



USING MANAGED PRINTER LISTS

for the HP Universal Print Driver with HP Web Jetadmin

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INTRODUCTION

In enterprise environments where print policy is managed using Microsoft® Active Directory Group Policy and the HP Universal Print Driver (UPD), administrators must be able to create Managed Printer Lists. This paper describes how to create and deploy Managed Printer Lists (MPLs) for HP UPD version 4.7 and later, using HP Web Jetadmin 10.1 and later.

OPERATION OVERVIEW

The Managed Printer List (MPL) is an XML file that is placed on an HTTP web server somewhere on the enterprise network. In the following example, that HTTP web server is assumed to be on the same physical computer as the one where HP Web Jetadmin is installed. At print time, the HP Universal Print Driver performs an HTTP “GET” to the server to download the XML file. The URL string where the XML file is located is entered by the print administrator into the Administrative Template, and is stored in the windows registry on the computer where the HP UPD is running.

Assumptions

It is assumed that the administrator already knows how to discover devices and to create device Groups using HP Web Jetadmin (WJA). For more information, see the white papers, “Discovering devices in HP Web Jetadmin” and “Best practices for managing your assets using HP Web Jetadmin” at www.hp.com/go/wja.

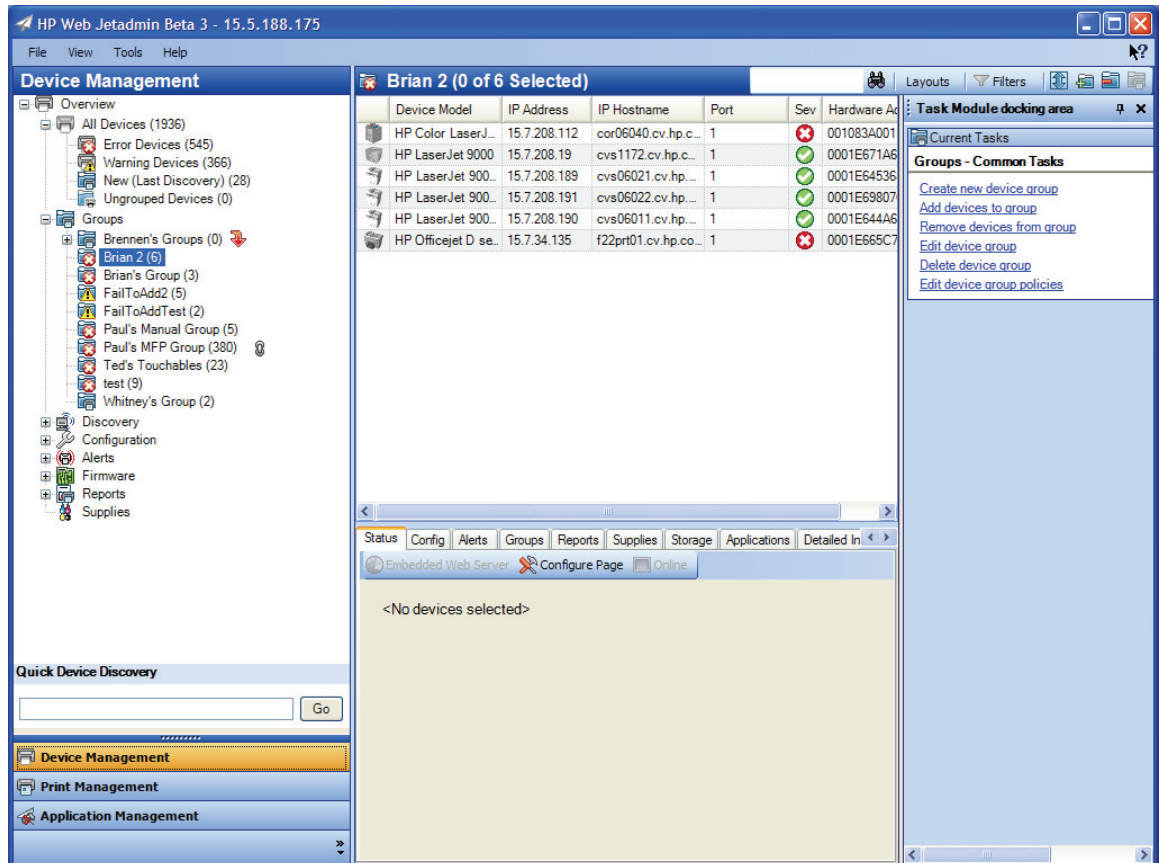


Figure 1—Sample device group (named “Brian 2”) containing six devices

NOTE **Device Name** is a required field in HP UPD MPLs. If it is undefined for a particular printer, the HP UPD will not show that printer when displaying the MPL. To verify that **Device Name** is defined for all printers in the group:

- Right click the toolbar at the top of the displayed group.
- Make sure that there is a checkbox next to **Device Name**.
- Examine the **Device Name** column, making sure that **Device Name** is defined for all printers in the list.

EXPORTING DEVICE GROUPS AS XML MANAGED PRINTER LISTS

Within HP Web Jetadmin, select **Groups** in the **Device Management** area.

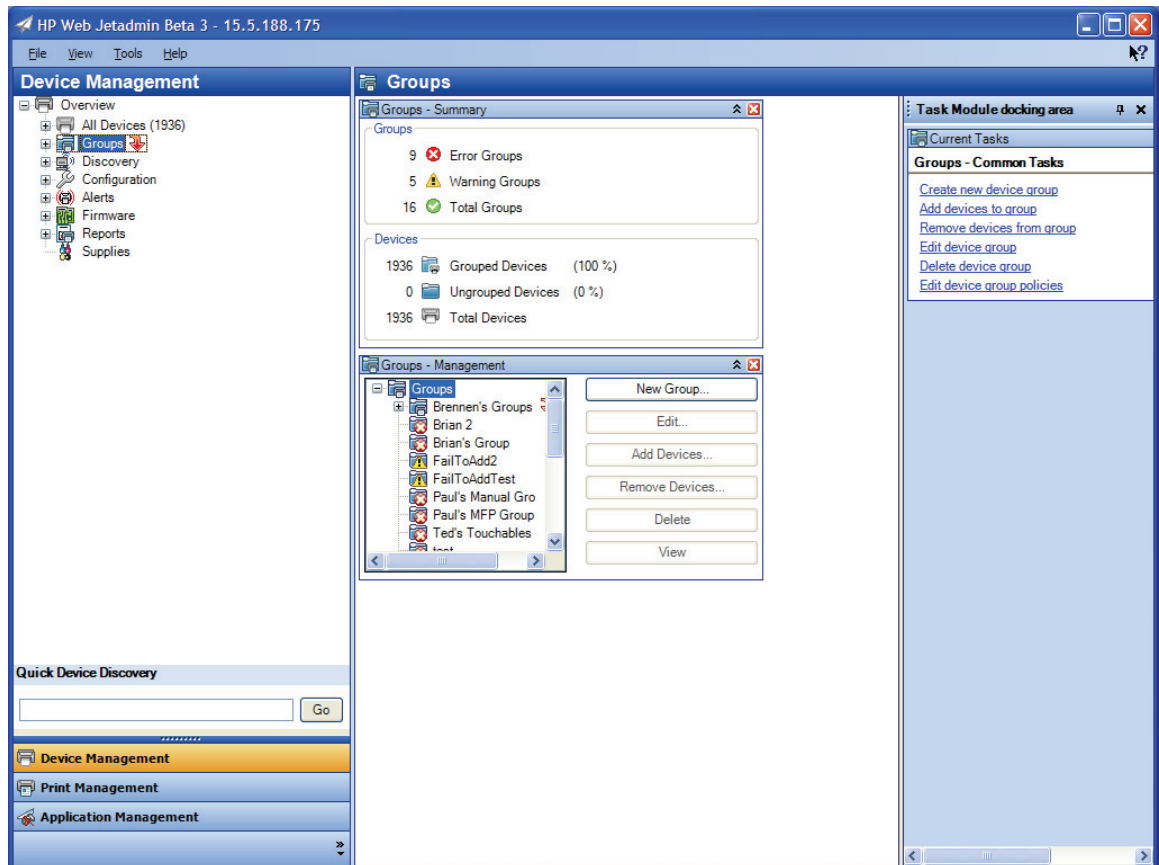


Figure 2—Select **Groups** in the **Device Management** area

On the menu bar, select **Tools > Export Devices**.

Set **Threshold** to **Missing Items** (see Figure 3 on the next page). This will instruct HP WJA to query the device directly for any information that is not currently in the database.

From the **Available Columns** list, make sure that the following required items are in the **Selected columns** list:

- Device Name—Configured in device
- Device Model—Not user configurable, referred to as Display Name in XML
- IP Address or IP Hostname

Click **Next**.

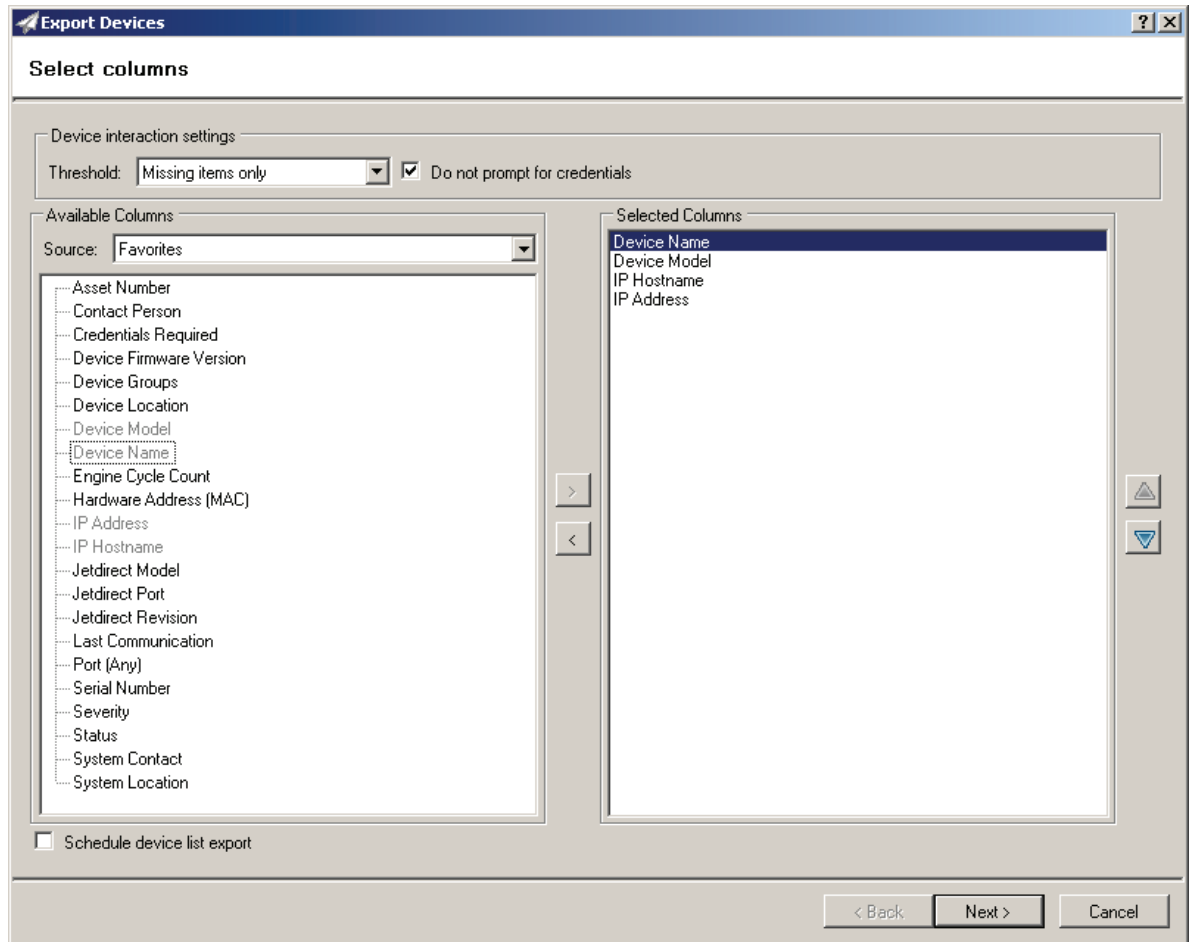


Figure 3—Choose which columns to include

Select **Groups** as the **Selection method**. (See Figure 4 on the next page.)

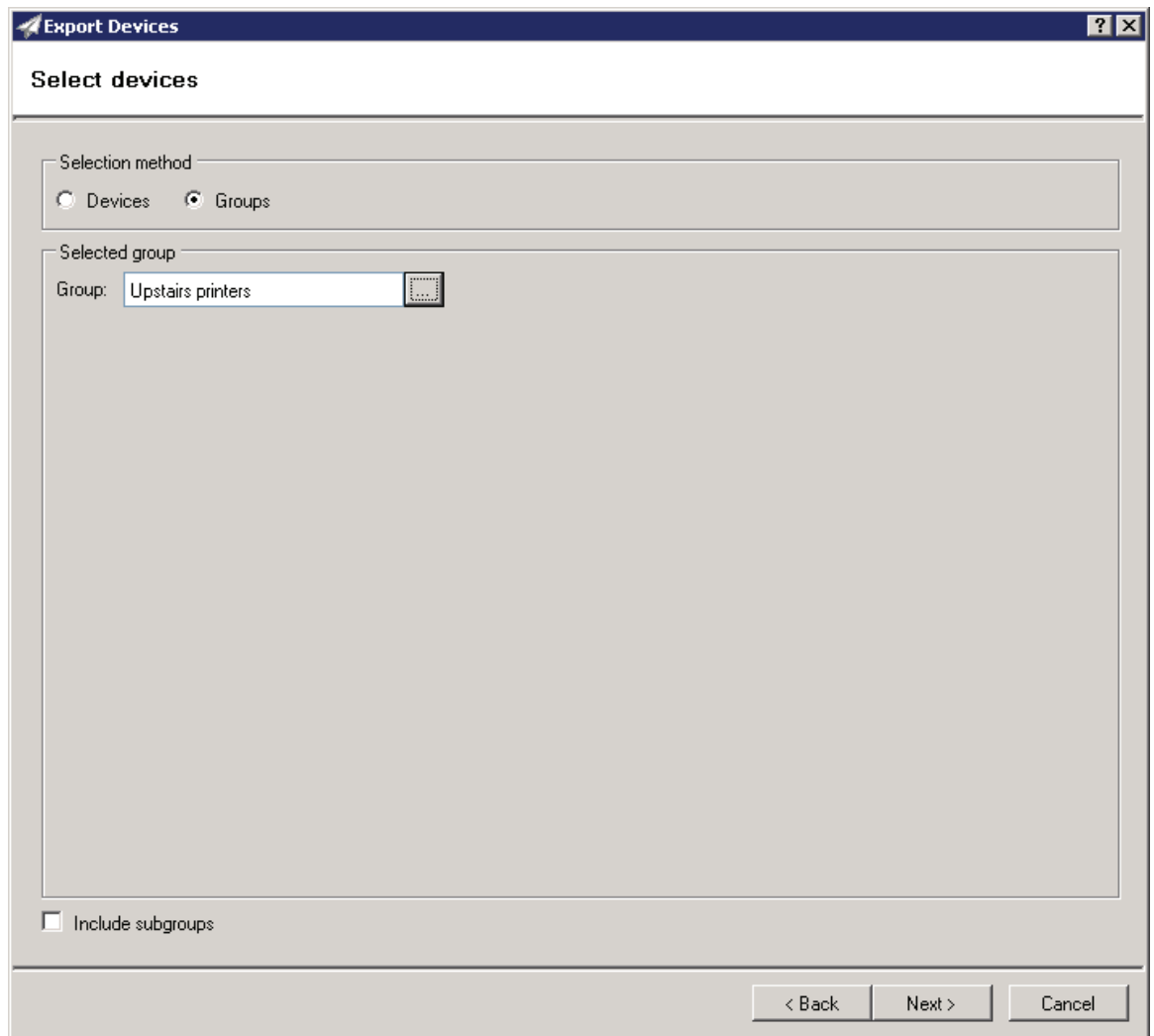


Figure 4—Select Groups as the section method

Select the name of the group you want to export in the dropdown box.

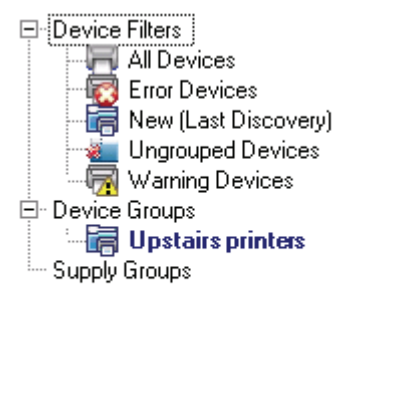


Figure 5—Select the name of the group you want to export

Click **Next**.

Specify destinations settings by entering the name of the local file. (The path will be entered later on another screen.) Select **Local file** and **XML** (see Figure 6 on the next page). Click **Next**.

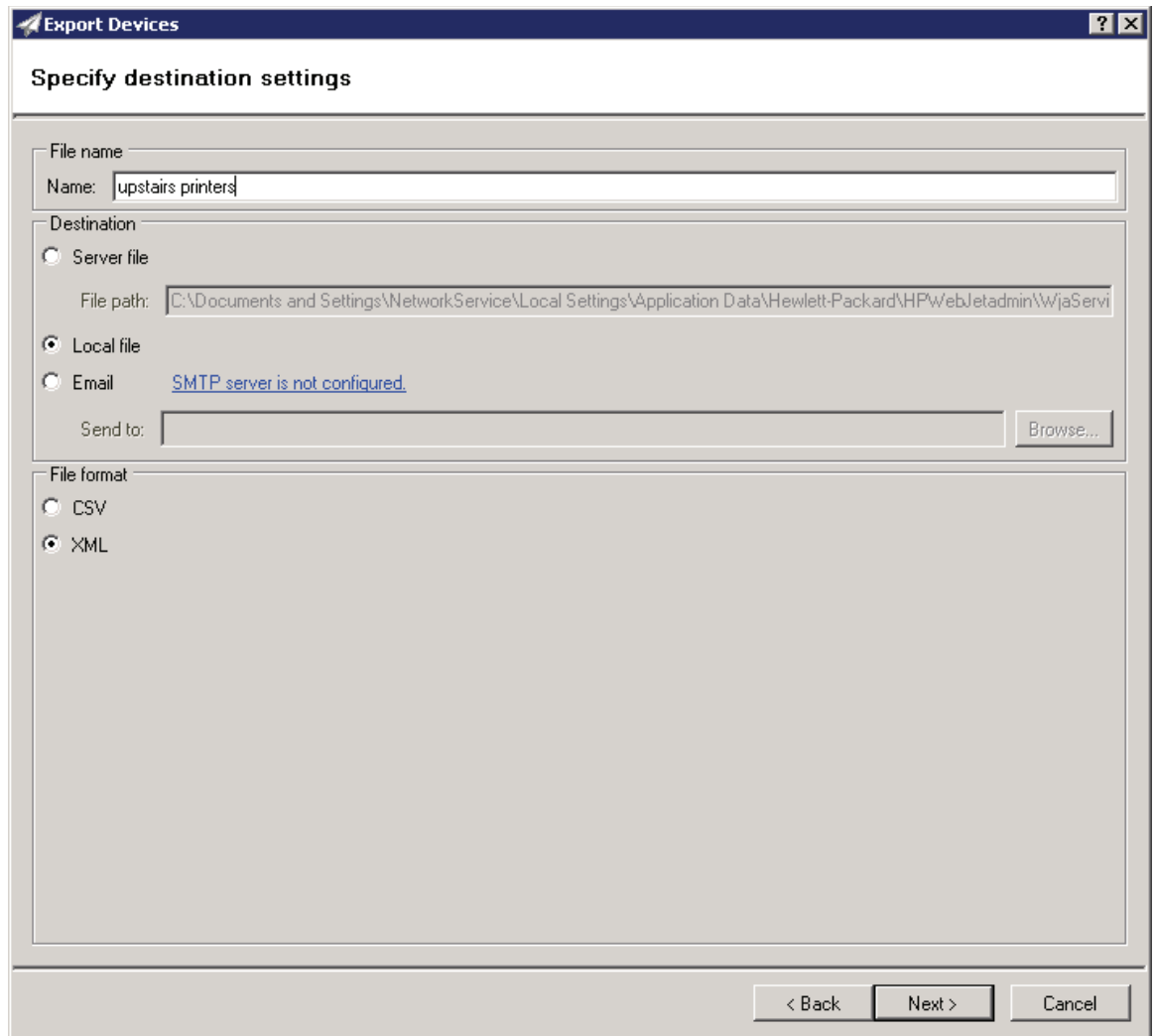


Figure 6—Specify destination settings

To confirm, click **Start Export**. (See Figure 7 on the next page.)

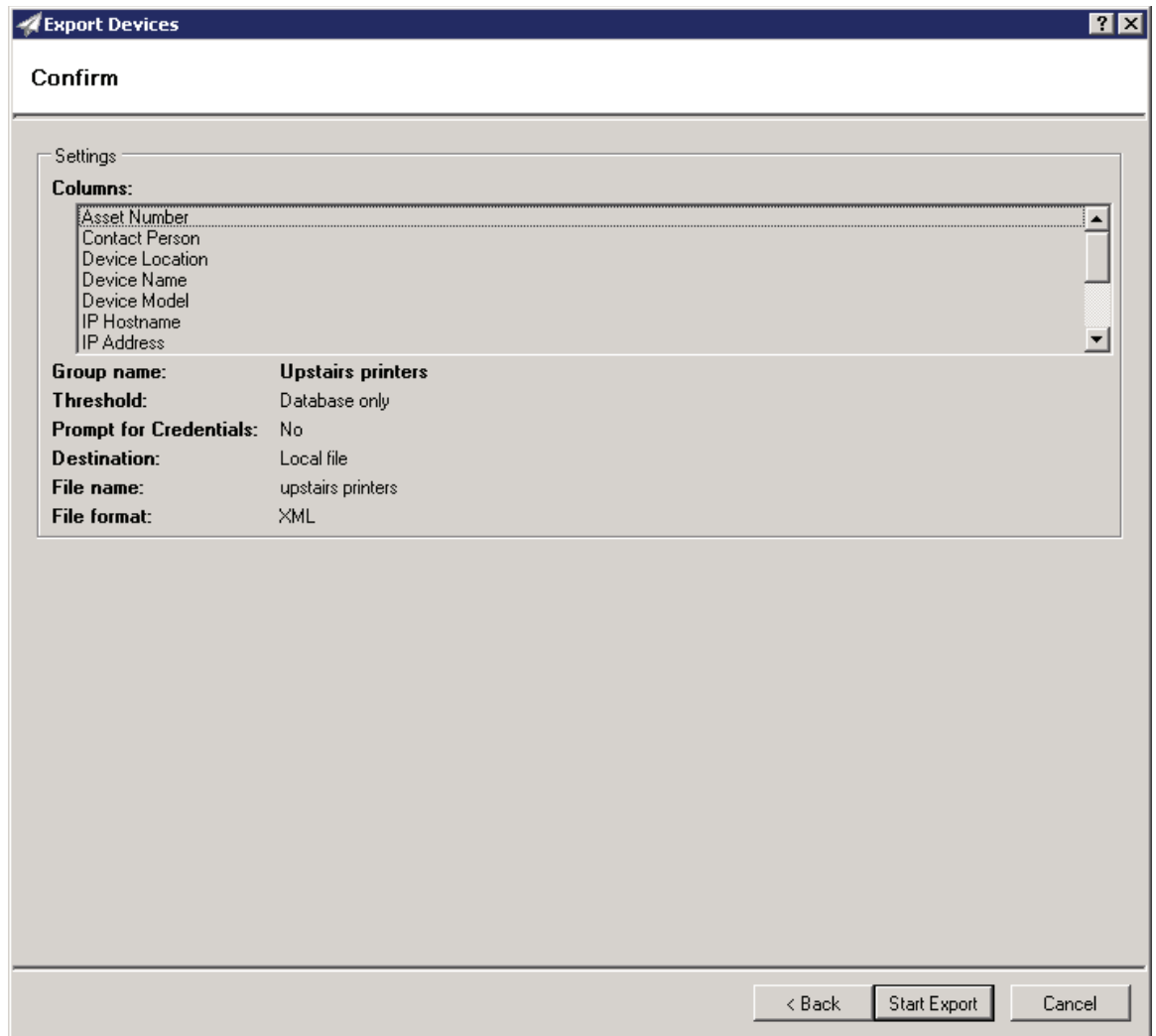


Figure 7—Confirm to start the export

Save the Managed Printer List one of two ways, depending on which version of HP Web Jetadmin you are using (see Figure 8 on the next page):

- **WJA 10.1**—Create a path to a file share on the web server that will be accessed by the HP UPD.
- **WJA 10.0**—Since HP Web Jetadmin 10.0 cannot access network shares, the MPL must be saved to a directory on the hard drive of the server where HP Web Jetadmin is installed. If Microsoft IIS or some other HTTP web server is installed on the same server as HP Web Jetadmin, then this directory should be one of the directories that are accessible via HTTP from the client running the HP Universal Print Driver.

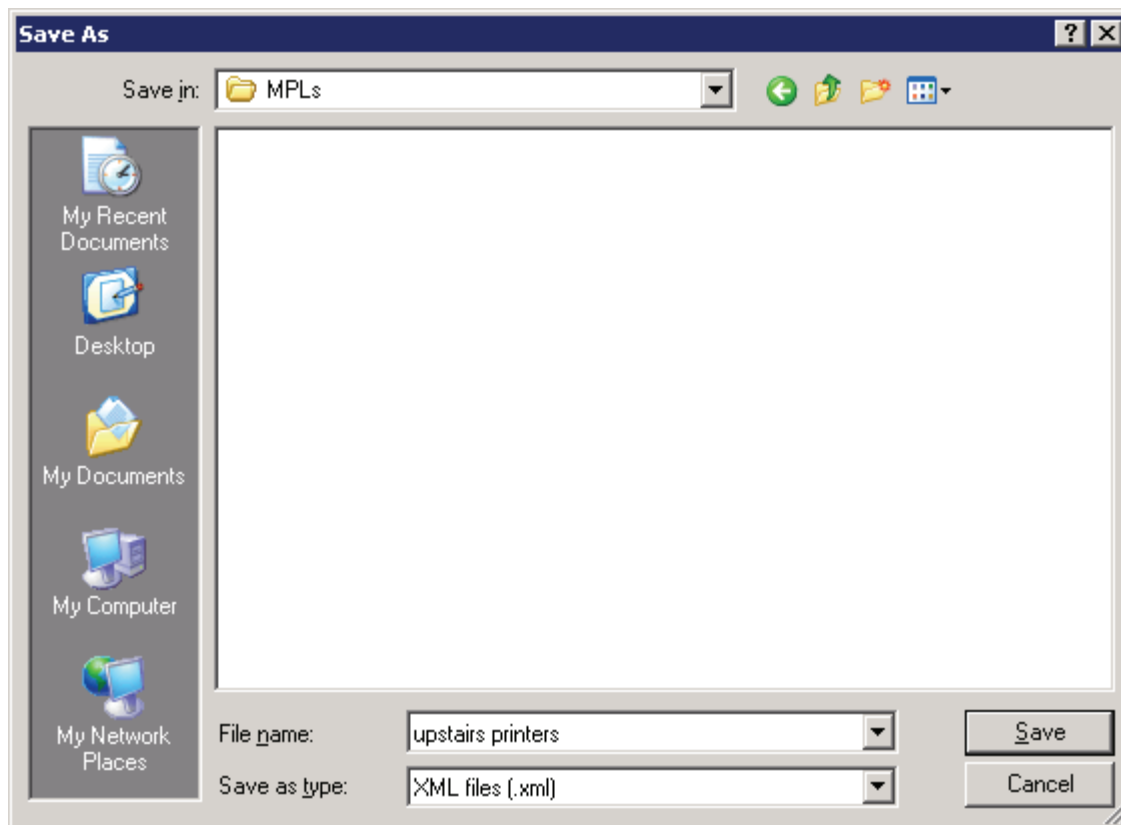


Figure 8—Select where to save the Group

See Figure 9 for a sample exported HP Web Jetadmin Managed Printer List file.

```

<Devices>
  <Device>
    <DeviceName>HP LaserJet 4000 Series</DeviceName>
    <DisplayName>HP LaserJet 4000</DisplayName>
    <IPv4Address>15.62.43.220</IPv4Address>
    <IPHostname>hpb25206.boi.hp.com</IPHostname>
    <PortDisplayString>1</PortDisplayString>
    <DeviceStatusSeverity>Ready</DeviceStatusSeverity>
    <MacAddress>00306ECDAD95</MacAddress>
    <DeviceLocation>8U Near Cubicle</DeviceLocation>
    <DeviceGroupMembership>Multiple</DeviceGroupMembership>
  </Device>
  <Device>
    <DeviceName>hp color LaserJet 4600</DeviceName>
    <DisplayName>HP Color LaserJet 4600</DisplayName>
    <IPv4Address>15.62.41.234</IPv4Address>
    <IPHostname>mac4650six.boi.hp.com</IPHostname>
    <PortDisplayString>1</PortDisplayString>
    <DeviceStatusSeverity>Ready</DeviceStatusSeverity>
    <MacAddress>0030C18C424F</MacAddress>
    <DeviceLocation>8U Near Cubicle</DeviceLocation>
    <DeviceGroupMembership>Multiple</DeviceGroupMembership>
  </Device>
</Devices>

```

Figure 9—Sample exported HP Web Jetadmin Managed Printer List file

CONFIGURING THE ADMINISTRATIVE TEMPLATES

Please refer to the HP Universal Print Driver System Administrators Guide for instructions on how to install and use the HP Administrative Template to create group policy.

To configure the Administrative Template, select Managed Printer List Settings. Select **Enabled**. Under **Custom MPL Count**, enter the total number of MPLs that you have configured. Be sure to leave **HP MPL Only** unchecked.

HP recommends that the **Name** is the same as the HP WJA device Group name, but it may be changed to whatever you want displayed in the HP UPD user interface to identify this printer list.

The **Path** is the network path or URL that points to the file you saved earlier. In Figure 10, the example used is: "http://192.168.1.99/hpml/bonus_room_upd_mpl.xml". Please note:

- The protocol used is HTTP. If the directory is secure and requires HTTPS, the MPL load will fail.
- Use the IP address of the HTTP server. Alternatively, the server name can be used if DNS or some other name resolution service is available.
- The name of the file follows the IP address or server name. The network path to the file is different from the local drive path that you entered in HP WJA.

Set the **Type** to "Web Jetadmin XML MPL".

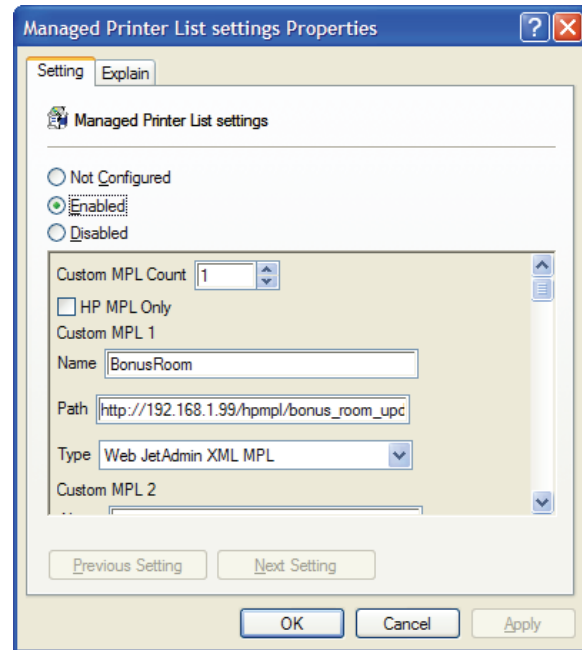


Figure 10—Managed Printer List settings

VERIFYING SUCCESSFUL MPL CONFIGURATION

To verify that the MPL has been configured correctly in Active Directory Group Policy, select **File > Print** from any application.

Select the HP Universal Print Driver. Click **OK**.

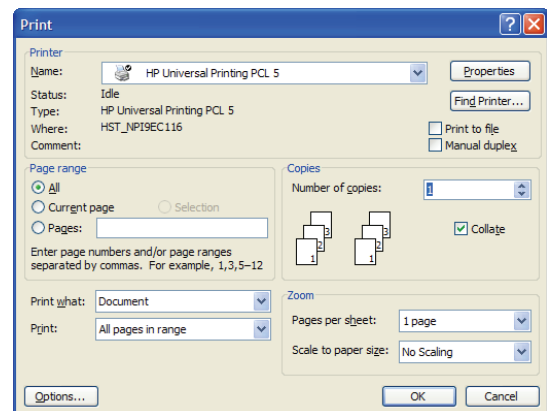


Figure 11—Printing from the HP Universal Printing Driver

In the **Find a printer** section, you should see the name of the device Group that you entered into the Administrative Template. In this case, the name is “Bonus Room”. Double-click the Group that you created.

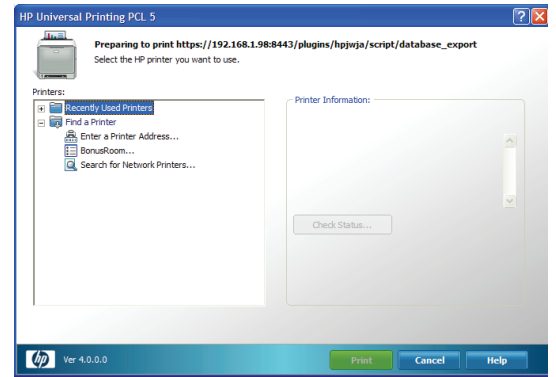


Figure 12—Find a printer

You should see all the printers in the HP Web Jetadmin device Group that were in the exported XML file.

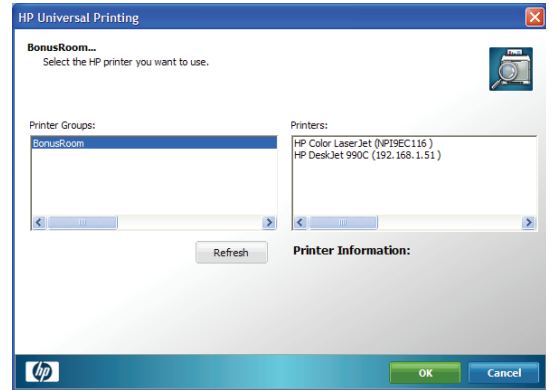


Figure 13—All printers listed under device Group

TROUBLESHOOTING

Problem: The printer list is empty

Network printers may be disabled in the Group Policy for searching for and using printers. Verify that Network printers is checked in **User Search Capabilities Properties** in the Administrative Template (Figure 14).

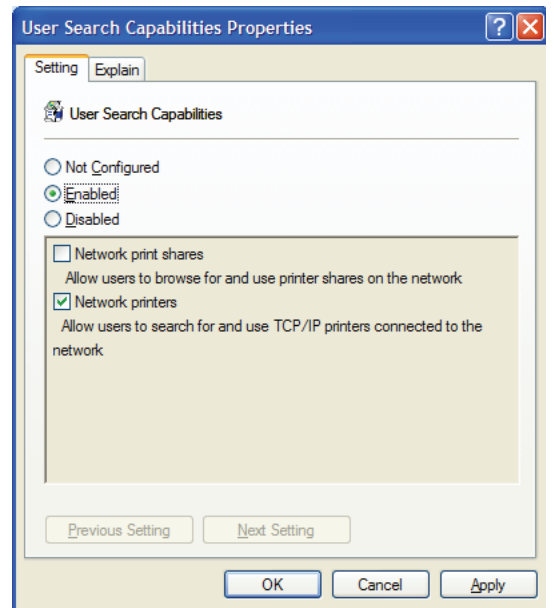


Figure 14—Check Network printers

Problem: Policy is not enabled in the HP UPD

Verify that **Enable Policy for all users** is checked.

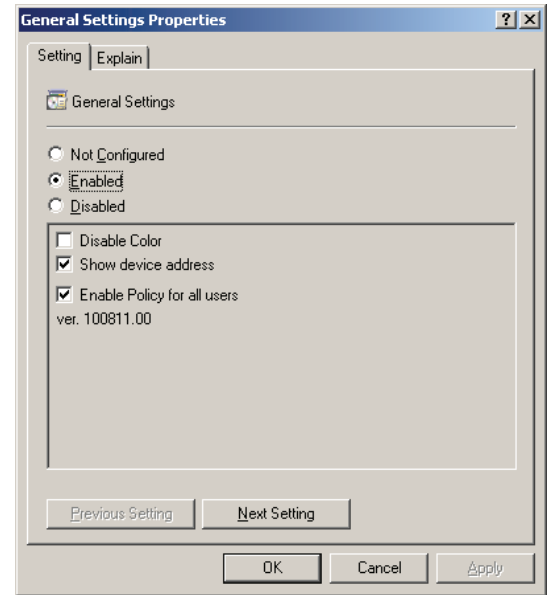


Figure 15—Enable Policy for all users

Problem: Administrative Template settings are not being applied

Check the registry key to verify that the key "HKCU\Software\Policies\Hewlett Packard\HP Print Settings\ADSPrintPolicy" is present (Figure 16).

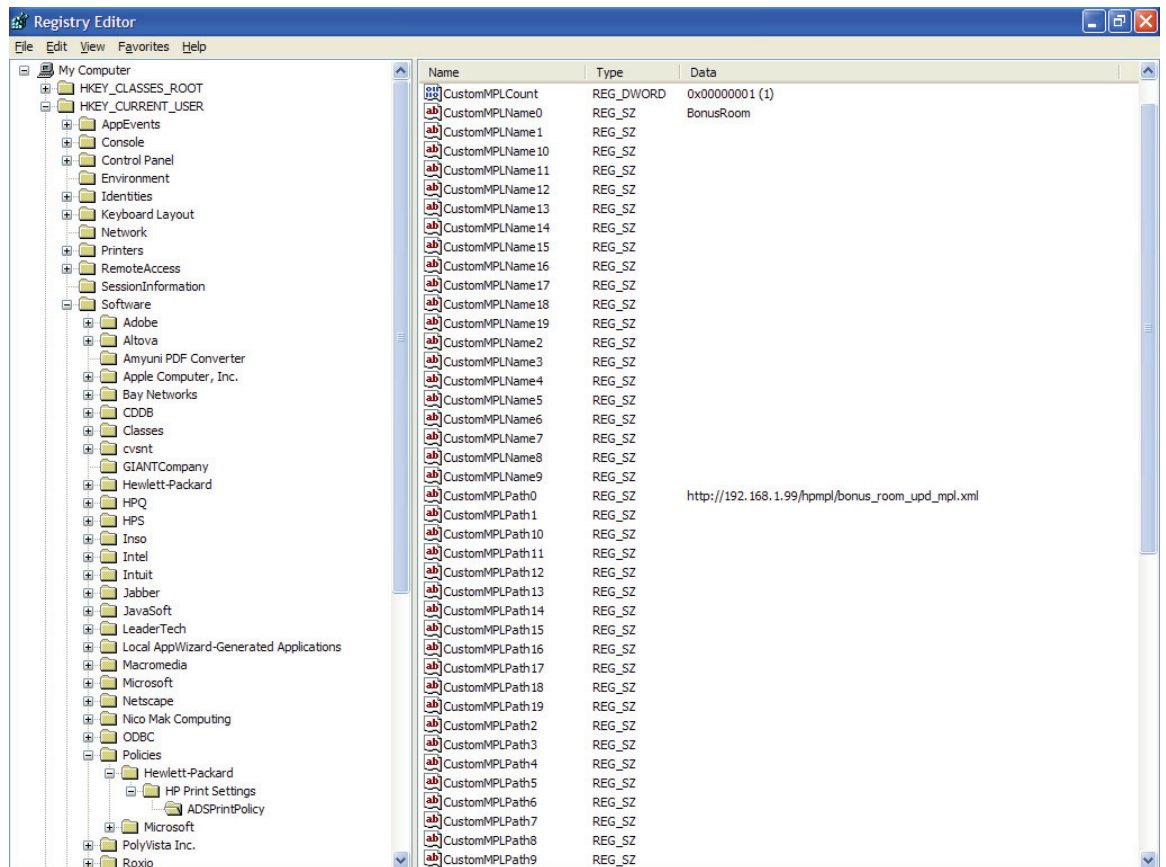


Figure 16—HKCU\Software\Policies\Hewlett Packard\HP Print Settings\ADSPrintPolicy

Problem: The registry includes the wrong settings

- Verify that the registry settings are as intended. In particular, inspect the key “CustomMPLPath0”. If the path is not the same as the one entered in the Administrative Template, or if the key is missing, your group policy settings are not being applied.
- Verify that the CustomMPLCount is correct.
- Verify that the CustomMPLType is “0x00000001”.
- Verify that you are logged into the domain.
- If the previous steps do not solve the problem, contact your IT administrator for further assistance.

Problem: The HTTP server is on a different subnet than the HP UPD and is not accessible

To determine whether the HTTP server is accessible from the client PC, use the ping command to determine whether the HTTP server responds.

Open a command window, then type “ping <IP address of HTTP server>”.

Problem: The MPL file cannot be downloaded

Once it has been determined that the server is accessible, the next step is to see whether the MPL file is there and can be retrieved.

Open a browser and in the address bar enter the same path that was entered in the Administrative Template, under Managed Printer List settings Properties (see Figure 17).

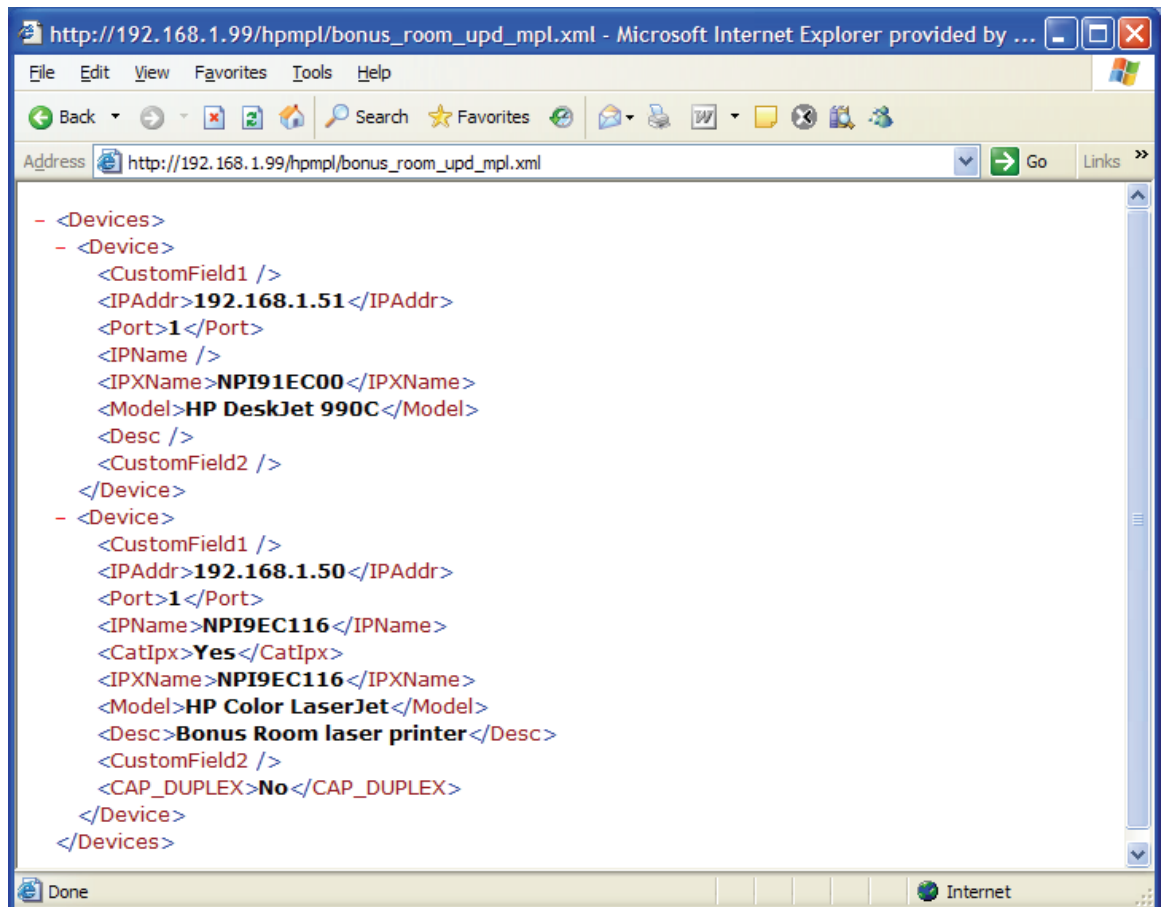


Figure 17—Verifying the MPL exists

If your browser display is similar to the one shown in Figure 18, the HP UPD should be able to reach the HTTP server.

If the browser says the page cannot be found:

- If you are using the hostname of the HP Web Jetadmin server, try using the IP address instead. If this works, then you have a DNS or name resolution issue on your network. Contact your network administrator.
- Make sure that the URL is correct. Verify that you are using HTTP, the correct hostname/IP, and the correct file name with .XML extension.

Problem: One or more printers are not showing up in the MPL

The exported Group XML file is missing required information. Open the XML file exported from HP Web Jetadmin and verify that Device Name and Display Name have a defined value. For example:

```
<DeviceName> HP Color LaserJet 3800</DeviceName>  
<DisplayName> HP Color LaserJet 3800</DisplayName>
```

Next verify that IP Address or IP hostname is defined. It is acceptable for both to be defined. For example:

```
<IPHostname></IPHostname>  
<IPv4Address>192.168.1.51</IPv4Address>
```

APPENDIX A: XML TAG EQUIVALENCIES

The following table shows the XML element names used by HP Web Jetadmin, and how the information in those elements is displayed by the HP Universal Print Driver.

Required information is displayed in **bold** type.

MPL Tag Name	WJA 8	WJA 10.x	Display
PrinterName		DeviceName	Yes
PrinterModel	Model	DisplayName	Yes
IPAddress or UNCPath or Hostname or IPXSPXAddress (only one can be used)	IPAdd or IPName or IPXName	IPv4Address or IPHostname	Yes
duplexunit	CAP_DUPLEX	n/a	
harddisk	CAP_DISK	n/a	
Comment	Desc		Yes
Location		SystemLocation	Yes
GroupName		DeviceGroupMembership	Yes

