

MFP**TT-073113_3****TECHNICAL
TIP**

Models: MX2300N, MX2600N, MX2610N, MX2700N, MX3100N, MX3110N, MX3610N, MX4100N, MX4101N, MX4110N, MX4111N, MX4501N, MX5001N, MX5110N, MX5111N, MX6240N, MX7040N

Priority Medium

Date: July 2013

Subject: Configuring a Remote Output Queue for Sharp MFPs on the IBM AS400

Description: This document contains information on configuring and using a remote output queue for sending **IBM AS400** print jobs to **Sharp** MFPs using the **LPR/LPD** printing protocol.

Configuring a Remote Output Queue for Sharp MFPs on the IBM AS400 Version 1.1

This document contains information on configuring and using a remote output queue for sending **IBM AS400** print jobs to **Sharp** MFPs using the **LPR/LPD** printing protocol. It is intended as a training aid for users with little or no experience with the **IBM OS400** operating system or advanced users unfamiliar with setting up printing to **Sharp** MFPs.

A remote output queue is the easiest method to enable printing on the **AS400** and it is supported by all **Sharp** MFPs with a SoftNIC or an internal NIC card and the TCP/IP protocol enabled. LAN attached printers on the other hand require additional configuration and may not be supported on all **Sharp** models. **Please note that there are some differences in printing with a remote output queue rather than to a LAN attached printer. These differences are aspects of the AS400 operating system.**

1. The Page Range function is not supported like a LAN attached printer. **IBM** has an unsupported program available to address this but it is beyond the scope of this document.
2. There is no parameter to select the page size in the remote output queue description.
3. Some applications can only print to a LAN attached printer. This limitation can be overcome by creating a virtual (dummy) printer device for use in conjunction with the remote output queue. Therefore, it is recommended to always create a virtual printer device to use with a remote output queue for **Sharp** MFPs.

To create a remote output queue on the **AS400**, you must log into the **AS400** with a user account with sufficient administrative rights to use the following **CL (Command Line)** programs

VFYTCPCNN - (Verify TCP/IP Connection) or

PING - (Verify TCP/IP Connection)

CRTOUTQ - (Create Output Queue)

DLTOUTQ - (Delete Output Queue)

CRTDEVPRT - (Create Device Description - Printer)

DLTDEVD – (Delete Device Description)
STRRMTWTR – (Start Remote Writer)
ENDWTR – (End Writer)
WRKWTR WTR(*ALL) – (Work with All active Writers)
WRKSPLF - (Work with Spooled Files)
CHGOUTQ – (Change Output Queue)
CHGUSRPRF – (Change User Profile)
CHGPRF – (Change Profile)
STRSEU – (Start Source Entry Utility)

The following steps should be taken to ensure that the Remote Output Queue printing method will be successful:

- 1) Configure the **Sharp** MFP with the correct information for the **AS400** network.
- 2) Log into the **AS400** using a telnet session with a Terminal Emulation Program.
- 3) Verify network connectivity from the **AS400** to the **Sharp** MFP.
- 4) Review required output queue parameters for **Sharp** MFPs.
- 5) Create and configure a remote output queue for a **Sharp** MFP.
- 6) Create a virtual printer device description.
- 7) Start the remote writer for the output queue.
- 8) Test remote output queue printing using spooled system files.
- 9) Apply a Work Station Customizing Object to the remote output queue.
- 10) Set the remote output queue for the Sharp MFP as the user's default printer.
- 11) Test user's default printer with application printing.

1) Configure the **Sharp** MFP

- a) Configure the **Sharp** MFP with the correct TCP/IP information that is to be connected to the **AS400** network. Record the information below:

Sharp Model: _____

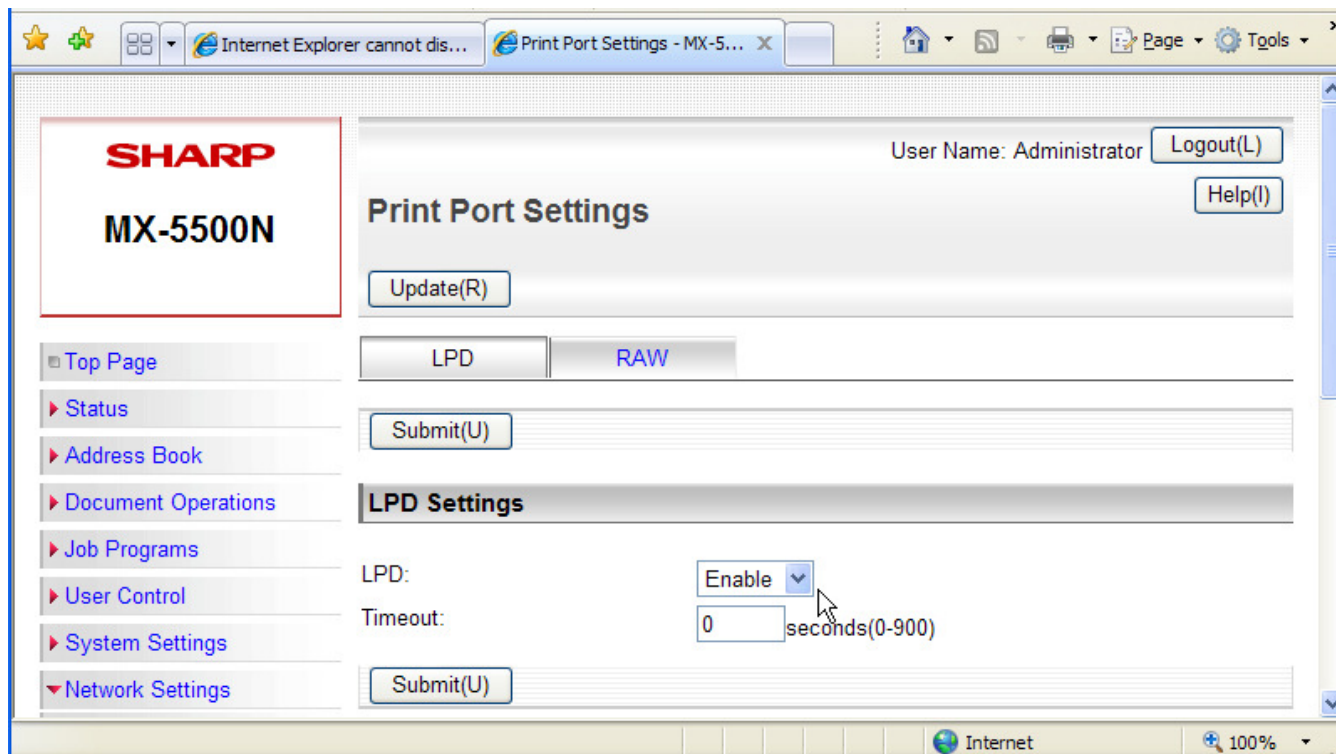
IP address: _____

Subnet Mask: _____

Gateway: _____

<ul style="list-style-type: none"> ▣ Top Page ▸ Status ▸ Address Book ▸ Document Operations ▸ Job Programs ▸ User Control ▸ System Settings ▾ Network Settings <ul style="list-style-type: none"> ▣ Quick Settings ▣ General Settings ▣ Protocol Settings ▣ Services Settings ▣ Print Port Settings 	<div style="display: flex; justify-content: space-around; border-bottom: 1px solid black;"> TCP/IP NetWare EtherTalk NetBEUI </div>														
	<input type="button" value="Submit(U)"/>														
	TCP/IP Settings														
	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">TCP/IP:</td> <td style="width: 50%;"><input type="button" value="Enable"/> ▾</td> </tr> <tr> <td>DHCP/BOOTP:</td> <td><input type="button" value="Disable"/> ▾</td> </tr> <tr> <td>RARP:</td> <td><input type="button" value="Disable"/> ▾</td> </tr> <tr> <td>IP Address:</td> <td><input style="width: 100%;" type="text" value="172.29.105.97"/></td> </tr> <tr> <td>Subnet Mask:</td> <td><input style="width: 100%;" type="text" value="255.255.254.0"/></td> </tr> <tr> <td>Default Gateway:</td> <td><input style="width: 100%;" type="text" value="172.29.104.1"/></td> </tr> <tr> <td>Use FTP/LPD Banner:</td> <td><input type="button" value="Disable"/> ▾</td> </tr> </table>	TCP/IP:	<input type="button" value="Enable"/> ▾	DHCP/BOOTP:	<input type="button" value="Disable"/> ▾	RARP:	<input type="button" value="Disable"/> ▾	IP Address:	<input style="width: 100%;" type="text" value="172.29.105.97"/>	Subnet Mask:	<input style="width: 100%;" type="text" value="255.255.254.0"/>	Default Gateway:	<input style="width: 100%;" type="text" value="172.29.104.1"/>	Use FTP/LPD Banner:	<input type="button" value="Disable"/> ▾
TCP/IP:	<input type="button" value="Enable"/> ▾														
DHCP/BOOTP:	<input type="button" value="Disable"/> ▾														
RARP:	<input type="button" value="Disable"/> ▾														
IP Address:	<input style="width: 100%;" type="text" value="172.29.105.97"/>														
Subnet Mask:	<input style="width: 100%;" type="text" value="255.255.254.0"/>														
Default Gateway:	<input style="width: 100%;" type="text" value="172.29.104.1"/>														
Use FTP/LPD Banner:	<input type="button" value="Disable"/> ▾														

- b) Ensure that LPD is enabled for printing on **Sharp** models with printer port control.



2) Log into the AS400 Server

- a) To log into the **AS400** Server, you must have an **IBM 5250** compatible terminal emulation program. There are numerous terminal programs available including **IBM's Client Access** which includes other tools. A low cost alternative is the **MochaSoft TN5250 Terminal Emulation Program**. Whatever terminal emulation program you use, it must be configured with the IP address or host name of the **AS400** server you are connecting to. You will also need a user account with sufficient rights and permissions to create objects and change system settings. Record the required information below:

IP address/Host Name of **AS400**: _____
 User Name: _____
 Password: _____

- b) Start the terminal emulation program and the login screen will appear as shown below. Enter your user name and press the <TAB> key to move to the password field and enter your password. (**Note:** User names and passwords are not case sensitive on the **AS400**.) Leave all other fields blank and press the <Enter> key when done. (**Note:** With the **IBM Remote Console Program**, the right hand <Ctrl> key is used for the <Enter> key.)

```

                                Sign On
                                System . . . . . : AS400
                                Subsystem . . . . . : QINTER
                                Display . . . . . : QPADEV0005

                                User . . . . . PATRICK
                                Password . . . . .
                                Program/procedure . . . . .
                                Menu . . . . .
                                Current library . . . . .

```

- c) If the user was previously logged in, the following screen will appear. Press the <Enter> key to continue.

```

                                Sign-on Information
                                System: AS400
Previous sign-on . . . . . : 09/12/08 04:05:55

Press Enter to continue.

F3=Exit sign-on request  F9=Change password

```

- d) The next screen that appears will depend on how the administrator has your account set up. Typically, it will be a menu screen similar to the one shown below.

```

MAIN                                OS/400 Main Menu                                System:  AS400

Select one of the following:

    1. User tasks
    2. Office tasks

    4. Files, libraries, and folders

    6. Communications

    8. Problem handling
    9. Display a menu

   11. Client Access/400 tasks

   90. Sign off

Selection or command
==>

F3=Exit  F4=Prompt  F9=Retrieve  F12=Cancel  F23=Set initial menu

```

A few general notes about the terminal console window and the keys used in it: In the above screen, the cursor is placed on the command line. Menu numbers, options or Command Line (CL) commands are typed on this line. Below the command line, the function keys that can be used for this screen are shown. These will vary depending on the screen that is displayed. The **IBM AS400** keyboard has 24 function keys rather than the 12 function keys found on PC keyboards. To access function keys higher than 12, you must use the **<Shift>** key in conjunction with the function key, i.e. **<Shift> + <F1> = <F13>**, **<Shift> + <F2> = <F14>** ~ **<Shift> + <F12> = <F24>**. The action taken by a specific function key can vary between different screens so it is important to read the prompts associated with the key before pressing it. However, the **<F4>** key is always used as a "prompt" key on the command line as well as a "list" key for field values when indicated. System messages are shown at the bottom of the screen to display error messages or the results of a command.

Use the **<TAB>** key to move between screen fields and the command line. The Windows mouse pointer can also be used to move the cursor between fields. If there is more information than can be displayed on one screen, a prompt **'More...'** will appear in the lower right hand corner. To move to the next screen, press the **<PgDn>** key. Press the **<PgUp>** key to return to the previous screen.

3) Verify network connectivity to the Sharp MFP

- a) Before creating a remote output queue, verify that the **Sharp** MFP is powered on and connected to the **AS400** network.
- b) Place your cursor on the start of the command line and type **"VFYTCPCNN"** and press

the <F4> key. (As an alternative, the "PING" command can be used in place of the "VFYTCPCNN" command.)

```

MAIN                                OS/400 Main Menu                                System:  AS400

Select one of the following:

    1. User tasks
    2. Office tasks

    4. Files, libraries, and folders

    6. Communications

    8. Problem handling
    9. Display a menu

   11. Client Access/400 tasks

   90. Sign off

Selection or command
===> VFYTCPCNN
-----
F3=Exit  F4=Prompt  F9=Retrieve  F12=Cancel  F23=Set initial menu
    
```

c) When the following screen appears, type in the IP address or host name of the *Sharp* MFP with leading and trailing single quote marks (') and press the <Enter> key.

```

                                Verify TCP/IP Connection (VFYTCPCNN)

Type choices, press Enter.

Remote system . . . . . '172.29.105.97'
-----
-----

                                Bottom
F3=Exit  F4=Prompt  F5=Refresh  F10=Additional parameters  F12=Cancel
F13=How to use this display  F24=More keys
    
```

d) The screen below will be displayed showing the system message:

Verifying connection to host system xxx.xxx.xxx.xxx. +

The plus sign (+) indicates there are additional message lines to display.

```
MAIN                      OS/400 Main Menu                      System:  AS400
Select one of the following:
    1. User tasks
    2. Office tasks
    4. Files, libraries, and folders
    6. Communications
    8. Problem handling
    9. Display a menu
   11. Client Access/400 tasks
   90. Sign off
Selection or command
====>
F3=Exit  F4=Prompt  F9=Retrieve  F12=Cancel  F23=Set initial menu
Verifying connection to host system 172.29.105.97  +
```

- e) The VFYTCPCNN or PING command issues a Ping 5 times when it is executed. Click on the plus sign (+) with your mouse and press the <PgDn> key to display the results of the Ping.

```

MAIN                               OS/400 Main Menu                               System:  AS400
Select one of the following:

  1. User tasks
  2. Office tasks

  4. Files, libraries, and folders

  6. Communications

  8. Problem handling
  9. Display a menu

 11. Client Access/400 tasks

 90. Sign off

Selection or command
====>
-----
F3=Exit  F4=Prompt  F9=Retrieve  F12=Cancel  F23=Set initial menu

PING reply 1 from 172.29.105.97 took 2 ms. 256 bytes. TTL 255. +

```

If the Sharp MFP is available on the network, the message line will change as shown below each time the <PgDn> key is pressed:

```

PING reply 1 from 172.29.105.97 took 2 ms. 256 bytes. TTL 255. +
PING reply 2 from 172.29.105.97 took 2 ms. 256 bytes. TTL 255. +
PING reply 3 from 172.29.105.97 took 2 ms. 256 bytes. TTL 255. +
PING reply 4 from 172.29.105.97 took 2 ms. 256 bytes. TTL 255. +
PING reply 5 from 172.29.105.97 took 2 ms. 256 bytes. TTL 255. +
Round-trip (in milliseconds) min/avg/max = 1/1/2
Connection verification statistics: 5 of 5 successful (100 %).

```

f) If the connection to the MFP is not confirmed, correct the problem before proceeding.

4) Review required output queue parameters for Sharp MFPs.

While **AS400** remote output queues created with the **CRTOUTQ** command have a number of parameters, not all parameters need to be changed from the system defaults for **Sharp** MFPs. Listed below are only the parameters that need to be checked or changed for use with **Sharp** MFPs in the output queue description. All other values can be left at the system defaults:

1. **Output queue** – the name of the output queue is required. It can be any name you desire unless an output queue already exists with that name.
2. **Library** – A “Library” is analogous to a directory in DOS. The default value for the output queue library is ***CURLIB** (Current Library). This needs to be changed to **QUSRSYS** for creating a virtual printer device description for use with the output queue.
3. **Remote system** – Set this parameter to ***INTNETADR** when using the IP address of the **Sharp** MFP. If a host or DNS name is used, enter that name here using leading and trailing single quote (') marks.
4. **Remote Printer Queue** – This specifies the LPR queue name used by the **Sharp** MFP and

varies by the type of network controller on the unit. Names are case sensitive and must be spelled correctly. The following are the LPR queue names used by the various **Sharp** interfaces:

Network Controller	LPR Queue Name
AR-NC1D	PORT1
AR-NC3D	PORT1
AR-NC4T	PORT1
AR-NC5J	lp
SoftNIC	lp
EFI Fiery	print

5. **Writers to autostart** – Specifies the number of remote writers that will be started automatically by the system. The default value is set to ***NONE** but should be set to **1** so the remote writer will automatically be started after a restart of the **AS400** system or after making a change to the output queue description. If not, the writer will have to be started manually using the Start Remote Writer (**STRMTWTR**) command.
6. **Connection Type** – This needs to be set to ***IP** as the output queue will communicate with the **Sharp** MFP using TCP/IP.
7. **Destination Type** – This needs to be set to ***OTHER** for all Sharp MFPs.
8. **Host Print Transform** – This needs to be set to ***YES** so the **AS400** Host Print Transform (HPT) function will convert both **SCS** (**SNA Character Stream** - a text-based, **EBCDIC** data stream) and **AFPDS** (**Advance Function Presentation Data Stream**) spooled files to the printer's data stream.
9. **User Data Transform and Library** – Set this value to ***NONE** when using the Host Print Transform function.
10. **Manufacturer Type and Model** – The **IBM AS400** ships with predefined printer descriptions from a number of manufacturers, but **Sharp** does not provide one. For basic printing functionality, set this value to ***HP8000**. **Sharp** MFPs closely match this model but not exactly. For full functionality, a modified Work Station Customizing Object for the specific **Sharp** model would be used. In that case, this value would be set to ***WSCST**.
11. **Workstation Customizing Object** – Set this value to ***NONE** if the **Manufacturer Type and Model** is set to ***HP8000**. Otherwise if it is set to ***WSCST**, fill in the name of the workstation customizing object (WSCST) for the specific **Sharp** model being used.

12. **Internet Address** - The **Internet Address** parameter must be set to the **Sharp** MFP's TCP/IP address when the **Remote System** parameter has been set to ***INTNETADR**. The TCP/IP address should be entered without leading zeros (for example, use **'172.29.105.97'** instead of **'172.029.105.097'**).
13. **Destination options** – **IBM** recommends that this value should be set to **'XAIX'** (all uppercase) but there are times when it should not be used. The **'XAIX'** value specifies that the remote writer is to send the spooled file to the printer multiple times if the number of copies is greater than 1. This method is required for printers that start printing the data right away. However, there are some printers that will close the connection after the first copy is sent. This is an unexpected close, resulting in retrying to send from the beginning which will cause the remote writer to loop forever and will cause the spooled file to be printed indefinitely. In this case, **'XAIX'** should not be used.
14. **Text 'description'** – While not a requirement, it is always a good idea to have a statement to show the model of the **Sharp** MFP and accessories being used. Make sure to use leading and trailing single quote marks (') around the text.

5) Create and configure a Remote Output Queue for a Sharp MFP.

The following example for creating a remote output queue with the Create Output Queue (**CRTOUTQ**) command is based on using a **Sharp MX-5500** MFP with a **SoftNIC** network controller at IP address 172.29.105.97. Record the values that you will need to use to create your own remote output queue.

Output queue: _____
 Remote printer queue: _____
 Host/DNS name (if used) _____
 IP address: _____

- a) Place your cursor on the start of the command line and type **"CRTOUTQ"** and press the **<F4>** key and the following screen will appear:

Create Output Queue (CRTOUTQ)

Type choices, press Enter.

Output queue	_____	Name
Library	*CURLIB	Name, *CURLIB
Maximum spooled file size:		
Number of pages	*NONE	Number, *NONE
Starting time	_____	Time
Ending time	_____	Time
	+ for more values	
Order of files on queue	*FIFO	*FIFO, *JOBNBR
Remote system	*NONE	

Bottom

F3=Exit F4=Prompt F5=Refresh F10=Additional parameters F12=Cancel
 F13=How to use this display F24=More keys

Parameter DEVD required.

+

- b) Type in the name of your output queue, tab to the **Library** field, type in "QUSRSYS" and then press the <F9> key to display all parameters of the remote output queue. Tab to the **Remote system** field, type in "*INTNETADR". Tab to the **Remote printer queue** field and type in the queue name for the **Sharp** network controller using leading and trailing single quote (') marks. (See the table in **Section 4), Item 4** for queue names.) **NOTE:** The caret symbol (>) on the screen shows the fields that are changed from their default values.

Create Output Queue (CRTOUTQ)

Type choices, press Enter.

Output queue	> MX5500Q	Name
Library	> QUSRSYS	Name, *CURLIB
Maximum spooled file size:		
Number of pages	*NONE	Number, *NONE
Starting time	_____	Time
Ending time	_____	Time
	+ for more values	
Order of files on queue	*FIFO	*FIFO, *JOBNBR
Remote system	> *INTNETADR	

Remote printer queue > 'lp'

Bottom

F3=Exit F4=Prompt F5=Refresh F10=Additional parameters F12=Cancel
 F13=How to use this display F24=More keys

Parameter DEVD required.

+

- c) Press the <PgDn> key to access the next entry screen and fill in the values for the following fields: **Writers to autostart** > **1**, **Connection Type** > ***IP**, **Destination type** > ***OTHER**, **Manufacturer type and model** > ***HP8000** and **Internet address** > the IP address of the **Sharp** MFP. Use the <Tab> key to move between fields and leave all other values at default. Press the <PgDn> key to move to the next screen.

```

Create Output Queue (CRTOUTQ)

Writers to autostart . . . . . > 1           1-10, *NONE
Queue for writer messages . . . . . QSYSOPR   Name
Library . . . . . *LIBL                     Name, *LIBL, *CURLIB
Connection type . . . . . > *IP             *SNA, *IP, *IPX, *USRDFN
Destination type . . . . . > *OTHER         *OS400, *OS400V2, *PSF2...
Host print transform . . . . . *YES         *YES, *NO
User data transform . . . . . *NONE        Name, *NONE
Library . . . . .                          Name, *LIBL, *CURLIB
Manufacturer type and model . . . > *HP8000
Workstation customizing object . . . *NONE   Name, *NONE
Library . . . . .                          Name, *LIBL, *CURLIB
Image configuration . . . . . *NONE        *NONE, *IMGA01, *IMGA02...
Internet address . . . . . > '172.29.105.97'
VM/MVS class . . . . . A                 A, B, C, D, E, F, G, H, I...
Forms Control Buffer . . . . . *NONE        Character value, *NONE...

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

```

- d) When the following screen appears, enter "**XAIX**" for the *Destination options* field and enter an appropriate comment in the *Text 'description'* field. No other parameters need to be entered.

```

Create Output Queue (CRTOUTQ)

Destination options . . . . . 'XAIX'

Print separator page . . . . . *YES       *YES, *NO
User defined option . . . . . *NONE       Option, *NONE
+ for more values
User defined object:
Object . . . . . *NONE                   Name, *NONE
Library . . . . .                          Name, *LIBL, *CURLIB
Object type . . . . .                      *DTAARA, *DTAQ, *FILE...
User driver program . . . . . *NONE       Name, *NONE
Library . . . . .                          Name, *LIBL, *CURLIB
Spooled file ASP . . . . . *SYSTEM      *SYSTEM, *OUTQASP
Text 'description' . . . . . 'Color and Black & White Sharp MX-5500N'

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

```

- e) Use the <PgUp> key to review all of your entries. When you are satisfied they are all correct, press the <Enter> key to create the remote output queue. The following system message will be displayed:

Object MX5500Q type *OUTQ created in library QUSRSYS.

```

MAIN                                OS/400 Main Menu                                System:  AS400

Select one of the following:

    1. User tasks
    2. Office tasks

    4. Files, libraries, and folders

    6. Communications

    8. Problem handling
    9. Display a menu

   11. Client Access/400 tasks

   90. Sign off

Selection or command
===> _____

F3=Exit  F4=Prompt  F9=Retrieve  F12=Cancel  F23=Set initial menu

Object MX5500Q type *OUTQ created in library QUSRSYS.

```

As a virtual printer device description will be used with this remote output queue, ensure that the library shown is **QUSRSYS** as this is the library that printer device descriptions must reside in.

6) Create a Virtual Printer Device Description.

Virtual (dummy) printer device descriptions are typically used when printing from applications that do not support printing directly to an output queue, but only to a printer device description. Therefore it is necessary to create a dummy printer device description for use with the newly created remote output queue for the **Sharp** MFP. As this is not a "real" printer device description, some precautions need to be taken:

1. Do not use the Vary Configuration (**VRYCFG**) or the Work with Configuration Status (**WRKCFGSTS**) commands to vary on the dummy printer device description.
2. Do not use the Start Print Writer (**STRPRTWTR**) command or **Option 1 (Start)** from the Work with Writers (**WRKWTR**) command to start the writer. Use the Start Remote Writer (**STRMTWTR**) command instead to start a writer using the remote output queue.
3. The remote output queue and dummy printer device description should be thoroughly documented as a system save and system restore can cause the remote output queue to change to a normal output queue.

Follow the steps below to create a dummy printer device description and associate it with the remote output queue for the **Sharp** MFP.

- a) When the output queue was created, a writer with the same name was created by the **AS400** system. Before a dummy printer device description is created, the writer for the queue must be stopped to properly associate the device with the queue. At the command line, type "**ENDWTR**"

and press the <F4> key. Type in the name of your remote output queue in the **Writer** field, press the <TAB> key to move to the **When to end writer** field and type in **"*IMMED"**.

```

                                End Writer (ENDWTR)

Type choices, press Enter.

Writer . . . . . > MX5500Q      Name, *SYSVAL, *ALL
When to end writer . . . . . > *IMMED  *CNTRLD, *IMMED, *PAGEEND

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

```

b) Press the <Enter> key and system message

Writer XXXXXX/WSPLJOB/{output queue name} in the process of ending.

if the writer is active, otherwise, the system message would read:

Writer {output queue name} not active nor on job queue.

```

MAIN                                OS/400 Main Menu                                System:  AS400

Select one of the following:

    1. User tasks
    2. Office tasks

    4. Files, libraries, and folders

    6. Communications

    8. Problem handling
    9. Display a menu

   11. Client Access/400 tasks

   90. Sign off

Selection or command
===> _____

F3=Exit   F4=Prompt   F9=Retrieve   F12=Cancel   F23=Set initial menu

Writer 044792/QSPLJOB/MX5500Q in process of ending.

```

c) At a command prompt, type "CRTDEVPRT" and press the <F4> key.

```

MAIN                               OS/400 Main Menu                               System:  AS400

Select one of the following:

    1. User tasks
    2. Office tasks

    4. Files, libraries, and folders

    6. Communications

    8. Problem handling
    9. Display a menu

   11. Client Access/400 tasks

   90. Sign off

Selection or command
==> CRTDEVPRT

F3=Exit  F4=Prompt  F9=Retrieve  F12=Cancel  F23=Set initial menu

```

d) Type in the name of the remote output queue in the *Device description* field and press the <F9> key. Fill in the values for the following fields: *Device class* > *VRT, *Device type* > 3812, and *Device model* > 1. This defines the printer as a virtual device that emulates an IBM printer which supports the ASCII data stream and the PJI language.

```

                                Create Device Desc (Printer) (CRTDEVPRT)

Type choices, press Enter.

Device description . . . . . > MX5500Q      Name
Device class . . . . . > *VRT              *LCL, *RMT, *VRT, *SNPT, *LAN
Device type . . . . . > 3812              3287, 3812, 4019, 4201...
Device model . . . . . > 1                 0, 1, 2, 3, 4, 10, 13, 301...
LAN attachment . . . . . *LEXLINK          *LEXLINK, *IP, *USRDFN
Switched line list . . . . .              Name
    + for more values
LAN remote adapter address . . . . .      000000000001-FFFFFFFFFFFFE
Adapter type . . . . . *INTERNAL           *INTERNAL, *EXTERNAL
Adapter connection type . . . . . *PARALLEL *PARALLEL, *SERIAL
Emulated twinaxial device . . . . .      3812, 5219, 5224, 5256
Advanced function printing . . . . . *NO   *NO, *YES
AFP attachment . . . . . *WSC             *WSC, *APPC
Port number . . . . . _____          0-65535
Switch setting . . . . . _____        0, 1, 2, 3, 4, 5, 6
Local location address . . . . .          00-FE

                                                                More...

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

```

- e) Press the <PgDn> key to access the next parameters screen. Fill in the values for the following fields: **Online at IPL > *NO, Font: Identifier > 11.**

```

Create Device Desc (Printer) (CRTDEVPRT)

Type choices, press Enter.

Auxiliary printer . . . . . *YES, *NO
Emulating ASCII device . . . . . *NO *NO, *YES
Physical attachment . . . . . *DIRECT, *PTT, *MODEM...
Online at IPL . . . . . > *NO *YES, *NO
Attached controller . . . . . Name
Language type . . . . . *SYSVAL *SYSVAL, AGB, AGI, ALI...
Print quality . . . . . *STD *STD, *DRAFT, *NLQ
Font:
Identifier . . . . . > 11 3, 5, 11, 12, 13, 18, 19...
Point size . . . . . *NONE 000.1-999.9, *NONE
Form feed . . . . . *AUTOCUT *TYPE, *CONT, *CONT2, *CUT...
Separator drawer . . . . . *FILE 1-255, *FILE
Separator program . . . . . *NONE Name, *NONE
Library . . . . . Name, *LIBL, *CURLIB
Number of drawers . . . . . 1, 2, 3
Printer error message . . . . . *INFO *INQ, *INFO

More...

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

```

- f) Press the <Enter> key and the following system message should appear:
Output queue {output queue name} in QUSRSYS already exists. Press the <PgDn> key to view the rest of the message which should read:
Description for device {output queue name} created.

```

MAIN OS/400 Main Menu System: AS400

Select one of the following:

1. User tasks
2. Office tasks

4. Files, libraries, and folders

6. Communications

8. Problem handling
9. Display a menu

11. Client Access/400 tasks

90. Sign off

Selection or command
==> _____

F3=Exit F4=Prompt F9=Retrieve F12=Cancel F23=Set initial menu

Output queue MX5500Q in QUSRSYS already exists +

```


g) If the above messages are not seen, then the remote output queue was not created in the **QUSRSYS** library. It will be necessary to stop the writer and delete the printer device description and output queue typing the commands shown below in the order given on the command line:

(1) **ENDWTR** (*{output queue name}*)

(2) **DLTDEVD** (*{output queue name}*)

(3) **DLTOUTQ** (*{output queue name}*)

Begin again from step **4)** above.

7) Start the Remote Writer for the output queue.

a) If you successfully created a dummy printer device and the remote output queue was configured with **Writers to autostart > 1**, the remote writer should have restarted. To check the status of the writer, use the Work with Writers, All Writers command. At the command line, type "**WRKWTR WTR(*ALL)**" and press the **<Enter>** key. This command will show only the active writers as shown below:

```

Work with All Writers

Type options, press Enter.
 2=Change  3=Hold  4=End  5=Work with  6=Release  7=Display messages
 8=Work with output queue

Opt  Writer      Type  Device      Queue      Library      Status  Form Type
---  -
 1   MX5500Q      RMT   MX5500Q     MX5500Q    QUSRSYS     STR    *ALL

Parameters for options 2, 3, 4, 6 or command
====>
F3=Exit  F4=Prompt  F12=Cancel  F22=Start printer writer  F24=More keys

Bottom

```

b) If the writer for the remote output queue you created is not shown, the writer did not restart. At the command line, type "**STRRMTWTR** (*output queue name*)" and press the **<Enter>** key. The following system message should appear if the writer was not active:

Reader or writer 042290/QSPLJOB/*{output queue name}* submitted to job queue...

If the writer was already active, the following system message would appear:

Writer /*{output queue name}* already started.

```

MAIN                                OS/400 Main Menu                                System:  AS400

Select one of the following:

    1. User tasks
    2. Office tasks

    4. Files, libraries, and folders

    6. Communications

    8. Problem handling
    9. Display a menu

   11. Client Access/400 tasks

   90. Sign off

Selection or command
====>

F3=Exit  F4=Prompt  F9=Retrieve  F12=Cancel  F23=Set initial menu

Reader or writer 042290/QSPLJOB/MX5500Q lsubmitted to job queue QSPL in li. . .

```

8) Test remote output queue printing using spooled system files.

Once the writer for the remote output queue has been started, you can then test basic printing to the **Sharp** MFP using spooled system files. Changing the attributes of a spooled file allows you to change certain parameters of the file including the printer to print to, the output queue, paper source, single sided or double sided prints, etc. As the remote output queue you created is using a **HP8000** printer description, the printed output may not be as expected but it will let you know whether the remote output queue you created is configured correctly. To test basic printing, follow the steps below:

- a) At a command line, type **WRKSPLF** and press the <Enter> key. A list of spooled files for your user profile will be displayed as shown below:

```

                                Work with All Spooled Files

Type options, press Enter.
  1=Send  2=Change  3=Hold  4=Delete  5=Display  6=Release  7=Messages
  8=Attributes  9=Work with printing status

Opt  File          User          Device or  User Data  Sts  Total  Cur  Copy
     SEPPAG        PATRICK      PRT_01    RDY        44   44    1
     SEPPAG        PATRICK      PRT_01    RDY        14   14    1
     SEPPAGNEW     PATRICK      PRT_01    RDY        14   14    1
     QPSECQ        PATRICK      PRT_01    PRTQAUT   RDY        3    3    1
  2  QPJOBLOG      PATRICK      QEZJOBLOG QPADEV0005 RDY        6    6    1
     QPJOBLOG      PATRICK      QEZJOBLOG QPADEV0005 RDY        1    1    1
     QPDSPJOB      PATRICK      QEZDEBUG  RDY        7    7    1
     QPSRVDMP      PATRICK      QEZDEBUG  RDY        5    5    1
     QPJOBLOG      PATRICK      QEZJOBLOG QPADEV0005 RDY        2    2    1
                                           More...

Parameters for options 1, 2, 3 or command
====>

F3=Exit  F10=View 4  F11=View 2  F12=Cancel  F22=Printers  F24=More keys

```

- b) Place the cursor in the **Opt** (*Option*) field for the file you wish to print and type "**2**" (*Change*) and press the <Enter> key. Then press the <F9> key to display all of the parameters of the spooled file. Tab to the **Printer** field and enter the name of your output queue.

```

Change Spooled File Attributes (CHGSPLFA)

Type choices, press Enter.

Spooled file . . . . . > QPJOBLOG      Name, *SELECT
Job name . . . . . > QPADEV0005      Name, *
User . . . . . > PATRICK              Name
Number . . . . . > 043388             000000-999999
Spooled file number . . . . . > 1     1-999999, *ONLY, *LAST
Select files for:
User . . . . . *CURRENT              Name, *CURRENT, *ALL
Print device . . . . . *ALL           Name, *ALL, *OUTQ
Form type . . . . . *ALL             Form type, *ALL, *STD
User data . . . . . *ALL            User data, *ALL
Printer . . . . . > MX5500Q          Name, *SAME, *OUTQ
Print sequence . . . . . *SAME       *SAME, *NEXT
Form type . . . . . *STD            Form type, *SAME, *STD
Copies . . . . . 1                  1-255, *SAME
Restart printing . . . . . *STRPAGE  Number, *SAME, *STRPAGE...
Volume . . . . . *SAME              Identifier, *SAME, *NONE
More...
F3=Exit   F4=Prompt   F5=Refresh   F12=Cancel  F13=How to use this display
F24=More keys

```

- c) Press the <PgDn> and enter "***DEV**" in the **Output queue** field. Tab to the **Save file** field and type in ***YES** so this file can be used for printing again.

```

Change Spooled File Attributes (CHGSPLFA)

Type choices, press Enter.

Diskette label . . . . . *SAME      Character value, *SAME

Additional Parameters

Output queue . . . . . > *DEV       Name, *SAME, *DEV
Library . . . . .                Name, *LIBL, *CURLIB
File separators . . . . . 0         0-9, *SAME
Page range to print:
Starting page . . . . . 1          Number, *SAME, *ENDPAGE
Ending page . . . . . *END         Number, *SAME, *END
File becomes available . . . . . *FILEEND *SAME, *JOBEND, *FILEEND...
Save file . . . . . > *YES         *SAME, *NO, *YES
Output priority . . . . . 5        1-9, *SAME, *JOB
User data . . . . . 'QPADEV0005'   User data, *SAME
Align page . . . . . *NO          *SAME, *NO, *YES
Print quality . . . . . *STD       *SAME, *STD, *DEVD, *DRAFT...
More...
F3=Exit   F4=Prompt   F5=Refresh   F12=Cancel  F13=How to use this display
F24=More keys

```

- d) Press the <Enter> key to submit the spool file to your remote output queue and you will be returned to the Work with All Spool Files screen. The job you submitted to your printer will display a status of ***CHG** (changed).

```

Work with All Spooled Files

Type options, press Enter.
 1=Send  2=Change  3=Hold  4=Delete  5=Display  6=Release  7=Messages
 8=Attributes  9=Work with printing status

Opt  File          User          Device or  User Data  Sts  Total  Cur  Copy
     SEPPAG        PATRICK      PRT_01                RDY   44    1    1
     SEPPAG        PATRICK      PRT_01                RDY   14    1    1
     SEPPAGNEW     PATRICK      PRT_01                RDY   14    1    1
     QPSECQ        PATRICK      PRT_01    PRTQAUT    RDY    3    1    1
     QPJOBLOG      PATRICK      MX5500Q   QPADEV0005 *CHG    6    1    1
     QPJOBLOG      PATRICK      QEZJOBLOG QPADEV0005    RDY    1    1    1
     QPDSPJOB      PATRICK      QEZDEBUG              RDY    7    1    1
     QPSRVDMP      PATRICK      QEZDEBUG              RDY    5    1    1
     QPJOBLOG      PATRICK      QEZJOBLOG QPADEV0005    RDY    2    1    1
                                           More...

Parameters for options 1, 2, 3 or command
====>
F3=Exit  F10=View 4  F11=View 2  F12=Cancel  F22=Printers  F24=More keys

```

- e) To check the status of the job you just submitted, type "9" (Work with printing status) in the **Opt** field and press the <Enter> key.

```

Work with All Spooled Files

Type options, press Enter.
 1=Send  2=Change  3=Hold  4=Delete  5=Display  6=Release  7=Messages
 8=Attributes  9=Work with printing status

Opt  File          User          Device or  User Data  Sts  Total  Cur  Copy
 9  QPJOBLOG      PATRICK      MX5500Q   QPADEV0005 MSGW    6    1    1
     SEPPAG        PATRICK      PRT_01                RDY   44    1    1
     SEPPAG        PATRICK      PRT_01                RDY   14    1    1
     SEPPAGNEW     PATRICK      PRT_01                RDY   14    1    1
     QPSECQ        PATRICK      PRT_01    PRTQAUT    RDY    3    1    1
     QPJOBLOG      PATRICK      QEZJOBLOG QPADEV0005    RDY    1    1    1
     QPDSPJOB      PATRICK      QEZDEBUG              RDY    7    1    1
     QPSRVDMP      PATRICK      QEZDEBUG              RDY    5    1    1
     QPJOBLOG      PATRICK      QEZJOBLOG QPADEV0005    RDY    2    1    1
                                           More...

Parameters for options 1, 2, 3 or command
====>
F3=Exit  F10=View 4  F11=View 2  F12=Cancel  F22=Printers  F24=More keys

```

- f) The following screen will appear if the remote output queue was created correctly. In this case, the file was printed and saved. If any problems were encountered, an error message would be displayed.

```

                                Work with Printing Status

Job . . . . . : QPADEV0005      File . . . . . : QPJOBLOG
User . . . . . : PATRICK        Number . . . . . : 1
Number . . . . . : 043388      User data . . . . . : QPADEV0005

Type options, press Enter.
  2=Change status   5=Display detailed description

Opt   Status Description
  _   This file was printed and saved.

                                           Bottom

Command
===>
F3=Exit   F4=Prompt   F5=Refresh   F9=Retrieve   F12=Cancel

```

- g) To print the job again, type "2" (Change status) in the **Opt** field and press the <Enter> key. Type "1" in the **Selection** field and press the **Enter** key.

```

                                Work with Printing Status

Job . . . . . : QPADEV0005      File . . . . . : QPJOBLOG
User . . . . . : PATRICK        Number . . . . . : 1
Number . . . . . : 043388      User data . . . . . : QPADEV0005

Type options, press Enter.
  2=Change status   5=Display detailed description

Opt   Change Status
  2   : Select one of the following:
      :
      :   1. Print this file and save it again
      :   2. Print this file and delete it
      :
      : Selection
      :   1
Com   :
===  : F6=Display details   F12=Cancel
F3=  :

```

- h) When the following screen is displayed, press the <F5> key several times to refresh the status of the job.

```

                                Work with Printing Status

Job . . . . . : QPADEV0005      File . . . . . : QPJOBLOG
User . . . . . : PATRICK        Number . . . . . : 1
Number . . . . . : 043388      User data . . . . . : QPADEV0005

Type options, press Enter.
  2=Change status   5=Display detailed description

Opt      Status Description
  (Status is pending)

                                                Bottom

Command
===>
F3=Exit   F4=Prompt   F5=Refresh   F9=Retrieve   F12=Cancel

```

- i) The status should now show that the job was printed and saved again.

```

                                Work with Printing Status

Job . . . . . : QPADEV0005      File . . . . . : QPJOBLOG
User . . . . . : PATRICK        Number . . . . . : 1
Number . . . . . : 043388      User data . . . . . : QPADEV0005

Type options, press Enter.
  2=Change status   5=Display detailed description

Opt      Status Description
  This file was printed and saved.

                                                Bottom

Command
===>
F3=Exit   F4=Prompt   F5=Refresh   F9=Retrieve   F12=Cancel

```

Since this printer used the ***HP8000** description file, the job just printed should have been printed in simplex mode from **Tray 2** even though the job attributes show that **Tray 1** was selected for paper feed. This is because there are differences between the **Sharp** and **HP PCL**

printer command structure. While this might work for users who require only basic printing, other users might require other features such as duplex printing from a different feed tray. To test whether the remote output queue needs to include a Work Station Customizing Object for the user, we will make further changes to the same spooled file and reprint the job.

- j) If you are still on the Work with Printing Status screen, press the <Enter> key to return to the Work with All Spooled Files screen. Then, type "2" into the *Opt* field of the file just printed and press the <Enter> key.

```

Work with All Spooled Files

Type options, press Enter.
 1=Send  2=Change  3=Hold  4=Delete  5=Display  6=Release  7=Messages
 8=Attributes  9=Work with printing status

  Opt  File      User      Device or  User Data  Sts  Total  Cur
  -    -        -        Queue     -          -    Pages  Page  Copy
  2  QPJOBLOG  PATRICK  MX5500Q   QPADEV0005 *CHG   6    1
  -  SEPPAG   PATRICK  PRT_01    -          RDY  44    1
  -  SEPPAG   PATRICK  PRT_01    -          RDY  14    1
  -  SEPPAGNEW PATRICK  PRT_01    -          RDY  14    1
  -  QPSECQ   PATRICK  PRT_01    PRTQAUT   RDY   3    1
  -  QPJOBLOG PATRICK  QEZJOBLOG QPADEV0005 RDY   1    1
  -  QPDSPJOB PATRICK  QEZDEBUG  -          RDY   7    1
  -  QPSRVDMP PATRICK  QEZDEBUG  -          RDY   5    1
  -  QPJOBLOG PATRICK  QEZJOBLOG QPADEV0005 RDY   2    1
                                          More...

Parameters for options 1, 2, 3 or command
====>
F3=Exit  F10=View 4  F11=View 2  F12=Cancel  F22=Printers  F24=More keys

```

- k) Press the <F9> key to display all parameters. Press the <PgDn> key twice to access the following screen. Tab to the *Source drawer* field and change the default value from "1" to "2" to feed from the second cassette. Next, Tab to the *Print on both sides* field and change the default value from *NO to *YES. Before proceeding, remove paper from **Tray 2** on the *Sharp* MFP and ensure that letter size paper is placed in **Tray 1**.

```

Change Spooled File Attributes (CHGSPLFA)

Type choices, press Enter.

Form feed . . . . . *DEVD          *SAME, *DEVD, *CONT, *CUT...
Source drawer . . . . . > 2        1-255, *SAME, *E1, *FORMDF
Print fidelity . . . . . *CONTENT   *SAME, *ABSOLUTE, *CONTENT
Print on both sides . . . . . > *YES *SAME, *NO, *YES, *TUMBLE...
Pages per side . . . . . 1         1-4, *SAME
Page definition . . . . . *SAME     Name, *SAME, *NONE
  Library . . . . .                Name, *LIBL, *CURLIB
Form definition . . . . . *NONE     Name, *SAME, *NONE, *DEVD...
  Library . . . . .                Name, *LIBL, *CURLIB
AFP Characters . . . . . *SAME     Coded font name, *SAME, *NONE
Front side overlay:
  Overlay . . . . . *NONE          Name, *NONE, *SAME
  Library . . . . .                Name, *LIBL, *CURLIB
  Offset down . . . . .            0.00-57.79, *SAME
  Offset across . . . . .          0.00-57.79, *SAME

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

- 1) After ensuring that the *Sharp* MFP is setup as described, submit the changes to the spooled file by pressing the <Enter> key. Next, type “9” (Printing status) in the *Opt* field of the job, type “2” (Change status) in the *Opt* field and “1” in the *Selection* field to resubmit the job for printing. After the job is printed, press the <F12> (Cancel) key and then the <Enter> key to return to the Work with All Spooled Files screen.

```

Work with Printing Status

Job . . . . . : QPADEV0005      File . . . . . : QPJOBLOG
User . . . . . : PATRICK        Number . . . . . : 1
Number . . . . . : 043388      User data . . . . . : QPADEV0005

Type options, press Enter.
2=Change status   5=Display detailed description

.....
Opt : Change Status
2  :
  : Select one of the following:
  :
  : 1. Print this file and save it again
  : 2. Print this file and delete it
  :
  :
  : Selection
  : 1
Com :
=== : F6=Display details   F12=Cancel
F3= :
.....
  
```


If you have followed the instructions correctly, you will find that the job printed on both sides of the page from **Tray 1** rather than **Tray 2** as expected. This indicates that a Work Station Customizing Object should be used with the remote output queue. The following example shows using a pre compiled **WSCST** (Work Station Customizing Object) in place of the ***HP8000** description. (For complete instructions on creating and modifying **WSCSTs**, see the document “*Creating and Compiling WSCST for Sharp MFPs on the AS400*”)

9) Apply a Work Station Customizing Object to the Remote Output Queue.

- a) Before a remote output queue can be modified, the remote writer must be stopped. At a command line, type “**ENDWTR**” and press the <F4> key. Type in the name of your remote output queue in the *Writer field*, tab to the *When to end writer* field, type in “***IMMED**”.

```

                                End Writer (ENDWTR)

Type choices, press Enter.

Writer . . . . . > MX5500Q      Name, *SYSVAL, *ALL
When to end writer . . . . . > *IMMED  *CNTRLD, *IMMED, *PAGEEND

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

```

- b) Press the <Enter> key and the following system message should appear:
 Writer XXXXXX/QSPLJOB/{*remote output queue name*}in process of ending.
- c) At the command line, type “**CHGOUTQ** ({*remote output queue name*})”, press the <F4> key and then the <F9> key to display all of the parameters for the remote output queue. Press the <PgDn> key once and make the following changes to the fields indicated:

Manufacturer type and model > *WSCST

Workstation Customizing object > SHARPPJL

Library > QGPL

```

Change Device Desc (Printer) (CHGDEVPRT)

Type choices, press Enter.

Publishing information:
Support duplex . . . . . *DUPLEX          *SAME, *SIMPLEX, *DUPLEX...
Support color . . . . . *COLOR           *SAME, *NOCOLOR, *COLOR...
Pages per minute black . . . . . 55        1-32767, *SAME, *UNKNOWN
Pages per minute color . . . . . 45        1-32767, *SAME, *UNKNOWN
Location . . . . . *BLANK
Text 'description' . . . . . 'SHARP Color & Black & White MFP MX-5500N'

Additional Parameters

Remote network identifier . . . *SAME          Name, *SAME, *NETATR, *NONE
Workstation customizing object > SHARPPJL      Name, *SAME, *NONE
Library . . . . . > QGPL                       Name, *LIBL, *CURLIB

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

```

- d) Press the <Enter> key when done.
- e) As long as the remote output queue was configured with Autostart writers > 1, the writer should start after the remote output queue is reconfigured. However, to ensure that it the writer is ready, on the command line type "STRMTWTR ({output queue name})" and press the <Enter> key. The following system message should appear if the writer was not active:
 Reader or writer XXXXXX/QSPLJOB/{output queue name} submitted to job queue...
 If the writer was already active, the following system message would appear:
 Writer /{output queue name} already started.
- f) At the command line, type "WRKSPLF". When the list of spooled files is displayed, type "9" (Printing status) in the Opt field of the same file you printed previously and press the <Enter> key. Next, type "2" (Change status) in the Opt field and press the <Enter> key. Type "1" in the Selection field and press the <Enter> key to resubmit the job for printing. After the job is printed, press the <F12> (Cancel) key and then the <Enter> key.

```

                                Work with Printing Status
Job . . . . . : QPADEV0005      File . . . . . : QPJOBLOG
User . . . . . : PATRICK        Number . . . . . : 1
Number . . . . . : 043388      User data . . . . . : QPADEV0005

Type options, press Enter.
2=Change status   5=Display detailed description

Opt :
  2 :
    :
    : Change Status
    :
    : Select one of the following:
    :
    :     1. Print this file and save it again
    :     2. Print this file and delete it
    :
    : Selection
    :   1 :
    :
Com :
=== : F6=Display details   F12=Cancel
F3= :
  
```

- g) Check the job status of the Sharp MFP. If you left the MFP in the same condition as the previous print job, you will now find that the MFP will be displaying a message to "Add paper to Tray 2". After adding 8 ½ x 11 paper into Tray 2, the job will then print from Tray 2, indicating that the source drawer commands are now customized correctly for the Sharp MFP. Again, the printed documents should be printed on both sides.
- 10) **Set the remote output queue for the Sharp MFP as the user's default printer.**

Typically, most AS400 print jobs are sent to a spool rather than directly to a printer. This allows further formatting of the file or allows the job to be redirected to a different output device. However, for some users and jobs, it is more efficient to directly print out the job on a known printer. In a large network environment with multiple printers, users are assigned default printers by their administrator. If they have sufficient rights, users can assign a printer to themselves. Both methods are shown below:

Administrative Method

- a) Log into the **AS400** with the administrator account. At the command line, type "CHGUSRPRF" and press the <F4> key.

Change User Profile (CHGUSRPRF)

Type choices, press Enter.

User profile	> JERRY	Name
User password	*SAME	Character value, *SAME, *NONE
Set password to expired	*NO	*SAME, *NO, *YES
Status	*ENABLED	*SAME, *ENABLED, *DISABLED
User class	*SECOFR	*SAME, *USER, *SYSOPR...
Assistance level	*ADVANCED	*SAME, *SYSVAL, *BASIC...
Current library	*CRTDFT	Name, *SAME, *CRTDFT
Initial program to call	*NONE	Name, *SAME, *NONE
Library		Name, *LIBL, *CURLIB
Initial menu	MAJOR	Name, *SAME, *SIGNOFF
Library	*LIBL	Name, *LIBL, *CURLIB
Limit capabilities	*NO	*SAME, *NO, *PARTIAL, *YES
Text 'description'	'Privileged User'	

More...

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

b) Type in the user account name and press the <F9> key to display all of the parameters.

Change User Profile (CHGUSRPRF)

Type choices, press Enter.

User profile	> JERRY	Name
User password	*SAME	Character value, *SAME, *NONE
Set password to expired	*NO	*SAME, *NO, *YES
Status	*ENABLED	*SAME, *ENABLED, *DISABLED
User class	*SECOFR	*SAME, *USER, *SYSOPR...
Assistance level	*ADVANCED	*SAME, *SYSVAL, *BASIC...
Current library	*CRTDFT	Name, *SAME, *CRTDFT
Initial program to call	*NONE	Name, *SAME, *NONE
Library		Name, *LIBL, *CURLIB
Initial menu	MAJOR	Name, *SAME, *SIGNOFF
Library	*LIBL	Name, *LIBL, *CURLIB
Limit capabilities	*NO	*SAME, *NO, *PARTIAL, *YES
Text 'description'	'Privileged User'	

More...

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

c) Press the <PgDn> key twice. For the **Print device**, type in the name of the remote output queue desired for the user and ***DEV** for the **Output queue** fields. Press the <Enter> key when done.

```

Change User Profile (CHGUSRPRF)

Type choices, press Enter.

Owner . . . . . *USRPRF          *SAME, *USRPRF, *GRPPRF
Group authority . . . . . *ALL          *SAME, *NONE, *ALL...
Group authority type . . . . . *PRIVATE     *PRIVATE, *PGP, *SAME
Supplemental groups . . . . . *NONE        Name, *SAME, *NONE
      + for more values
Accounting code . . . . . *BLANK
Document password . . . . . *SAME        Name, *SAME, *NONE
Message queue . . . . . JERRY          Name, *SAME, *USRPRF
  Library . . . . . QUSRSYS          Name, *LIBL, *CURLIB
Delivery . . . . . *NOTIFY          *SAME, *NOTIFY, *BREAK...
Severity code filter . . . . . 0        0-99, *SAME
Print device . . . . . > MX5500Q     Name, *SAME, *WRKSTN, *SYSVAL
Output queue . . . . . > *DEV        Name, *SAME, *WRKSTN, *DEV
  Library . . . . .          Name, *LIBL, *CURLIB
Attention program . . . . . *SYSVAL   Name, *SAME, *SYSVAL...
  Library . . . . .          Name, *LIBL, *CURLIB
More...

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

d) The user has now been assigned the remote output queue as his default printer when the following system message appears. User profile {username} changed.

```

MAJOR                      Major Command Groups                      System:  AS400

Select one of the following:

  1. Select Command by Name                      SLTCMD
  2. Verb Commands                              VERB
  3. Subject Commands                           SUBJECT
  4. Object Management Commands                 CMDOBJMGT
  5. File Commands                             CMDFILE
  6. Save and Restore Commands                 CMDSAVRST
  7. Work Management Commands                 CMDWRKMGT
  8. Data Management Commands                 CMDDTAMGT
  9. Security Commands                        CMDSEC
 10. Print Commands                           CMDPRT
 11. Spooling Commands                       CMDSP
 12. System Control Commands                 CMDSYSCTL
 13. Program Commands                        CMDPGM
More...

Selection or command
====> _____

F3=Exit  F4=Prompt  F9=Retrieve  F12=Cancel  F13=Information Assistant
F16=AS/400 Main menu
User profile JERRY changed.
  
```

User Method

- a) Log into the **AS400** with your user account. Type **CHGPRF** on the command line and press the <F4> key. Press the <F9> key to display all parameters.

```

Change Profile (CHGPRF)

Type choices, press Enter.

Assistance level . . . . . *SYSVAL      *SAME, *SYSVAL, *BASIC...
Current library . . . . . *CRTDFT      Name, *SAME, *CRTDFT
Initial program to call . . . . *NONE      Name, *SAME, *NONE
  Library . . . . .      Name, *LIBL, *CURLIB
Initial menu . . . . . MAIN      Name, *SAME, *SIGNOFF
  Library . . . . .      *LIBL      Name, *LIBL, *CURLIB
Text 'description' . . . . . 'Privileged user'

Additional Parameters

Keyboard buffering . . . . . *SYSVAL      *SAME, *SYSVAL, *NO...
Job description . . . . . QDFTJOB      Name, *SAME
  Library . . . . .      QGPL      Name, *LIBL, *CURLIB
Document password . . . . . *SAME      Name, *SAME, *NONE

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

```

- b) Press the <PgDn> key once. For the **Print device** type in the name of the remote output queue desired for the user and ***DEV** for the **Output queue** fields. Press the <Enter> key when done.

```

Change Profile (CHGPRF)

Type choices, press Enter.

Message queue . . . . . > PATRICK      Name, *SAME, *USRPRF
  Library . . . . . > QUSRSYS      Name, *LIBL, *CURLIB
Delivery . . . . . *NOTIFY      *SAME, *NOTIFY, *BREAK...
Severity code filter . . . . . 0      0-99, *SAME
Print device . . . . . > MX5500Q      Name, *SAME, *WRKSTN, *SYSVAL
Output queue . . . . . > *DEV      Name, *SAME, *WRKSTN, *DEV
  Library . . . . .      Name, *LIBL, *CURLIB
Attention program . . . . . *SYSVAL      Name, *SAME, *NONE...
  Library . . . . .      Name, *LIBL, *CURLIB
Sort sequence . . . . . *SYSVAL      Name, *SAME, *SYSVAL, *HEX...
  Library . . . . .      Name, *LIBL, *CURLIB
Language ID . . . . . *SYSVAL      *SAME, *SYSVAL...
Country ID . . . . . *SYSVAL      *SAME, *SYSVAL...
Coded character set ID . . . . . *SYSVAL      *SAME, *SYSVAL, *HEX...
Character identifier control . . *SYSVAL      *SAME, *SYSVAL, *DEVD...

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

```

- c) You have assigned the remote output queue as your default printer when the following system message appears.

User profile {*your name*} changed.

```

MAJOR                               Major Command Groups                               System:  AS400

Select one of the following:

    1. Select Command by Name                               SLTCMD
    2. Verb Commands                                       VERB
    3. Subject Commands                                     SUBJECT
    4. Object Management Commands                          CMDOBJMGT
    5. File Commands                                       CMDFILE
    6. Save and Restore Commands                          CMDSAVRST
    7. Work Management Commands                          CMDWRKMGT
    8. Data Management Commands                          CMDDTAMGT
    9. Security Commands                                   CMDSEC
   10. Print Commands                                     CMDPRT
   11. Spooling Commands                                  CMDSPL
   12. System Control Commands                          CMDSYSCTL
   13. Program Commands                                  CMDPGM
                                                    More...

Selection or command
====> _____

F3=Exit  F4=Prompt  F9=Retrieve  F12=Cancel  F13=Information Assistant
F16=AS/400 Main menu
User profile PATRICK changed.

```

11) Test user's default printer.

To ensure that the remote output queue has been assigned to your user account, a print job must be sent directly to the printer rather than to a spool file. The following example uses the **AS400** source entry utility as it has a selection to print out a file.

- a) At the command line, type in **STRSEU** (Start Source Entry Utility) and press the <F4> key. Fill in the following values for the parameters shown and press the <Enter> key when done:

Source file: QXTSRC

Library: QGPL

Source member: *SELECT

Source type: TXT

Start Source Entry Utility (STRSEU)

Type choices, press Enter.

Source file	> QXTSRC	Name, *PRV
Library	> QGPL	Name, *LIBL, *CURLIB, *PRV
Source member	> *SELECT	Name, *PRV, *SELECT
Source type	> TXT	Name, *SAME, BAS, BASP...
Option	*BLANK	*BLANK, ' ', 2, 5, 6
Text 'description'	*BLANK	

Bottom

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

- b) A list of text source code files for Workstation Customizing Objects will be shown similar to the following screen. Type "6" (Print) in the *Opt* field for any of the files and press the <Enter> key.

Work with Members Using SEU

Source file	QXTSRC	Library	QGPL
Position to			
New member			
Type for new member			TXT
Text			

Type options, press Enter.

2=Edit 4=Delete 5=Browse 6=Print

Opt	Member	Type	Text
6	ALLSHARP		Master template source code for Sharp MFPS
—	ARM355MFP1		Source code modified from HP8000
—	AR275N		AR275 source code
—	BOB		Custom folder for 'bob'
—	CDRAGON1		Color Dragon
—	CDRAGON2		Color Dragon with Finisher
—	CUSTFLDR		CUSTOM FOLDER
—	DUP		Master template source code for Sharp MFPS

More...

F3=Exit F5=Refresh F12=Cancel F14=Display date
F15=Sort by date F17=Subset

Member ALLSHARP has been printed.

- c) If all information has been entered correctly, the selected file will print directly to your default printer using the remote output queue you created. The job will be formatted, printed and saved in the spool folder depending on the options selected in the print file for this job. A sample of the printout is shown below. Press the <F3> key to exit the source entry utility.

```

5722WDS V5R1M0 010525                      SEU SOURCE LISTING
SOURCE FILE . . . . . QGPL/QTXTSRC
MEMBER . . . . . ALLSHARP
SEQNBR*...+... 1 ...+... 2 ...+... 3 ...+... 4 ...+... 5 ...+... 6 ...+... 7
 100 :WSCST DEVCLASS=TRANSFORM. /** SHARP GENERIC WSCST **/
 200 /** MODIFY AS NEEDED FOR SPECIFIC MODELS **/
 300 :TRNSFRMTBL.
 400 :PRDTASTRM
 500 DATASTREAM=HPPCL5.
 600 :NOPRTBDR
 700 OPTION=TOP
 800 ORIENT=PORTRAIT
 900 DATA = 240.
1000 :NOPRTBDR
1100 OPTION=LEFT
1200 ORIENT=PORTRAIT
1300 DATA = 360.
1400 :NOPRTBDR
1500 OPTION=RIGHT
1600 ORIENT=PORTRAIT
1700 DATA = 360.
1800 :NOPRTBDR
1900 OPTION=BOTTOM
2000 ORIENT=PORTRAIT
2100 DATA = 240.
2200 :NOPRTBDR
2300 OPTION=TOP
2400 ORIENT=LANDSCAPE
2500 DATA = 240.
2600 :NOPRTBDR
2700 OPTION=LEFT
2800 ORIENT=LANDSCAPE
2900 DATA = 288.
3000 :NOPRTBDR
3100 OPTION=RIGHT
3200 ORIENT=LANDSCAPE
3300 DATA = 288.
3400 :NOPRTBDR
3500 OPTION=BOTTOM
3600 ORIENT=LANDSCAPE
3700 DATA = 240.
3800 :INITPRT
3900 DATA ='1B45'X.
4000 :RESETPRT
4100 DATA ='1B45'X.
4200 :BELL
4300 DATA ='07'X.
4400 :SPACE
4500 DATA ='20'X.
4600 :CARRTN
4700 DATA ='0D'X.
4800 :FORMFEED
4900 DATA ='0C'X.
5000 :LINEFEED
5100 DATA ='0A'X.
5200 :VERRMOV
5300 DIRECTION=UP

```

If you have successfully created and tested the remote output queue to the **Sharp** MFP but do not plan on using it for production, take the following housekeeping steps:

- a) Delete any spooled files that are using your remote output queue. At a command line, enter "**WRKSPLF**" and press the <Enter> key. Type "4" (Delete) in the **Opt** field of the spooled file using your remote output queue and press the <Enter> key. Press the <Enter> key again to confirm deletion of the file. Repeat for all spooled files using your printer.

```

Work with All Spooled Files

Type options, press Enter.
  1=Send  2=Change  3=Hold  4=Delete  5=Display  6=Release  7=Messages
  8=Attributes  9=Work with printing status

Opt  File          User          Device or   User Data   Sts   Total   Cur   Copy
     QPSECQ       PATRICK      M355N      PRTQAUT     SAV    2       1
  4  QPSUPRTF     PATRICK      MX5500Q    SAV        12      1
  -  QPJOBLOG     PATRICK      MX5500     QPADEV0005 SAV    6       1

Bottom

Parameters for options 1, 2, 3 or command
===>
F3=Exit  F10=View 4  F11=View 2  F12=Cancel  F22=Printers  F24=More keys

```

- b) Enter "**ENDWTR WTR({remote output queue}) OPTION(*IMMED)**" at a command line and press the <Enter> key to end the printer writer.

```

Work with All Spooled Files

Type options, press Enter.
  1=Send  2=Change  3=Hold  4=Delete  5=Display  6=Release  7=Messages
  8=Attributes  9=Work with printing status

Opt  File          User          Device or   User Data   Sts   Total   Cur   Copy
     QPSECQ       PATRICK      M355N      PRTQAUT     SAV    2       1
  -  QPJOBLOG     PATRICK      MX5500     QPADEV0005 SAV    6       1

Bottom

Parameters for options 1, 2, 3 or command
===> ENDWTR WTR(MX5500Q) OPTION(*IMMED)
F3=Exit  F10=View 4  F11=View 2  F12=Cancel  F22=Printers  F24=More keys

```

- c) Enter "**DLTDEVD DEVD**(*{remote output queue}*)" at a command line and press the <Enter> key to delete both the dummy printer device description and the remote output queue. **NOTE:** if you receive a system error message "Device Description *{printer device description}* not deleted. Device in use.", the printer is still being used by a spooled file. Repeat step a) above.

Work with All Spooled Files

Type options, press Enter.

1=Send 2=Change 3=Hold 4=Delete 5=Display 6=Release 7=Messages
8=Attributes 9=Work with printing status

Opt	File	User	Device or Queue	User Data	Sts	Total Pages	Cur Page	Copy
-	QPSECQ	PATRICK	M355N	PRTQAUT	SAV	2		1
-	QPJOBLOG	PATRICK	MX5500	QPADEV0005	SAV	6		1

Bottom

Parameters for options 1, 2, 3 or command

===> **DLTDEVD DEVD (MX5500Q)**

F3=Exit F10=View 4 F11=View 2 F12=Cancel F22=Printers F24=More keys

- d) At a command line, type "**CHGPRF PRTDEV(*WRKSTN) OUTQ(*WRKSTN)**" and press the <Enter> key to restore your user profile to its default values for the print device and outqueue.

Work with All Spooled Files

Type options, press Enter.

1=Send 2=Change 3=Hold 4=Delete 5=Display 6=Release 7=Messages
8=Attributes 9=Work with printing status

Opt	File	User	Device or Queue	User Data	Sts	Total Pages	Cur Page	Copy
-	QPSECQ	PATRICK	M355N	PRTQAUT	SAV	2		1
-	QPJOBLOG	PATRICK	MX5500	QPADEV0005	SAV	6		1

Bottom

Parameters for options 1, 2, 3 or command

===> **CHGPRF PRTDEV (*WRKSTN) OUTQ (*WRKSTN)**

F3=Exit F10=View 4 F11=View 2 F12=Cancel F22=Printers F24=More keys

e) Enter "**SIGNOFF**" at a command line and press the <Enter> key to log off of the **AS400**.

```

                                Work with All Spooled Files

Type options, press Enter.
 1=Send  2=Change  3=Hold  4=Delete  5=Display  6=Release  7=Messages
 8=Attributes  9=Work with printing status

Opt  File          User          Device or      User Data     Sts   Total   Cur   Copy
    -  QPSECQ       PATRICK      M355N         PRTQAUT      SAV   2       2     1
    -  QPJOBLOG    PATRICK      MX5500        QPADEV0005   SAV   6       6     1

Parameters for options 1, 2, 3 or command
====> SIGNOFF
F3=Exit  F10=View 4  F11=View 2  F12=Cancel  F22=Printers  F24=More keys

```

f) Exit the terminal emulation program.