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Trigger And Data Capture Guide

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Copyright Information

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Table of Content

Overview

This PDF documentation covers **version 7.2**. To view the documentation of previous versions please refer to the PDF files available in the *Downloads* section of our website:
http://www.objectiflune.com/OL/Download/DownloadCenter.

Icons used in this guide

Some icons are used throughout this guide in order to catch your attention to certain particular information.

Notes: This icon shows you something that complements the information around it. Understanding notes is not critical but may be helpful when using PlanetPress Suite.

Warnings: This icon shows information that may be critical when using PlanetPress Suite. It is important to pay attention to these warnings.

Technical: This icon shows technical information that may require some technical knowledge to understand.

Other Documentation

For other related documentation , please see the drop-down menu at the top-right corner of this page.

Capturing Data

This chapter provides procedures for capturing data on different platforms.

In this chapter, you learn to:

In addition, you will be able to answer the following questions:

Sample Data File

What is a sample data file?

The sample data file is a text file that contains a representative sample of the input data destined for the document, as that input data arrives at a printer or a PlanetPress Suite process. You use a data capture process to create a sample data file.

You create your document based on the contents of this sample data file. Whether the document you create executes properly, and under all circumstances, with the input data it receives when it executes depends on how accurately the sample data file represents that input data. The two criteria for a reliable sample data file are:

1. It includes all possible variations on the data that the document may encounter when it executes.
   A sample data file that does not take into account all possible variations on the data can have serious consequences. For example, if you design a cheque based on an amount field of a certain length, and one of the records in the input data exceeds that length, the result is a cheque with an incorrect amount.
   Things to check for variation include field lengths, the location of decimal points in numeric data, and whether or not a field always contains data.
2. It exactly represents the input data at the moment that data arrives at the printer or PlanetPress Suite process. A difference of a single character can result in a document that does not produce accurate results.
   If your sample data file does not meet this criteria, you end up creating a document that executes with a different input data structure than the one for which you designed it.

Spool File

What is a spool file?

A spool file is a file containing a job destined for a specific printer. When you print a file, the application you use to print writes a file to the spool folder for that printer. The system monitors this folder. When a file appears in the folder, it sends that file to the printer, and deletes it from the spool folder.

It is common to use a spool file as the sample data file for a document you intend to install on a printer.

Capture Sample Data for a Document You Install on a Printer

This procedure describes the general steps involved in capturing sample data for a document you intend to install on a printer. If you are using database emulation, you capture sample input data at the time you set up the emulation.

An understanding of the general procedure for capturing a reliable sample data file can help you understand and navigate the platform-specific instructions.

To capture data for a document you install on a printer:

1. Determine the input data you need.
   Determine all the variations of input data you need to include in the sample data file, and the query that retrieves that input data. This is specific to your database and computing environment.
2. Determine the type of connection that exists between the host on which the input data resides and the printer on which the document will execute.
   In general there are three types of connections:
   - Direct connection. The printer is either directly connected to the host on which the input data resides, or the host can directly address it on a network.
   - Serial connection. The printer and the host are connected by a serial cable.
   - Print server. The printer is connected to a print server. The host sends print jobs to the print server.
3. Capture the representative sample of input data.
   In general you set up a process to intercept a print job on its way to the printer. You then send the representative sample of data to the printer. The process you set up intercepts the job and saves the spool file as the sample data file. For example, if your host can address the printer directly, you could use the following method:
   - Pause printing on the printer on which you intend to install the document. This tells the printer driver not to send any files that it finds in the spool folder for this printer, to the printer. If you print to a printer after you pause it, a spool file appears in that printer's spool folder and remains there until you re-enable printing on that printer.
   - Send the representative sample of input data to the printer on which you intend the document to execute. This creates a spool file.
   - Retrieve the spool file.
   - Restart printing on the printer you paused.

Capture Sample Data for a Document You Install in your PlanetPress Suite Workflow Tool

This procedure describes the general steps involved in capturing sample data for a document you intend to install in your PlanetPress Suite Workflow Tool. An understanding of the general procedure for capturing a reliable sample data file helps you understand and navigate the platform-specific instructions.

It assumes you have a general understanding of what a PlanetPress Suite process is, and how it works. See the *PlanetPress Workflow Tools User's Guide* for further information.

Note that if you are using database emulation, you capture sample input data at the time you set up the emulation.

To capture data for a document you install in your PlanetPress Suite Workflow Tool:

1. Determine the input data you need.
   Determine all of the variations of input data you need to include in the sample data file, and the query that retrieves that input data. This is specific to your database and computing environment.

2. Determine the input mode you intend to use when you execute your document in your PlanetPress Suite Workflow Tool.
   The input modes you can use for data capture include Windows printer driver, lpd queue, directory, email, and serial capture. The input modes available depend on your platform and the type of connection that exists between the host on which the input data resides and the host on which PlanetPress resides. For example, to use a Windows queue, your input data must reside on the same host on which you are running your PlanetPress Suite Workflow Tool. Consult the *PlanetPress Workflow Tools User's Guide* for complete descriptions of all input modes.
3. Map exactly how your input data will travel from source to destination when you execute the completed document. You must replicate this path exactly when you capture data, or define how you intend to compensate for any deviations from it during document design.
4. Capture the sample of input data.
   What follows is a general outline of the procedure. Consult the specific data capture procedure for your platform, and the *PlanetPress Workflow Tools User's Guide* for help setting up PlanetPress Suite processes.
   - Create a PlanetPress Suite process to accept the data through the input mode you specify and save the result as a file in a folder.
   - Send the representative sample of input data to your PlanetPress Suite Workflow Tool using the input mode you specified in the PlanetPress Suite process you set up for the data capture.
   - Retrieve the file from the output folder.

Capture Sample Data in Windows NT

You perform this procedure on the machine that controls the printer, not on the workstation.

To perform data capture under Windows NT:

1. In the Windows **Start** menu, choose **Settings**, then choose **Printer**.
   The Printers window appears.
2. Right-click on the printer on which you intend to execute your document and choose **Pause printing**.
3. In the application you use to manipulate the input data, send the data you want to capture to the printer you selected in step 2
   The printer driver creates a printer spool file containing the representative data sample.
4. In the Windows **Start** menu, choose **Run**.
   The Run dialog box appears.
5. In the **Run** dialog box, in the *Open* box, enter **CMD**.
   A DOS Command Prompt window appears.
6. In the DOS Command Prompt window, change directory to the spool folder:

cd C: \winnt\system32\spool\printer

7. Copy the spool file (.**spl**) you just created to a floppy or to another folder.

The ***.spl** file contains your data.

8. Close the **DOS** session.
9. In the Windows **Start** menu, choose **Settings**, then choose **Printer**.

The Printers window appears.

10. Right-click on the printer you paused and choose **Pause printing**.

The spooler sends the job to the printer.

Capture Sample Data in Windows 2000/Server 2003/XP

You perform this procedure on the machine that controls the printer, not on the workstation.

1. In the Windows **Start** menu, choose **Settings**, then choose **Printer**.
   The Printers window appears.
2. Right-click on the printer on which you intend to execute your document and choose **Pause printing**.
3. In the application you use to manipulate the input data, send the data you want to capture to the printer you selected in step 2
   The printer driver creates a printer spool file containing the representative data sample.
4. In the Windows **Start** menu, choose **Run**.
   The Run dialog box appears.
5. In the **Run** dialog box, in the *Open* box, enter **COMMAND**.(
   A DOS Command Prompt window appears.
6. In the DOS Command Prompt window, change directory to the spool folder:

cd C: \windows\spool\printer

7. Copy the spool file (.**spl**) you just created to a floppy or to another folder.

The ***.spl** file contains your data.

8. Close the **DOS** session.
9. In the Windows **Start** menu, choose **Settings**, then choose **Printer**.

The Printers window appears.

10. Right-click on the printer you paused and choose **Pause printing**.

The spooler sends the job to the printer.

Capture Sample Data in Windows Host Using a Novell Print Server

This procedure describes how to capture data for a document you intend to execute using a Novell print server.

To capture data on a Windows host that uses a Novell print server:

1. Start the NetWare Administrator.
2. In the **NetWare Administrato**r window, double-click the print server in the list of printers. For the purposes of this procedure, the print server is the optra1650s-nds.
   The Print Server dialog box for that print server appears.
3. Click **Status.**
   The Status dialog box appears.
4. Note the values of the Volume and ID fields and then click **Close**.You use these values later to navigate to the print queue.
5. In the **Print Server** dialog box double-click the print queue for the print server. The print queue is the file whose file name ends in the letters pq. For example, the print queue for the optra1650s-nds print server is *optra1650s-nds-pq*.
   The Print Queue dialog box for that print server appears.
6. Disable **Allow service by current print server** and click **OK**.
7. To verify the print server is paused, print a test page and verify the spool file remains in the print queue. You can print a test page by clicking **Print Test Page** in the General tab of the print queue properties dialog box for this print

queue.You can then verify the file remains in the print queue by navigating to the print queue in Windows Explorer and verifying there is a spool file for the test page. The spool file has a .Q extension. You use the Volume and ID information you noted in step 4 to determine the path of the print queue.

8. Send your input data to the print server.
9. Retrieve the spool file for the input data from the print queue.
   In Windows Explorer, navigate to the print queue for the print server. Use the Volume and ID information you noted in step 4 to determine the path of the print queue. The spool file has a .Q extension.
10. Double-click the spool file to open it and verify the contents are what you expect.

Capture Sample Data in UNIX (Solaris)

Create a Virtual Printer

To create a virtual printer:

1. In the **File Manager**, choose **File** and then **OpenTerminal**.
2. Use the following commands to open the Hosts file:

cd /etc

vi ./hosts

3. In the Hosts file, add the IP address of the printer, or the IP address of the workstation on which your PlanetPress Suite Workflow Tool is installed, and assign a name to that IP address. For example:

192.xxx.yyy.zzz printdestination

4. Save the Hosts file as follows:

Press **ESCAPE**.

Enter **:wq**

Assign a Print Queue to a Virtual Printer

To assign a print queue to a virtual printer:

1. Use the command:

lpadmin -p queuename -I any -s printdestination

Where:

-p **queuename** specifies the name of this queue

-I any specifies no data formatting (i.e.: Text Only)

-s **printdestination** specifies the name of the virtual printer

Send Data to the Print Queue

To send data to the print queue:

- Use the command:

lp -d queuename data_filename

Note that you must create a PlanetPress Watch process before you send data from UNIX to the workstation running your PlanetPress Suite Workflow Tool.

PlanetPress Suite Configuration

To set up your PlanetPress Suite Workflow Tool to capture data sent using LPR:

1. In PlanetPress Watch Configuration, create a new PlanetPress Suite process by choosing **Insert | New Process**.
2. In the Process area, click the unknown task in the upper-left corner at the beginning of the data stream.
3. Choose **Insert | Input**

Capture Sample Data using an AS/400 Systems

Generic Output

To create a generic output queue on an AS/400:

1. In the AS/400 main menu, enter the create output queue command **CRTOUTQ** and press **F4**.

```
MAIN                          AS/400 Main Menu
                                                        System:   400LUNE
Select one of the following:

     1. User tasks
     2. Office tasks
     3. General system tasks
     4. Files, libraries, and folders
     5. Programming
     6. Communications
     7. Define or change the system
     8. Problem handling
     9. Display a menu
    10. Information Assistant options
    11. Client Access/400 tasks

    90. Sign off

Selection or command
===> CRTOUTQ_____________________________________________________________
F3=Exit   F4=Prompt   F9=Retrieve   F12=Cancel   F13=Information Assistant
F23=Set initial menu
```

2. In the **Change Output** screen, in the Output queue field, enter an output queue name. In this example, the name entered is OUTQ1.

```
                    Change Output Queue (CHGOUTQ)

Type choices, press Enter.

Output queue . . . . . > OUTQ1          Name
  Library  . . . . . >   QGPL          Name, *LIBL, *CURLIB
Maximum spooled file size:        _
  Number of pages  . . . . . .   *NONE_____   Number, *SAME, *NONE
  Starting time  . . . . . .     ________     Time
  Ending time  . . . . . . . .   ________     Time
              + for more values _
Order of files on queue  . . . .   *FIFO__     *SAME, *JOBNBR, *FIFO
Remote system  . . . . . .     *INTNETADR
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________
Remote printer queue . . . . . .   'PRINTER1'
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________
                                                                  More...
F3=Exit   F4=Prompt   F5=Refresh   F12=Cancel   F13=How to use this display
F24=More keys
                                                                        ▬
```

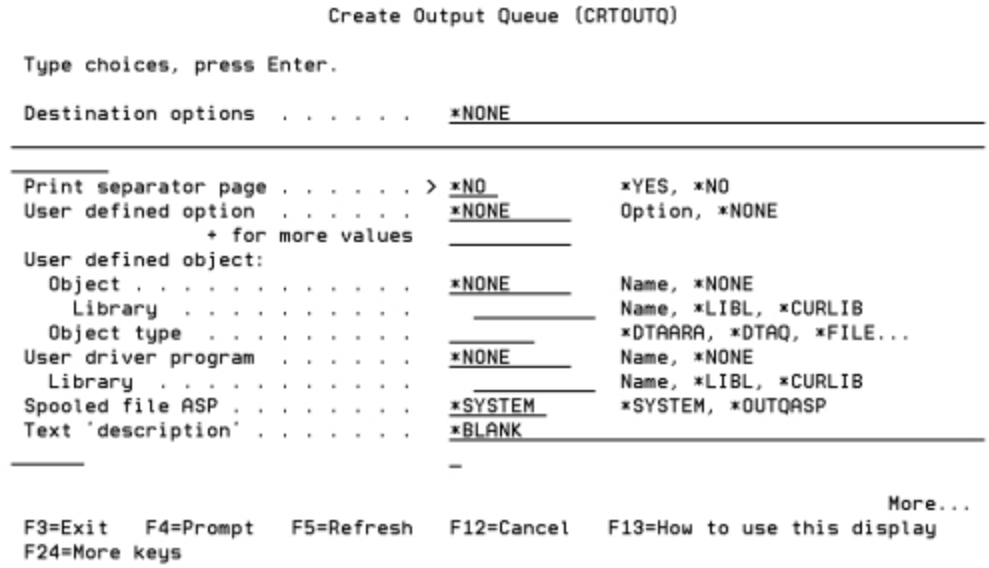
3. Press **F10** followed by **F9** to display the Remote Printer Queue parameter.
4. Enter the following information:
   - In the **Remote system** field, enter the string ***INTNETADR**.
   - In the **Remote printer queue** field, enter the name of the remote printer queue, enclosed in single quotes. The remote printer queue is the one located on the machine that will receive the input data. In this example, 'PRINTER1' is the remote printer queue name.
5. Press **PAGE DOWN** to display the Create Output Queue screen.

```
                    Create Output Queue (CRTOUTQ)

Type choices, press Enter.

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  . .   *WSCST_____
Workstation customizing object     QWPDEFAULT   Name, *NONE
  Library  . . . . . .               QSYS_____  Name, *LIBL, *CURLIB
Image configuration  . . . . . .   *NONE_____   *NONE, *IMGA01, *IMGA02...
Internet address . . . . . .       '192.168.100.109'
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
```

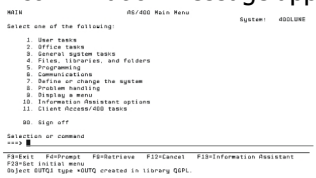
6. Complete the fields with the following values. Unless otherwise specified, you must enter these values exactly as they appear here.
   Writers to autostart: 1
   Connection type: *IP
   Destination type: *OTHER
   Host print transform: *YES
   Manufacturer type and model: *WSCST
   WS customizing object: QWPDEFAULT
   Library: QSYS

Internet address: The IP address of the workstation to which you will send the data. In this example, the address is 192.168.100.109.

7. Press **PAGE DOWN**.
   The next page of the Create Output Queue screen appears.



8. If you want to prevent a separator page from printing, enter *NO in the Print separator page field. Leave all other fields untouched.
9. Press **ENTER** to create the new generic output queue.
   A confirmation message appears at the bottom of the main menu.



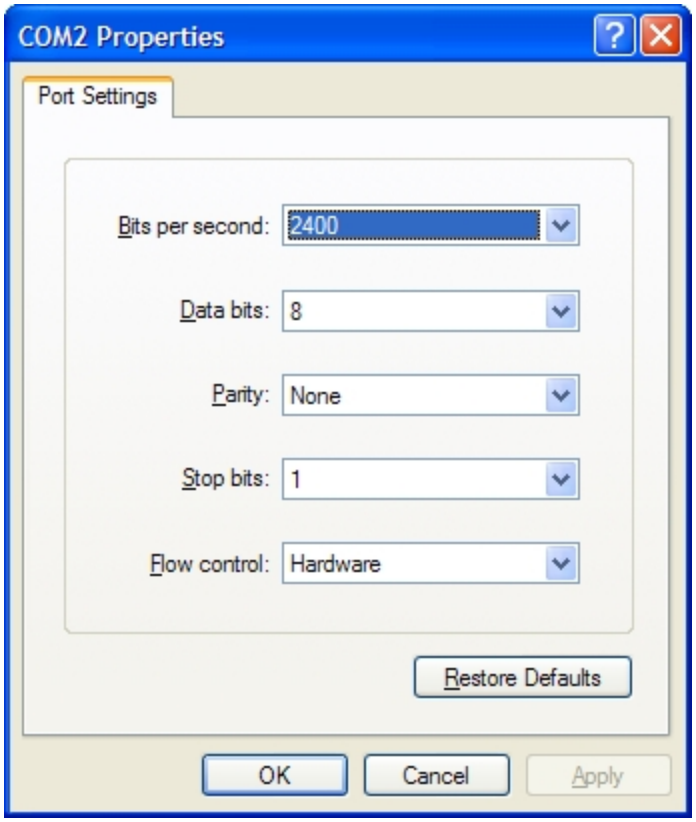
Capture Sample Data From a Serial Port

This procedure describes how to use Microsoft's Hyperterminal to capture serial data. Refer to the *PlanetPress Workflow Tools User's Guide* for information on capturing serial data using PlanetPress Suite Workflow Tool's Serial input task.

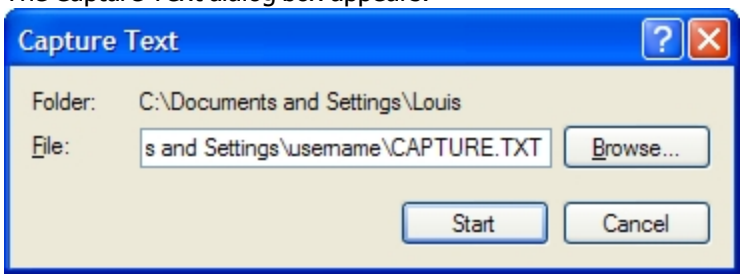
1. 1. In the Windows Start menu, choose **Programs** | **Accessories** | **HyperTerminal**.
      If necessary, install Windows HyperTerminal.
      The Connection Description dialog box appears.

2. In the Name box, enter a name for the connection and click **OK**.
   The Connect To dialog box appears.

3. Select **COM 1** or **COM 2** and click **OK**. If you need to determine which COM port the printer uses, open the Control Panel, then open Modems and click Diagnostics. In most cases you select COM2. The remaining steps of this procedure assume you selected COM2.
   The COM2 Properties dialog box appears.



4. Adjust the COM2 Properties and click **OK**.
   A HyperTerminal window for this connection appears.
5. In the menu for the HyperTerminal window, choose **Transfer** | **CaptureText**.
   The Capture Text dialog box appears.



6. The file name that appears in this dialog box is **Capture.txt**. If this file does not exist, you will need to create it (this is the text file that will be used as the capture file).
7. Click **Start**.
8. Send the input data to the printerusing the procedure you would usually use to print the data.
9. When the print command completes, return to the HyperTerminal window for this connection and choose **Transfer** | **Capture**

Creating Triggers

This chapter describes platform-specific procedures for creating a trigger and inserting it at the head of a data stream.

A job consists of a document, a trigger, and data. If you are not using any PlanetPress Suite Workflow Tool, you must manually create the appropriate trigger, add it to the head of the data stream, and send the result to the printer on which the document resides. The procedure for creating the trigger and adding it to the head of the data stream is platform-dependent.

In this section, you learn to:

In addition, you will be able to answer the following questions:

Trigger

What is a trigger?

A trigger is two lines of PostScript that immediately precedes the input data and performs two functions: it puts the printer in PostScript mode, and tells the printer which document to launch. A trigger "triggers" the execution of a document.

You execute a document installed on a printer by sending a trigger to the printer, followed by the input data. If you execute your document in a PlanetPress Suite Workflow Tool, this tool inserts the trigger. If you execute your document directly on a printer, you must manually insert the trigger at the head of the data stream.

Printer-Specific Control Characters

You can precede a trigger with printer-specific control characters. The most common reason to do so is to ensure the printer receives the job you send it as a new job.

A printer expects each job that it handles to end with a special character that tells the printer it has reached the end of the input data. Until the printer receives this special character, it continues to process all input it receives as part of that job. If there is no input, the printer waits for a defined period of time, then times out and proceeds to the next job. If a new job arrives during the period of time the printer is waiting for input, the printer does not recognize it as a new job; rather it processes it as input for the current job.

It is thus common practice to include an end of job character at the beginning of the trigger to ensure that the printer recognizes your job as a new print job. For certain printers <CTRL D> or ASCII 04 is a valid end of job character, while more recent printers require a Printer Job Language (PJL) sequence such as <ESC>%-12345X<CR><LF>.

As an example, the following trigger includes <CTRL D> as an end of job character:

<CRTL-D>%!PS-Adobe <CR>

run INVOICE <CR><LF>

Trigger Syntax

What is the syntax of a trigger?

In all syntax descriptions in this section, italics denote a variable, square brackets indicate the element is optional, <CR> denotes a carriage return and <LF> denotes a line feed.

The general syntax for the first line of the trigger is the same for all triggers:

[printer-specific_commands] %!PS-Adobe <CR>

The first line of the trigger uses the string **"%!PS-Adobe"** to put the printer in PostScript mode. It may also include printer-specific commands.

The syntax of the second line of the trigger depends on where the document is installed in the printer: on the hard drive, in RAM, or in flash memory. The second line, written in PostScript, tells the printer the name and location of the document, and launches the document. If you are using version numbers in your documents, this line also contains the version number.

Trigger Syntax for Documents Installed on a Hard Disk

The general syntax of a trigger for a document that resides on the printer's hard drive is:

[printer-specific_commands] %!PS-Adobe <CR>

[[(location_of_document)] run] name_of_document <CR><LF>

The simplest example of a trigger for a document named INVOICE that resides on the printer's hard drive excludes the location of the document. If a trigger does not specify the location of the document, the printer assumes it is on the hard disk.

%!PS-Adobe <CR>

run INVOICE <CR><LF>

An equivalent trigger that makes the location of the INVOICE document explicit:

%!PS-Adobe <CR>

(INVOICE) run INVOICE <CR><LF>

If the printer has more than one hard disk you must include the name of the hard disk. In this example, the name of the hard disk is "presswork" and the name of the document is INVOICE.

%!PS-Adobe <CR>

(%presswork%INVOICE) run INVOICE <CR><LF>

Trigger Syntax for Documents Installed in RAM

The general syntax of a trigger for a document that resides in the printer's RAM is:

[printer-specific_commands] %!PS-Adobe <CR>

name_of_document <CR><LF>

An example of the trigger for a document named FORMLETTER that resides in the printer's RAM:

%!PS-Adobe <CR>

FORMLETTER <CR><LF>

Trigger Syntax for Documents Installed in Flash Memory

The general syntax of a trigger for a document that resides in the printer's flash memory is:

[printer-specific_commands] %!PS-Adobe <CR>

(%flash%name_of_document) run name_of_document <CR><LF>

An example of the trigger for a document named PAYROLL that resides in the printer's flash memory:

%!PS-Adobe <CR>

(%flash%PAYROLL) run PAYROLL <CR><LF>

Techniques for Inserting Triggers

What are the common techniques for inserting a trigger?

How you create and insert a trigger is operating system dependent. There are many ways to insert a trigger manually. Four common techniques are:

1. Manually concatenating two files
   In this technique you add a trigger by concatenating two files where the first contains the trigger and the second contains the input data. You send the concatenated file to the printer using the DOS Copy command or the file transfer protocol (FTP).
2. Setting up the print server to automatically insert triggers
   This technique works with a print server running either Novell or Windows NT. You create a print queue or print device for each document installed in the printer, and associate the appropriate trigger for the document with the queue you set up for it. All queues point to the same physical printer. When you send a job to that queue, the server automatically inserts the trigger associated with that queue before it forwards the printer job to the printer.
3. Setting up the host to automatically insert triggers
   This is the same technique as setting up the print server to automatically insert triggers. The only difference here is that you set up the queues on the host on which the input data resides. The host inserts the trigger ahead of the spool file when it sends the print job to the printer. This technique does not work with all hosts.
4. Including the trigger in application output
   In this technique you modify the output of the application that generates the print file so that it adds a trigger for the appropriate document. It is important to understand that this hampers your ability to print these jobs using other printers since two additional lines are added to the print file.

Implement a Trigger under Novell 3.x

Unless otherwise indicated, always press **ENTER** at the end of a command. Note that you can exit any window or command area at any time by pressing **ESCAPE**.

To install a trigger:

1. Log on to the server, and enter Supervisor and **printdef**.
2. In the **PrintDef Options** dialog box, select **Print Devices**.

3. In the **Print Device Options** dialog box, select **Edit Print Devices**.

4. Press **INSERT**.
5. In the **New Device Name** dialog box, enter the name of the document you want to execute. For this example, enter **Mailing**.

6. In the **Defined Print Devices** dialog box, select **Mailing** and press **ENTER**.

7. In the **Edit Device Options** dialog box, select **Device Functions**.

8. Press **INSERT**.
9. In the **Function Definition** dialog box, enter the following information:
   - In the **Name** field, enter Reset
   - In the **Escape Sequence** field, enter the following sequence: <ESC>%-12345X<CR><LF>

10. Press **ESCAPE**. In the **Save Changes** dialog box, select **Yes** and press **ENTER** to save the changes.

11. In the **Mailing Functions** dialog box, press **INSERT**.

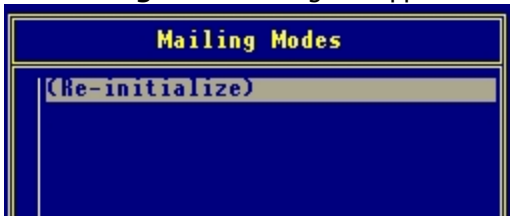
12. In the **Function Definition** dialog box, enter the following information:
    - In the **Name** field, enter Force PostScript
    - In the **Escape Sequence** field, enter the following sequence: <ESC>%-12345X@PJL enter language = PostScript <CR><LF>

13. Press **ESCAPE**. In the **Save Changes** dialog box, select **Yes** and press **ENTER** to save the changes.

14. In the **Function Definition** dialog box, enter the following information:
    - In the **Name** field, enter Call Mailing
    - In the **Escape Sequence** field, enter the following sequence: (MAILING) run MAILING<CR><LF>

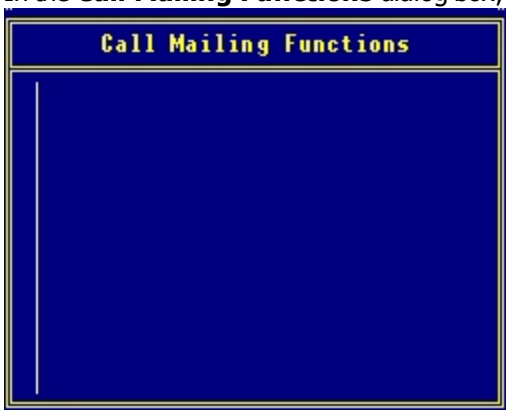
15. Press **ESCAPE**. In the **Save Changes** dialog box, select **Yes** and press **ENTER** to save the changes.
16. Press **ESCAPE** again. In the **Edit Device Options** dialog box, select **Device Modes**.

The **Mailing Modes** dialog box appears.



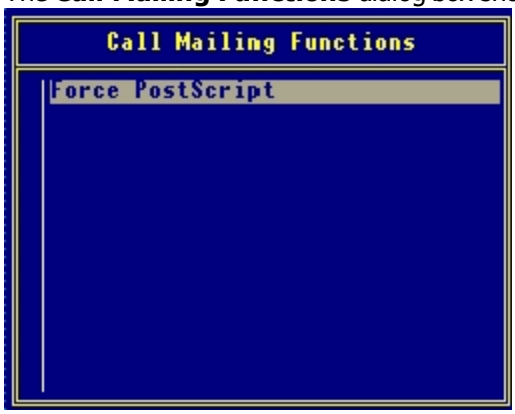
17. In the **New Mode Name** dialog box, press **INSERT** and enter **Call Mailing**.

18. In the **Call Mailing Functions** dialog box, press **INSERT**.



19. In the **Additional Mailing Functions** dialog box, select **Force PostScript** and press **ENTER**.

20. The **Call Mailing Functions** dialog box should display **Force PostScript**.

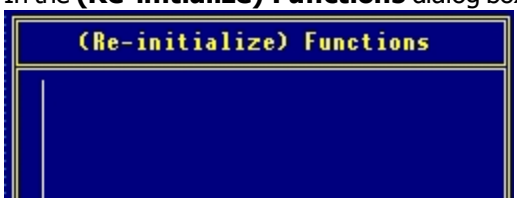


21. Press **INSERT**.
22. In the **Additional Mailing Functions** dialog box, select **Call Mailing**.

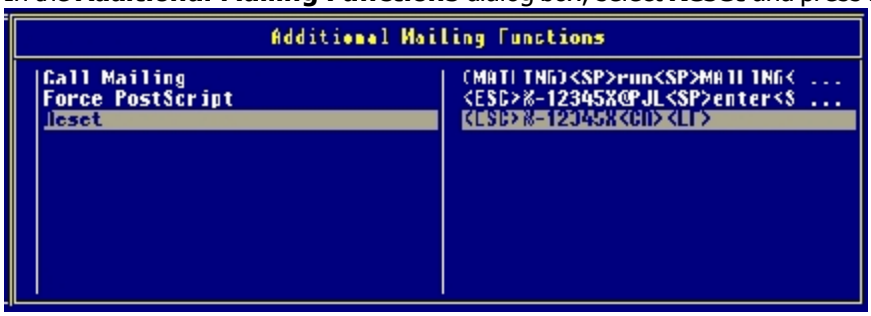
23. Press **ENTER**.

24. Press **ESCAPE** to return to the **Mailing Modes** dialog box.
25. In the **Mailing Modes** dialog box, select **(Re-initialize)**.

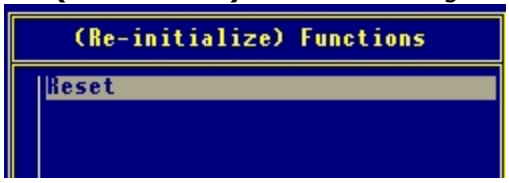
26. In the **(Re-initialize) Functions** dialog box, press **INSERT**.



27. In the **Additional Mailing Functions** dialog box, select **Reset** and press **ENTER**.



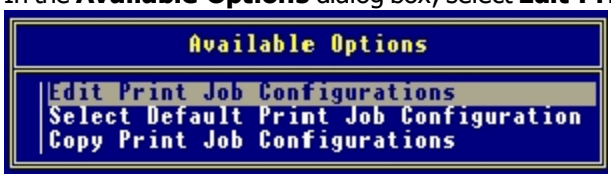
28. The **(Re-initialize) Functions** dialog box displays Reset.



29. In the **Exit PrintDef** dialog box, select **Yes** to save the changes.

30. In the **Exit Options** dialog box, select **Save Data Base**, then **EXIT**.

31. Press **ESCAPE** several times to exit Printdef.
32. In **DosPrompt**, enter **Printcon**.
33. In the **Available Options** dialog box, select **Edit Print Job Configurations**.



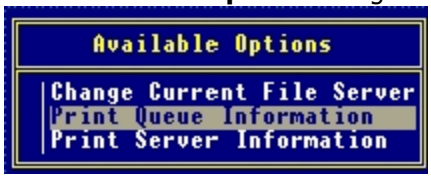
34. Press **INSERT**.
35. In the **Enter new name** field, enter **Mailing**.

36. Press **ENTER**.
37. In the **Edit Print Job Configuration "Mailing"** dialog box, adjust only the following settings. Leave all others untouched.
    Options: Settings
    Print Queue: Printer where the intelligent document resides
    Device: Mailing
    Mode: Call Mailing
    Print Banner: No

38. Press **ESCAPE** and save the changes.

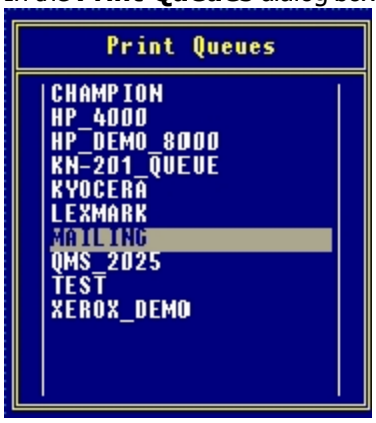
To test the trigger installation:

1. In **DosPrompt**, enter **pconsole** to access pconsole.
2. In the **Available Options** dialog box, select *Print Queue Information* and press **INSERT**.



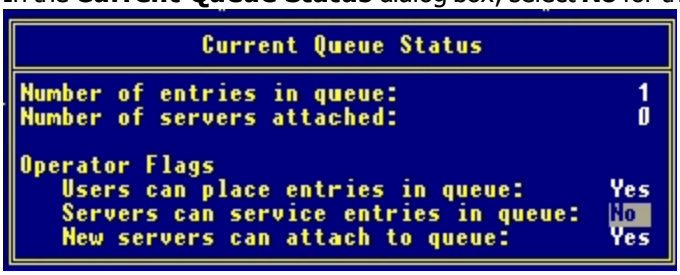
3. In the **New Print Queue Name** field, enter **MAILING**.

4. In the **Print Queues** dialog box, select **Mailing** and press **ENTER**.

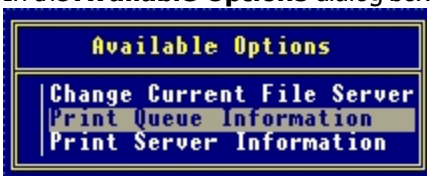


5. In the **Print Queue Information** dialog box, select **Current Queue Status**.

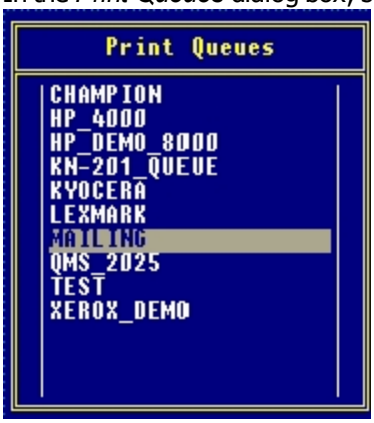
6. In the **Current Queue Status** dialog box, select **No** for the **Servers can service entries in queue** option.



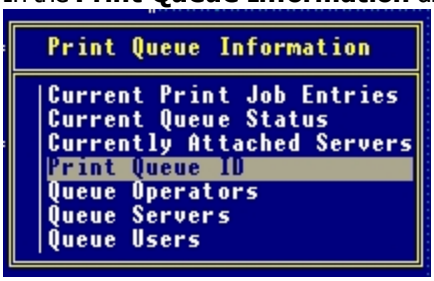
7. Press **ESCAPE** several times to exit pconsole.
8. In the *DOS* prompt, enter the following line:
   /l=2 represents the LPT port to which the printer is connected. In this example, it is LPT2.
9. Return to **pconsole**.
10. In the **Available Options** dialog box, select **Print Queue Information**.



11. In the *Print Queues* dialog box, select **Mailing**.



12. In the **Print Queue Information** dialog box, select **Print Queue ID**. The following dialog box appears.



13. Make a note of the **Object ID**.

14. Press **ESCAPE** several times to exit pconsole.
15. In DOS, enter the following to create a sample spool file:

c:\>dir>lpt2

16. In the drive on which the Sys Volume is mounted, enter the following lines:

Y:\>cd system

Y:\SYSTEM>dir *.qdr

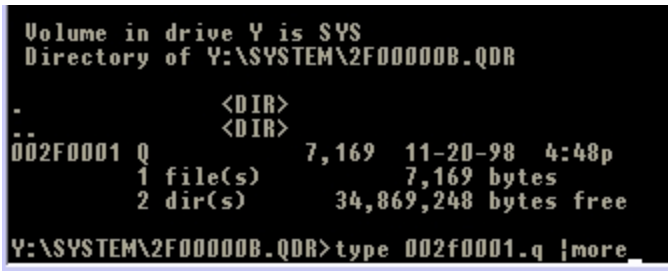
A list of all printer queues, including the one you just created, appears. The new printer queue has the same name as the Object ID noted earlier.

17. Enter the following:

Y:\SYSTEM>cd 2F00000B.qdr

Y:\SYSTEM>2F00000B>dir

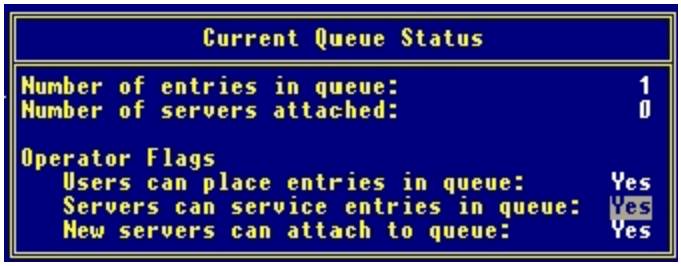
The following appears.



18. Using the information located in the directory, enter the last line. In this case:

Y:\SYSTEM\2F00000B.QDR>type oo2f0001.q :more

19. If no error occurs, the trigger and printer queue test is successful. The trigger appears at the start of the file.
20. In the **pconsole** > **Print Queue Information** > **Current Queue Status** dialog box, change **Servers can service entries in queue** to **Yes**.

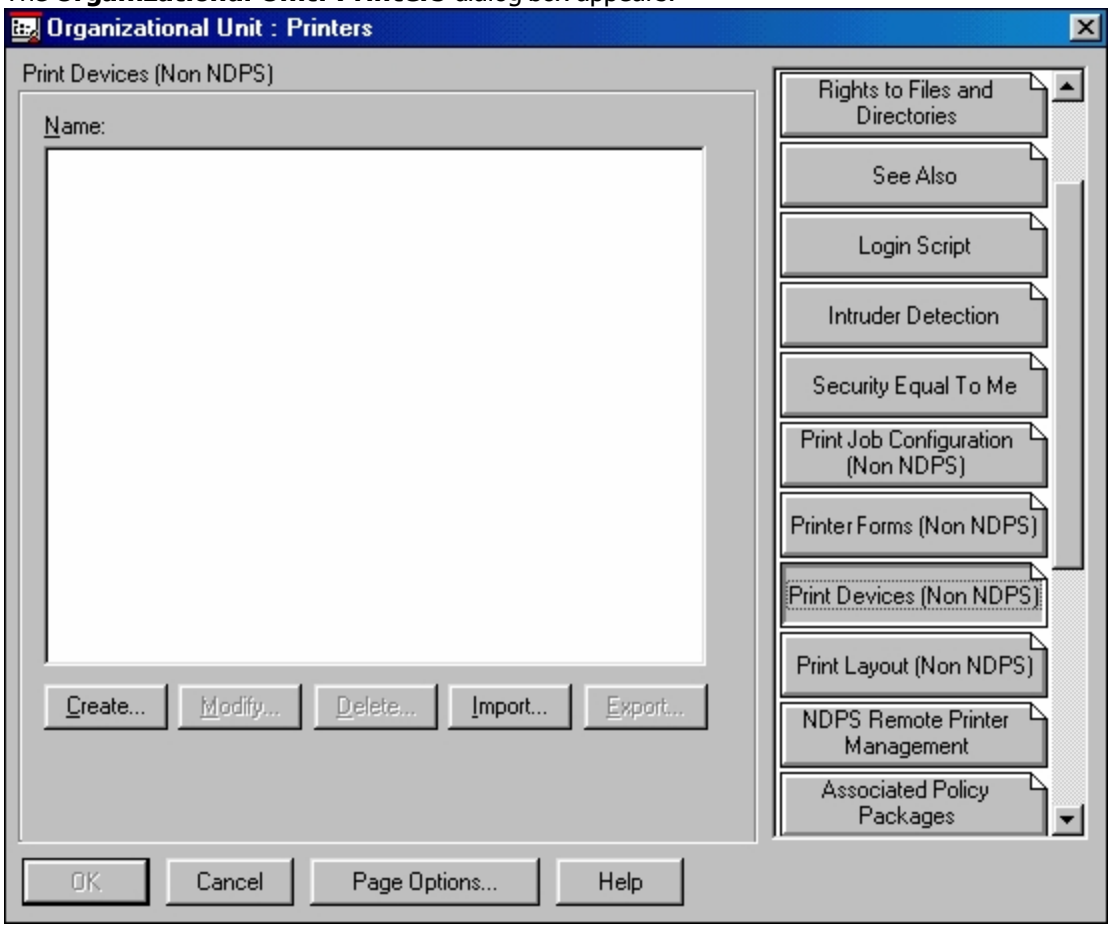


Implement a Trigger under Novell 4.x and 5.x with NDS or Bindery Printers

It is important to create a "Print Device" for the "Organizational Unit" containing the printer you use to print the document. The "Print Job Definition" must be done for the "User" object, that is, for the "Organizational Unit" containing the "User" object used to do the "Capture".

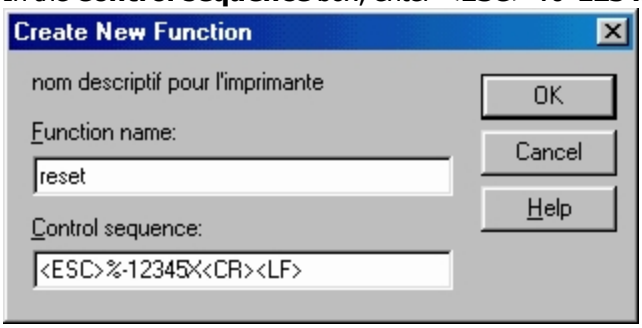
To create a print device:

1. Start the Netware Administrator (**z:\win32\nwadmn32.exe**).
2. Right-click **Organizational Unit** and choose **Details**.
   The **Organizational Unit: Printers** dialog box appears.

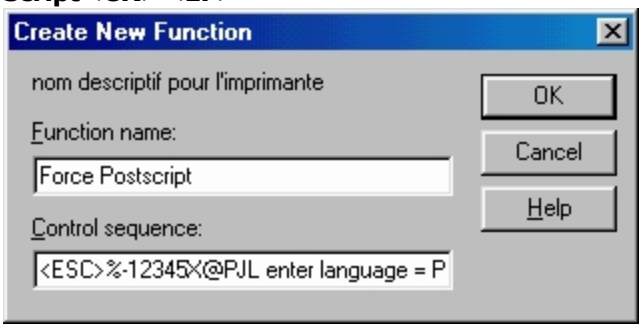


3. Click **Print Devices (Non NDPS)**.
4. Click **Create**.
   The **Create New Device** dialog box appears.
5. In the **Create New Device** dialog box, enter a descriptive name for the printer on which you intend to print the document, then click **OK** or press **ENTER**.

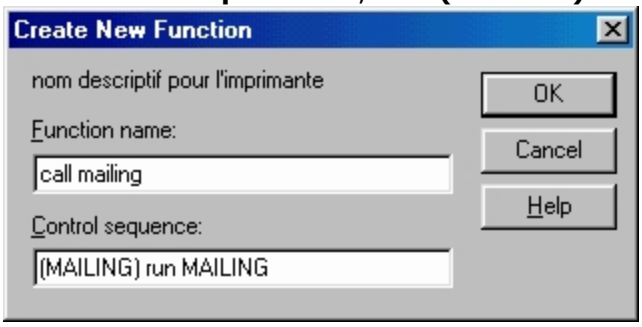
6. Select the newly created print device and click **Modify**.
7. You must now create three functions and a mode.
   Create the first function
8. Click **Create Function**.
   The **Create New Function** dialog box appears.
9. In the **Create New Function** dialog box, enter the following information:
   - In the **Function name** box, enter **reset**.
   - In the **Control sequence** box, enter **<ESC>%-12345X<CR><LF>**



10. Click **OK**.
    Create the second function
11. Return to the **Create New Function** dialog box.
12. In the **Create New Function** dialog box, enter the following information:
    - In the **Function name** box, enter **Force Postscript**.
    - In the **Control sequence** box, enter **<ESC>%-12345X@PJL enter language = PostScript<CR><LF>**



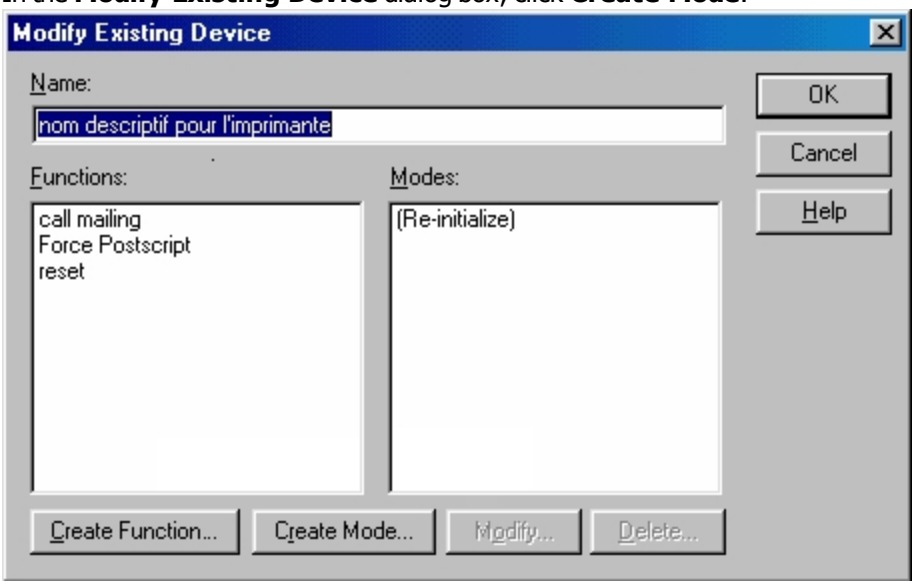
13. Click **OK**.
    Create the third function
14. Return to the **Create New Function** dialog box.
15. In the **Create New Function** dialog box, enter the trigger information. For example, if the name of the document you want to execute is MAILING, and it exists on the hard drive of the printer, you would enter the following:
    - In the **Function name** box, enter **call mailing**.
    - In the **Control sequence** box, enter **(MAILING) run MAILING.**



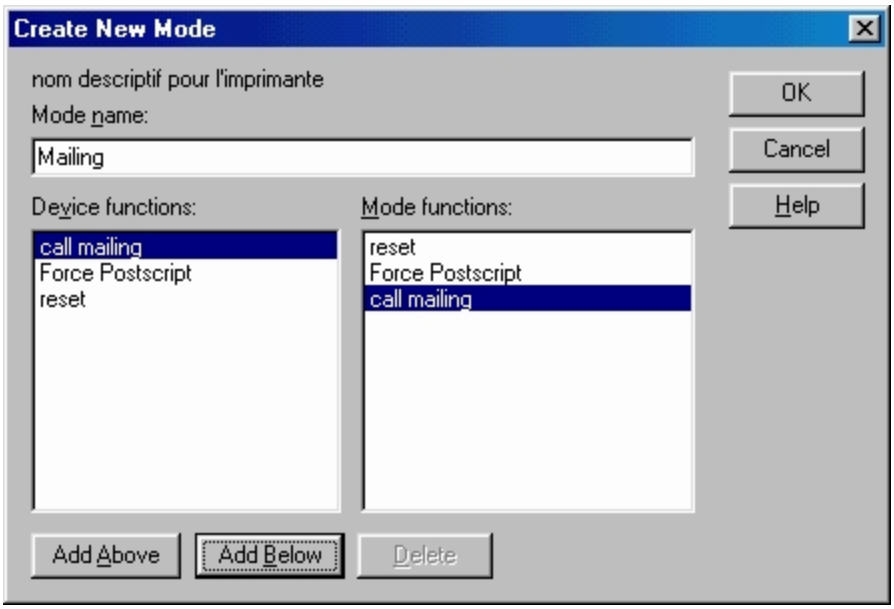
16. Click **OK**.

Define the mode

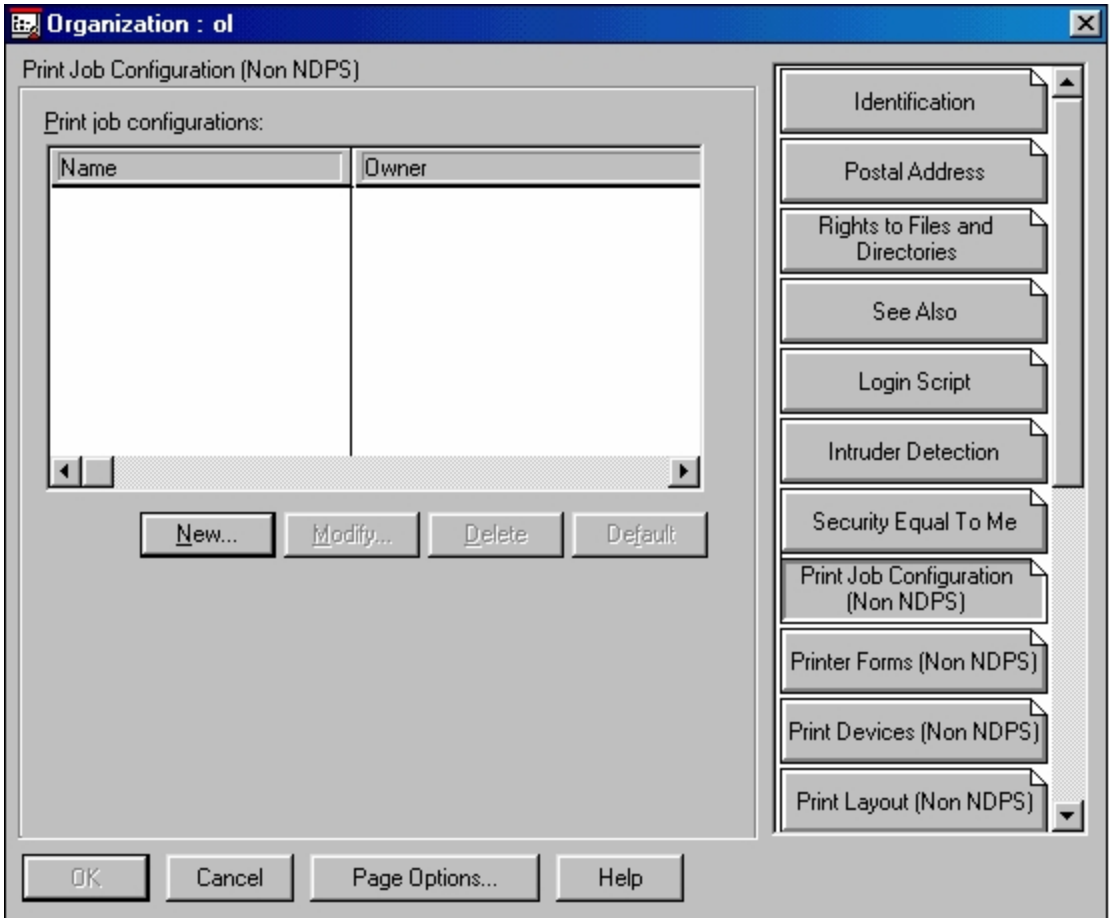
17. In the **Modify Existing Device** dialog box, click **Create Mode**.



18. In the **Name** box, enter a meaningful name. For this example, enter Mailing.
19. Select the three functions you just created, in the following order: reset, Force Postscript, call mailing. For each function, select it in the Device functions list, then click **Add Below**. The order in which you select the functions is important.

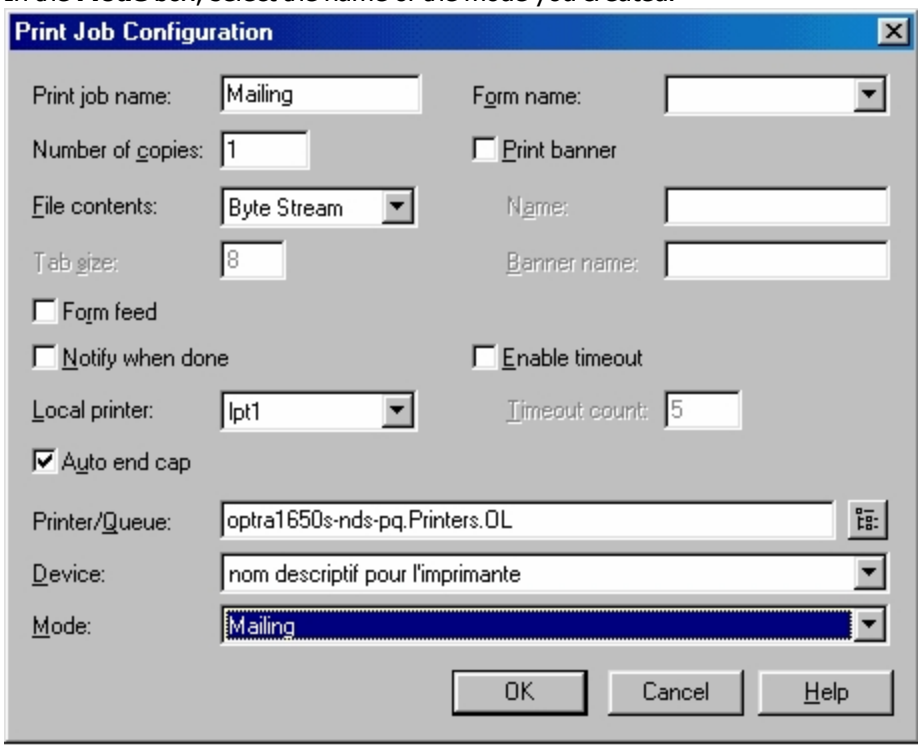


20. Click **OK**.
    The Print Device is created with its functions and mode.
21. Create the **Print Job Definition**. You must create the Print Job Definition in the Organizational Unit that contains the user's object or the object used by the user. For this example, the users in the Organizational Unit will be able to use the Print Job Definition. Right-click **Organizational Unit**, and choose **Details**.
    The *Organizational: ol* dialog box appears.

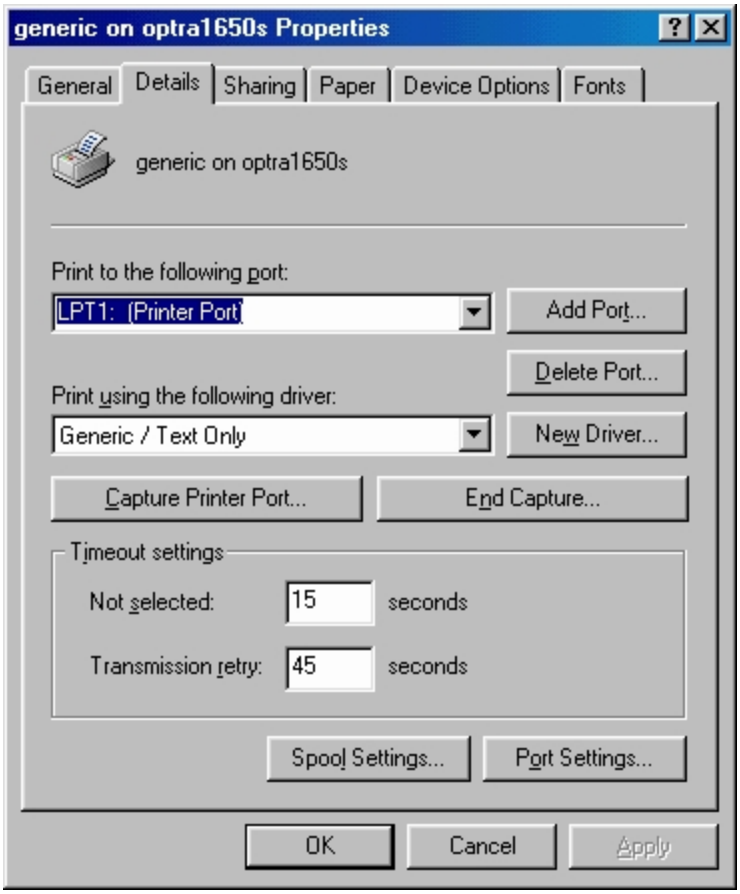


22. Click **Print Job Configuration (Non NDPS)**.
23. Click **New**.
    The **Print Job Configuration** dialog box appears.
24. In the **Print Job Configuration** dialog box, enter the following:
    - In the **Print job name** box, enter a descriptive name. For this example, enter Mailing.
    - Clear the **Print banner** and **From feed** boxes.
    - In the **Printer/Queue** box, enter the printer on which you intend to execute the document. The queue can be NDS or Bindery.
    - In the **Device** box, select the name of the device you created.

- In the **Mode** box, select the name of the mode you created.

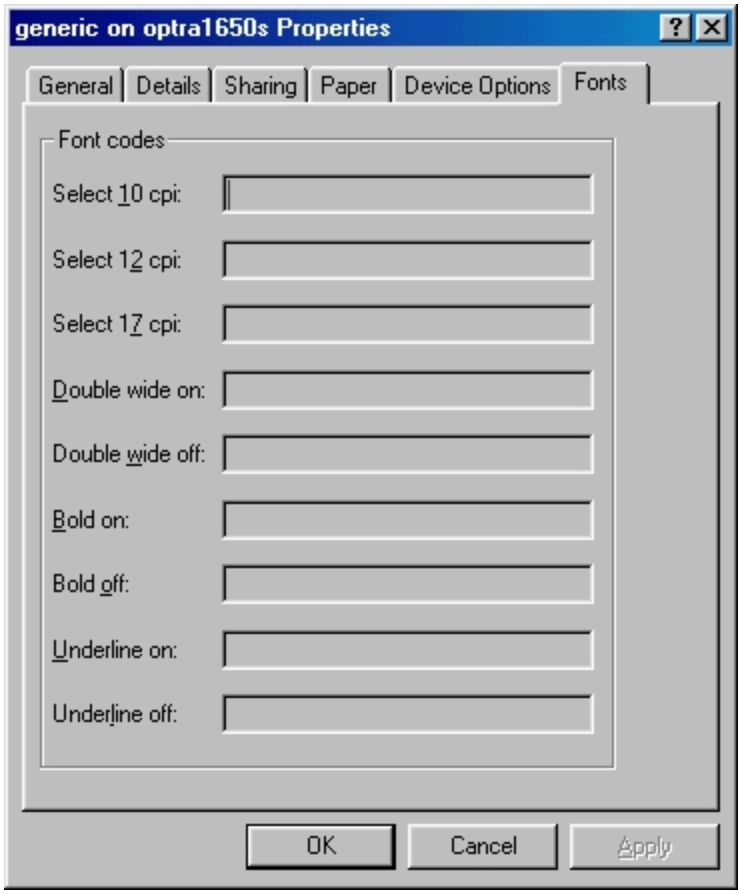


25. Close the Netware Administrator.
26. You must now configure the client's (user's) portion. First, use the Capture command to direct the network printer to a port such as LPT1. You must also use the J option in the command to include your "job definition". The following command works with the above example:
    CAPTURE Q=.OPTRA1650-NDS-PQ.PRINTERS.OL J=MAILING NB NFF TI=20
    In this command, the J option indicates the name of the Print Job, NB signifies No Banner, NFF signifies No Form Feed, and TI specifies the time-out value in seconds (in this case, 20 seconds). If you use this command, be sure to substitute the Print Job name and the printer name with the ones that apply to your job.
27. Once you execute the Capture command (either locally or via Novell scripts), you must create a new printer in the user's Windows using the Generic Text pilot that points towards the local LPT1 port. You create the new printer as follows:



Users that perform the capture (with the J option) and have a generic printer pointing towards the LPT1 port can use the document configured in the Print Job Configuration.

Note that certain versions of Windows have Generic Text pilots that can cause a well known problem: text aligned vertically instead of horizontally. To solve this problem, access the printer's properties. In the Fonts tab, add a space in every Font codes section.



Implement a Trigger under Windows with TCP/IP

These instructions use a separator page which adds the trigger to any job going through a specific text-only printer queue. This is useful in the case of legacy software or systems that can only print through text-based printers and where no control is possible over the contents of the job file.

Step 1 - Create a printer queue

Windows 2000/XP/2003

1. Click **Start**, then **Printers and Faxes**. Alternatively, this location can be found in the **Control Panel**.
2. Double-click on **Add Printer**. Click **Next** on the first page of the *Add Printer Wizard*.
3. Keep the **Local printer attached to this computer** option but uncheck the **automatically detect and install my Plug and Play printer** box, then click **Next**.
4. Select **Create a new port** , then select the **StandardTCP/IP Port** option. Click **Next**.
5. Click **Next** in the new wizard dialog.
6. Type in the printer's *IP address* or network name (for example, 192.168.100.213 or 10.0.0.163) then click **Next** (the Port Name will fill itself).
7. Leave the **Device Type** to **Generic Network Card**, then click **Next** and **Finish**.
8. Select the **Generic** manufacturer and the **Generic / Text Only** printer.
9. Enter a printer name. This printer can be local only or shared on a network and will be unique to the document it triggers.
10. If the printer is to be shared on the network, enter a Share name, then click **Next**.
11. Select whether you want to print a test page, then click **Next**, then **Finish**.

Windows Vista/7

1. Click **Start**, then **Devices and Printers**.
2. Click on **Add a printer**
3. Click on **Add a local printer**
4. Select **Create a new port** , then select the **StandardTCP/IP Port** option. Click **Next**.
5. Type in the printer's *IP address* or network name (for example, 192.168.100.213 or 10.0.0.163) then click **Next** (the **Port Name** will fill itself).
6. Wait for the **TCP/IP port** detection to finish, leave the Device Type to **Generic Network Card**, then click **Next**.
7. Select the **Generic** manufacturer and the **Generic / Text Only** printer.
8. Enter a printer name. This printer can be local only or shared on a network and will be unique to the document it triggers.
9. If the printer is to be shared on the network, enter a Share name, then click **Next**.
10. Check if you want to set the printer as default on the system, then click **Finish** when you're done.

Step 2 - Create a separator page

The separator page feature in Windows is generally used to add a page containing text between print jobs, often to identify them. Because the separator page is sent as-is to the printer, however, even printer commands such as postscript will be executed on the printer. Separator pages are the same for all versions of Windows, but selecting them is slightly different.

1. Open *Notepad* by clicking **Start**, **Run**, typing `notepad.exe` and clicking **OK**.
2. Enter the following 2 lines in the *Notepad* window:
   ```
   \N
   \FSEPARATOR.TRG
   ```
3. Go in the **File** menu then click **Save**. The name of the file should be `SEPARATOR.SEP` , and its location should be in `C:\WINDOWS\SYSTEM32\`
4. Create a new file by going in **File**, **New**.
5. Enter the following 2 lines:
   ```
   %!PS-Adobe
   (MYFORM) run MYFORM
   ```
6. Save the file as `SEPARATOR.TRG` , also in `C:\WINDOWS\SYSTEM32\`

In the previous instructions, change both the trigger name (MYFORM) as well as a unique name for the SEP and TRG file names, especially if you intend to have more than one. Once this is done, follow these instructions to add the trigger to any job printed through the chosen printer:

1. Right-click on the printer that was just created and click **Properties** in Windows 2000/XP/2003 , or **Printer Properties** in Windows Vista/7/2008.
2. In the **Advanced** tab, click **Separator Page**
3. Click **Browse** and browse to `C:\WINDOWS\SYSTEM32\`. Open the `SEPARATOR.SEP` file and **OK**.

Implement a Trigger under BSD Printing Systems (BSDi, FreeBSD, Linux)

The procedure here describes trigger implementation for UNIX systems using a BSD-like printing system (lpr, lpq, /etc/printcap). It assumes you are logged on as root.

To install a BSD printing system:

1. Create a text-only print queue entry in **/etc/printcap** and a spool directory.
   If your system has a tool to create a print queue, use it to create a text-only queue. Make sure no input filter is used (i.e. there is no **if:** command in the **printcap** entry). If you do not have such a tool, you must create the **printcap** entry and a spool directory by hand. See To create a printcap entry by hand: and To create a spool directory by hand:.
2. Create an input filter for the trigger. The input filter is a shell script that inserts the trigger in front of the print job. You should give the script the name of the document. In this example, we have a document named MAILING on the hard

disk of the printer. We name the script **mailing.scr** and place it in the spool directory.

3. Edit the input filter using a text editor. For example, to edit it in the **vi** text editor, we issue the command:

vi /var/spool/lpd/mailing.scr

Enter the following lines in the text editor:

#!/bin/sh

/bin/echo "%!PS-Adobe"

/bin/echo "(MAILING) run MAILING"

cat -

/bin/echo -e \004

The first echo turns the printer to PS mode. The second echo calls the document. Edit them to reflect the name and location of your document. Enter all other lines exactly as shown above. Although the echo \004 is not required, it is recommended as it signals the end of the job to the PostScript printer. Be sure you use the echo program, and **not** the command internal to your shell. The echo internal to your shell might not support the escape characters the echo program supports. The echo program is usually located in **/bin**.

4. Save your changes and exit the text editor.
5. Set the permissions on the input filter file so that it can be executed from root. Use the chmod command as follows, replacing mailing.scr with the name of your input filter file:

chmod 755 /var/spool/lpd/mailing.scr

6. Edit the **printcap** file to add the input filter to the queue definition. Your entry should now look like this:

mailing:\

:sd=/var/spool/lpd/mailing:\

:mx#0:\

:sh:\

:lp=/dev/lp1:\

:if=/var/spool/lpd/mailing.scr:

It is important to add a backslash to a line before adding a new line, and to add a colon at the end of each new line.

7. Save the changes and exit the **printcap** file.

You have created your trigger. To print data on the MAILING document, use the queue "mailing". For example:

lpr -Pmailing data.txt

To create a printcap entry by hand:

1. Open the **/etc/printcap** file with a text editor. For example, you might open it with the **vi** text editor by issuing the command

vi /etc/printcap

2. Enter the following at the end of the **/etc/printcap** file. Change the queue name and spool directory to reflect your installation. This printcap entry is for a text-only printer on device lp1 named mailing, that uses the spool directory **/var/spool/lpd/mailing**.

mailing:\

:sd=/var/spool/lpd/mailing:\

:mx#0:\

:sh:\

:lp=/dev/lp1:

If you want to send the print job to a remote LPD server, use rm= to specify the remote print server, and rp= to specify the remote queue name. You specify the remote print server in the rm field using either the IP address or host name. For example:

mailing:\

:sd=/var/spool/lpd/mailing:\

:mx#0:\

:sh:\

:rm=192.168.100.147:\

:rp=default:

To create a spool directory by hand:

- Use the following command, replacing **mailing** with the name you want to use for the spool directory.

mkdir /var/spool/lpd/mailing

Implement a Trigger under UNIX System V (Solaris)

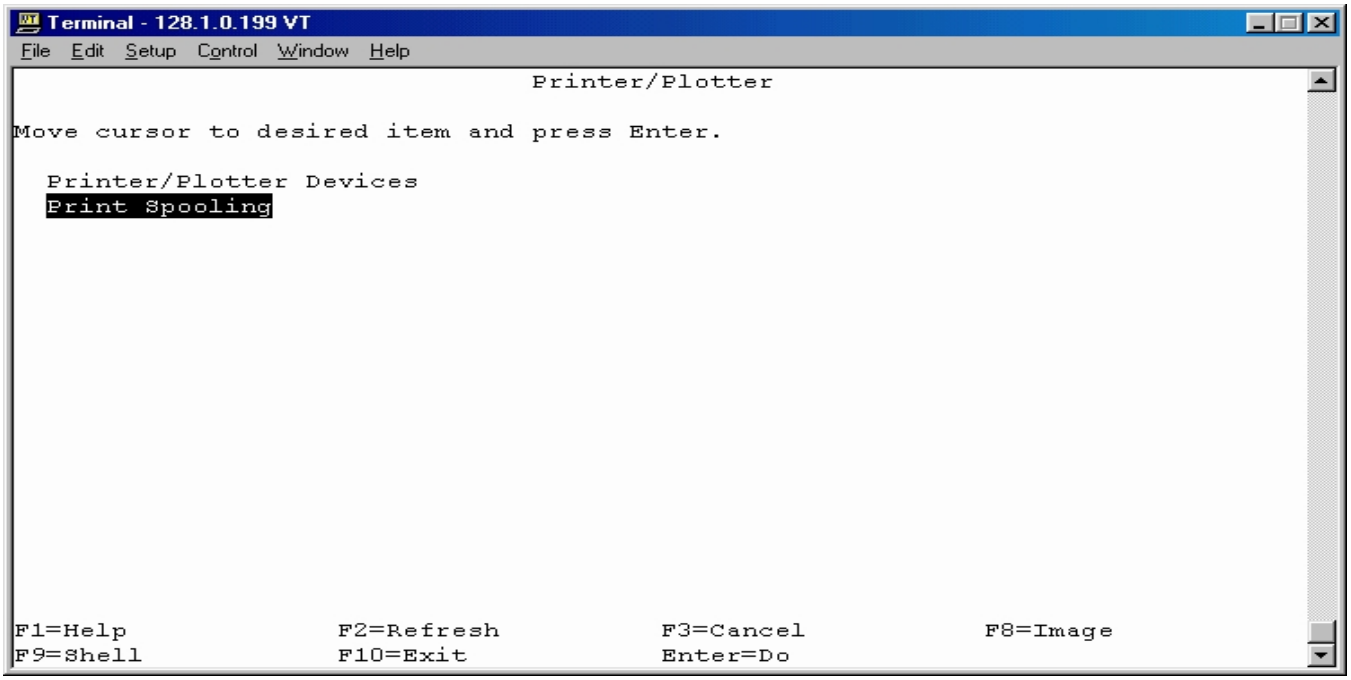
Refer to "Capture Sample Data in UNIX (Solaris)" (page 13) to create a print queue for UNIX and capture data.

Implement a Trigger and Configure an AIX 4.3 Printer

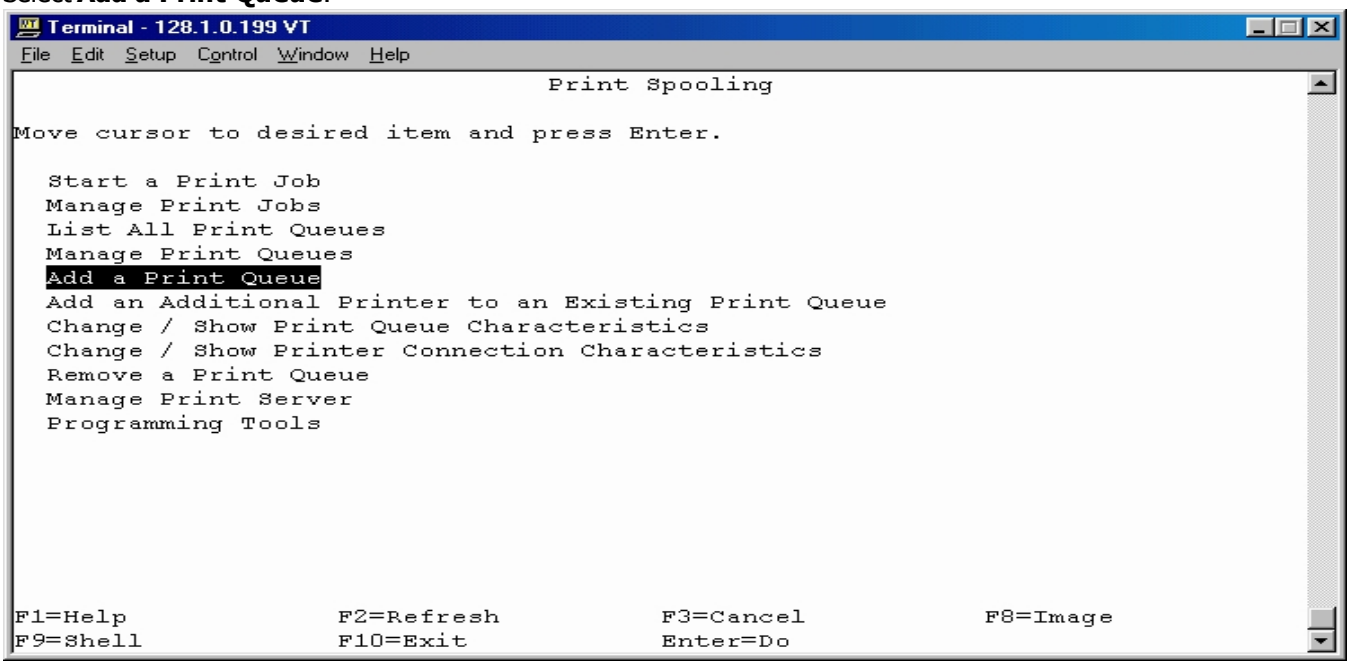
Add a Physical or Virtual Printer

To add a physical or virtual printer in series:

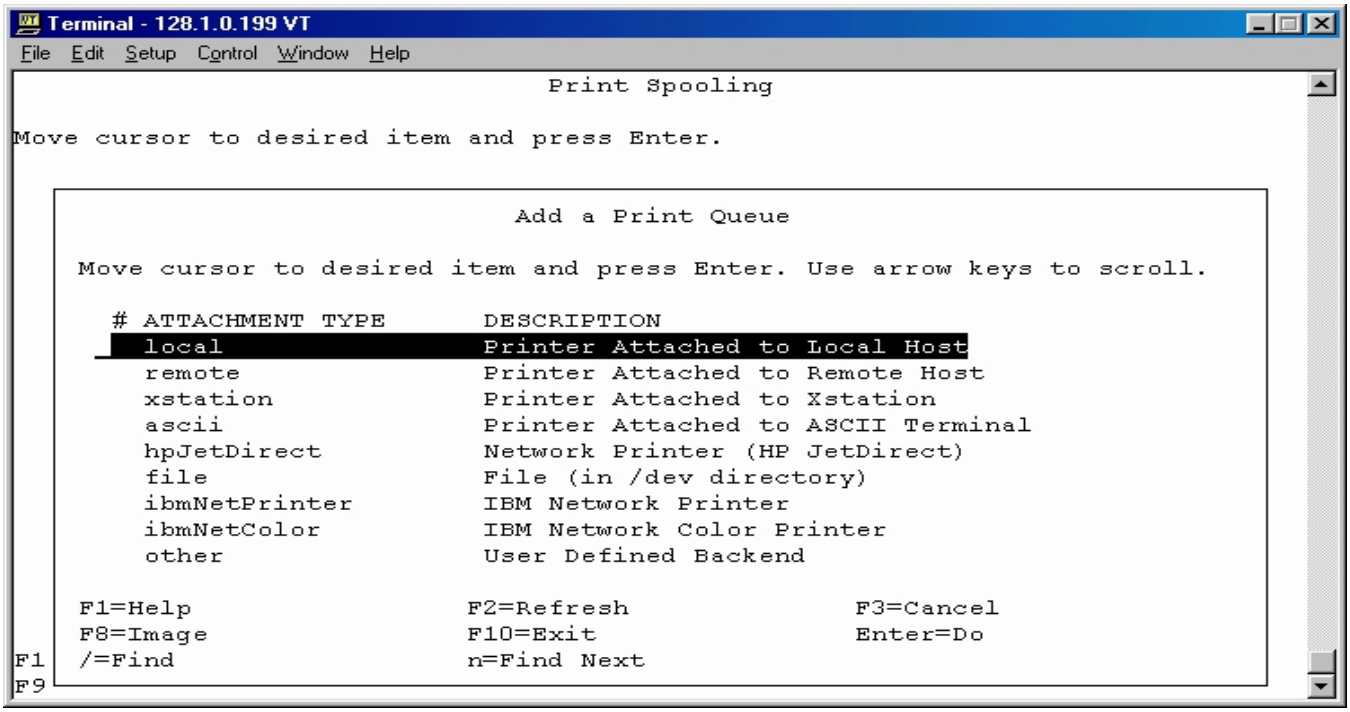
1. Log in as dyadm.
2. Execute **SmitPrinter**.
3. Select **Print Spooling**.



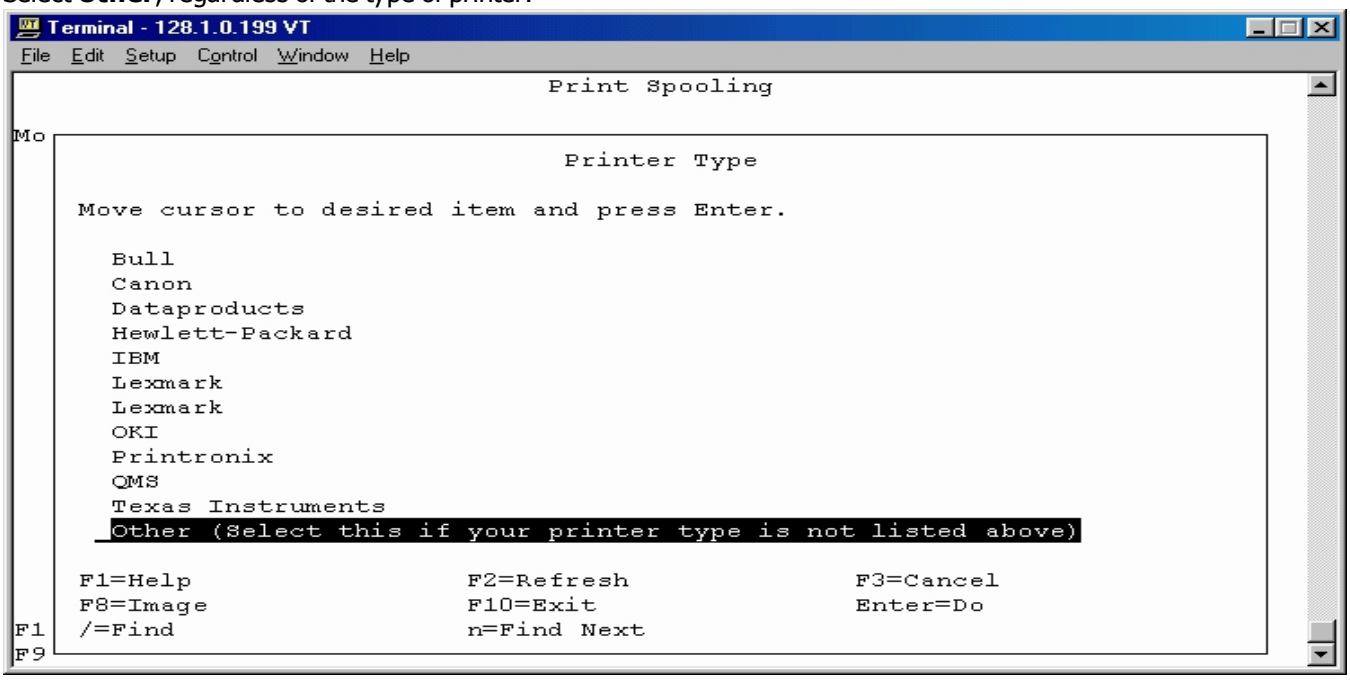
4. Select **Add a Print Queue**.



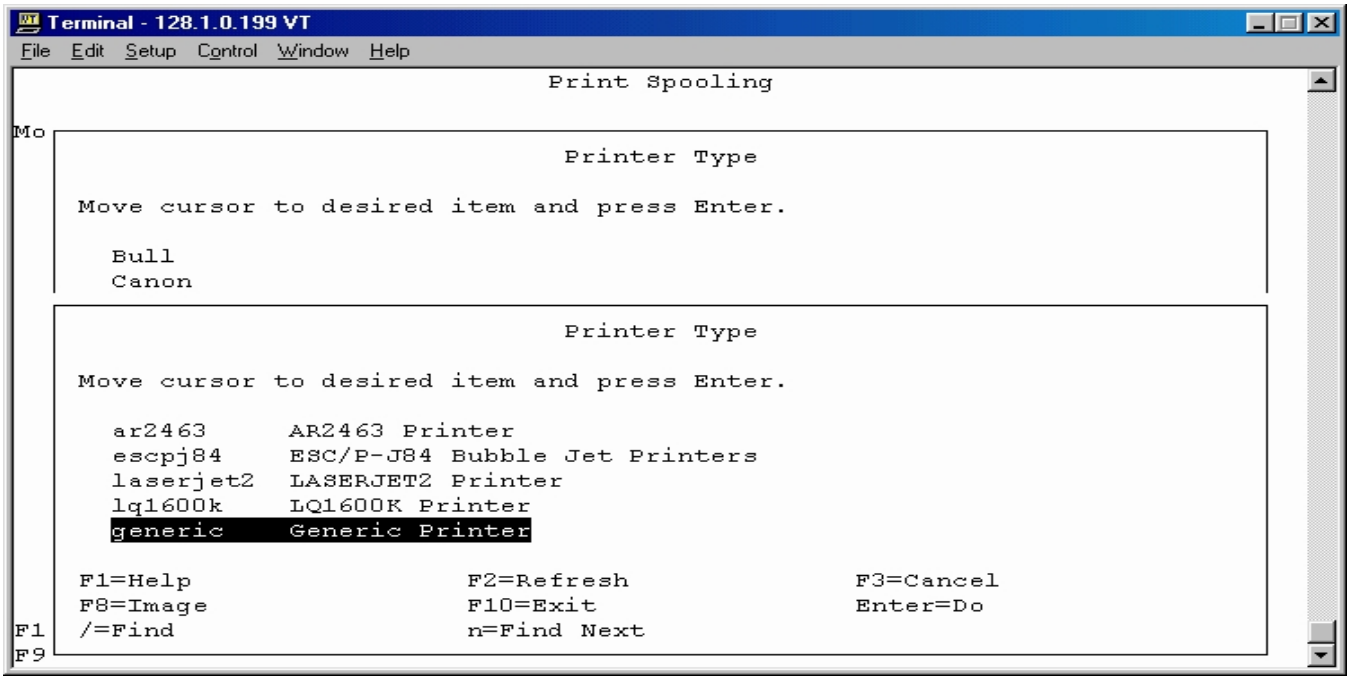
5. Select **Local**.



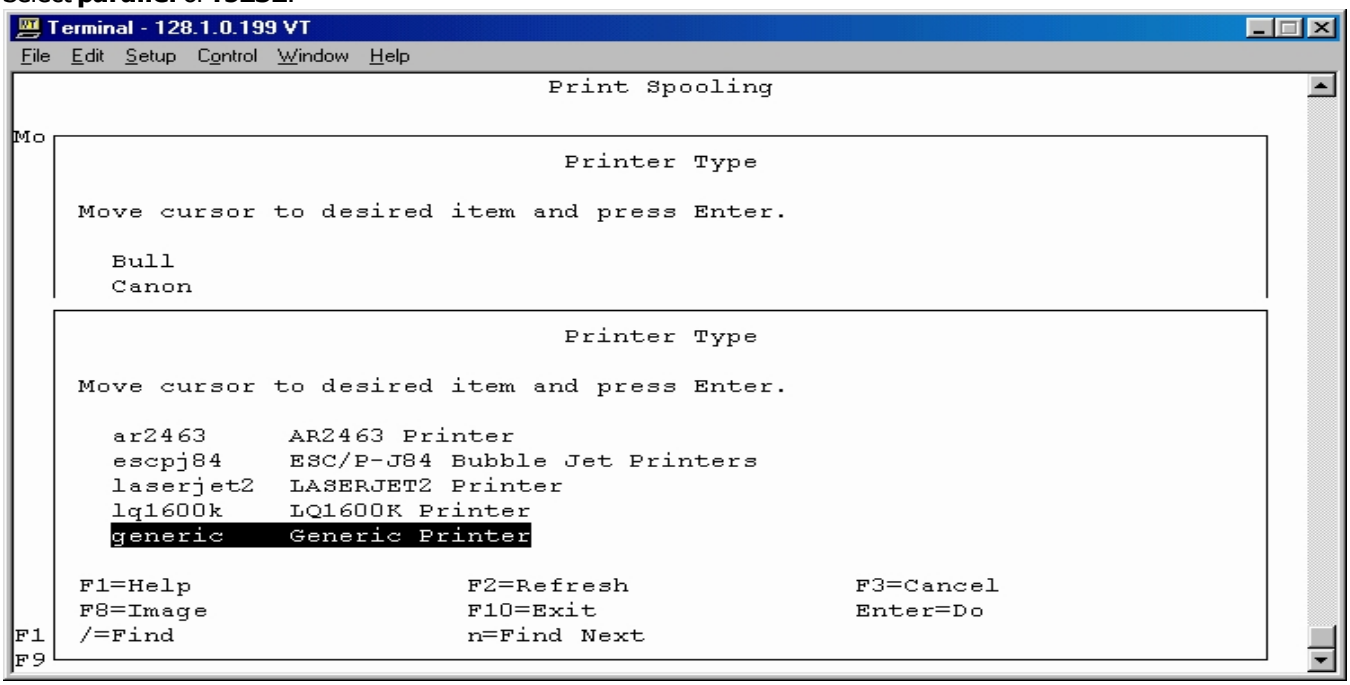
6. Select **Other**, regardless of the type of printer.



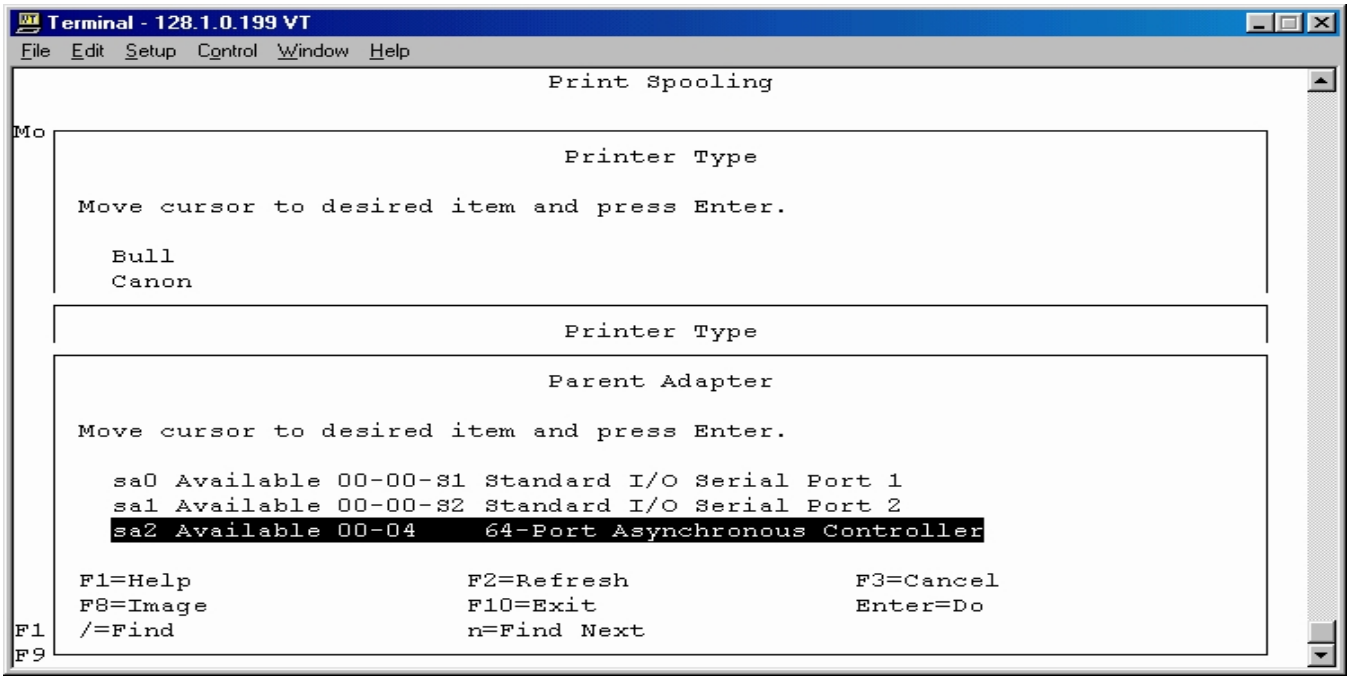
7. Select **Generic**, regardless of the type of printer.



8. Select **parallel** or **rs232**.

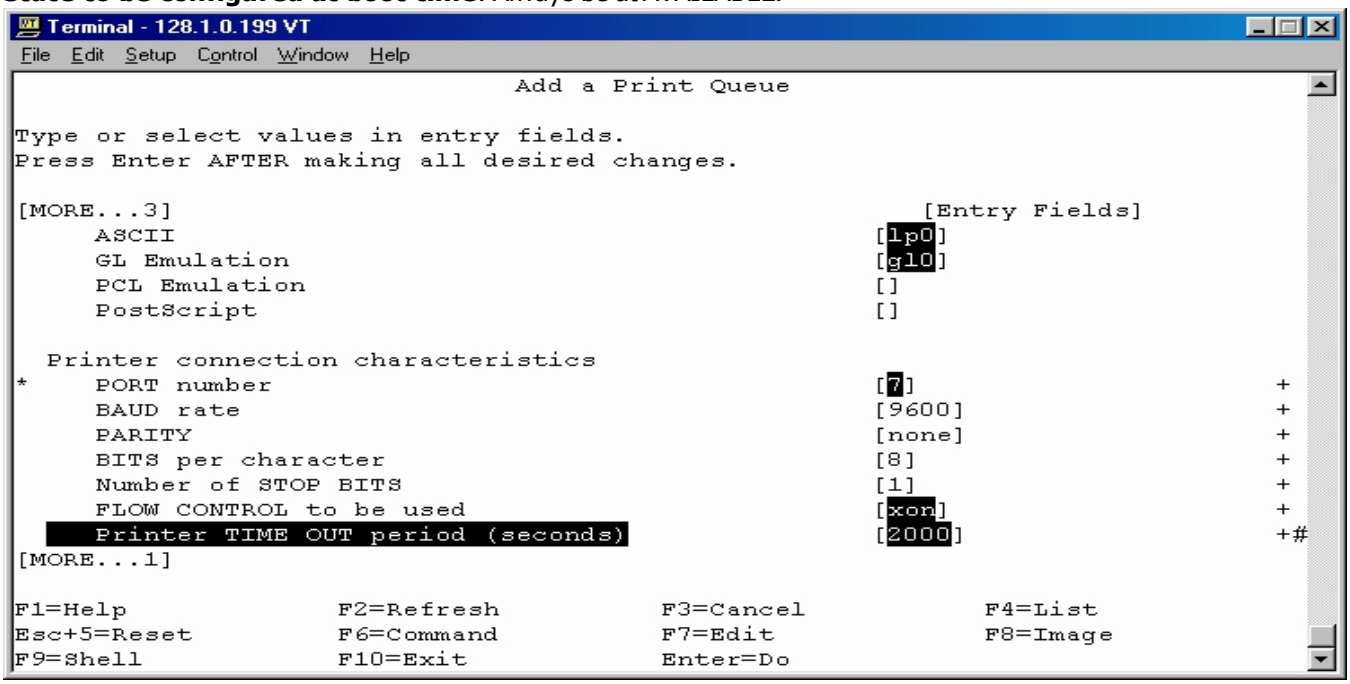


9. Select the appropriate adapter(s).



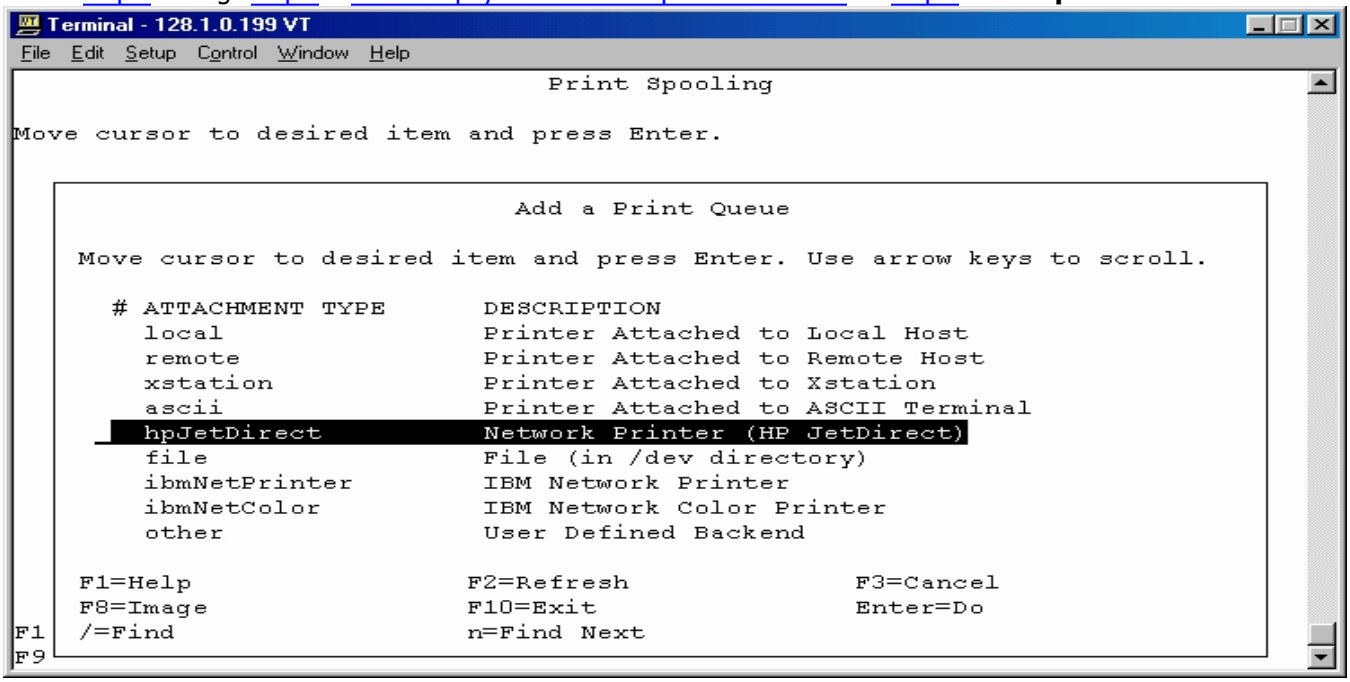
.

10. Enter the following values:
    ASCII: Name of virtual printer that prints from operating systems.
    GL Emulation: Laser printer configured on a workstation and used for Windows printing.
    Port number: Number of ports on the serial communication card.
    Baud rate: Port speed.
    Parity: Parity type.
    Flow control: Printer's protocol type.
    Printer time out: Time a printer can time-out before being DOWN.
    State to be configured at boot time: Always be at AVAILABLE.

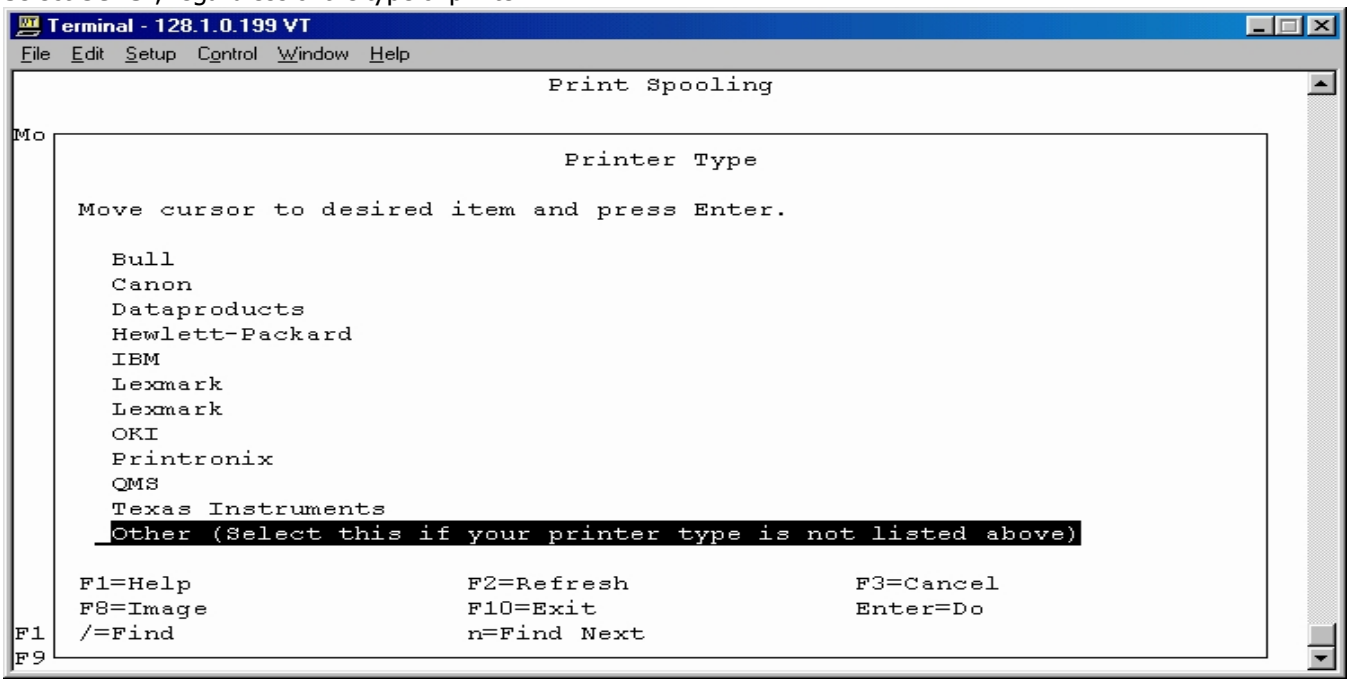


To add a physical or virtual printer connected to a Jet Direct:

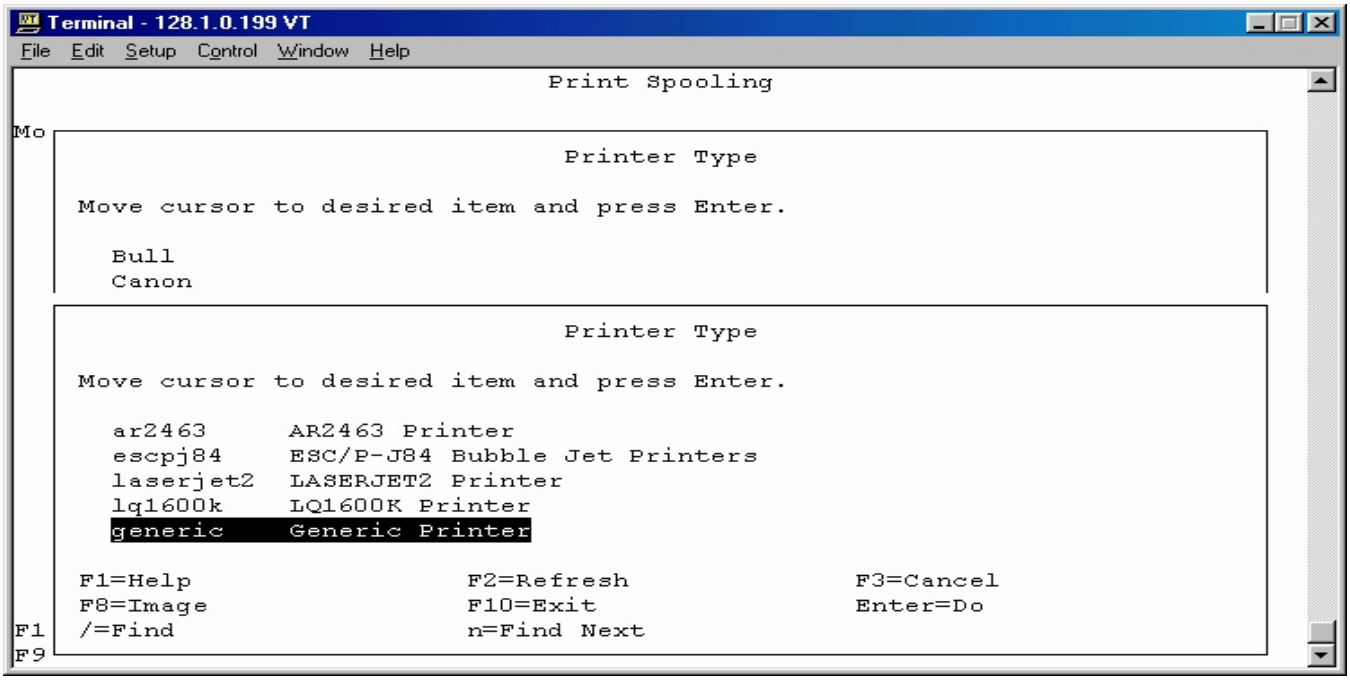
1. In the **/etc/hosts** file, enter the IP address and print server name.
2. Follow step 1 through step 5 in To add a physical or virtual printer in series:. In step 5 select **hpJetDirect**.



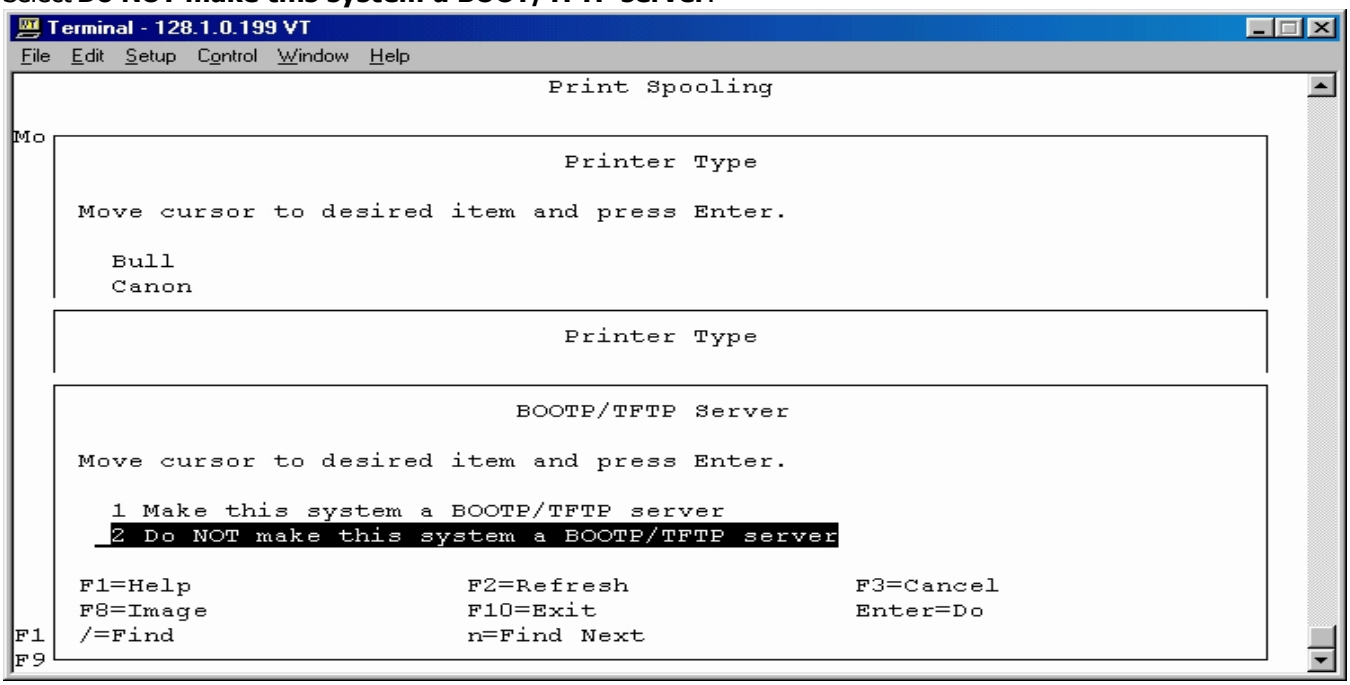
3. Select **Other**, regardless of the type of printer.



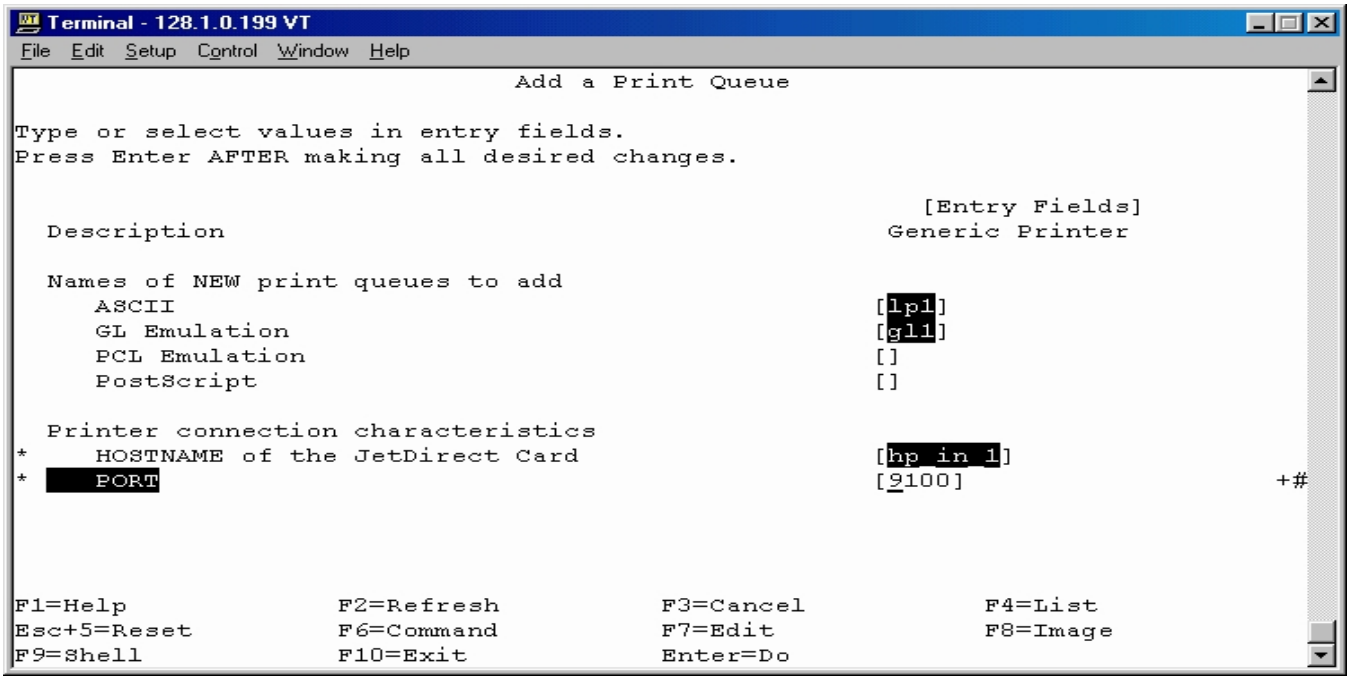
4. Select **Generic**, regardless of the type of printer.



5. Select **Do NOT make this system a BOOT/TFTP server**.

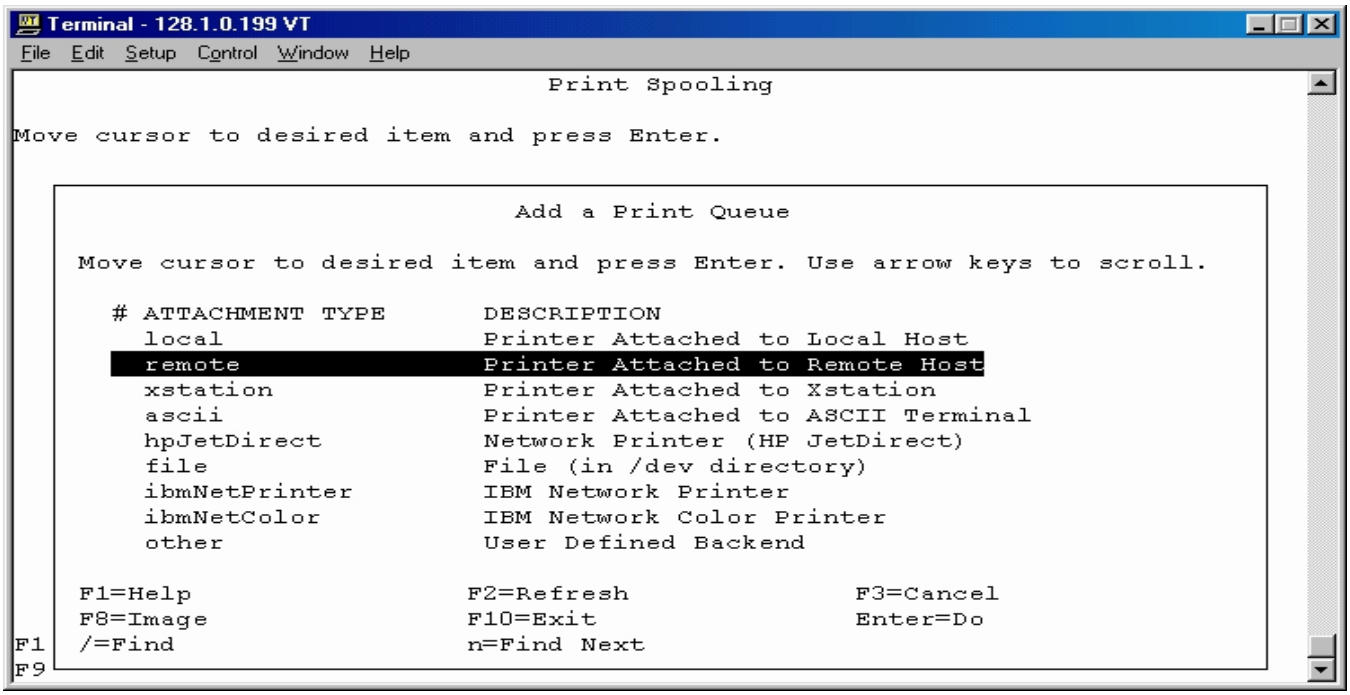


6. Enter the following values:
   ASCII: Name of printer for AIX, Basic and Informix printing.
   GL Emulation: Laser printer configured on a workstation and used for Windows printing.
   HOSTNAME: Name entered in the **/etc/hosts** file.
   Port number: For JetDirect: 9100. For a three-port: Port 1 = 9100, Port 2 = 9101, Port 3 = 9102.

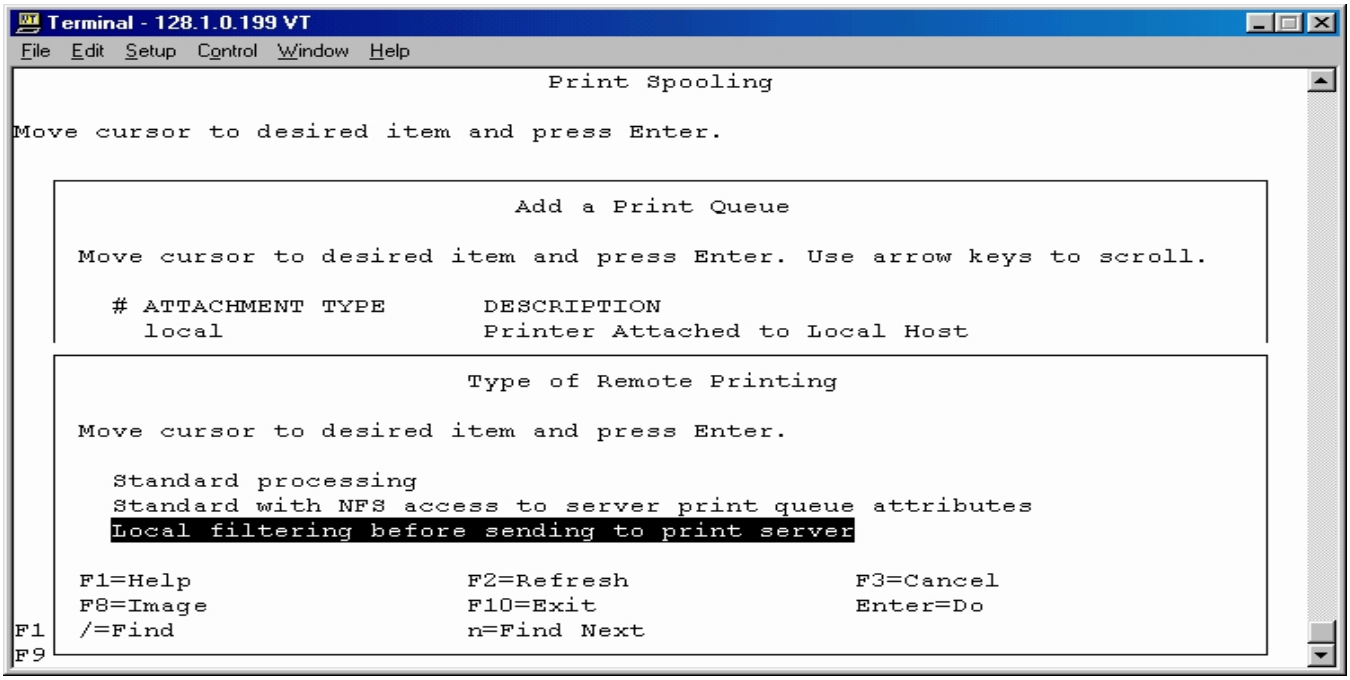


To add a physical or virtual printer configured on another server:

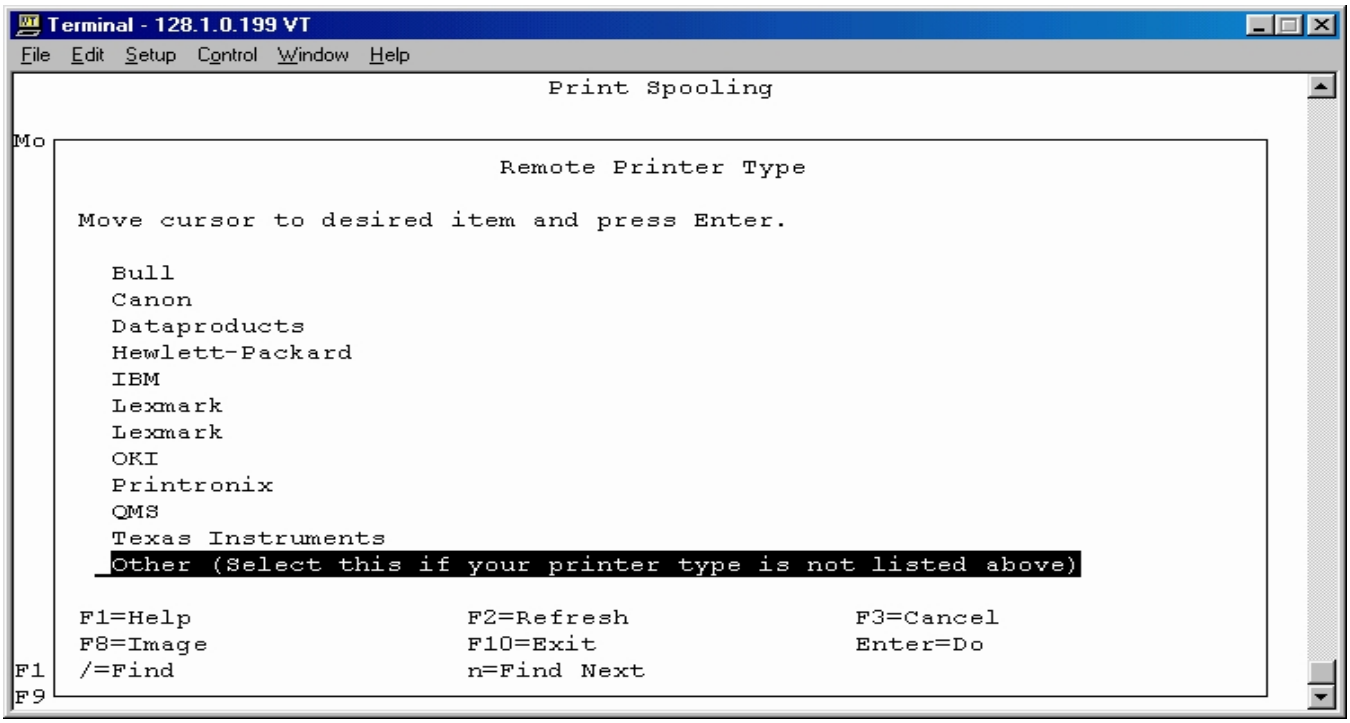
1. In the **/etc/hosts** file, enter the IP address and print server name.
2. Follow step 1 through step 5 in To add a physical or virtual printer in series:.
3. Select **Remote**.



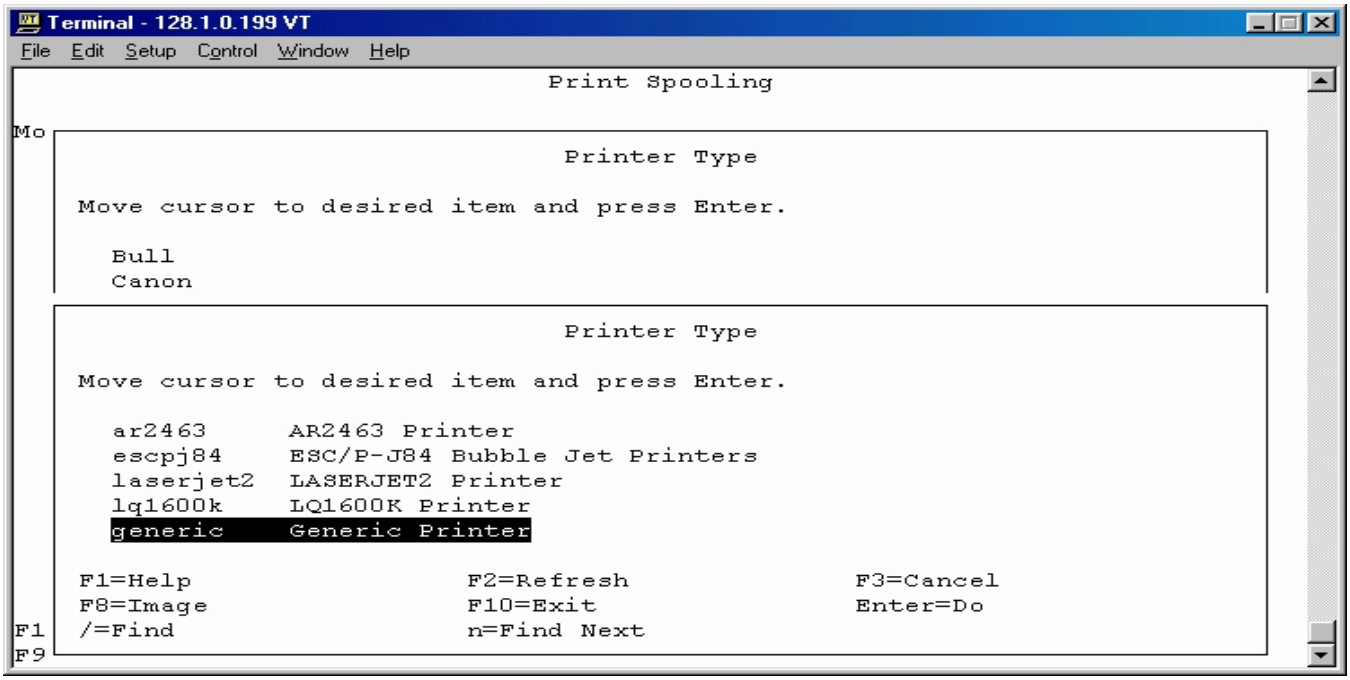
4. Select **Local Filtering**.



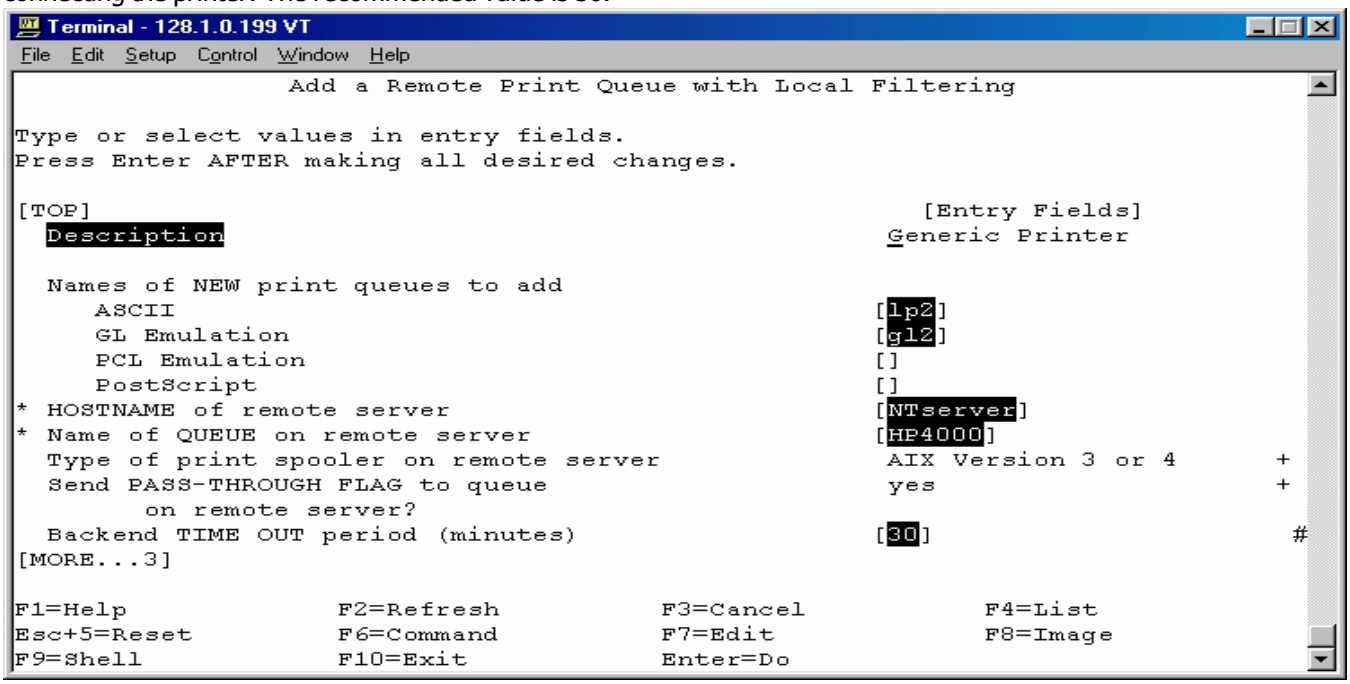
5. Select **Other**.



6. Select **Generic**.



7. Enter the following values:
   ASCII: Name of printer for AIX, Basic and Informix printing.
   GL emulation: Laser printer configured on a workstation and used for Windows printing.
   HOSTNAME: Name entered in the **/etc/hosts** file.
   Queue name: Name of the printing queue on the other server.
   Backend time-out: Length of time, in seconds, the AIX server waits for information from the printer before disconnecting the printer. The recommended value is 30.

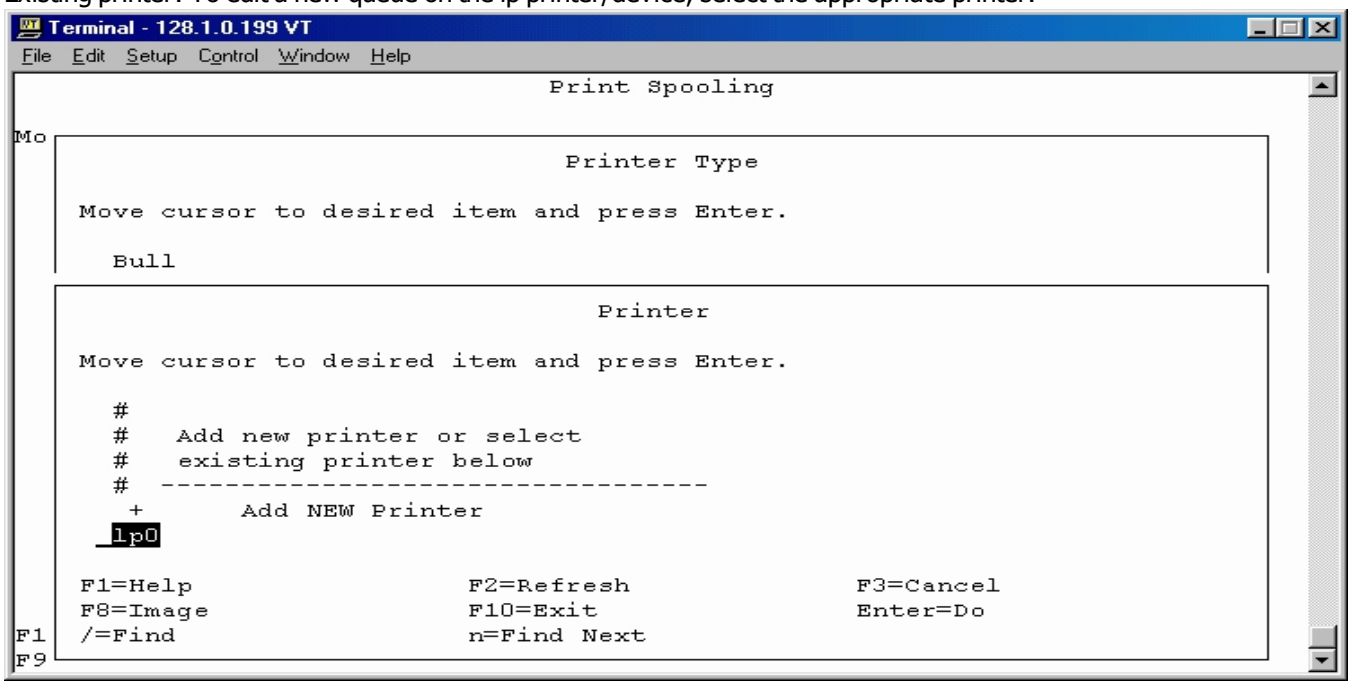


To add a new print queue on an existing device:

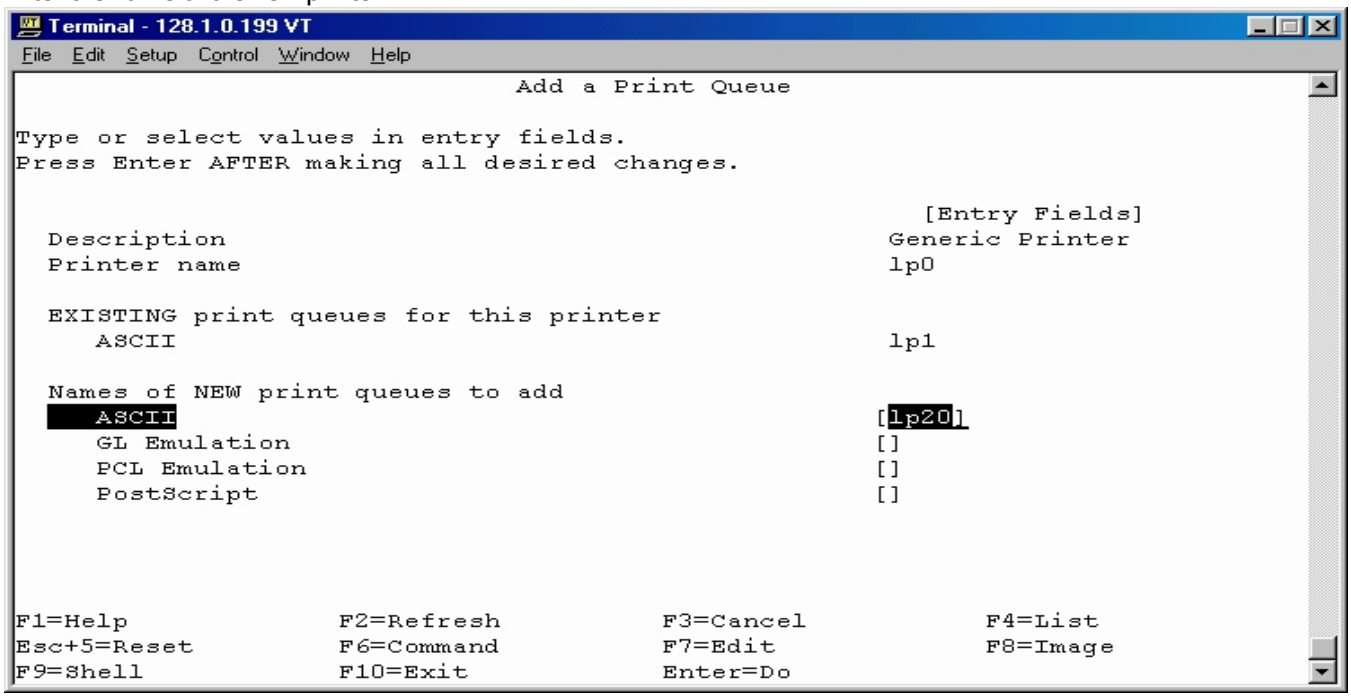
1. Follow step 1 through step 8 in To add a physical or virtual printer in series:.
2. Select one of the following options:

Add new printer: To create a new printer, select **Add new printer**. Return to step 8 in To add a physical or virtual printer in series:.

Existing printer: To edit a new queue on the lp printer/device, select the appropriate printer.

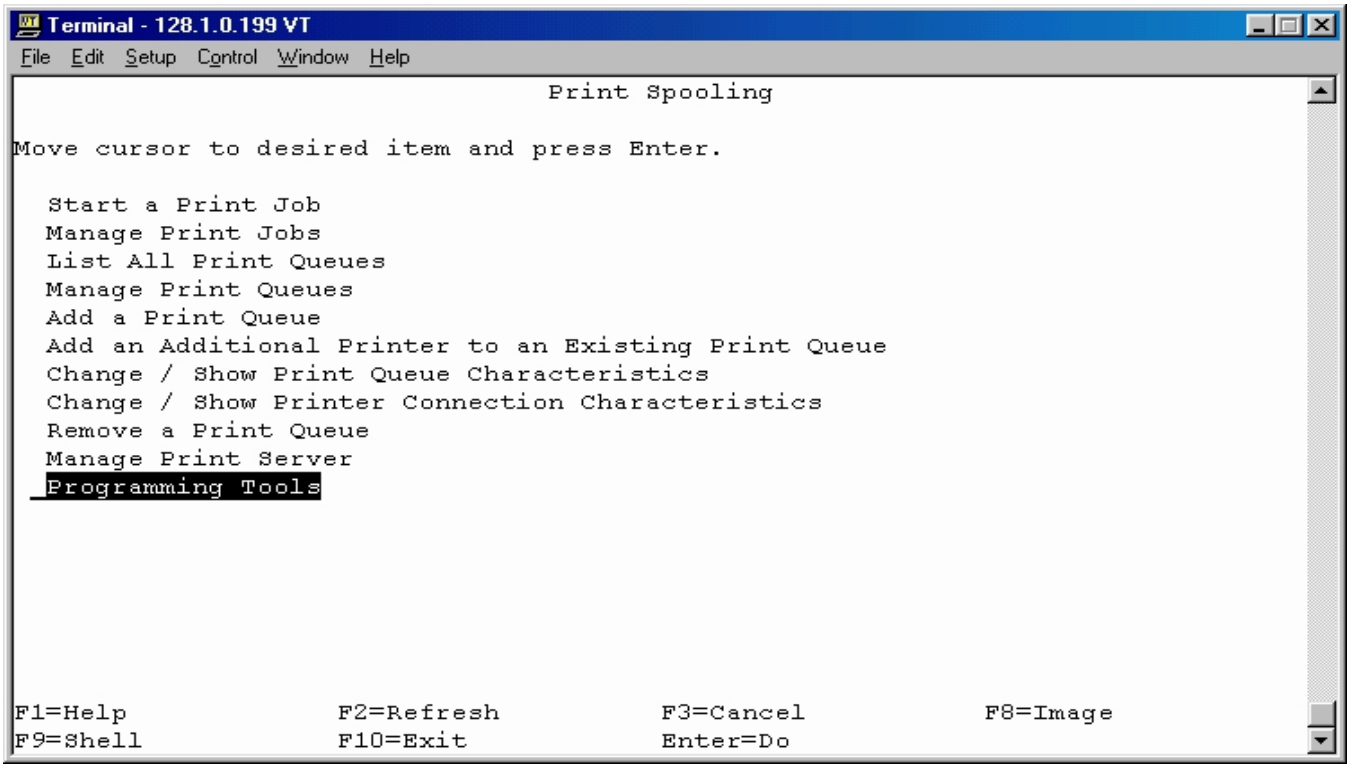


3. Enter the name of the new printer.

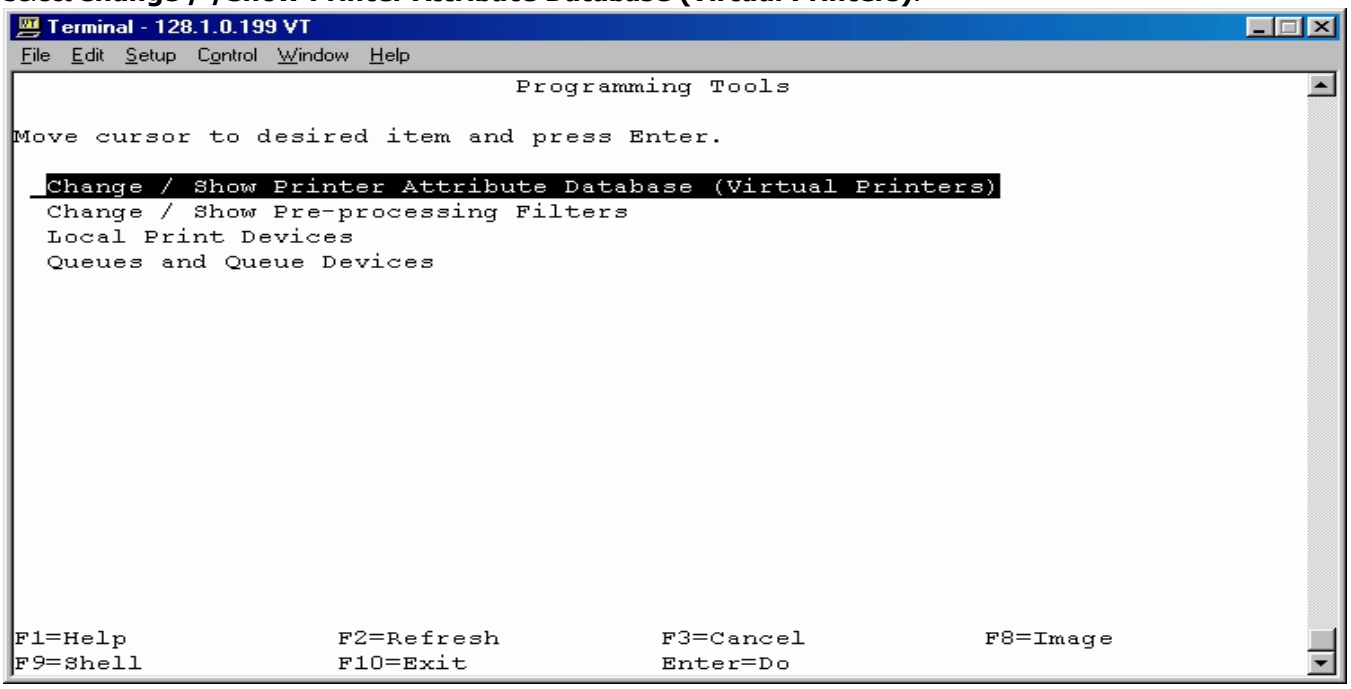


To modify the attributes of virtual printers:

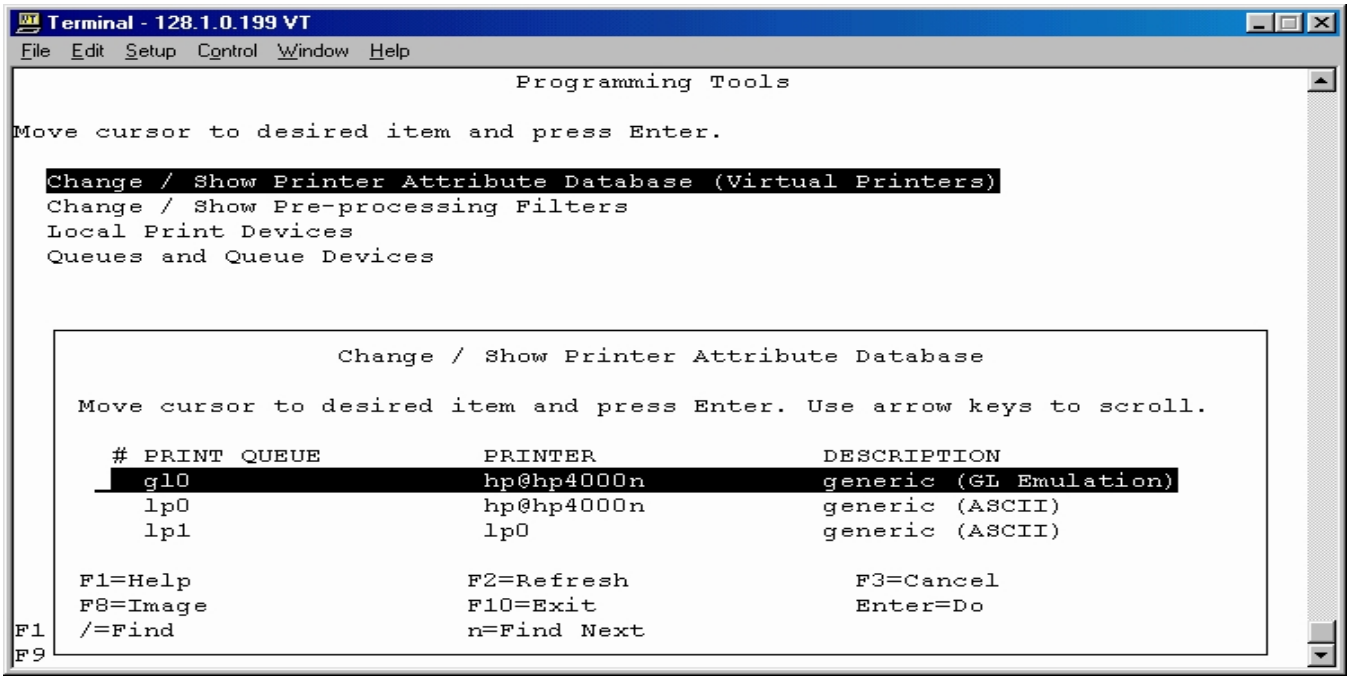
1. Log in as **dyaddm**.
2. Execute **Smit Printer**.
3. Select **Programming Tools**.



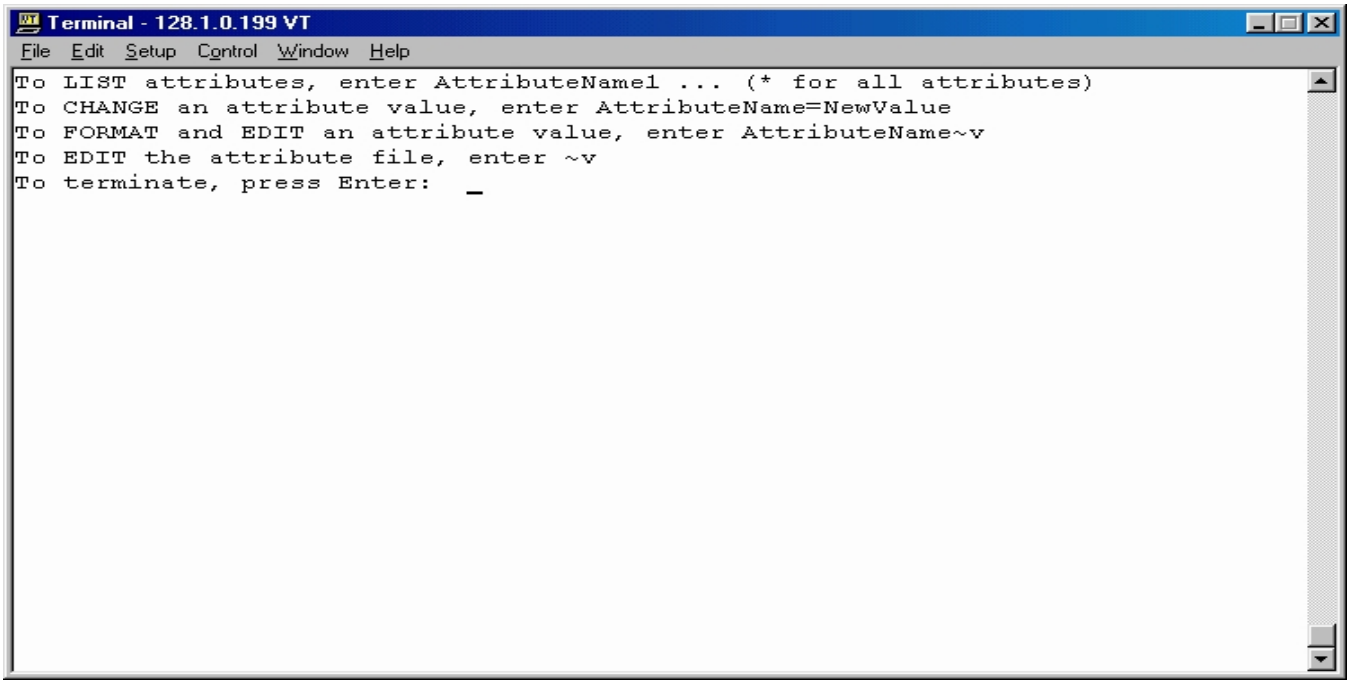
4. Select **Change / /Show Printer Attribute Database (Virtual Printers)**.



5. Select the virtual printer to modify.



6. Change the following attributes for the ASCII printers only:
   J: !
   Z: !
   _j: !
   _l: 0
   _w: 255
   cr: %Iac



Implement a Trigger under VMS

To create a text library:

1. The following is an example of a command used to create a text library.

```
SYS_DAN_AXP>LIBRARY/CREATE/TEXT OBJECTIF$LUNE
SYS_DAN_AXP>
```

2. The following displays the details of the text library.

```
SYS_DAN_AXP>RECA @
SYS_DAN_AXP>@LIBR_R.COM
$  SET DEF SYS$LIBRARY:
$!!  LIBRARY/insert xerox$DEVCTL1.TLB;1 DRA2:[xerox_SETUP]facture.txt;
$  LIBRARY/LIST/FULL OBJECTIF$LUNE.TLB
Directory of TEXT library SYS$SYSROOT:[SYSLIB]OBJECTIF$LUNE.TLB;1 on 25-FEB-1991
Creation date:  25-FEB-1999 10:43:51      Creator:  Librarian A09-19
Revision date:  25-FEB-1999 10:43:51      Library format:   3.0
Number of modules:      0                 Max. key length:  39
Other entries:          0                 Preallocated index blocks:     11
Recoverable deleted blocks:      0        Total index blocks used:        0
Max. Number history records:      20      Library history records:        0

$EXIT
SYS_DAN_AXP>
SYS_DAN_AXP>
SYS_DAN_AXP>
SYS_DAN_AXP>
```

A

A. VMS executable file (similar to a DOS batch file)

3. The following displays details of the information in the text library.

```
$!!  LIBRARY/insert xerox$DEVCTL1.TLB;1 DRA2:[xerox_SETUP]facture.txt;
$  LIBRARY/LIST/FULL xerox$DEVCTL1.TLB;
Directory of TEXT library SYS$SYSROOT:[SYSLIB]XEROX$DEVCTL1.TLB;1 on 25-FEB-1993
Creation date:  20-FEB-1995 15:49:03      Creator:  VAX-11 Librarian V04-00
Revision date:  25-FEB-1999 10:09:18      Library format:   3.0
Number of modules:     12                 Max. key length:  39
Other entries:          0                 Preallocated index blocks:     11
Recoverable deleted blocks:      0        Total index blocks used:        1
Max. Number history records:      20      Library history records:       20

AADIST          inserted 25-JAN-1999 12:02:32
AADISTRB        inserted 14-NOV-1996 15:34:04
FACTURE         inserted 25-FEB-1999 10:09:18
NEWBIL          inserted 21-FEB-1995 16:45:20
REP_SIDE1       inserted 20-FEB-1995 16:13:25
RTSLMT          inserted  3-MAR-1998 14:43:08
RTWKSM          inserted 21-FEB-1995 11:04:43
SIDE1           inserted 18-MAR-1998 10:29:58
SIDE2           inserted 20-MAR-1998 10:29:29
SIDE_PORTRAIT   inserted 10-FEB-1998 10:54:52
SIDE_PORTRAIT2  inserted 30-JAN-1998 11:02:41
XEROX$RESET     inserted 10-MAR-1998 13:32:04
$EXIT
SYS_DAN_AXP>
```

A

B

A. Name of the text library (.TLB extension) B. Documents in the library

4. The following displays details of a port configuration for a LAT device:

```
Port 30:                                Server: DS9002

Character Size:              8          Input Speed:              9600
Flow Control:              XON          Output Speed:             9600
Parity:                   None          Signal Control:        Disabled
Stop Bits:                   1          Signal Select:  CTS-DSR-RTS-DTR

Access:                 Remote          Local Switch:             None
Backwards Switch:         None          Name:                  PORT_30
Break:                Disabled          Session Limit:               2
Forwards Switch:          None          Type:                     Hard
Default Protocol:          LAT          Default Menu:             None

Preferred Service: None

Authorized Groups:    0
(Current)  Groups:    0

Enabled Characteristics:
Autobaud,  Input Flow Control,  Output Flow Control

Local> _
```

5. The following displays details of a port configuration for type Decserver 90LT:

```
I8 PORT_8
IP Ports
IS Server
ID Dedicated/Preferred Services
I
I7

Name        PORT_7
Speed       4800
In Flow     ENA/on
Out Flow    ENA/on
Type        PRINTER
Break       REMOTE
Rem Mod     DIS
Test        NO
AutoConf    DIS
ODL         DIS
Status      OFF
Service
Node
Port
Fram Err    0

-> 
```

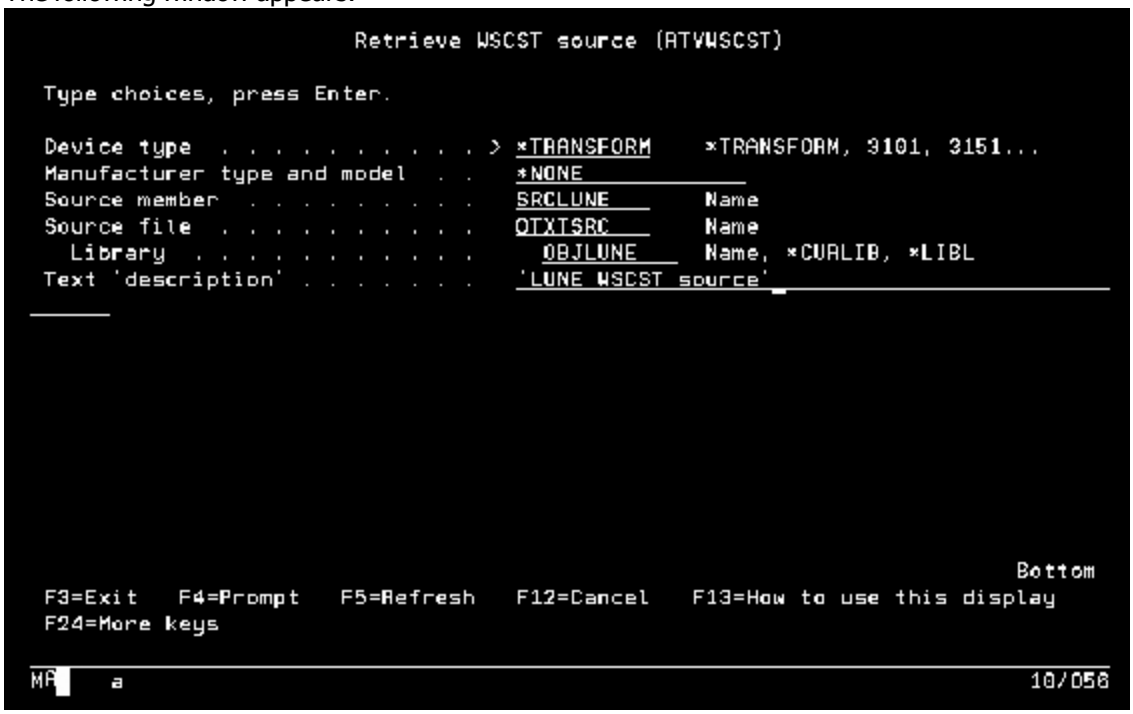
Implement a Trigger with AS/400 Systems

TCP/IP Printing

When you implement a trigger for AS/400 systems, it is important to retrieve, edit and create a Workstation Customizing Object (WSCST). In the following procedure, LUNE is the WSCST name. It is recommended that you use a descriptive name such as the name of your document (for example, INVOICE or CHECK).

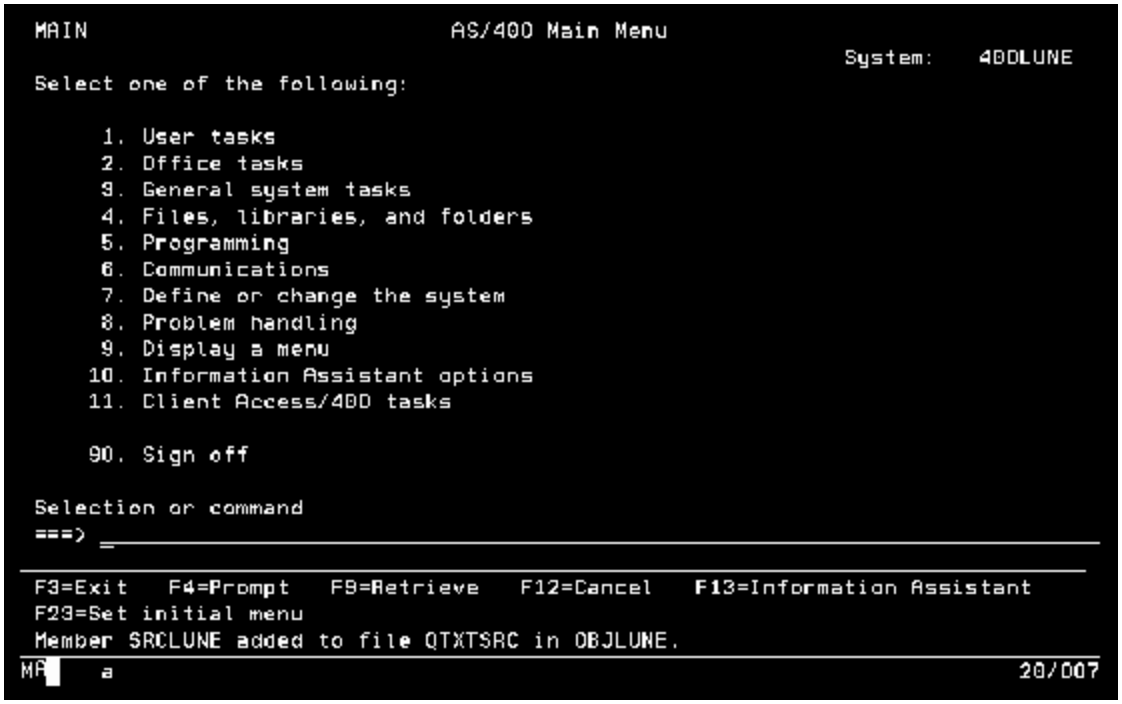
To retrieve the WSCST source:

1. At the command line, enter **RTVWSCST** and press **ENTER**.
2. At the **Device type** line, enter ***TRANSFORM** and press **ENTER**.
   The following window appears.



3. Enter the following data:
   Manufacturer type and model: *NONE.
   Source member: Name of the source to retrieve.
   Source file: Location in which to store the source file member.
   Library: Location in which to store the source files.
   Type description: Short text description of the source file. This description should be unique.
4. Press **ENTER**.
   A confirmation message appears.

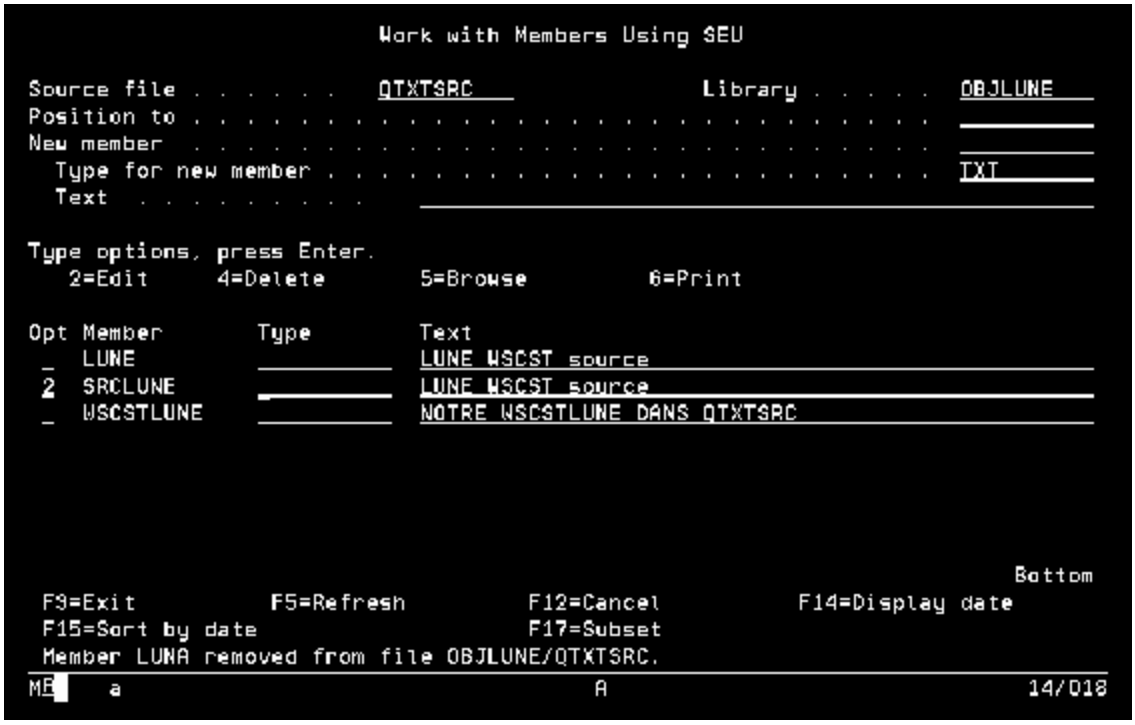
Member SRCLUNE added to file QTXTSRC in OBJLUNE.



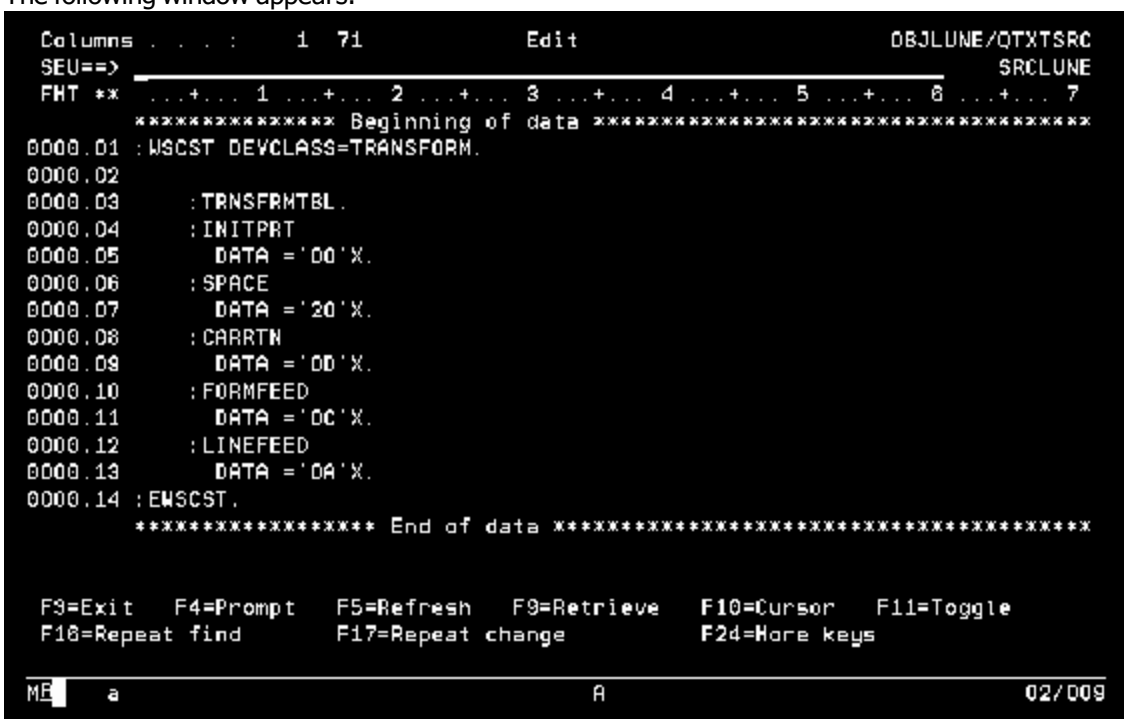
To edit the WSCST source:

1. At the command line, enter **STRSEU** and press **F4**.
   The following window appears.

2. Enter the source file name. For this example, QTXTSRC.
3. Enter the library name. For this example, OBJLUNE.
4. Press **ENTER**.
   The following window appears.



5. In the **Opt** column, enter **2** and press **ENTER**.
   The following window appears.



6. Replace **INITPRT DATA = ' 00 ' X.** by the following INIT string:

:INITPRT

DATA =

'1B252D31323334355840504A4C20656E746572206C616E67756167'X

'65203D20506F7374736372697074740D0A'X

'28464F524D292072756E20464F524D0D0A'X.

The INITPRT string is the hexadecimal representation of the trigger. In the example, the trigger is:

<ESC>%-12345X@PJL ENTER LANGUAGE=POSTSCRIPT

(FORM) run FORM

In the example, the name of the document is FORM. Note: The bold characters in the INITPRT string are the letters FORM in hexadecimal (where 46=F, 4F=O, 52=R and 4D=M). Consult "ASCII Conversion Table" (page 71) for help translating your trigger into hexadecimal.

7. Enter the RESETPRT DATA as displayed in the following window:

:RESETPRT

DATA ='1B252D313233343558'X.

The INITPRT string is the hexadecimal representation of the following trigger:

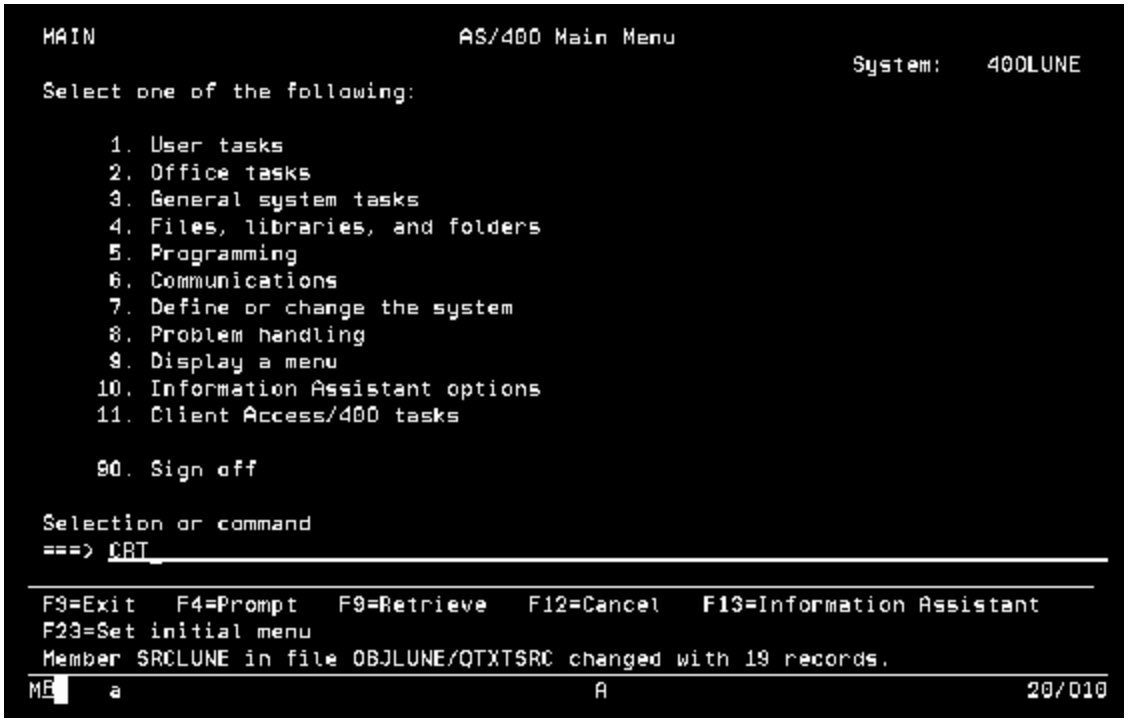
<ESC>%-12345X@PJL ENTER LANGUAGE=POSTSCRIPT

(FORM) run FORM

8. Press **ENTER**.

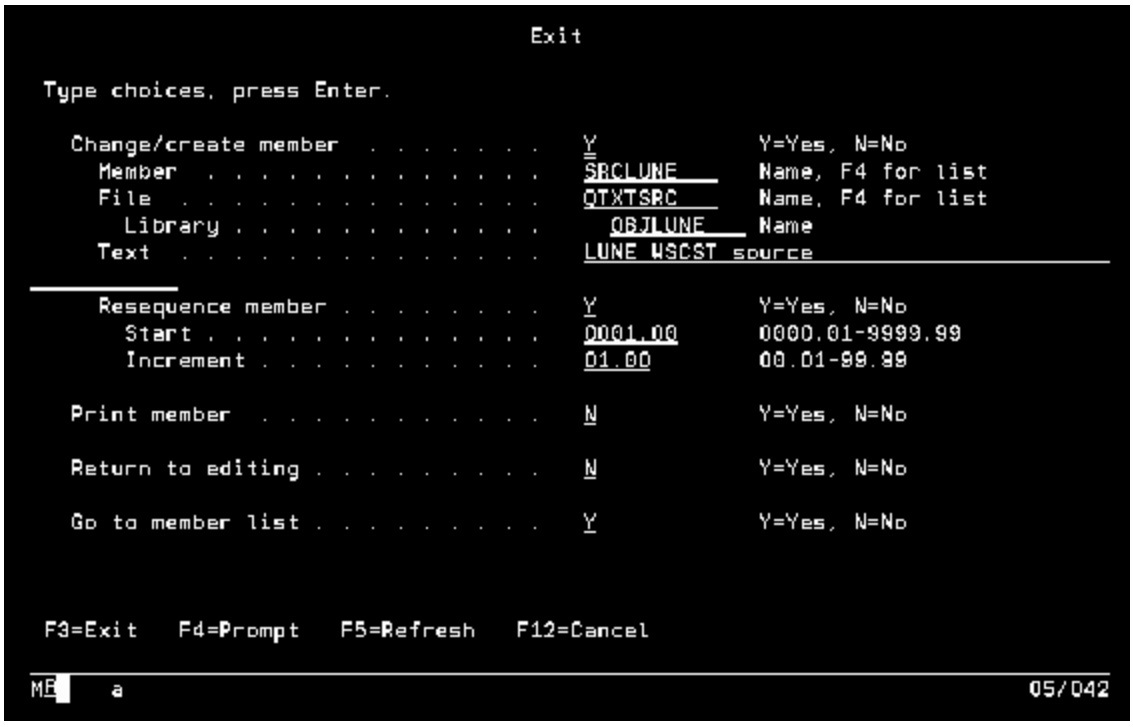
The following confirmation message appears:

Member SRCLUNE in file OBJLUNE/QTXTSRC changed with 19 records.



9. Press **F3** to save the new WSCST.

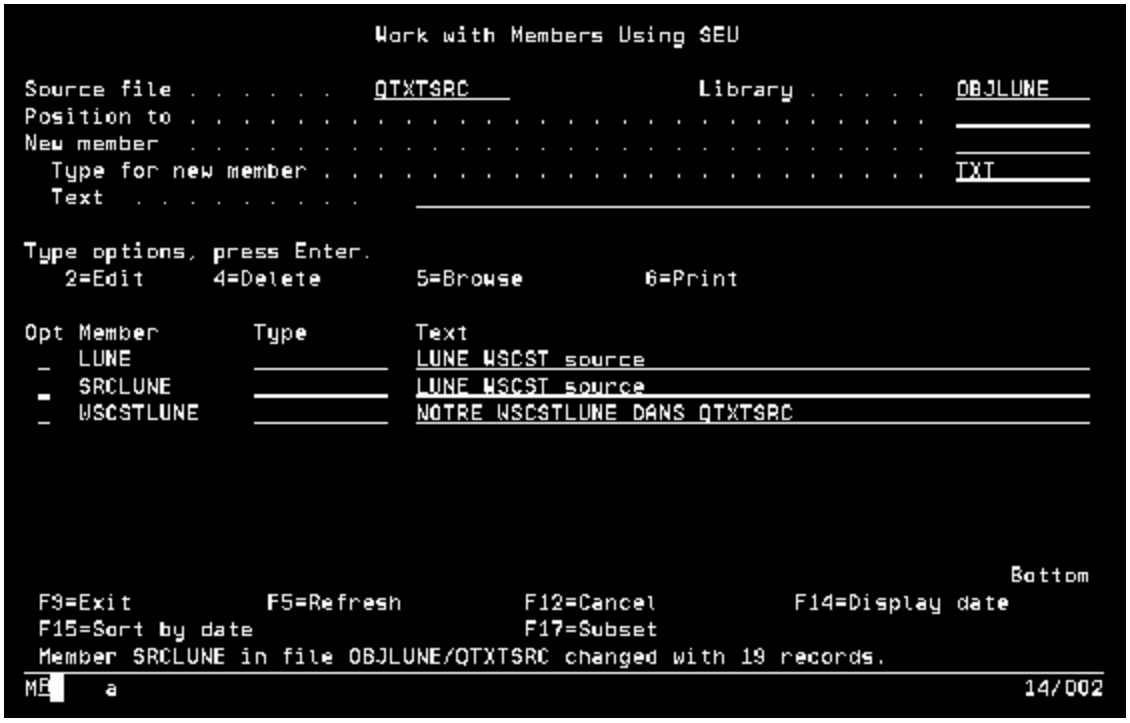
The following window appears.



10. In the **Change/create member** line, enter **Y**, and press **ENTER** to confirm the save.

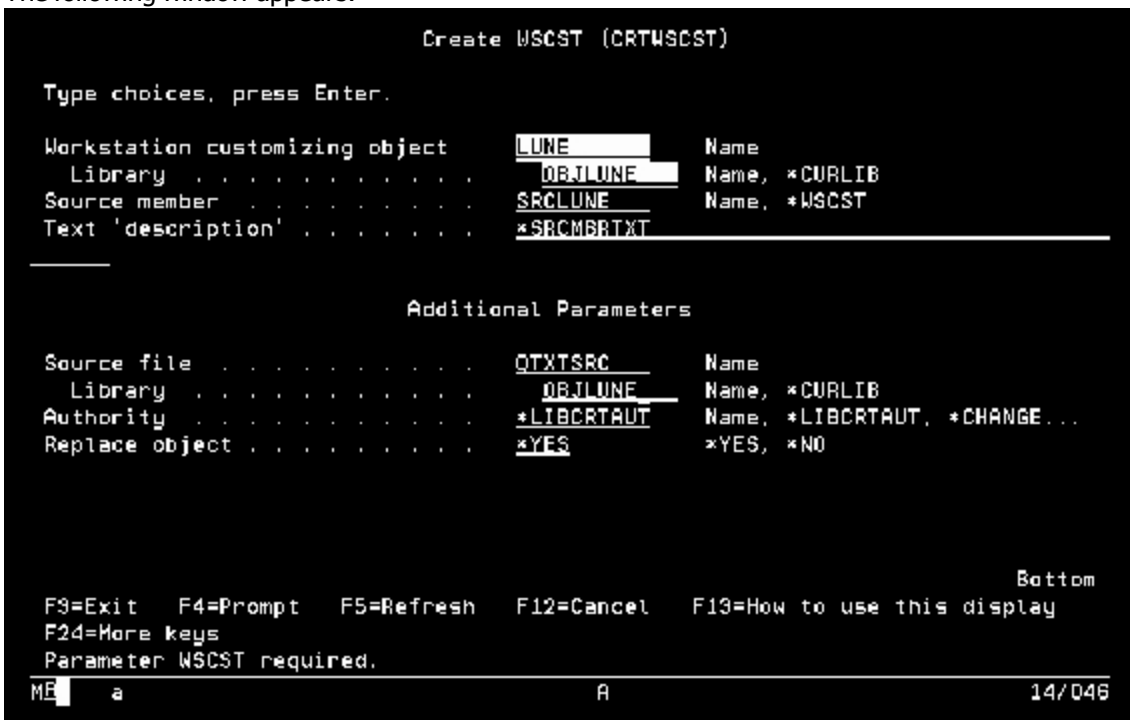
The following confirmation message appears.

Member SRCLUNE in file OBJLUNE/QTXTSRC changed with 19 records.



To create the WSCST:

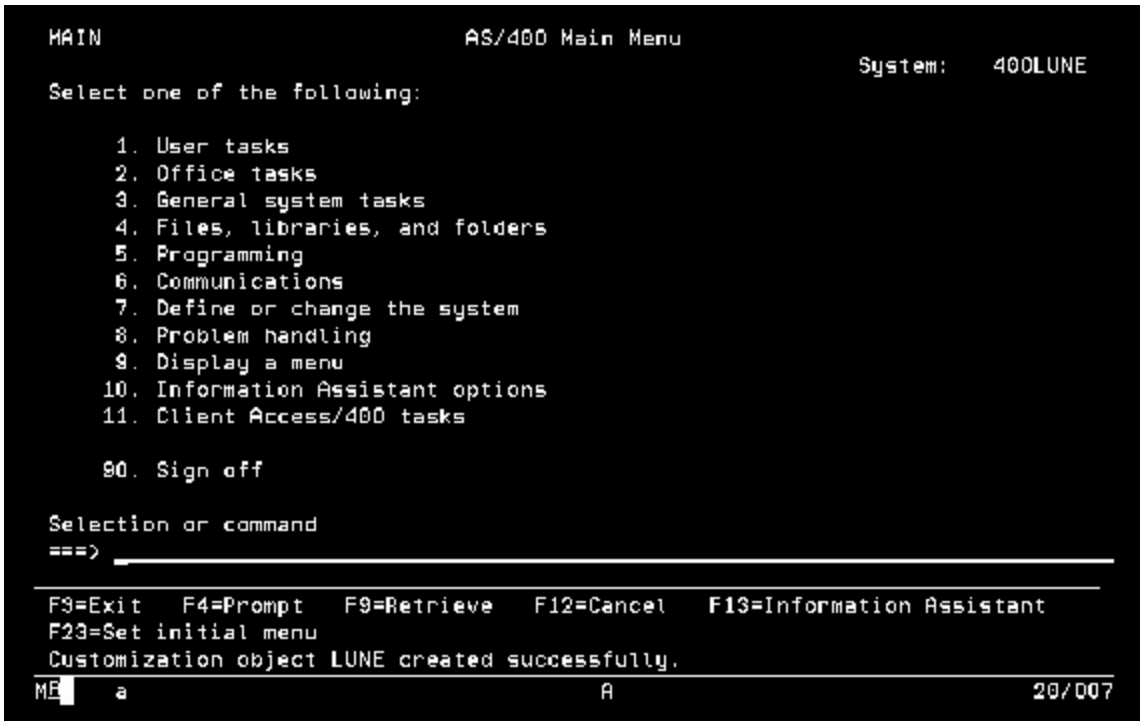
1. At the command line, enter **CRTWSCST** and press *F4*.
   The following window appears.



2. Press **F10** to display additional parameters.
3. Enter the name of the workstation customizing object that you want to create, and the library name for the customizing object (the one previously changed).
4. In the **Additional Parameters** section, enter the following:
   Source file: Enter the name of the source QTXTSRC.

Library: Enter the name of the library containing the source file.
Replace object: Enter *YES or *NO to indicate whether or not this name should replace an object with the same name.
The following confirmation message appears.

The object LUNE customization has successfully been created.



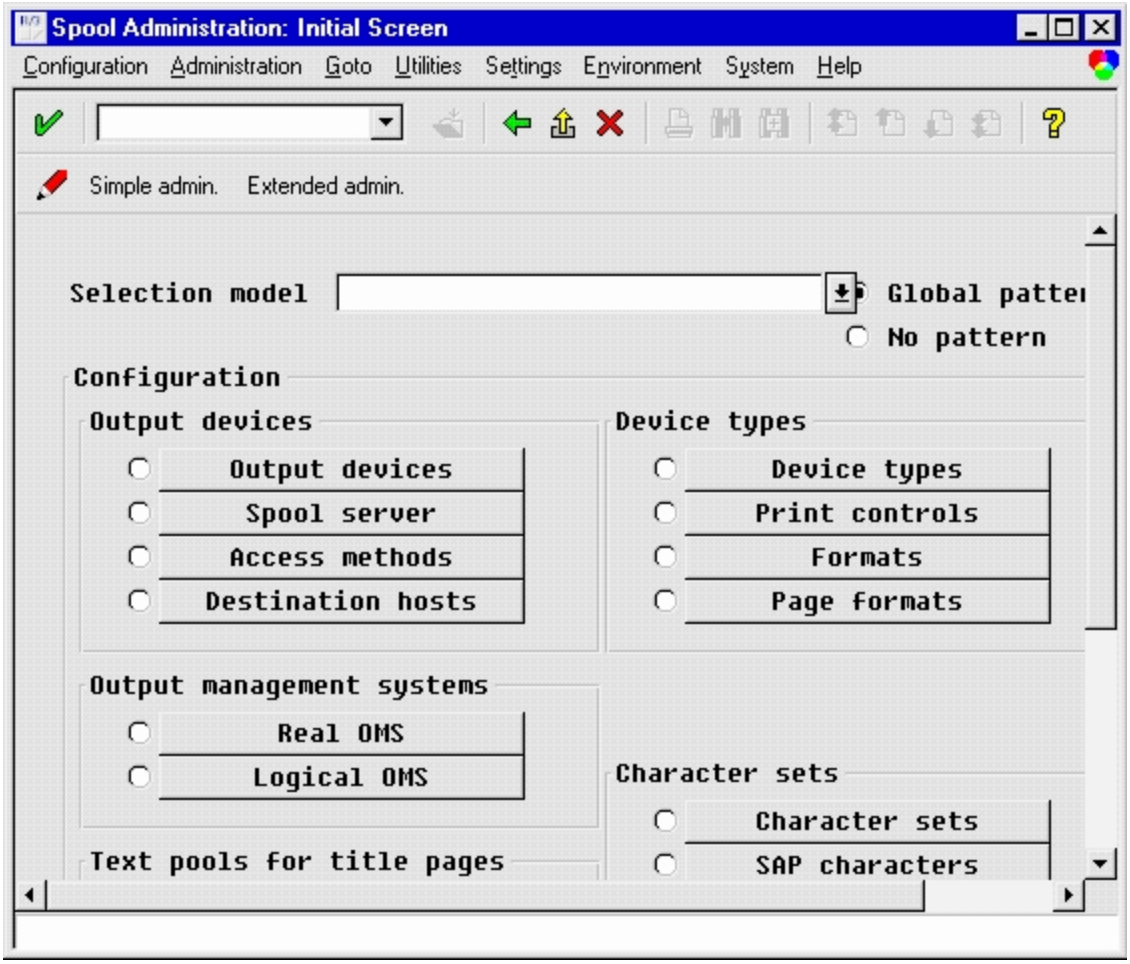
If the creation of the WSCST was not successful, verify that the hexadecimal code for the INITPRT and RESETPRT strings is correct. Once you create the WSCST, you can use it in an output queue.

Prepare SAP Device Type for PlanetPress Design

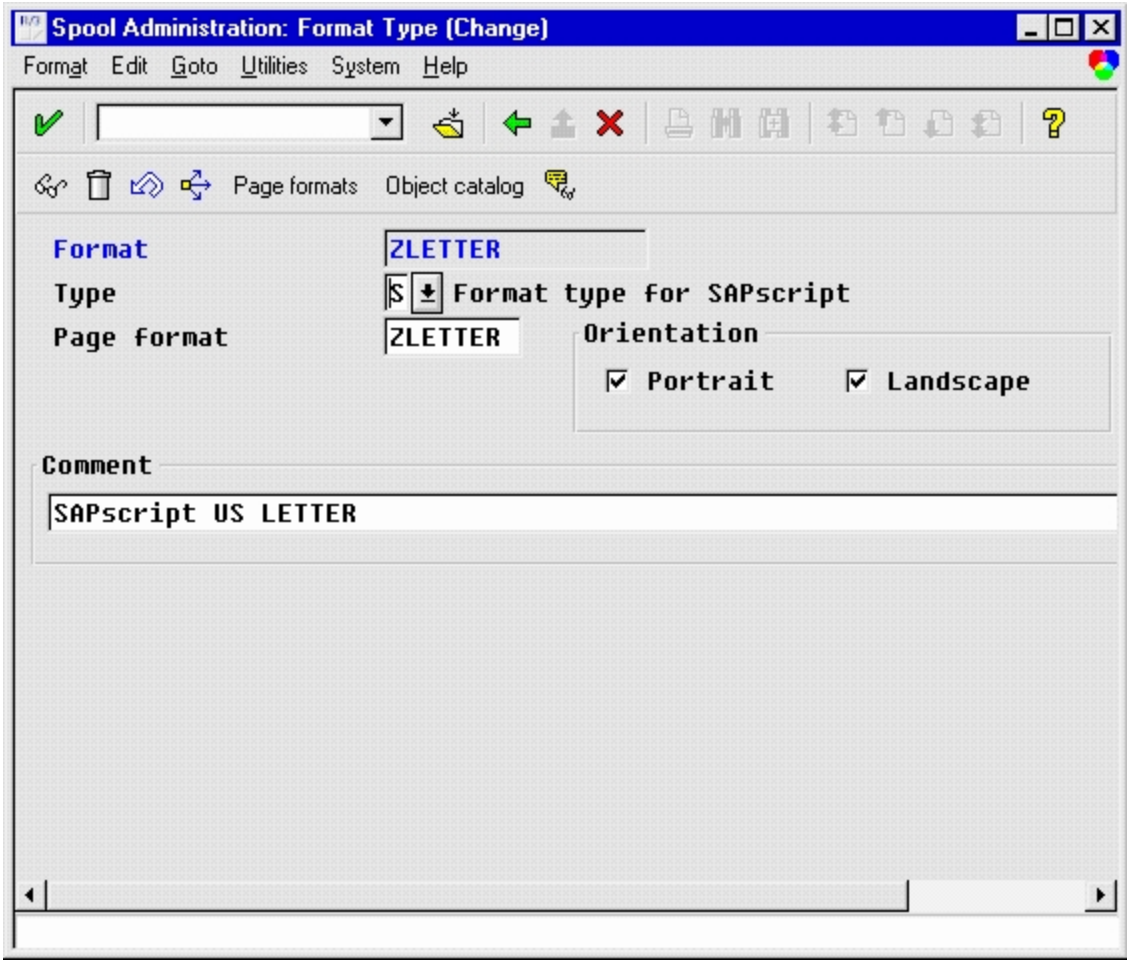
PlanetPress is a PC-based software that merges output data from the source system. In order for PlanetPress to work with SAP, you must make changes to the spool device type.

To modify the spool device type in SAP:

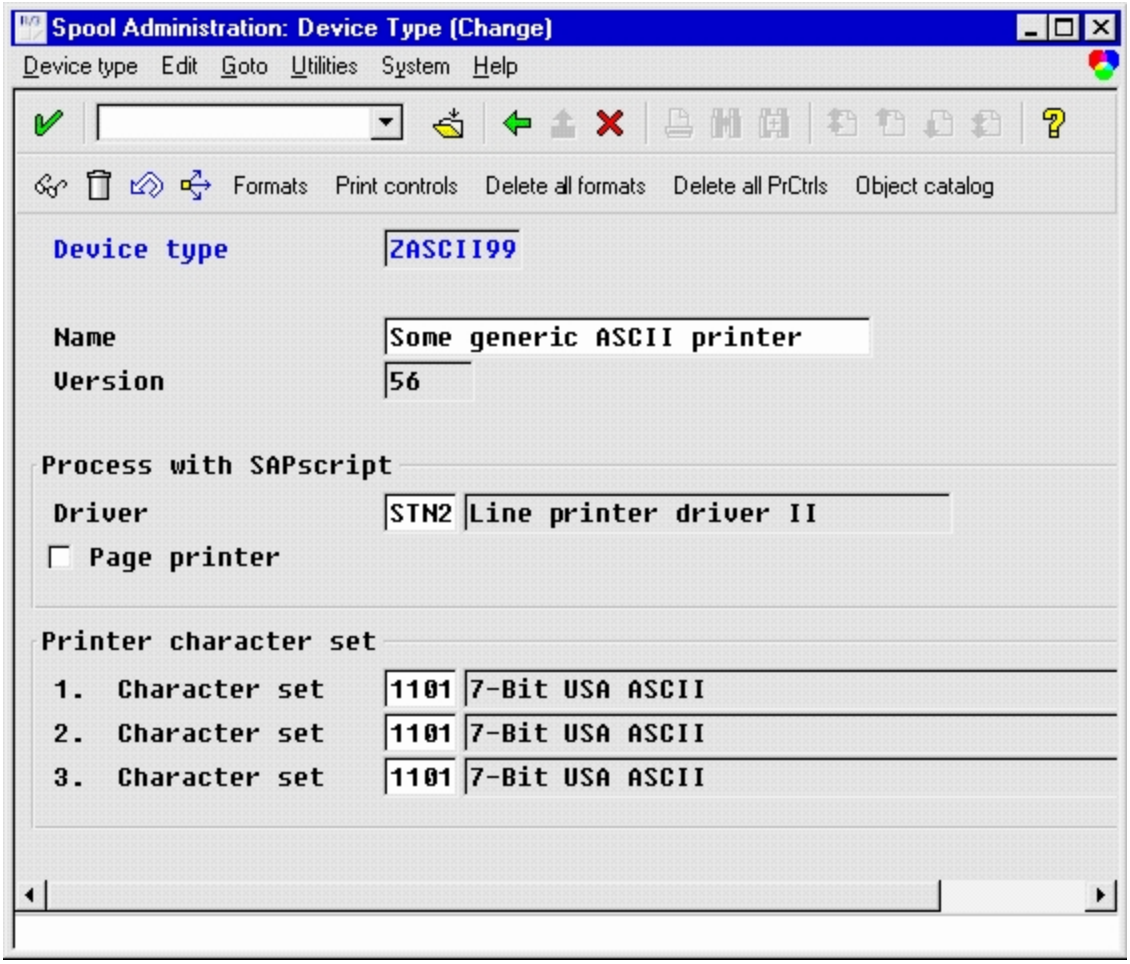
1. Run SPAD and select **Full Administration**.
   The Spool Administration: Initial Screen window appears.



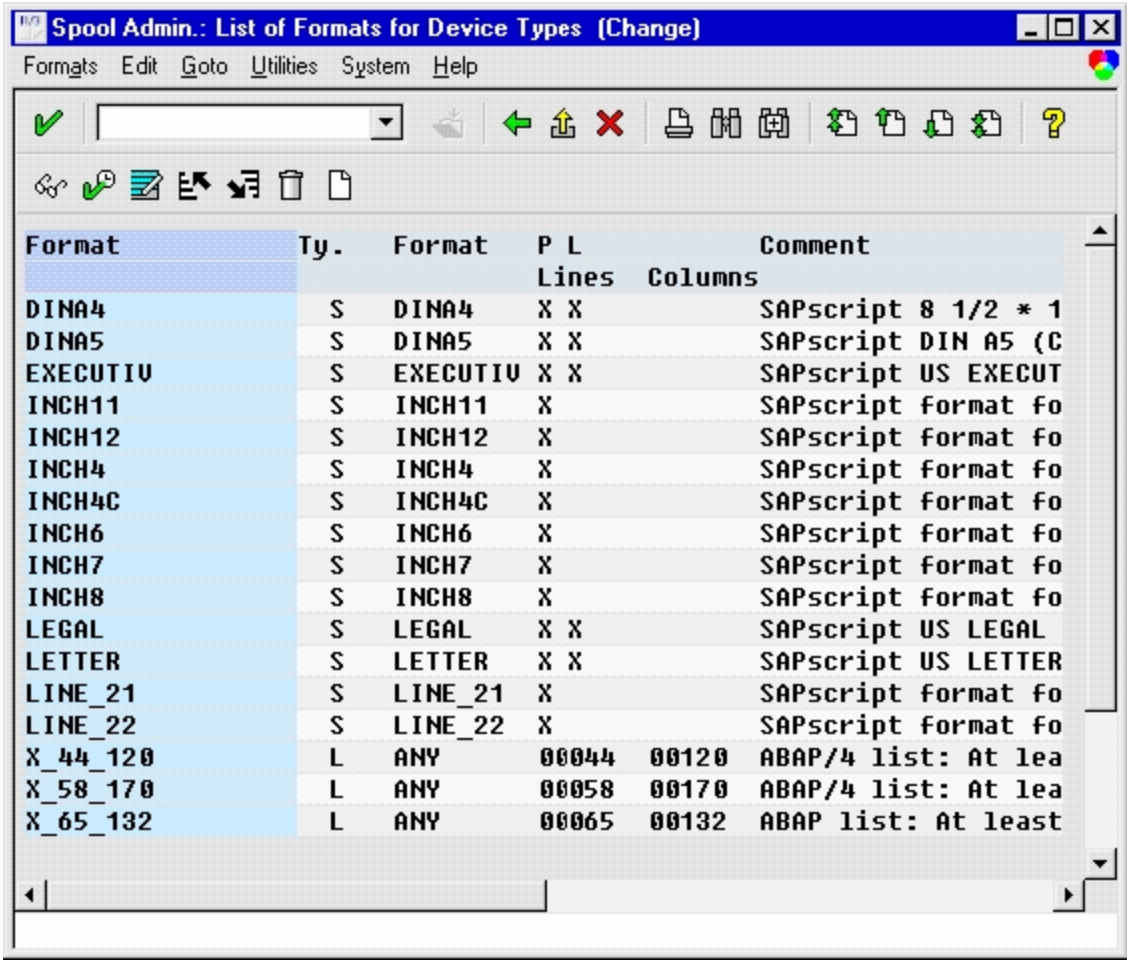
2. Click the red pencil icon to change to edit mode.
3. In the **Device types** section, click **Page formats**.
4. In the **Page Formats** window, select **LETTER** or another format from the list.
5. Select **Copy from** to copy LETTER to a new format.
6. Enter **ZLETTER**.
7. Select both **Portrait** and **Landscape** orientations.
8. Assign the appropriate width and length values to the paper size.
9. Click the left-pointing checkmark in the toolbar to return to the previous window.
10. Click **Formats** and create a new format.
11. Enter the name **ZLETTER** again.
12. In the **Spool Administration: Format Type (Change)** window, assign the LETTER page format created in step 4 to the new format ZLETTER.



13. Click the left-pointing checkmark in the toolbar to return to the previous window.
14. Click **Device types** to display the list of device types.
15. Select **For dev. type**s and **Copy device type** from the Utilities menu.
16. Copy device type ASCIIPRI to ZASCIIxx (where xx is a number). Verify the **Use references** box is cleared.
17. Click the left-pointing checkmark in the toolbar to return to the previous window.
18. Double-click the ZASCIIxx device type to display the corresponding window.

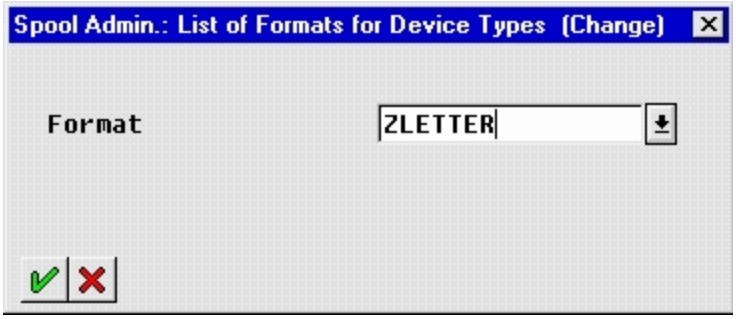


19. Click **Formats**.
The Spool Admin.: List of Formats for Device Types (Change) window appears.

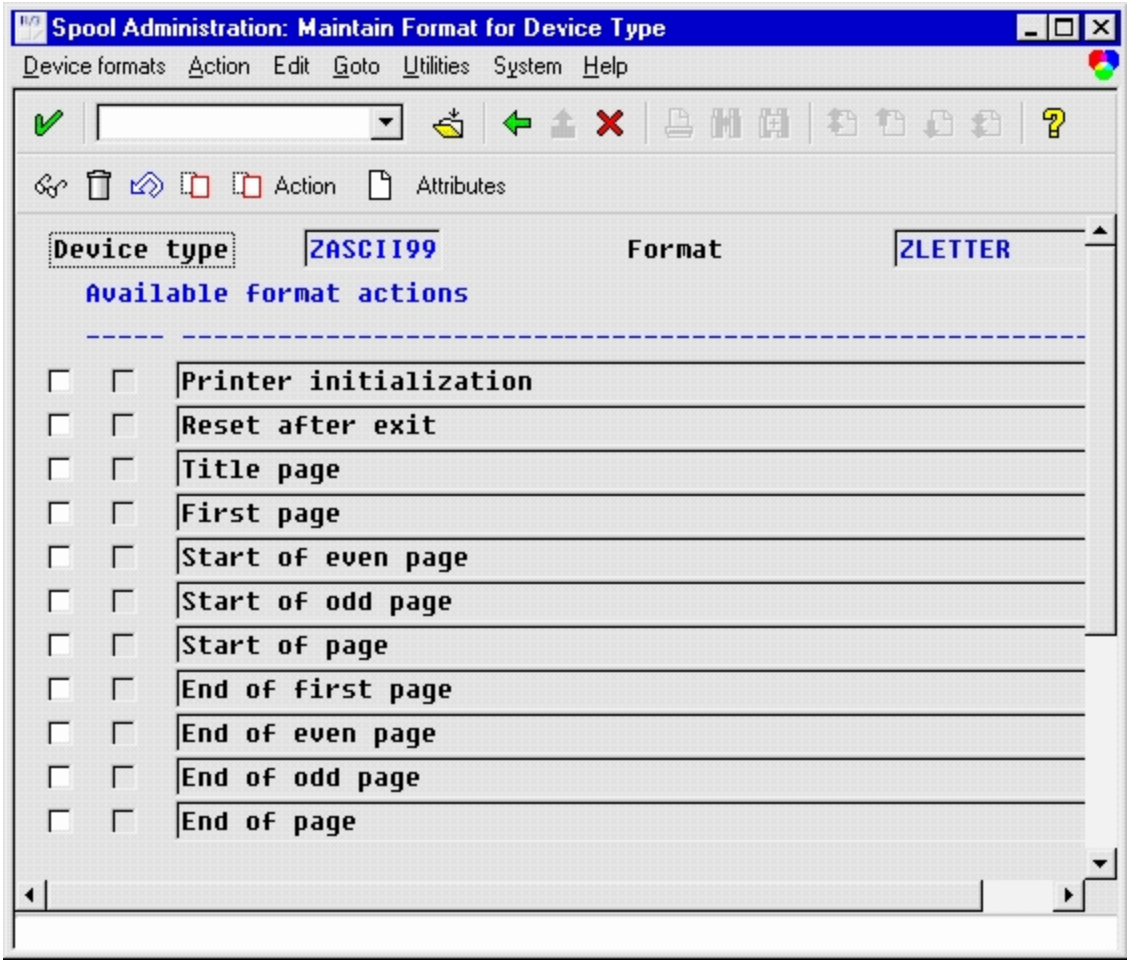


Format	Ty.	Format	P L Lines	Columns	Comment
DINA4	S	DINA4	X X		SAPscript 8 1/2 * 1
DINA5	S	DINA5	X X		SAPscript DIN A5 (C
EXECUTIV	S	EXECUTIV	X X		SAPscript US EXECUT
INCH11	S	INCH11	X		SAPscript format fo
INCH12	S	INCH12	X		SAPscript format fo
INCH4	S	INCH4	X		SAPscript format fo
INCH4C	S	INCH4C	X		SAPscript format fo
INCH6	S	INCH6	X		SAPscript format fo
INCH7	S	INCH7	X		SAPscript format fo
INCH8	S	INCH8	X		SAPscript format fo
LEGAL	S	LEGAL	X X		SAPscript US LEGAL
LETTER	S	LETTER	X X		SAPscript US LETTER
LINE_21	S	LINE_21	X		SAPscript format fo
LINE_22	S	LINE_22	X		SAPscript format fo
X_44_120	L	ANY	00044	00120	ABAP/4 list: At lea
X_58_170	L	ANY	00058	00170	ABAP/4 list: At lea
X_65_132	L	ANY	00065	00132	ABAP list: At least

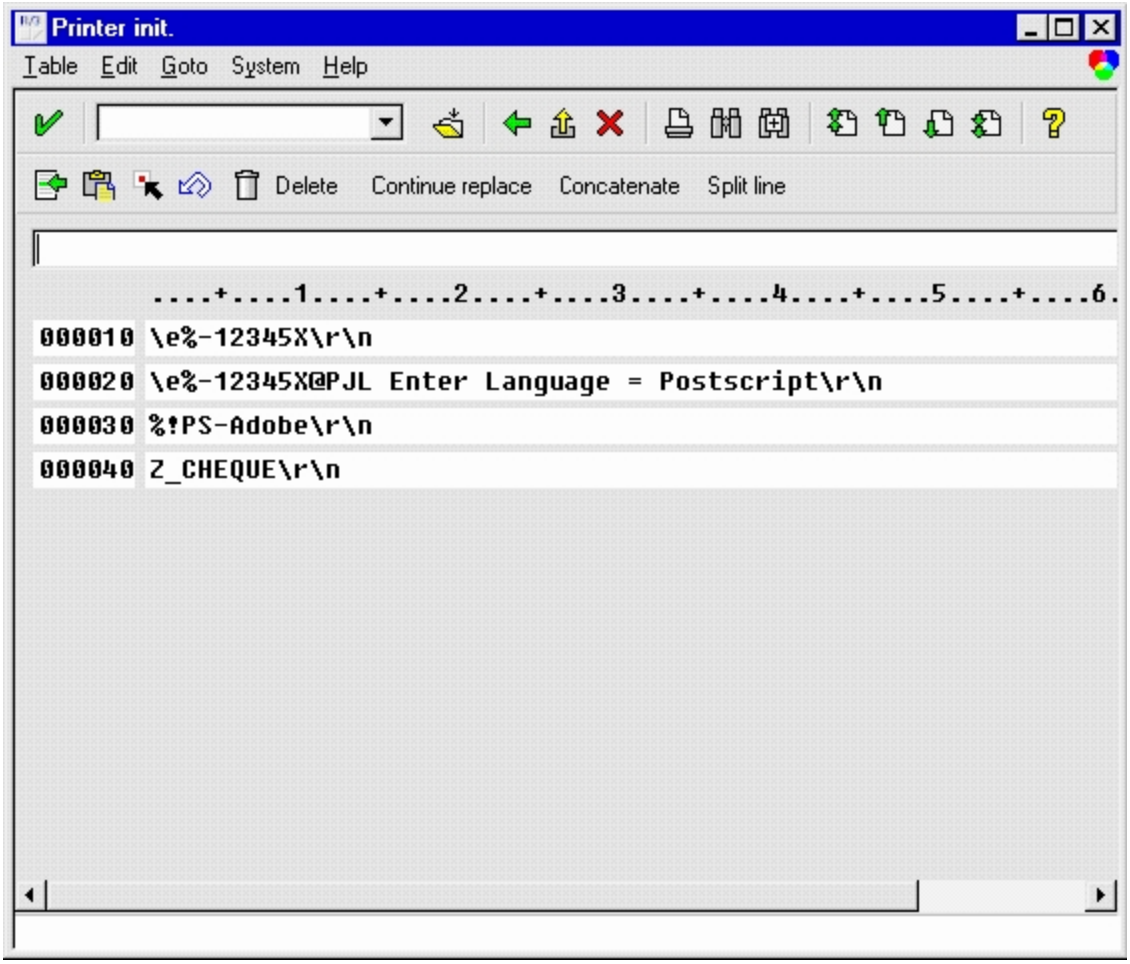
20. Click the paper icon to add a new format to the list.
    The Spool Admin.: List of Formats for Device Types (Change) dialog box appears.



21. In the **Format** box, select **ZLETTER**.
22. Click the checkmark and close the window.
    The Spool Administration: Maintain Format for Device Type window appears.



23. Double-click **Printer initialization**.
    The Print init. window appears.
24. Enter the following PJL codes provided byPlanetPress.

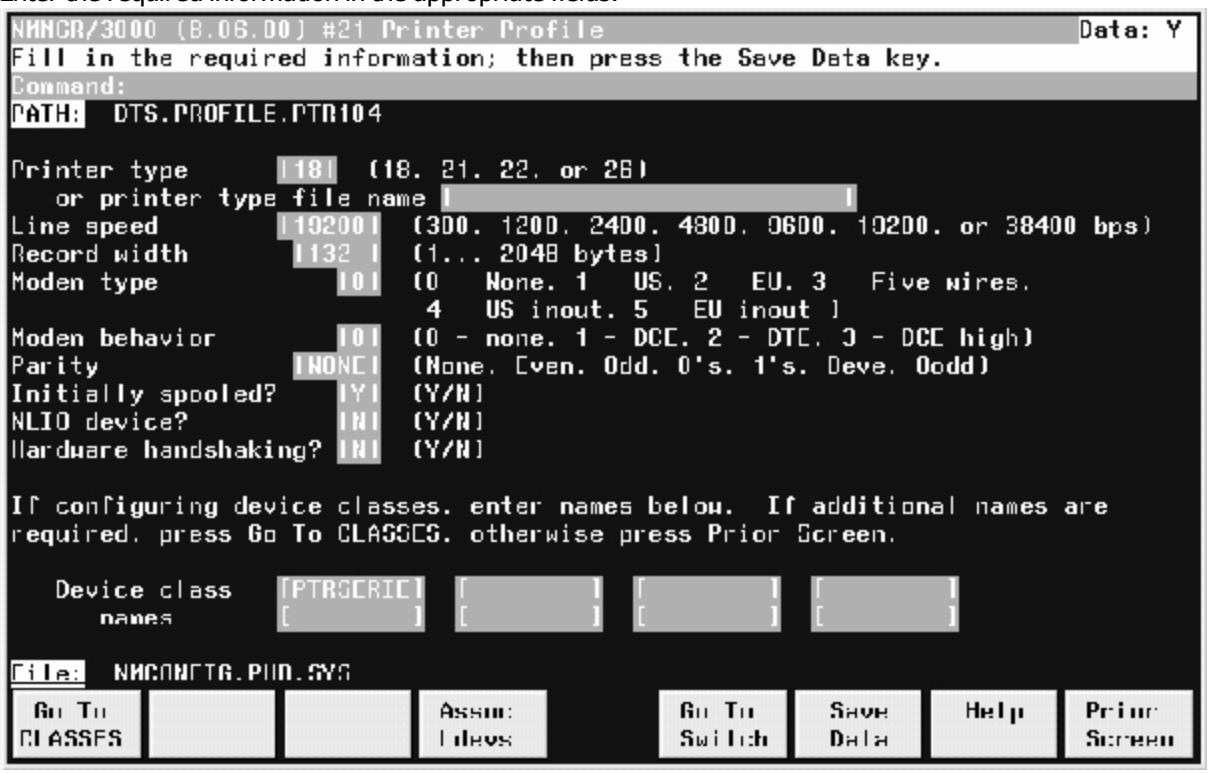


25. Save changes.
26. Assign the device type to the output device that you use to print documents.
    PJL codes are now set up in SAP to control the output from SAP and merge it with the document created and installed in the printer's memory using PlanetPress.

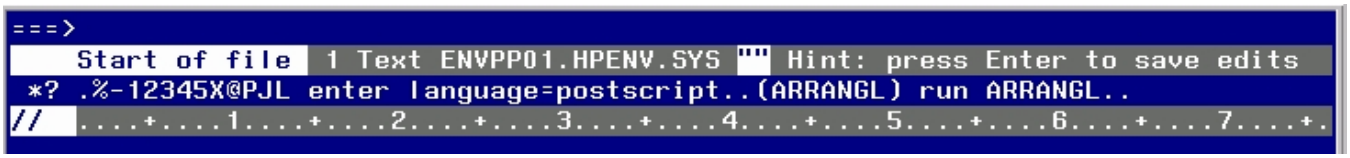
Implement a Trigger under HP 3000

To create a trigger on an HP 3000:

1. Enter the required information in the appropriate fields.



2. Click **Save Data**.



3. Enter ENVPP01.HPENV.SYS (for environment PlanetPress 01) for the environment file. Be careful with the special characters.

4. Enter a name for the document. For example, ARRANGL.
The sample job should appear as follows:

```
!JOB P20A07B,...,FICHIER;INPRI=7

!...

!...

!FILE OUT=TAXEANG;DEV=402,1;ENV=ENVPP05.HPENV.SYS

!FILE IN=FACTANG

!FCOPY FROM=*IN;TO=*OUT

!...

!...

!EOJ
```

Special Printer Requirements

This appendix describes requirements specific to individual printers.

This appendix describes the following special printer requirements:

HP Printers with Flash Memory

If an HP printer has only flash memory, the storing command in the flash memory is the same as if the document was stored on a hard drive (with this type of printer, the default is the hard drive). If the HP printer has both flash memory and a hard drive, you can use either one or the other storing command, according to your needs.

Lexmark Printers

Set a Port for Binary Mode on the Optra+/Optra S

On the Optra +/ Optra S printers, you can set binary mode by changing a printer device parameter in order to accept binary data. Specifically, you can set the /Filtering parameter to /None. This means that <CTRL+D> and other values will be passed to the PostScript interpreter as data instead of commands. The device parameter resides in non-volatile RAM, so you only need to send the file once. The following are samples of PostScript files that cause the printer to switch the port from ASCII to binary mode.

To set a parallel or INA port for binary data:

1. To switch to binary mode, enter the following (ASCII off):

```
%!PS

true 0 startjob

currentsystemparams /CurInputDevice get

<< /Filtering /None >> setdevparams
```

2. To switch to ASCII mode, enter the following (Binary off):

```
%!PS

true 0 startjob

currentsystemparams /CurInputDevice get

<< /Filtering /InterpreterBased >> setdevparams
```

Note that these files are port specific. Thus if you send the files to the printer using its parallel port, only the parallel port is affected.

Also note that Optra S 81.10 base code does not support the /Filtering parameter. Base code 85.21 and later in all Optra SC and Optra K code versions do support the /Filtering parameter. Optra + base code 52.04 and later releases all support switching from binary to ASCII mode.

Printers with Automatic Emulation Switching

A <CTRL+D> character on the first line of a trigger normally indicates the end of one job and the beginning of another. This prevents mixups in print jobs.

Some printers implement an Automatic Emulation Switching (Auto Switch) feature that automatically recognizes what emulation it requires to process a job. In this case, when the file containing your trigger is in ASCII, the printer does not recognize the first few lines as a PostScript program (your trigger). Instead it makes the printer enter ASCII emulation. To prevent this, you must modify the trigger as follows to force the printer to switch to PostScript.

<ESC>%-12345X

<ESC>%-12345X@PJL JOB

@PJL ENTER LANGUAGE = POSTSCRIPT

%!PS-Adobe

(INVOICE) run INVOICE

ASCII Conversion Table

This appendix provides a table for converting among ASCII, hexadecimal, decimal and octal values.

Dec	Hx	Oct	Char
0	00	000	NUL (null)
1	01	001	SOH (start of heading)
2	02	002	STX (start of text)
3	03	003	ETX (end of text)
4	04	004	EOT (end of transmission)
5	05	005	ENQ (enquiry)
6	06	006	ACK (acknowledge)
7	07	007	BEL (bell)
8	08	010	BS (backspace)
9	09	011	TAB (horizontal tab)
10	0A	012	LF (NL line feed, new line)
11	0B	013	VT (vertical tab)
12	0C	014	FF (NP form feed, new page)
13	0D	015	CR (carriage return)
14	0E	016	SO (shift out)
15	0F	017	SI (shift in)
16	10	020	DLE (data link escape)
17	11	021	DC1 (device control 1)
18	12	022	DC2 (device control 2)
19	13	023	DC3 (device control 3)
20	14	024	DC4 (device control 4)
21	15	025	NAK (negative acknowledge)
22	16	026	SYN (synchronous idle)
23	17	027	ETB (end of trans. block)
24	18	030	CAN (cancel)
25	19	031	EM (end of medium)
26	1A	032	SUB (substitute)
27	1B	033	ESC (escape)
28	1C	034	FS (file separator)
29	1D	035	GS (group separator)
30	1E	036	RS (record separator)
31	1F	037	US (unit separator)
32	20	040	SPACE
33	21	041	!
34	22	042	"
35	23	043	#
36	24	044	$
37	25	045	%
38	26	046	&
39	27	047	'
40	28	050	(
41	29	051	)

Dec	Hx	Oct	Char
42	2A	052	*
43	2B	053	+
44	2C	054	,
45	2D	055	-
46	2E	056	.
47	2F	057	/
48	30	060	0
49	31	061	1
50	32	062	2
51	33	063	3
52	34	064	4
53	35	065	5
54	36	066	6
55	37	067	7
56	38	070	8
57	39	071	9
58	3A	072	:
59	3B	073	;
60	3C	074	<
61	3D	075	=
62	3E	076	>
63	3F	077	?
64	40	100	@
65	41	101	A
66	42	102	B
67	43	103	C
68	44	104	D
69	45	105	E
70	46	106	F
71	47	107	G
72	48	110	H
73	49	111	I
74	4A	112	J
75	4B	113	K
76	4C	114	L
77	4D	115	M
78	4E	116	N
79	4F	117	O
80	50	120	P
81	51	121	Q
82	52	122	R
83	53	123	S
84	54	124	T
85	55	125	U
86	56	126	V
87	57	127	W

Dec	Hx	Oct	Char
88	58	130	X
89	59	131	Y
90	5A	132	Z
91	5B	133	[
92	5C	134	\
93	5D	135	]
94	5E	136	^
95	5F	137	_
96	60	140	
97	61	141	a
98	62	142	b
99	63	143	c
100	64	144	d
101	65	145	e
102	66	146	f
103	67	147	g
104	68	150	h
105	69	151	i
106	6A	152	j
107	6B	153	k
108	6C	154	l
109	6D	155	m
110	6E	156	n
111	6F	157	o
112	70	160	p
113	71	161	q
114	72	162	r
115	73	163	s
116	74	164	t
117	75	165	u
118	76	166	v
119	77	167	w
120	78	170	x
121	79	171	y
122	7A	172	z
123	7B	173	{
124	7C	174	|
125	7D	175	}
126	7E	176	~
127	7F	177	DEL

CL Program for AS/400 Systems

This appendix provides the CL program you use with AS/400 systems.

```
PGM PARM(&WATCHPRTFN &WATCHPRTFL &OUTPUTQS +
&OUTPUTQSLB &OUTPUTQD &OUTPUTQDLB +
&TRIGGERFN &TRIGGERLIB)
/*************************************************************************/
/* WATCH */
/* THIS PROGRAM IS USED TO INTERCEPT SPOOLFILES FROM AN OUTPUT QUEUE AND */
/* TO INSERT A TRIGGER. A NEW FILE IS CREATED WITH THE TRIGGER PREPENDED */
/* TO THE DATA OF THE ORIGINAL SPOOL FILE. THIS NEW FILE IS THEN */
/* TRANSFERRED TO THE DESTINATION OUPTUT QUEUE. */
/* */
/* AUTEUR : STEVE FLEURY */
/* CIE : OBJECTIF LUNE INC. */
/* DATE : 12 JUILLET 2000 */
/* */
/*************************************************************************/
/*************************************************************************/
/* DECLARATION: VARIABLES AND FILES */
/*************************************************************************/
/* */
/* &OUTPUTQS : OUTPUT QUEUE TO WATCH */
/* &OUTPUTQD : OUTPUT QUEUE OF DESTINATION */
/* &TRIGGERFN : FILE NAME FOR THE TRIGGER */
/* &TRIGGERLIB: LIBRARY NAME FOR THE TRIGGER FILE */
/* &SPLFNAME : NAME ATTRIBUTE OF SPOOLFILE */
/* &SPLFUSER : USER ATTRIBUTE OF SPOOLFILE */
/* &SPLFSTS : STATUS ATTRIBUTE OF SPOOLFILE */
/* &SPLFJOB : JOB ATTRIBUTE OF SPOOLFILE */
/* &SPLFNB : NUMBER ATTRIBUTE OF SPOOLFILE */
/* &WATCHPRTFN: NAME OF PRINTER FILE USED TO CREATE THE NEW SPOOLFILE */
/* &WATCHPRTFL: NAME OF THE LIBRARY OF PRTFILE */
/* */
/*************************************************************************/
DCL VAR(&OUTPUTQS) TYPE(*CHAR) LEN(10)
DCL VAR(&OUTPUTQSLB) TYPE(*CHAR) LEN(10)
DCL VAR(&OUTPUTQD) TYPE(*CHAR) LEN(10)
DCL VAR(&OUTPUTQDLB) TYPE(*CHAR) LEN(10)
DCL VAR(&TRIGGERFN) TYPE(*CHAR) LEN(10)
DCL VAR(&TRIGGERLIB) TYPE(*CHAR) LEN(10)
DCL VAR(&SPLFNAME) TYPE(*CHAR) LEN(10)
DCL VAR(&SPLFUSER) TYPE(*CHAR) LEN(10)
DCL VAR(&SPLFSTS) TYPE(*CHAR) LEN(3)
DCL VAR(&SPLFJOB) TYPE(*CHAR) LEN(10)
DCL VAR(&SPLFNB) TYPE(*CHAR) LEN(6)
DCL VAR(&WATCHPRTFN) TYPE(*CHAR) LEN(10)
DCL VAR(&WATCHPRTFL) TYPE(*CHAR) LEN(10)
DCLF FILE(OBJLUNE/WATCHWORK)
/*************************************************************************/
```

```
/* CREATE THE TEMPORARY FILE NEEDED DURING THE PROGRAM */
/*********************************************************************/
CRTPF FILE(QTEMP/TRANSITF) RCDLEN(200) +
TEXT('file to build the new spoolfile')
MONMSG MSGID(CPF7302) /* file already exists */
/*********************************************************************/
/* TAKE A SNAPSHOT OF THE OUTPUT QUEUE IN A FILE AND SEND IT IN THE */
/* WORKFILE FILE. THIS WILL ALLOW US TO MANIPULATE THE CONTENT. */
/*********************************************************************/
WRKOUTQ OUTQ(&OUTPUTQSLB/&OUTPUTQS) OUTPUT(*PRINT)
CPYSPLF FILE(QPRTSPLQ) TOFILE(OBJLUNE/WATCHWORK) +
SPLNBR(*LAST)
DLTSPLF FILE(QPRTSPLQ) SPLNBR(*LAST)
/*********************************************************************/
/* READ THE CONTENT OF THE WORKFILE TO DETERMINE IF THERE ARE SPOOLFILES */
/* TO BE TREATED. IF THE SPOOLFILE STATUS IS NOT RDY THIS IS BECAUSE */
/* WE ARE IN THE HEATHER LINES OR THE STATUS IS HLD OR SAV, ETC... */
/*********************************************************************/
BEGIN: RCVF
MONMSG MSGID(CPF0864) EXEC(GOTO CMDLBL(END)) /* eof +
of file encountered */
IF COND(%SST(&WATCHWORK 36 3) *NE RDY) THEN(GOTO +
CMDLBL(BEGIN)) /* bypass of heathers and +
non ready spools */
CHGVAR VAR(&SPLFNAME) VALUE(%SST(&WATCHWORK 2 10))
CHGVAR VAR(&SPLFUSER) VALUE(%SST(&WATCHWORK 13 10))
CHGVAR VAR(&SPLFSTS) VALUE(%SST(&WATCHWORK 36 3))
CHGVAR VAR(&SPLFJOB) VALUE(%SST(&WATCHWORK 82 10))
CHGVAR VAR(&SPLFNB) VALUE(%SST(&WATCHWORK 93 6))
/*********************************************************************/
/* CREATION OF NEW SPOOLFILE FROM THE TRIGGER AND DATA FROM THE */
/* SPOOLFILE IN TRANSIT. THE PROCEDURE IS THE FOLLOWING: */
/* - COPY THE TRIGGER INTO A TEMP FILE. */
/* - APPEND THE SPOOLFILE INTO THE TEMP FILE */
/* - CREATE A SPOOLFILE FROM THIS PHYSICAL FILE */
/*********************************************************************/
CPYF FROMFILE(&TRIGGERLIB/&TRIGGERFN) +
TOFILE(QTEMP/TRANSITF) FROMMBR(*ALL) +
MBROPT(*REPLACE) FMTOPT(*NOCHK)
CPYSPLF FILE(&SPLFNAME) TOFILE(QTEMP/TRANSITF) +
JOB(&SPLFNB/&SPLFUSER/&SPLFJOB) MBROPT(*ADD)
CPYF FROMFILE(QTEMP/TRANSITF) +
TOFILE(&WATCHPRTFL/&WATCHPRTFN) +
PRINT(*COPIED) FMTOPT(*NOCHK)
CHGSPLFA FILE(&WATCHPRTFN) SPLNBR(*LAST) +
OUTQ(&OUTPUTQDLB/&OUTPUTQD)
/*********************************************************************/
/* ERASE THE TEMPORARY SPOOLFILES CREATED BY THE COPY OPERATIONS. */
/*********************************************************************/
DLTSPLF FILE(QSYSPRT) SPLNBR(*LAST) SELECT(*CURRENT +
*OUTQ)
GOTO BEGIN
```

```
END
```

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