Print Queue Creation
in HP Web Jetadmin

Overview

This technical brief discusses the ability of HP Web Jetadmin to create a shared printer queue on a remote machine. HP Web Jetadmin supports creation of print queues of the following variety:

- Microsoft Windows NT 4.0
- Microsoft Windows 2000
- Red Hat Linux
- SuSE Linux
- HP-UX
- Solaris
- Novell NetWare

However, this paper will focus solely on the ability to create print queues on Microsoft Windows NT 4.0 and Windows 2000 machines.

Remote Print Queue Creation

HP Web Jetadmin provides administrators with the ability to install and create shared print queues onto any machine on the network. Clients can connect to these shared print queues and send print jobs

The purpose of this remote printer creation feature is to ease the task of print queue creation. Using Web Jetadmin, administrators can install remote print queues from a single,

centralized location rather than having to physically move to the remote machines in order to create the printers. In fact, administrators don't necessarily have to be physically on the same machine running Web Jetadmin when creating the print queues. They can access the machine running Web Jetadmin from any machine within the intranet through the use of a browser.

Multiple Print Queues

HP Web Jetadmin can create a single print queue onto a single remote machine, multiple print queues onto multiple remote machines, or any combination thereof. For example, ten HP LaserJet 4050 printers could be installed as print queues simultaneously onto two separate print server machines (five per server). The process could then be repeated to install four additional HP Color LaserJet 4550 printers onto those same print server machines (two per server).

Printer Drivers

To simplify the process even more, printer drivers can be installed either from a machine where drivers have previously been installed or from a shared machine where driver installable files (*.inf) are located.

Supported Printers

Print queue creation is supported for HP printers only. Although Web Jetadmin does support management of third party printers that conform to the Standard Printer MIB (RFC 1759), print queues for these printers must be installed through the native operating system technique for adding printers.

Components

Print queue creation in Windows NT/2000 involves the following components:

- Discovering and selecting the printers.
- Selecting the machines to act as the print servers where the shared print queues will be installed.
- Installing the HP Print Server Manager software (installed as a service).
- Installing the HP Standard TCP/IP Port Monitor on the print server machine. The prot monitor directs print jobs from the spooler to the printer.
- Installing the printer driver, including optional drivers to be used for client machines during Point and Print.
- Creating the printer and port.
- Sharing the printer for clients to access.

Creating a Print Queue

To begin the process of installing shared print queues from the main screen of all devices, select *Print Queues, Create Queues* (see Figure 1) and select the model of the type of print queue that is being created. The print queue creation screen can also be accessed by selecting the *Create*

Figure 1

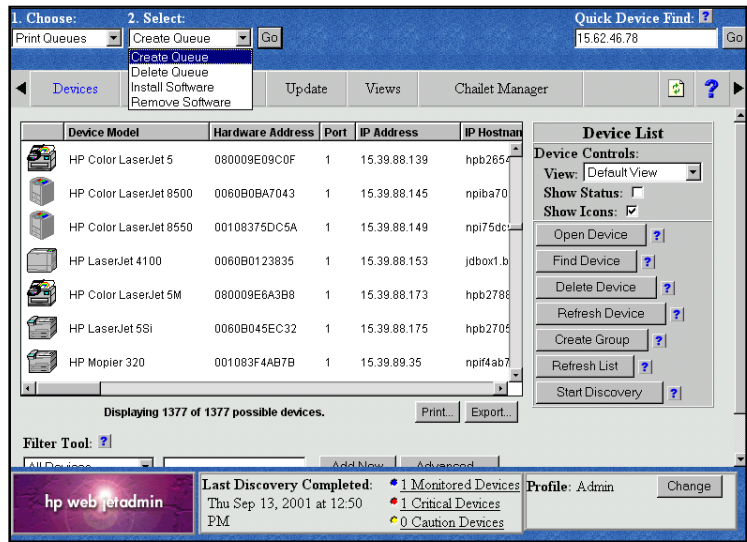the keyboard while clicking on servers will allow for selecting more than one. For every server that is selected, all printers selected in the previous box will have print queues created on that server.

Once the desired printers and servers have been selected, click the *Add* button under *Add to Workspace* to add them to the box below. Each combination of printer/server will appear in the box below depending upon which printers/servers were highlighted. This step of selecting printer/server combinations can be repeated until all printers of that particular model that require print queue installation have been selected and assigned to a server.

If a mistake is made, the *Clear* or *Clear All* buttons can be erased to erase entries.

When all selections have been made, click the *Next* button to move to the next screen where drivers can be selected.
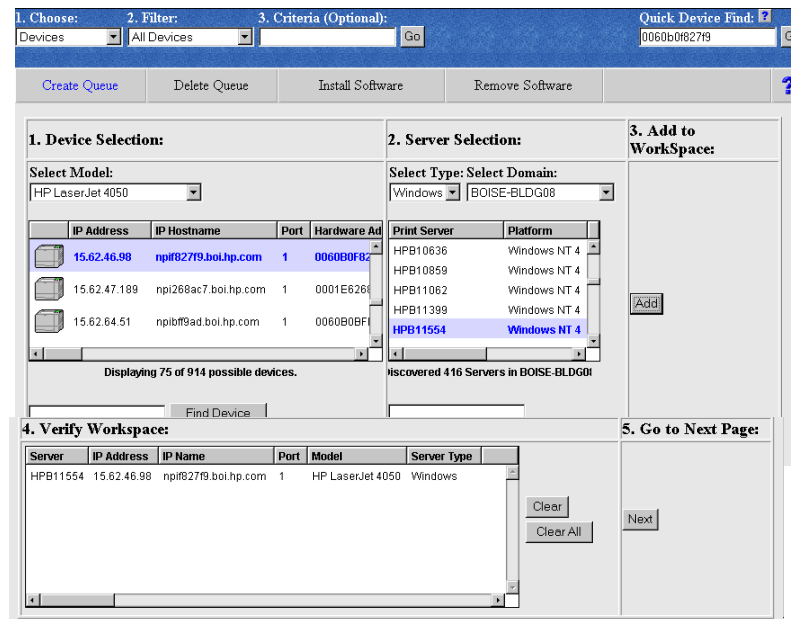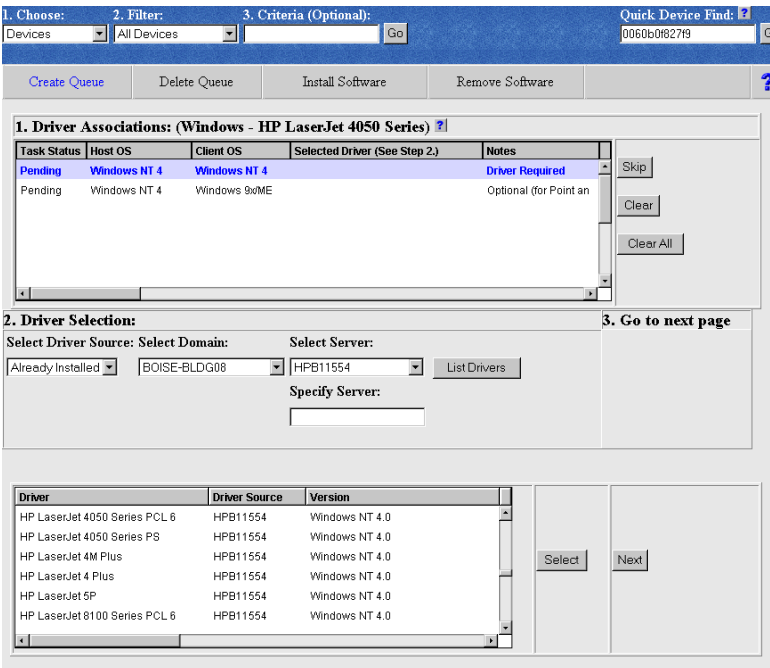
Queue tab from the *Status* page of a device. If accessed from a device *Status* page, the device will already be highlighted in the *Device Selection* box (see Figure 2).

As many printers as desired can be selected by holding down the CTRL key on the keyboard while clicking on printers. If a desired printer does not appear in the list, or if the list is long and performing a quick search would be faster, the printer can be entered in the box below next to the *Find Device* tab. The printer can be entered as:

- IP address
- IP hostname
- IPX address
- Hardware address

HP Web Jetadmin will first attempt to find the printer in the list provided. If the printer is not in the list, HP Web Jetadmin will search the network for the printer.

Note: The creation of print queues can only be performed

one printer model at a time. An error will occur if another printer model is selected and attempted to install.

Once all desired printers have been highlighted, the servers where the print queues will be created must be selected. Again, holding down the CTRL key on

Figure 2

Figure 3

The *Driver Selection* box allows for installing drivers from either:

- a machine where drivers have previously been installed.
- a shared source of driver installation files (*.inf).

Selecting *Already Installed* under *Select Driver Source* will allow for installing drivers from any machine on the network where drivers have previously been installed (see Figure 3). The server and domain can be selected from the respective drop down boxes, or the server can be manually entered under the *Specify Server* box.

Selecting *Have Disk* under *Select Driver Source* will allow for installing drivers from shared directories of *.inf driver files (see Figure 4). Since HP Web Jetadmin is a web based tool and can be operated from a remote machine through a browser, the location of the *.inf files must be a shared location. There is no method for a machine browsing a Web Jetadmin machine to see any local or mapped drives on that
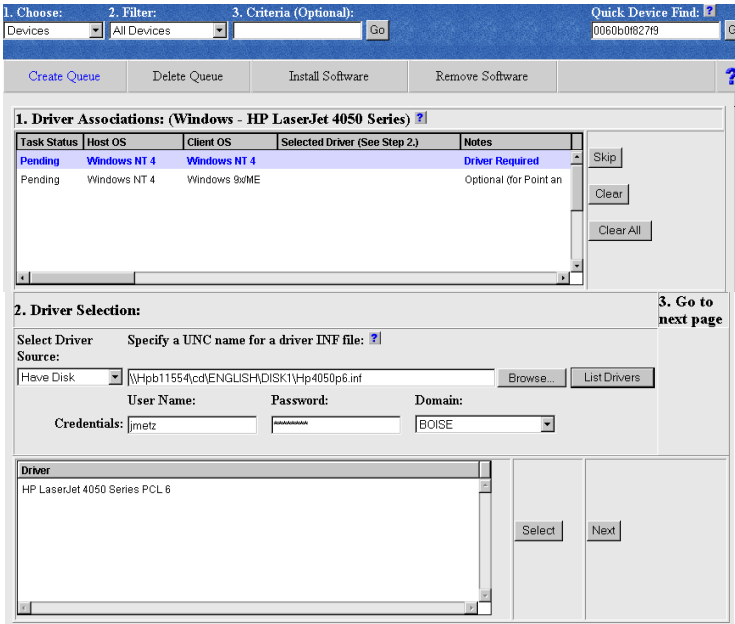
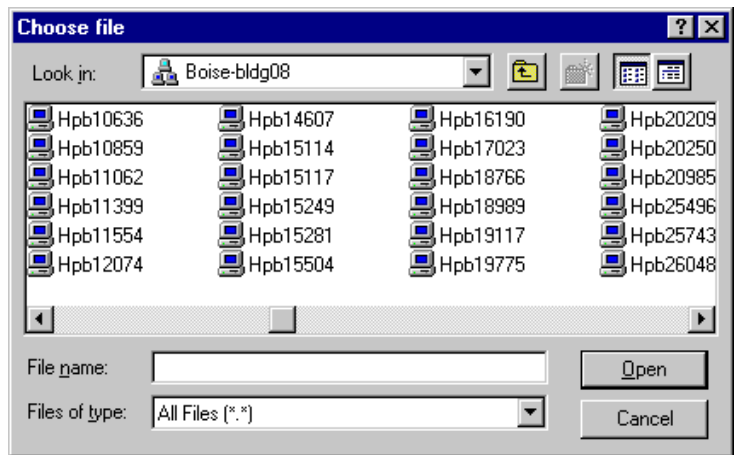HP Web Jetadmin will also at this time install the HP TCP/IP Standard Port Monitor onto the machines where print queues are to be created if the port monitor does not already exist on those machines or is an older version. Administrative rights will be required if the port monitor is to be installed because the spooler will be stopped/restarted and files will be copied to the machine. If the port monitor is already present, only print operator rights will be required in order to create the printer.

Install Drivers

Once the printers and print servers have been selected, the proper printer drivers must be installed for the print queues (see Figure 3).

The *Driver Associations* box will indicate which drivers are required for installation each operating system that can map to the

shared printer. For example, , Windows 9x drivers can be optionally copied to the print server to be used for any Windows 9x client machines mapping to the printer and utilizing Point and Print.

Figure 4

Figure 5

the shared printers by using the following UNC for the network connection:

\\print server name \ printer share name

Additional Functionality

In addition to creating print queues, HP Web Jetadmin also provides the following functionality when accessing the *Print Queues, Create Queues* tab (see Figure 1):

- Delete queue – removes print queues from the print server machine.
- Install software – only installs the HP TCP/IP Standard Port Monitor onto the print server machine. This will allow for individuals who only have print operator rights to later create print queues on the print server machine.
- Remove software – removes the HP TCP/IP Standard Port monitoir and any related services from the print server machine.

Summary

Print queue creation under Windows NT/2000 is intended to ease the task of new printer installation and configuration. HP Web Jetadmin can install a single print queue or multiple print queues all in a single step, saving time for administrators and print queue operators.
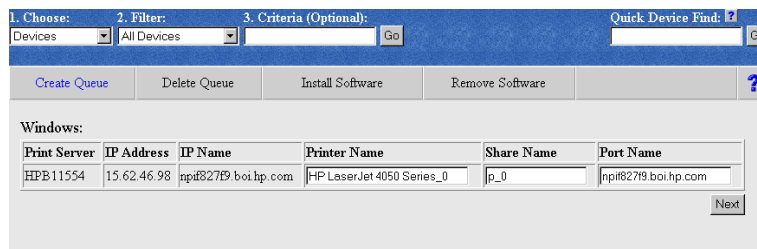
Web Jetadmin machine. However, shared drives are visible to all machines on the network with proper credentials.

The location of the driver files can be manually entered on the line provided and must be entered in UNC format (\\server name\share name). The *Browse* button can also be used for browsing to the location of the driver files. It is highly recommended to only browse to *Network Neighborhood* (Windows NT) or *My Network Places* (Windows 2000) in order to ensure that the directory being selected is a shared directory and that the path will automatically be entered in UNC format (see Figure 5). Administrator credentials must be entered under *User name, Password*, and *Domain* in order to install from the driver *.inf files.

Clicking the *List Drivers* button will display the available drivers from the source selected. Highlight the desired driver and click the *Select* box. The status of the highlighted item under *Driver Association* above should change colors to green to indicate that a proper driver has been selected for that operating system.

A driver can be installed for each operating system under the *Driver Association* section by highlighting the item and selecting a driver below. Items can be skipped by selecting the *Skip* button. If no optional drivers need to be installed, click the *Next* button to move to the next screen where print queue names are created. A warning screen may appear if no optional drivers are installed, and clicking *OK* will bypass the warning.

Name Print Queues

The final step in creating a Microsoft Windows print queue is providing the printer name, share name, and port name (see Figure 6). Once the *Next* button is clicked, the print queue creation process is complete. A results page will indicate successes and failures. Clients can now map to

Figure 6