enhanced features.

The Xerox SNMP driver adds the capability to Prepend or Postpend printer setup functions such as stapling or hole punching not available in the WSCO. The Prepend collection is transmitted before the spool file data. The Postpend collection is transmitted after the spool file data. The sample source files are located in QTXTSRC in the XTOOLS*xxxx* library. This is the same source file that contains the source for the Xerox WorkStation Customization Tables. One way to create the source files is to use “strpdm” and copy the Prepend and Postpend examples to make new files for editing. Control characters are entered into the source file using the hex value, so the esc character would be \x1b. A line feed would become \x0a.

Even though lines in source members are typically delimited by New Line characters, it is required that the user add the \x0a as a line terminator at the end of each line so that when the source text is converted to ASCII it knows which lines to include in the data sent to the printer.

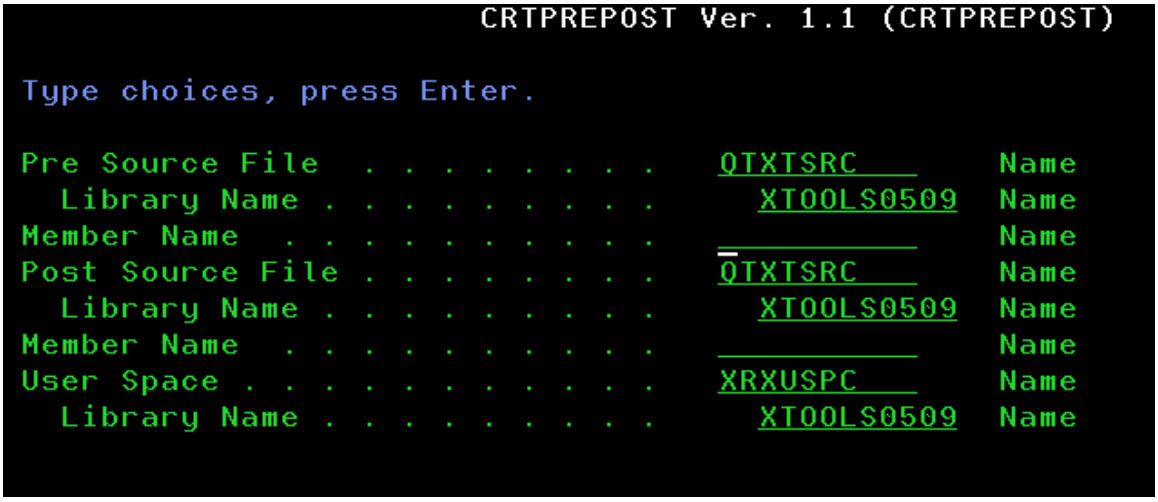
The XSNMPDRV owner and authority is set to XRXUSER and Use adopted authority is *YES. This must be changed to *OWNER and *NO for Use adopted authority.






The Prepend data is actually transmitted to the printer in front of the translated spool file data. Host Print Transform then uses the information in the WSCST to translate and format the spool file data. The first item to be transmitted is the PCL RESET command, as per the WSCST. The last item sent is the RESET followed by a Universal Exit Language PJL command. If it is desired to transmit commands that require being inside the first RESET and the last UEL, then the best solution is to comment out the Init and RESET keywords in the WSCST and include them in the PRE/POST Pend. The screen shot below is the data contained in the PREPEND11 example provided.

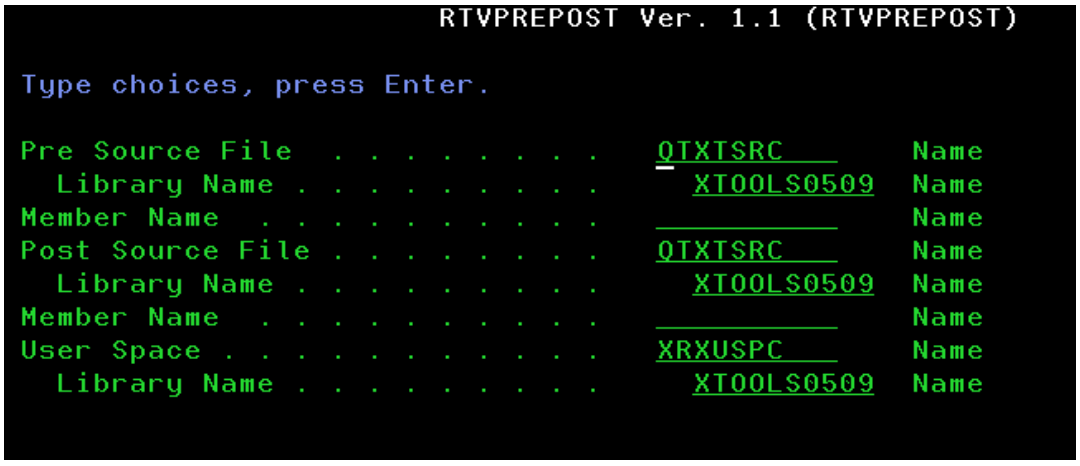
The EBCDIC source text is converted to ASCII by using the CRTPREPEND command supplied in the XTOOLS*xxxx* library. The program is looking for both a Prepend and Postpend file even if only one is being used and the other only has comments in it.




The RTVPREPOST command retrieves the ASCII text and data from the User Space and puts it in the source member specified. An editor can them be used to make additional changes as needed.

NOTE: The translation from EBCDIC to ASCII/hex in both directions requires that the end of a line be readily identifiable. Put a "\x0a" at the end of each line when creating a Prepend or Postpend file.

To recall the pre and post pend files enter the RTVPREPOST and press F4 at the command line. Enter the two member names to retrieve. Make the changes that you want then repost using the CRTPREPOST command.




## To Change the Default Paper Size

With "Paper Size Drawer 1" set to "LETTER" the HPT will send both a specific tray and a specific paper size commands to the printer. When creating a print queue, the default page size is set to "LETTER" for all the trays. If A4 will be the default, then change letter to A4 for Source Drawer 1 and 2 when using the CRTXDEVPRT command.

```
                    Create Xerox  Printer V2.2 (CRTXDEVPRT)

Type choices, press Enter.

Name of printer device . . . . .   __________     Character value
Remote Location  . . . . . . . .   ______________________________
                                   ______________________________
                                   ______________________________
WorkStation Custom Object  . . .   __________     Name
  Library Name . . . . . . . . .     XTOOLS0711   Name
Message Queue  . . . . . . . . .   *SYSOPR       Name, *SYSOPR
  Library Name . . . . . . . . .     *LIBL        Name, *LIBL
User Space Name  . . . . . . . .   XRXUSPC       Name
  Library Name . . . . . . . . .     XTOOLS0711   Name
Paper Size Drawer 1  . . . . . .   *A4           Character value, *LETTER...
Paper Size Drawer 2  . . . . . .   *A4           Character value, *LETTER...
Envelope Size  . . . . . . . . .   *NONE         Character value, *MONARCH...
Vary New Printer On? . . . . . .   *YES          Character value, *YES, *NO
Driver Program . . . . . . . . .   *IBMSNMPDRV   Character value, *HPPJLDRV...
                                                                      Bottom
```

## To Print on Multiple Size Pages from the Same Tray

To print different size pages from the same tray requires a change to the WSCO for that product. The solution is to leave the “Paper Size Drawer 1 and 2” set to “LETTER” and remove the PCL command for letter on the “DATA” line for the WSCO in the QTXTSRC file provided. Change DATA ='1B266C303241'X. /* esc&l02A */ to DATA=’ ‘X. /* esc&l02A */. The escape command calling for 02A is the request to print on letter size paper. That is why the change is made to this line of data.

```
Columns . . . :    1  80                                          Bro
SEU==> ____________________________________________________________________
FMT **  ...+... 1 ...+... 2 ...+... 3 ...+... 4 ...+... 5 ...+..
0183.00       PAGLEN=14544
0184.00       DATA ='1B266C343541'X. /* esc&l45A */
0185.00     :PAGSIZE
0186.00       PAGWTH=14570
0187.00       PAGLEN=20636
0188.00       DATA ='1B266C343641'X.  /* esc&l46A */
0189.00     :PAGSIZE
0190.00       PAGWTH=10440
0191.00       PAGLEN=15120
0192.00       DATA ='1B266C303141'X. /* esc&l01A */
0193.00     :PAGSIZE
0194.00       PAGWTH=12240
0195.00       PAGLEN=15840
0196.00       DATA ='1B266C303241'X.  /* esc&l02A */
0197.00     :PAGSIZE
0198.00       PAGWTH=12240
0199.00       PAGLEN=20160
0200.00       DATA ='1B266C303341'X.  /* esc&l03A */
0201.00     :PAGSIZE
0202.00       PAGWTH=15840
```

so the line looks like this:

Remove the hex data for the esc&l2A letter request.

Change to: DATA=' 'X./* esc&l02A */

Leaving the comment between the /* and */ helps identify the page size as letter for future reference if other changes are made to the source file.

## Workflow for Printing EBCDIC SCS and AFPDS Spool Files on Network-Attached ASCII Printer

The Host Print Transform (HPT) is the IBM program that performs the conversion from EBCDIC spool files with SCS or AFPDS formatting, to PCL formatting and ASCII text. The HPT references the WSCST for the specific PCL commands to use for the conversion. The WSCST is Work Station Customization Sequence Table. The WSCST is constructed using Keywords and the Hex sequences to be used. Because the AS400 is an EBCDIC machine, and the PCL sequences are in ASCII, the sequence characters are specified in HEX nibble format. As an example, a PCL reset command is ESC E. The ASCII escape characters is 1B in hex. The uppercase E is hex 45. In a WSCST this would be 1B 45. At print time, the HPT will send that to the printer and it will execute the RESET command.

The majority of the PCL commands are used "as is" and do not need any adjustment. There are a few that need to be adjusted for each device supported. The mapping of the DRAWER to TRAY calls is an example. The XTOOLS library contains modified WSCSTs for most Xerox printer models. The majority of output from the AS400 is reports and simple text pages. These were printed using line printers in the past. So, typically there are not many different typefaces required. Courier fonts are the most common. Fonts are referenced using the acronym FGID or GFID. (Font Global ID or Global Font ID.) The actual printer font used is defined using a keyword and the GFID. This definition can be modified to utilize any font that is present in the printer. The PCL sequence to select a specific font is contained in the keyword FNTSTR in the WSCST.

As an example, Global Font ID 204 is a 13.3 pitch fixed space font. It is used in printing a spool file that will not fit on a Portrait Letter-sized media. The AS400 will rotate the page to Landscape and use the 13.3 pitch font to squeeze the text to 11 inches.

The following line numbers refer to those in member XRXLVX in file QTXTSRC of library XTOOLS0923. It is recommended that STRPDM or SEU be used to edit the member. It is suggested that a copy of the original member be made with a different name. The edits can be accomplished using the standard SEU editing commands.

The tags at line 110-115 specify that GFID 204 is to be used when rotating a spool file that has 10 pitch CPI specified. The tags at lines 381-388 specify the PCL sequence that is sent to the printer to select the desired font. Line 384 is the hex equivalent of the ASCII characters to be sent. Because the AS400 is natively an EBCDIC machine, the ASCII must be in hex to coexist. At print time, the Host Print Transform will combine every two hex characters to an ASCII character. As an example, in the member XRXLVX at line 384, the first 4 characters are 1 B 2 and 8. When combined they are actually the ASCII ESCAPE and (. So, 1B28 becomes ESC(, the opening characters for the font selection sequence. The last 10 hex characters are 34 30 39 39 54. When combined they are 4099T, the ending characters of the font selection sequence. Line 385 is the ASCII equivalent of the hex sequence.

The sequence 4099T selects the Courier Typeface. To change that to LetterGothic, change it to 4102T. The hex equivalent of 4102T is 34 31 30 32 54. We can either change the current characters in line 384, or "comment out" lines 384 and 385 and enter new ones. To change the existing line 384 we would go to the end of the sequence. The 54 at position 9 and 10 needs to stay as is, and the 34 at position 1 and 2 (of the last 10 positions) needs to stay as is. The 30 needs to change to 31, the 39 needs to change to 30 and the second 39 needs to change to 32. So, the existing 3430393954 would be 3431303254. The position numbering is exclusive of the (FNTSTR = ') in the beginning and the ('X) at the end.

To “comment out” a line, the first two characters have to be (/*), and the last 2 have to be (*/). Anything in between is ignored. The compiler will ignore anything between the (/*) and the (*/).

Once the edits are completed and saved, the WSCST needs to be created using either the IBM-supplied CRTWSCST command or the Xerox-supplied CRTXWSC from the XTOOLS library. Once the WSCST is successfully created, you must end the writer of the printer you want to use, and then restart it, to pick up the changes you made to the source member. NOTE: If you are using a device description, you must vary it off, and then back on, before you restart the writer.