

# DC Tips

*... for the user*

dc02cc0299  
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## *Upgrading Document Centre Printer Drivers in a Windows Environment*

### **Purpose**

This document provides recommended procedures to perform operations related to Xerox Document Centre printer drivers in Microsoft Windows operating systems. Currently, Xerox does not recommend use of the NT PCL Standard printer driver. This document does not contain upgrade or change procedures for this printer driver.

The document is divided into the sections described below.

- "Preparing to Upgrade or Change Printer Drivers." This section contains information and procedures to help you determine prerequisites to the upgrade or change process.
- "Upgrading Drivers." This section contains tables and procedures to replace your current driver with a new version.
- "Changing Drivers' Printer Description Language." This section contains tables and procedures to change the printer description language (PDL) of a printer driver.



**IMPORTANT:** Information identified in the "Preparing to Upgrade or Change Printer Drivers" section later in this document and entered on the worksheet located at the end of this document, is vital to determining the upgrade or language change procedure appropriate for you. Read the sections applicable to the operation you are performing before you carry out a procedure. If you have any questions, call your Customer Support Center.

This document applies to these **Xerox** products:

x	DC 555/545/535 ST
x	DC 490/480/470/460 ST
x	DC 440/432/425/420 ST
x	DC 340/332 ST
x	DC 265/255/240 ST/LP
x	DC 230/220 ST/LP
	DCCS 50

### **Conventions Used in this Document**

- Successive selections in a menu path appear in square brackets, separated by colons, for example: Select [**File:Open**].
- Any verbatim element of an application, such as, button names, field names, menu selections, and dialog box names, appear in bold type, for example: Click **Continue**.
- Buttons are clicked. Menu items or other elements of an application are selected, for example: Select [**Start:Run**], when prompted click **OK**.

# Preparing to Upgrade or Change Printer Drivers

Determining the upgrade or change procedure appropriate for you is not an intuitive process. This document is written and organized for use with the accompanying worksheet. To complete the upgrade or change process successfully, proceed through this document sequentially and use the worksheet when indicated.

## Types of Driver Installations

You can install drivers in Windows operating systems using one of these configurations. It is important to the upgrade or change process that you know how your driver is installed.

- Client-Direct-to-Printer. The client prints directly to the printer either using a parallel printer cable or a network connection without a server.
- Client/Server. The printer driver resides on a server and automatically transfers to the client when the shared printer is installed on the workstation.

In a Client/Server driver installation, an upgrade or PDL change is easier when the client and server have the same version of the Windows operating system. Because of the way Windows saves and stores drivers, a layer of complexity is added when the client and server share printers and have different versions of the Windows operating system. The upgrade and PDL change procedures found later in this document contain instructions based on procedures in the Microsoft Knowledge Base.

## Driver Upgrade or PDL Change Prerequisites

Before you upgrade or change the PDL of a printer driver, print the worksheet at the end of this document to record the following information:

- On your worksheet, record the version of the operating system described in the scenario below that applies to you:
  - If you are using Windows NT or 2000 on the server or workstation where the upgrade or PDL change is to take place, enter one of these operating systems for the first prerequisite on your worksheet. Most likely you know this information. If not, double-click the **My Computer** icon on the systems' desktop. Select **[Help>About]** to display the **About Windows** dialog box that lists the current Windows version.
  - If you are changing the operating system of the printer driver, enter the operating system to which you are changing as the first prerequisite on your worksheet. For example, the appropriate worksheet entry for changing from CenterWare 5.x NT Enhanced driver to a Windows 2000 CentreWare 5.3 driver is Windows 2000.
  - If you are upgrading or changing clients using Windows 9x, enter Windows 9x for the first prerequisite on your worksheet.
- The operating system, version number, and PDL of your current printer driver.
  - If you use Windows 9x (95/98/ME), your driver is for the Windows 9x operating system (see the table in "The Printer Driver's Operating System"). Record this information on your worksheet, then follow the procedure in the section "Determining Printer Driver Information," to determine driver version number and PDL.
  - If you use Windows NT or Windows 2000, follow the procedure(s) in the section "Determining Printer Driver Information," to determine driver operating system, version number, and PDL. Record the information on your worksheet when you perform the procedure(s).
- The version of CentreWare that includes your current printer driver. After you find your printer driver version number, locate it in the table in the "CentreWare Version Guide" section, to determine your version of CentreWare. Record it on your worksheet.

- The type of installation (Client-Direct-to-Printer or Client/Server described above) used to install the driver you are upgrading. Indicate the type of installation on your worksheet. If you are upgrading or changing a 9x driver in a client/server installation, enter the operating system of the server next to the Client/Server check box.

## The Printer Driver's Operating System

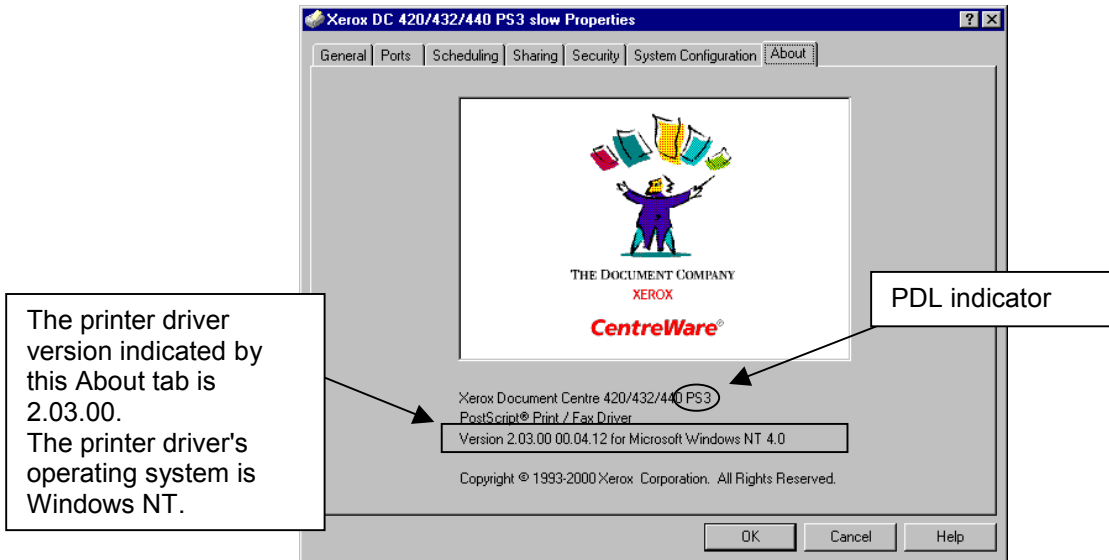
In some cases, the operating system of the server or workstation where the upgrade or change takes place determines the operating system of the printer driver. Refer to the following table:

Operating System of Server/Workstation Where Upgrade/Change Occurs	Potential Printer Driver(s)
Windows 95, Windows 98, or Windows Millennium Edition	Windows 95, Windows 98, or Windows Millennium Edition
Windows NT 4.0	Windows NT 4.0 Standard Windows NT 4.0 Enhanced
Windows 2000	Windows NT 4.0 Standard Windows NT 4.0 Enhanced Windows 2000
Windows XP	Windows NT 4.0 Enhanced Windows 2000

## Determining Printer Driver Information

Use the following procedure(s) to determine your driver's version number, PDL, and operating system. Use the table in the section "CentreWare Version Guide" (later in this document), to identify the CentreWare version to which your driver is associated.

1. Select [**Start:Settings:Printers**].
2. Right-click the Document Centre printer object associated with the printer driver you wish to upgrade or change and select **Properties**.
3. Look for the **About** tab.
  - a. Only Windows 9x and Windows NT Enhanced drivers have an **About** tab. If an **About** tab is available, select it and continue with this procedure.
  - b. If you do not have an **About** tab, you have either a Windows NT Standard or 2000 driver. Skip to the next section "NT Standard and Windows 2000 Drivers," and follow the procedure to determine the driver version number and PDL.
4. Locate the driver version number listed beneath the CentreWare logo.



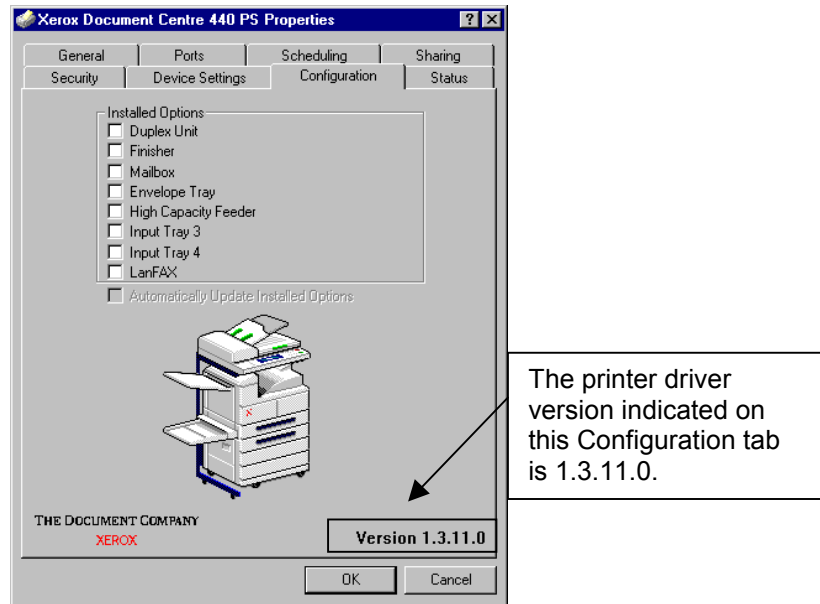
Note the printer driver version number, operating system, and PDL. Record this information on your worksheet using the following format: [Win 9x/NT] [PDL] [version number].

For example, record the printer driver listed on the About tab graphic as:  
NT PS 2.03.00

5. If you have a Windows NT driver, mark the Enhanced box on your worksheet.
6. In the table in the "CentreWare Version Guide" section, locate your driver version and corresponding CentreWare version in which it is included. For example, the DC 420/425/432/440 driver NT PS 2.03.00 is included in CentreWare 5.2SP1. Record the CentreWare version number on your worksheet.

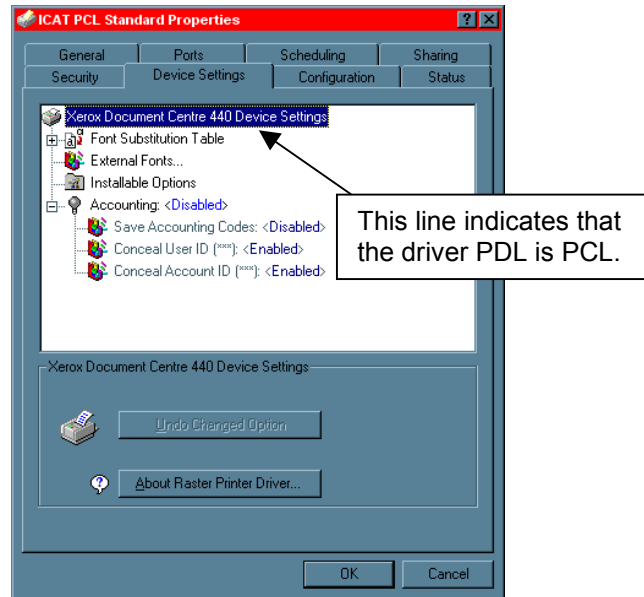
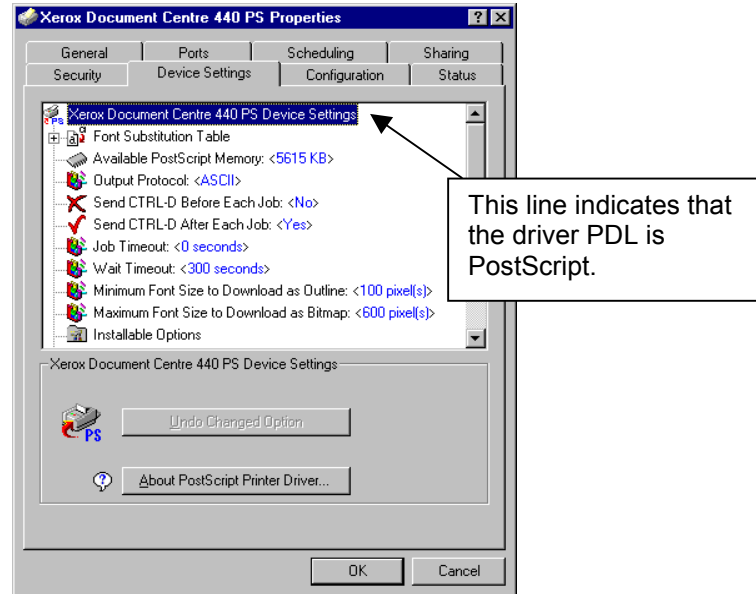
### NT Standard and Windows 2000 Printer Drivers

1. Select the **Configuration** tab. The driver version appears in the lower right-hand corner. Record this information on your worksheet.

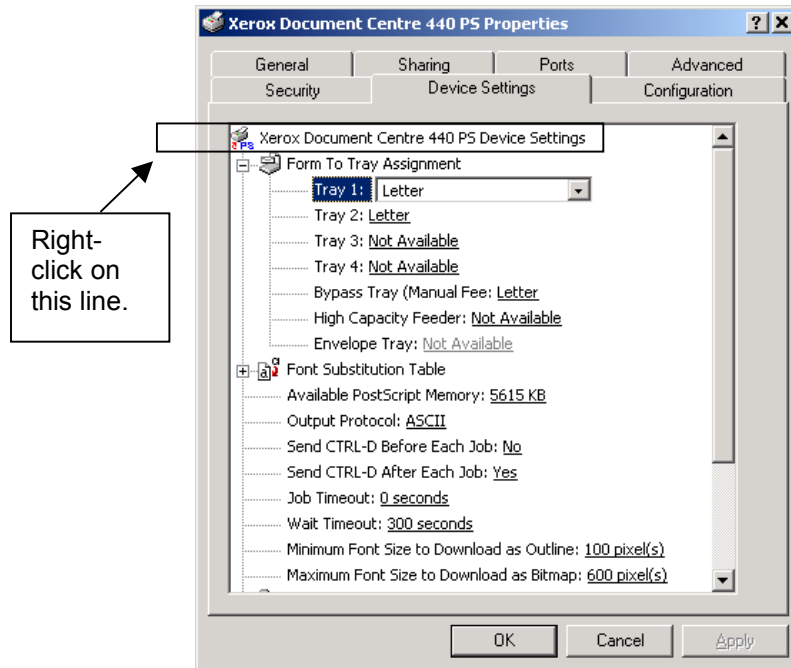


2. Click on the **Device Settings** tab. The tab appears similar to the one below. The first line contains **Xerox Document Center [model number][PDL] Device Settings**. If the PDL is PostScript, PS is included. If the PDL is blank, the driver is PCL. Record this information on your worksheet.

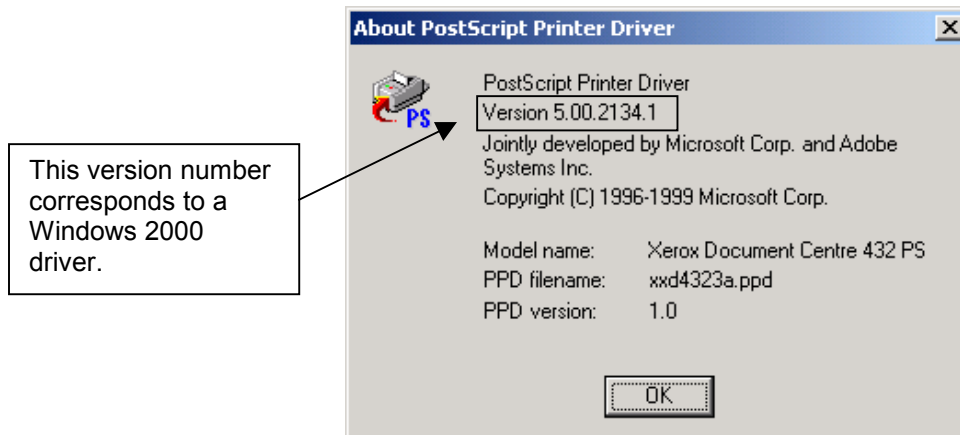
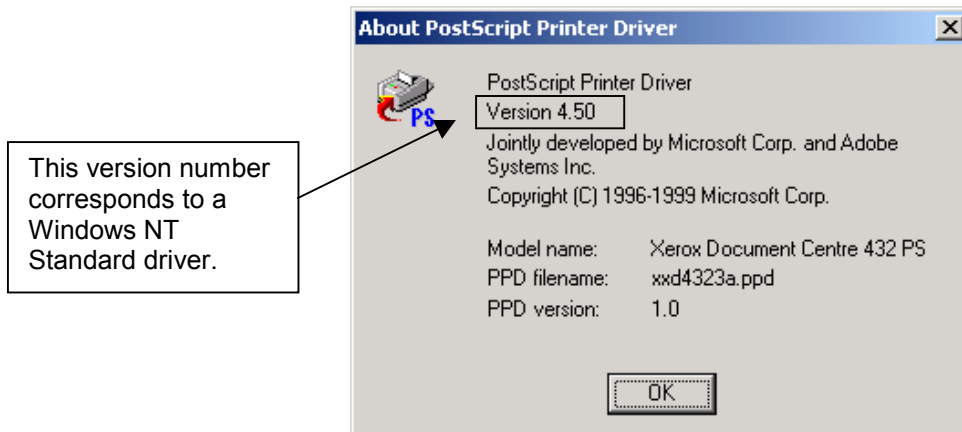
**Note:** Currently, Xerox does not recommend use of the NT PCL Standard printer driver. This document does not contain upgrade or change procedures for this printer driver.



3. Perform one of the following:
  - a. If the **Device Settings** tab does not contain the **About [PDL] Printer Driver** button, continue with step 3b. If it does, click **About [PDL] Printer Driver** and continue with step 4.
  - b. Right-click on the first line.
  - c. Select **About**.



4. A dialog box, similar to one of the following two appears. The version number indicates the operating system of your printer driver. Record this information on your worksheet.



5. Locate the driver version in the following table to determine the CentreWare version in which it is included. For example, the driver NT PS 2.03.00 is included in CentreWare 5.2SP1. Record the CentreWare version number on your worksheet.

## CentreWare Version Guide

Due to printer driver updates, some versions of CentreWare contain more than one printer driver version. To determine which version of CentreWare includes your printer driver, compare the version numbers of the driver you are using from one CentreWare release to the next. If your driver version falls between the versions listed, it is included in the older version of CentreWare. Refer to the table for an example.

**NOTE:** CentreWare 3.0 contains the Windows 9x PostScript printer driver version listed and all those between the Windows 9x PostScript printer driver version listed for CentreWare 3.1. That is, CentreWare 3.0 could include the driver versions: Win 9x PS 1.00.12, Win 9x PS 1.00.13, Win 9x PS 1.00.14, and Win 9x PS 1.00.15. This information applies to any driver listed in the table.

	<b>DC 220/230/332/340</b>	<b>DC 240/255/265</b>	<b>DC 420/425/432/440</b>	<b>DC45x/46x/47x/ 48x/49x</b>	<b>DC 535/545/555</b>
<b>CentreWare 3.0</b>	Win 9x PS 1.00.12 Win 9x PCL 1.00.13 NT PS 1.00.14 NT PCL N/A 2000 N/A	N/A	N/A	N/A	N/A
<b>CentreWare 3.1</b>	Win 9x PS 1.00.16 Win 9x PCL 1.00.13 NT PS 1.00.17 NT PCL N/A 2000 N/A	N/A	N/A	N/A	N/A
<b>CentreWare 3.2</b>	Win 9x PS 1.00.16 Win 9x PCL 1.00.17 NT PS 1.02.00 NT PCL N/A Win 2000 N/A	N/A	N/A	N/A	N/A
<b>CentreWare 4.1</b>	Win 9x PS 1.00.16 Win 9x PCL 1.01.00 NT PS 1.06.00 NT PCL N/A 2000 N/A	Win 9x PS 1.00.06 Win 9x PCL 1.00.10 NT PS 1.00.14 NT PCL N/A 2000 N/A	N/A	N/A	N/A
<b>CentreWare 4.1SP1</b>	Win 9x PS 2.00.22 Win 9x PCL 2.00.01 NT PS 2.00.06 NT PCL N/A 2000 N/A	Win 9x PS 1.02.02 Win 9x PCL 1.02.03 NT PS 1.00.19 NT PCL N/A 2000 N/A	N/A	N/A	N/A
<b>CentreWare 4.1SP2</b>	Win 9x PS 2.02.01 Win 9x PCL 2.02.03 NT PS 2.00.09 NT PCL N/A 2000 N/A	Win 9x PS 1.02.02 Win 9x PCL 1.02.03 NT PS 1.02.05 NT PCL N/A 2000 N/A	N/A	N/A	N/A
<b>CentreWare 5.1</b>	Win 9x PS 2.02.07 Win 9x PCL 2.03.14 NT PS 2.00.26 NT PCL 1.00.18 2000 N/A	Win 9x PS 2.00.09 Win 9x PCL 2.00.15 NT PS 2.00.19 NT PCL 1.01.19 2000 N/A	N/A	N/A	N/A
<b>CentreWare 5.2</b>	Win 9x PS 2.20.13 Win 9x PCL 3.00.18 NT PS 2.02.15 NT PCL 1.01.15 2000PS/PCL 1.1.3.0	Win 9x PS 2.20.13 Win 9x PCL 3.00.17 NT PS 2.02.05 NT PCL 1.02.17 2000 PS/PCL 1.1.3.0	Win 9x PS 2.20.13 Win 9x PCL 3.00.18 NT PS 2.02.15 NT PCL 1.01.15 2000 PS/PCL 1.1.3.0	Win 9x PS 2.20.13 Win 9x PCL 3.00.17 NT PS 2.02.05 NT PCL 1.02.17 2000 PS/PCL 1.1.3.0	N/A

	<b>DC 220/230/332/340</b>	<b>DC 240/255/265</b>	<b>DC 420/425/432/440</b>	<b>DC45x/46x/47x/ 48x/49x</b>	<b>DC 535/545/555</b>
<b>CentreWare 5.2SP1</b>	Win 9x PS 2.20.14 Win 9x PCL 3.00.18 NT PS 2.03.00 NT PCL 1.02.00 2000 PS/PCL 1.1.5.6	Win 9x PS 2.20.13 Win 9x PCL 3.00.17 NT PS 2.02.11 NT PCL 1.03.01 2000 PS/PCL 1.1.5.6	Win 9x PS 2.20.14 Win 9x PCL 3.00.18 NT PS 2.03.00 NT PCL 1.02.00 2000 PS/PCL 1.1.5.6	Win 9x PS 2.20.13 Win 9x PCL 3.00.17 NT PS 2.02.11 NT PCL 1.03.01 2000 PS/PCL 1.1.5.6	N/A
<b>CentreWare 5.3</b>	N/A	N/A	Win 9x PS 2.30.11 Win 9x PCL 3.01.07 NT Enhanced PS 2.04.08 NT Enhanced PCL 1.02.35 NT Standard PS 1.3.11.0 2000 PS 1.3.11.0	Win 9x PS 2.30.11 Win 9x PCL 3.01.07 NT Enhanced PS 2.04.09 NT Enhanced PCL 1.03.33 NT Standard PS 1.3.11.0 2000 PS 1.3.11.0	N/A
<b>CentreWare 5.3 sp1</b>	N/A	N/A	Win 9x PS 2.30.11 Win 9x PCL 3.01.07 NT Enhanced PS 2.04.08 NT Enhanced PCL 2.00.05 NT Standard PS/PCL 1.3.12.2 2000 PS/PCL 1.3.12.2	Win 9x PS 2.31.21 Win 9x PCL 3.02.03 NT Enhanced PS 2.05.15 NT Enhanced PCL 2.00.13 NT Standard PS/PCL 2.1.3.2 2000 PS/PCL 2.1.3.2	N/A
<b>CentreWare 5.4</b>	N/A	N/A	N/A	N/A	Win 9x PS/USB 3.40.16 Win 9x PCL5e/USB 5.00.11 Win 9x PCL6/USB 5.40.23 NT/2000/XP Enhanced PS 1.00.16 NT/2000/XP Enhanced PCL6 5.40.25 NT/2000/XP Enhanced PCL5e 1.00.11 NT/2000/XP Standard PCL5e 3.52.0.0 NT/2000/XP Standard PS 3.52.0.0



# Upgrading Drivers

Use the information in this section to upgrade your printer driver. If you are changing the PDL, go to the section "Changing Drivers' Printer Description Language," later in this document.

**NOTE:** If you are changing the operating system of the printer driver, ensure that you refer to the appropriate sub-section. For example, the appropriate table for changing from CentreWare 5.x NT Enhanced driver to a Windows 2000 CentreWare 5.3 driver is located in the Windows 2000 subsection.

## Upgrade Scenarios

Use the tables in this section to identify an upgrade procedure based on the prerequisite information recorded on your worksheet. Follow these steps to determine which table contains information appropriate for you:

1. Locate the sub-section below that corresponds to the current operating system of the client or server on which the driver upgrade is to occur. (See worksheet.)
  2. In that sub-section, locate the table with headings that contain the versions of CentreWare described below:
    - First column heading: references the version of CentreWare that includes the driver you are currently using on your workstation or server. (See worksheet.)
    - Second column heading: references the version of CentreWare that includes the driver to which you are upgrading.
  3. Locate the row in the table you identify in step 2, that contains the following information:
    - First column: the PDL and type of installation of the driver currently installed on the workstation or server. (See worksheet.)
    - Second column: the PDL and type of installation of the driver to which you are upgrading.
- NOTE:** The tables uses the following printer driver descriptions:
- Enhanced. Refers to drivers Xerox previously described as Customized.
  - Standard. Refers to drivers built using a Microsoft-based software development kit (SDK).
4. Record the upgrade procedure number in the appropriate place on your worksheet.
  5. To upgrade your printer driver, follow the procedure in the "Upgrade Procedures" section that corresponds to the number you recorded on your worksheet.

**NOTE:** Currently, Xerox does not recommend use of the NT PCL Standard printer driver. This document does not contain upgrade or change procedures for this printer driver.

### Windows 9.x

Current driver included in: CentreWare 3.x to 5.x	Upgrading to a driver included in: CentreWare 5.3 or later	Upgrade Procedure
PostScript Client-Direct-to-Printer	PostScript Client-Direct-to-Printer	1
PostScript Client/Server	PostScript Client/Server	2
PCL Client-Direct-to-Printer	PCL Client-Direct-to-Printer	1
PCL Client/Server	PCL Client/Server	2

## Windows NT 4.0

<b>Current driver included in: CentreWare 5.x</b>	<b>Upgrading to a driver included in: CentreWare 5.3 or later</b>	<b>Upgrade Procedure</b>
Enhanced PCL Client-Direct-to-Printer	Enhanced PCL Client-Direct-to-Printer	3
Enhanced PCL Client/Server	Enhanced PCL Client/Server	4

<b>Current driver included in: CentreWare 5.3</b>	<b>Upgrading to a driver included in: CentreWare 5.3 or later</b>	<b>Upgrade Procedure</b>
Enhanced Postscript Client-Direct-to-Printer	Enhanced Postscript Client-Direct-to-Printer	3
Enhanced Postscript Client-Direct-to-Printer	Standard Postscript Client-Direct-to-Printer	3
Enhanced Postscript Client/Server	Enhanced Postscript Client/Server	4
Enhanced Postscript Client/Server	Standard Postscript Client/Server	4

<b>Current driver included in: CentreWare 3.x to 4.1</b>	<b>Upgrading to a driver included in: CentreWare 5.3 or later</b>	<b>Upgrade Procedure</b>
Enhanced Postscript Client-Direct-to-Printer	Enhanced Postscript Client-Direct-to-Printer	3

<b>Current driver included in: CentreWare 5.3</b>	<b>Upgrading to a driver included in: CentreWare 5.3 or later</b>	<b>Upgrade Procedure</b>
Standard Postscript Client-Direct-to-Printer	Enhanced Postscript Client-Direct-to-Printer	3
Standard Postscript Client/Server	Enhanced Postscript Client/Server	4

## Windows 2000/XP

<b>Current driver included in: disk created by original equipment manufacturer (OEM)</b>	<b>Upgrading to a driver included in: CentreWare 5.3 or later</b>	<b>Upgrade Procedure</b>
Windows 2000/XP PostScript Client-Direct-to-Printer	Windows 2000 Postscript Client-Direct-to-Printer	5
Windows 2000/XP PostScript Client/Server	Windows 2000 Postscript Client/Server	7

<b>Current driver included in: CentreWare 3.x to 5.x</b>	<b>Upgrading to a driver included in: CentreWare 5.3 or later</b>	<b>Upgrade Procedure</b>
Windows NT 4.0 Enhanced Postscript Client-Direct-to-Printer	Windows 2000 Postscript Client-Direct-to-Printer	5
Windows NT 4.0 Enhanced Postscript Client/Server	Windows 2000 Postscript Client/Server	6

<b>Current driver included in: CentreWare 5.3</b>	<b>Upgrading to a driver included in: CentreWare 5.3 or later</b>	<b>Upgrade Procedure</b>
Windows NT 4.0 Standard Postscript Client-Direct-to-Printer	Windows 2000 Postscript Client-Direct-to-Printer	5
Windows NT 4.0 Standard Postscript Client/Server	Windows 2000 Postscript Client/Server	6

<b>Current driver included in: CentreWare 5.x</b>	<b>Upgrading to a driver included in: CentreWare 5.3 or later</b>	<b>Upgrade Procedure</b>
Windows 2000 Postscript Client-Direct-to-Printer	Windows 2000 Postscript Client-Direct-to-Printer	5
Windows 2000 Postscript Client/Server	Windows 2000 Postscript Client/Server	7
Windows 2000 Postscript Client-Direct-to-Printer	Windows NT 4.0 Postscript Client-Direct-to-Printer	5
Windows 2000 Postscript Client/Server	Windows NT 4.0 Postscript Client/Server	6

<b>Current driver included in: CentreWare 5.x</b>	<b>Upgrading to a driver included in: CentreWare 5.3 or later</b>	<b>Upgrade Procedure</b>
Enhanced PCL Client-Direct-to-Printer	Enhanced PCL Client-Direct-to-Printer	5
Enhanced PCL Client/Server	Enhanced PCL Client/Server	6

<b>Current driver included in: CentreWare 3.x to 5.x</b>	<b>Upgrading to a driver included in: CentreWare 5.3 or later</b>	<b>Upgrade Procedure</b>
Windows NT 4.0 Enhanced Postscript Client-Direct-to-Printer	Windows NT 4.0 Enhanced Postscript Client-Direct-to-Printer	3
Windows NT 4.0 Enhanced Postscript Client-Direct-to-Printer	Windows NT 4.0 Standard Postscript Client-Direct-to-Printer	3
Windows NT 4.0 Enhanced Postscript Client/Server	Windows NT 4.0 Enhanced Postscript Client/Server	4
Windows NT 4.0 Enhanced Postscript Client/Server	Windows NT 4.0 Standard Postscript Client/Server	4

<b>Current driver included in: CentreWare 5.3</b>	<b>Upgrading to a driver included in: CentreWare 5.3 or later</b>	<b>Upgrade Procedure</b>
Windows NT 4.0 Standard Postscript Client-Direct-to-Printer	Windows NT 4.0 Enhanced Postscript Client-Direct-to-Printer	3
Windows NT 4.0 Standard Postscript Client/Server	Windows NT 4.0 Enhanced Postscript Client/Server	4

### Upgrade Procedures Page Location Table

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<b>Upgrade Procedure 7</b>	pages 22-23

## Upgrade Procedures

This section contains the upgrade procedures that correspond to the tables in the "Upgrade Scenarios" section. These are the recommended upgrade procedures for the Document Centre printer drivers. Follow all of the steps for the upgrade procedure indicated to ensure you complete the upgrade successfully.



**CAUTION:** Some of the upgrade procedures contain information about editing the registry. Make sure to back up your registry before you edit it. If you are running Windows NT or Windows 2000, you should also update your Emergency Repair Disk (ERD). Finally, make sure you understand how to restore the backup if a problem occurs. For more information, review the help topic "Restoring the Registry," in Regedit.exe or the help topic "Restoring a Registry Key," in Regedt32.exe.

Using Registry Editor incorrectly can cause serious problems that may require you to reinstall your operating system. Xerox cannot guarantee that problems resulting from the incorrect use of Registry Editor can be resolved. Use Registry Editor at your own risk. For information about how to edit the registry, view the help topic "Changing Keys and Values" in Registry Editor (Regedit.exe), or the help topics "Add and Delete Information in the Registry" and "Edit Registry Data" in Regedt32.exe.

## Upgrade Procedure 1

**NOTE:** During the upgrade procedure, if you are prompted to replace or keep the existing driver, always select **Replace**.

1. On the workstation, select [**Start:Settings:Printers**].
2. Right-click on the appropriate Document Centre printer object and select **Properties**.
3. Select the **Details** tab.
4. Click **New Driver**.
5. Click **Yes** to confirm that you want to continue. The **Select Device** dialog box is displayed.
6. Click **Have Disk**, and browse to the CentreWare Print and Fax Drivers CD or network location of the print/fax driver files you are upgrading. Click **OK to return to the Properties dialog box**.

## Upgrade Procedure 2 - Three Versions

This procedure has three versions, described below. To upgrade your drivers, follow the procedure that applies to your system's configuration.

- Version 2a - For environments where Windows 9x is the print server and shares with 9x drivers.
- Version 2b - For environments where Windows NT is the print server and shares with Windows 9x drivers.
- Version 2c - For environments where Windows 2000 is the print server and shares with Windows 9x drivers.

### Version 2a

Use this procedure in environments where Windows 9x is the print server and shares with 9x drivers.

**NOTE:** During the upgrade procedure, if you are prompted to replace or keep the existing driver, always select **Replace**.

1. On the workstation, select [**Start:Settings:Printers**].
2. Right-click on the appropriate Document Centre printer object and select **Properties**.
3. Select the **Details** tab.
4. Click **New Driver**.
5. Click **Yes** to confirm that you want to continue. The **Select Device** dialog box is displayed.
6. Click **Have Disk**, and browse to the CentreWare Print and Fax Drivers CD or network location of the print/fax driver files you are upgrading. Click **OK** to return to the **Properties** dialog box.
7. Log in on the client as a user.
8. Select [**Start:Settings:Printers**].
9. Right click on the printer object associated with the share and select **Delete**.

**NOTE:** if more than one printer uses the same driver installed on the workstation, delete all printers using that driver.

10. Click **Yes** to remove the drivers.
11. Use the **Add Printer Wizard** to reinstall the printer from the server.

## Version 2b

Use this procedure in environments where Windows NT is the print server and shares with 9x drivers.

This procedure includes removal and reinstallation of printer drivers on a Windows NT printer share. This information was obtained from Microsoft Knowledgebase Article Q162258 and can be found at

<http://support.microsoft.com/support/kb/articles/Q162/2/58.asp>

Refer to the article for additional information.



**CAUTION:** This procedure instructs you to edit the registry. Make sure to back up your registry before you edit it. If you are running Windows NT or Windows 2000, you should also update your Emergency Repair Disk (ERD). Finally, make sure you understand how to restore the backup if a problem occurs. For more information, review the help topic "Restoring the Registry," in Regedit.exe or the help topic "Restoring a Registry Key," in Regedt32.exe.

Using Registry Editor incorrectly can cause serious problems that may require you to reinstall your operating system. Xerox cannot guarantee that problems resulting from the incorrect use of Registry Editor can be solved. Use Registry Editor at your own risk. For information about how to edit the registry, view the help topic "Changing Keys and Values" in Registry Editor (Regedit.exe), or the help topics "Add and Delete Information in the Registry" and "Edit Registry Data" in Regedt32.exe.

1. Log on to the server as an administrator.
2. Select [**Start:Control Panel**] and double-click the **Services** icon.
3. Select the **Spooler** service and click **Stop**. Click **Yes** when prompted.
4. Start the Registry Editor (Regedt32.exe) and select the following subkey:

```
HKEY_LOCAL_MACHINE\SYSTEM
  \CurrentControlSet
    \Control
      \Print
        \Environments
          \Win40
            \Drivers
              \Version-0
                \<Printer driver>
```

<Printer driver> refers to the key for the Document Centre Windows 9x printer driver you wish to upgrade. For example: Xerox DC 220/230/332/340/ PS 2.

5. Delete the printer driver key(s) you wish to upgrade and close the registry editor.
6. Delete the Windows 9x shared driver files that correspond to the driver key you delete in step 5. You can find these files in the following directories:

```
%SystemRoot%\System32\Spool\Drivers\Win40\
%SystemRoot%\System32\Spool\Drivers\Win40\0
```

**NOTE:** The notation %SystemRoot% refers to the location of the operating system files, for example, c:\Winnt

7. Select [**Start:Control Panel**], open the **Services** icon, select the **Spooler** service and click **Start**.
8. Reboot the server to let the changes take effect.
9. Select [**Start:Settings:Printers**].
10. Right-click on the Document Centre printer object and select **Sharing**.

11. Re-install the shared printer drivers, using the new versions.
12. Log in on the client as a user.
13. Select [**Start:Settings:Printers**].
14. Right click on the printer object associated with the share and select **Delete**.  
**NOTE:** if more than one printer uses the same driver installed on the workstation, delete all printers using that driver.
15. Click **Yes** to remove the drivers.
16. Use the **Add Printer Wizard** to reinstall the printer from the server.

### **Version 2c**

Use this procedure in environments where Windows 2000 is the print server and shares with 9x drivers.

This information is derived from the Microsoft Windows 2000 Help system. Refer to it for additional information.

During the upgrade procedure, if you are prompted to replace or keep the existing driver, always select **Replace**.

1. On the server, select [**Start:Settings:Printers**]. In the Printers window, select [**File:Server Properties**].
2. On the **Drivers** tab, select the 9x driver(s) you want to update in the **Installed printer drivers** list, and click **Update**.
3. Click **Yes**. The driver files are copied for all the installed environments and versions. The system might prompt you for the path to the drivers.
4. Log in on the client as a user.
5. Select [**Start:Settings:Printers**].
6. Right click on the printer object associated with the share and select **Delete**.  
**NOTE:** if more than one printer uses the same driver installed on the workstation, delete all printers using that driver.
7. Click **Yes** to remove the drivers.
8. Use the **Add Printer Wizard** to reinstall the printer from the server.



### Upgrade Procedure 3

**NOTE:** During the upgrade procedure, if you are prompted to replace or keep the existing driver, always select **Replace**.

1. Log on to your workstation as an administrator and close all applications (for example, email or virus protection).
2. Select [**Start:Settings:Printers**].
3. Right-click on the Document Centre printer object and select **Delete**.
4. Click **Yes** to confirm that you want to delete the printer.
5. Reboot the workstation.
6. Access the **Printers** folder again and double-click **Add Printer** to start the **Add Printer Wizard**.
7. When the dialog box to indicate how the printer is attached to your computer is displayed, select either **Local printer** or **Network printer**.
8. At the prompt to install the printer driver on your local machine, click **Have Disk**. Browse to the location of your printer driver files and select the correct .INF file. Click **OK**. Follow the instructions provided by the **Add Printer Driver Wizard** to complete the installation.
9. Click **Finish**. The printer driver upgrade is now complete.

## Upgrade Procedure 4 - Two Versions

**NOTE:** After you use a version of this upgrade procedure be aware of the following:

An issue exists with the Windows NT Enhanced PCL printer driver where the process spoolss.exe consumes all available resources of the host machine (PCL SPIN). This only occurs when all the following conditions are met:

- A Windows NT Enhanced PCL printer driver is loaded on a Windows 2000 server.
- This Windows NT Enhanced PCL printer driver is shared out to NT clients where a user(s) has Administrator rights on the Windows 2000 server or domain.
- Remote administration of the printer object or access to the printer properties, document defaults, or printer settings of the NT Enhanced PCL driver loaded on the Windows 2000 server is attempted from an NT client where the user has administrator rights on the Windows 2000 server or domain. This can occur either by accessing the printer object in the printers folder or through the print dialogue box of an application.

Both CPU utilization and memory resources will rise and continue to climb until they are exhausted.

To avoid this scenario, users with Administrator rights to a Windows 2000 print server or domain must administer the printer object for the Windows NT Enhanced PCL printer driver printer driver from either a Windows 2000 client or from the server itself.

This procedure has two versions, described below. Follow the procedure most appropriate to you.

- Version 4a - If you must maintain the same printer driver name use this procedure (requires a reboot).
- Version 4b - Use this procedure to assign a new name to the print object (no reboot required).

**NOTE:** During the upgrade procedure, if you are prompted to replace or keep the existing driver, always select **Replace**.

### Version 4a

Use this procedure if you must maintain the same printer driver name (requires a reboot).

1. Log on to the server as an administrator and close all applications (for example, email or virus protection).
2. Select [**Start:Settings:Printers**].
3. Right-click on the Document Centre printer object and select **Delete**.
4. Click **Yes** to confirm that you want to delete the printer.
5. Reboot the server.
6. Access the **Printers** folder again and double-click **Add Printer** to start the **Add Printer Wizard**.
7. When the dialog box to indicate how the printer is attached to your computer is displayed, select either **Local printer** or **Network printer**.
8. At the prompt to install the printer driver on your local machine, click **Have Disk**. Browse to the location of your printer driver files and select the correct .INF file. Click **OK**. Follow the instructions provided by the **Add Printer Driver Wizard** to complete the installation.
9. Click **Finish**.
10. Log in on the client as a user.

11. Select [**Start:Settings:Printers**].
12. Wait for all disk activity to cease, then reboot the workstation to complete the installation of the new printer drivers from the server.
13. Repeat steps 10 through 12 for each client you need to upgrade.

**NOTE:** If configuration or default settings set for the driver on the server do not transfer to the client, use one of these methods to force the transfer:

- Print a test page from the server.
- Toggle one of the driver configuration settings on the server and close the dialog box.

#### **Version 4b**

Use this procedure to assign a new name to the print object (no reboot required).

**NOTE:** During the upgrade procedure, if you are prompted to replace or keep the existing driver, always select **Replace**.

1. Log on to the server as an administrator and close all applications (for example, email or virus protection).
2. Select [**Start:Settings:Printers**].
3. Select the Document Centre printer object to upgrade.
4. Record the Document Centre printer object's name.
5. Right-click on the Document Centre printer object and select **Delete**.
6. Click **Yes** to confirm that you want to delete the printer.
7. Access the **Printers** folder again and open **Add Printer**.
8. On the screen to indicate how the printer is attached to your computer, select either **Local printer** or **Network printer**.
9. At the prompt to install the printer driver on your local machine, select **Have Disk**. Browse to the location of your printer driver files and select the correct .INF file. Click **OK**. Follow the instructions provided by the **Add Printer Driver Wizard**.
10. At the prompt to enter the name of the printer, enter a name different from the one you recorded in step 4.
11. Continue with the **Add Printer Driver Wizard** until you click **Finish**.

If your client(s) use Windows NT or 2000, continue with the procedure below. Otherwise, the upgrade is complete.

12. Log in on the client as a user.
13. Select [**Start:Settings:Printers**].
14. Right-click on the old Document Centre printer object and select **Delete**.
15. Reinstall the new shared printer object on the workstation using the new share name.

**NOTE:** If configuration or default settings set for the driver on the server do not transfer to the client, use one of these methods to force the transfer:

- Print a test page from the server.
- Toggle one of the driver configuration settings on the server and close the dialog box.

## Upgrade Procedure 5

1. For each Document Centre driver to receive an upgrade, delete the printer object associated with that driver:
  - a. Log on to the server or workstation as an administrator and close all applications.
  - b. Select [**Start:Settings:Printers**].
  - c. Right-click on the Document Centre printer object and select **Delete**.
  - d. Click **Yes** to confirm you want to delete the printer.
2. Reboot the server/workstation.
3. Reinstall the deleted printers:
  - a. Access the **Printers** folder again and open **Add Printer**.
  - b. Select the type of network, either **Local printer** or **Network printer**.
  - c. At the prompt to install the printer driver on your local machine, select **Have Disk**. Browse to the location of your printer driver files and select the correct .INF file. Click **OK**. Follow the instructions provided by the **Add Printer Driver Wizard** to complete the installation.
  - d. Specify if you want the Document Centre to be your default printer. Click **Next**.
  - e. Indicate if you want to print a test page. Click **Next**.
  - f. Click **Finish**. The printer driver upgrade is now complete.
  - g. If the Microsoft Digital Signature dialog appears, click **Yes** to continue.
4. Ensure all of the options of the printers you installed are configured in the printer properties.

## Upgrade Procedure 6

**NOTE:** After you use this upgrade procedure be aware of the following:

An issue exists with the Windows NT Enhanced PCL printer driver where the process spoolss.exe consumes all available resources of the host machine (PCL SPIN). This only occurs when all the following conditions are met:

- A Windows NT Enhanced PCL printer driver is loaded on a Windows 2000 server.
- This Windows NT Enhanced PCL printer driver is shared out to NT clients where a user(s) has Administrator rights on the Windows 2000 server or domain.
- Remote administration of the printer object or access to the printer properties, document defaults, or printer settings of the NT Enhanced PCL driver loaded on the Windows 2000 server is attempted from an NT client where the user has administrator rights on the Windows 2000 server or domain. This can occur either by accessing the printer object in the printers folder or through the print dialogue box of an application.

Both CPU utilization and memory resources will rise and continue to climb until they are exhausted.

To avoid this scenario, users with administrator rights to a Windows 2000 print server or domain must administer the printer object for the Windows NT Enhanced PCL printer driver from either a Windows 2000 client or from the server itself.

1. For each Document Centre driver to receive an upgrade, delete the printer object associated with that driver:
  - a. Log on to the server or workstation as an administrator and close all applications (for example, email or virus protection).
  - b. Select [**Start:Settings:Printers**].
  - c. Right-click on the Document Centre printer object and select **Delete**.
  - d. Click **Yes** to confirm you want to delete the printer.
2. Reboot the server/workstation.
3. Reinstall the deleted printers:
  - a. Access the **Printers** folder again and open **Add Printer**.
  - b. Select the type of network, either **My Computer** or **Network printer server**.
  - c. At the prompt to install the printer driver on your local machine, select **Have Disk**. Browse to the location of your printer driver files and select the correct .INF file. Click **OK**. Follow the instructions provided by the **Add Printer Driver Wizard** to complete the installation.
  - d. Specify if you want the Document Centre to be your default printer. Click **Next**.
  - e. Indicate if you want to print a test page. Click **Next**.
  - f. Click **Finish**. The printer driver upgrade is now complete.
  - g. If the Microsoft Digital Signature dialog appears, click **Yes** to continue.
4. Ensure all printer options you installed are configured in the printer properties.
5. Log in on the client as a user.
6. Select [**Start:Settings:Printers**].
7. Wait for all disk activity to cease, then reboot the workstation to complete the installation of the new printer drivers from the server.
8. Repeat steps 5 through 7 for each client you need to upgrade.

## Upgrade Procedure 7

**NOTE:**After you use this upgrade procedure be aware of the following:

An issue exists with the Windows NT Enhanced PCL printer driver where the process spoolss.exe consumes all available resources of the host machine (PCL SPIN). This only occurs when all the following conditions are met:

- A Windows NT Enhanced PCL printer driver is loaded on a Windows 2000 server.
- This Windows NT Enhanced PCL printer driver is shared out to NT clients where a user(s) has Administrator rights on the Windows 2000 server or domain.
- Remote administration of the printer object or access to the printer properties, document defaults, or printer settings of the NT Enhanced PCL driver loaded on the Windows 2000 server is attempted from an NT client where the user has administrator rights on the Windows 2000 server or domain. This can occur either by accessing the printer object in the printers folder or through the print dialogue box of an application.

Both CPU utilization and memory resources will rise and continue to climb until they are exhausted.

To avoid this scenario, users with Administrator rights to a Windows 2000 print server or domain must administer the printer object for the Windows NT Enhanced PCL printer driver from either a Windows 2000 client or from the server itself.

1. Log into the server as an administrator.
2. Delete the printer object that uses the driver your are updating (delete only one if more then one printer is using the same driver).
  - a. Select **[Start:Settings:Printers]**.
  - b. Right-click on the Document Centre printer object and select **Delete**.
  - c. Click **Yes** to confirm you want to delete the printer.
3. Select **[File:Server Properties]**.
4. Select the **Drivers** tab.
5. Select the driver you wish to upgrade from the list, then click **Remove**.
6. Click **OK** to close the **Server Properties** dialog box.
7. Select **[Start:Find:Files and Folders]**.
8. In the **Named** field, type **OEM\*.INF**.
9. In the **Containing Text** field type one of the following:
  - a. for the Document Centre 420, 425, 432, or 440 enter **Xerox DC 420/432/440**.
  - b. for the Document Centre 460, 470, 480, 490 enter **Xerox DC 45x/46x/47x/48x**.
  - c. for the Document Centre 220, 230, 332, or 340 enter **Xerox DC 220/230** or **Xerox DC 220/230/332/340**.
  - d. for the Document Centre 240, 255, or 265 enter **Xerox DC 240/255/265**.
10. In the **Look in** field select **Browse...** from the list.
11. In the **Browse for Folder** dialog, browse to **%Systemroot%\Inf** (usually located at C:\Winnt\inf) and choose **OK**.
12. Click **Find** to start the search.
13. Select the returned result, press the delete key, and click **Yes** to confirm the deletion.
14. Re-install the printer using the new driver and re-associate the shared drivers.
  - a. Access the **Printers** folder again and open **Add Printer**.

- b. Select the type of network, either **Local** or **Network** printer.
  - c. At the prompt to install the printer driver on your local machine, select **Have Disk**. Browse to the location of your printer driver files and select the correct **.INF** file. Click **OK**. Follow the instructions provided by the **Add Printer Driver Wizard** to complete the installation.
  - d. Specify if you want the Document Centre to be your default printer. Click **Next**.
  - e. Indicate if you want to print a test page. Click **Next**.
  - f. Click **Finish**. The printer driver upgrade is now complete.
  - g. If the Microsoft Digital Signature dialog appears, click **Yes** to continue.
15. Ensure all of the options of the printers you installed are configured in the printer properties.
  16. Log in on the client as a user.
  17. Select **[Start:Settings:Printers]**.
  18. Wait for all disk activity to cease, then reboot the workstation to complete the installation of the new printer drivers from the server.
  19. Repeat steps 16 through 18 for each client you need to upgrade.

# Changing Drivers' Printer Description Language

This section addresses scenarios that change printer driver PDL. That is, you may wish to change from a PCL to a PostScript driver or vice versa.

## Change Scenarios

The tables in this section identify a procedure to change your driver's PDL. Use the following steps to determine which table contains information appropriate for you:

1. Locate the sub-section below that corresponds to the operating system of the client or server on which the driver PDL change is to occur. (See worksheet.)

**NOTE:** If you are changing the operating system of the printer driver, ensure that you refer to the appropriate sub-section. For example, the appropriate table for changing from CentreWare 5.x NT Enhanced PCL driver to a Windows 2000 CentreWare 5.3 PS driver is located in the Windows 2000 subsection.

2. In that sub-section, locate the table with headings that contain the versions of CentreWare described below:
  - First column heading: references the version of CentreWare that includes the driver that you are currently using on your workstation or server. (See worksheet.)
  - Second column heading: references the version of CentreWare that includes the driver to which you are changing.
3. Locate the row in the table you identified in step 2, that contains the following information:
  - First column: the workstation's or server's current printer driver PDL and installation. (See worksheet.)
  - Second column: the new operating system (if any), the PDL to which you are changing, and type of printer driver installation.
  - Third column: the change procedure number.
4. Record the change procedure number in the appropriate place on your worksheet.
5. To change the printer driver PDL, follow the procedure in the "Change Procedures" section that corresponds to the change procedure number you identified in step 3.

## Windows 9x

Change from this driver included in: CentreWare 3.x to 5.x	Change to this driver included in: CentreWare 5.x or later	Change procedure
PCL Client/Server	PostScript Client/Server	2
PCL Client-Direct-to-Printer	PostScript Client-Direct-to-Printer	1
PostScript Client/Server	PCL Client/Server	2
PostScript Client-Direct-to-Printer	PCL Client-Direct-to-Printer	1



## Windows NT 4.0

<b>Change from this driver included in: CentreWare 5.x</b>	<b>Change to this driver included in: CentreWare 5.3 or later</b>	<b>Change procedure</b>
Enhanced PCL Client-Direct-to-Printer	Enhanced Postscript Client-Direct-to-Printer	3
Enhanced PCL Client/Server	Enhanced Postscript Client/Server	4
Enhanced PCL Client-Direct-to-Printer	Standard Postscript Client-Direct-to-Printer	3
Enhanced PCL Client-Direct-to-Printer	Enhanced Postscript Client-Direct-to-Printer	3
Enhanced PCL Client/Server	Standard Postscript Client/Server	4
Enhanced PCL Client/Server	Enhanced Postscript Client/Server	4

<b>Change from this driver included in: CentreWare 3.x to 5.x</b>	<b>Change to this driver included in: CentreWare 5.3 or later</b>	<b>Change procedure</b>
Enhanced Postscript Client-Direct-to-Printer	Enhanced PCL Client-Direct-to-Printer	3
Enhanced Postscript Client/Server	Enhanced PCL Client/Server	4

<b>Change from this driver included in: CentreWare 5.3</b>	<b>Change to this driver included in: CentreWare 5.3 or later</b>	<b>Change procedure</b>
Standard Postscript Client-Direct-to-Printer	Enhanced PCL Client-Direct-to-Printer	3
Standard Postscript Client/Server	Enhanced PCL Client/Server	4

## Windows 2000

<b>Change from this driver included in: CentreWare 5.x</b>	<b>Change to this driver included in: CentreWare 5.3 or later</b>	<b>Change procedure</b>
Windows NT 4.0 Enhanced PCL Client-Direct-to-Printer	Windows NT 4.0 Enhanced Postscript Client-Direct-to-Printer	3
Windows NT 4.0 Enhanced PCL Client-Direct-to-Printer	Windows NT 4.0 Standard Postscript Client-Direct-to-Printer	3
Windows NT 4.0 Enhanced PCL Client-Direct-to-Printer	Windows NT 4.0 Enhanced Postscript Client-Direct-to-Printer	3
Windows NT 4.0 Enhanced PCL Client/Server	Windows NT 4.0 Enhanced Postscript Client/Server	4
Windows NT 4.0 Enhanced PCL Client/Server	Windows NT 4.0 Enhanced Postscript Client/Server	4
Windows NT 4.0 Enhanced PCL Client/Server	Windows NT 4.0 Standard Postscript Client/Server	4
Windows NT 4.0 Enhanced PCL Client/Server	Windows 2000 Postscript Client/Server	4
Windows NT 4.0 Enhanced PCL Client-Direct-to-Printer	Windows 2000 Postscript Client-Direct-to-Printer	3

<b>Change from this driver included in: CentreWare 5.3</b>	<b>Change to this driver included in: CentreWare 5.3 or later</b>	<b>Change procedure</b>
Windows NT 4.0 Standard Postscript Client-Direct-to-Printer	Windows NT 4.0 Enhanced PCL Client-Direct-to-Printer	3
Windows NT 4.0 Standard Postscript Client/Server	Windows NT 4.0 Enhanced PCL Client/Server	4

<b>Change from this driver included in: CentreWare 3.x to 5.x</b>	<b>Change to this driver included in: CentreWare 5.3 or later</b>	<b>Change procedure</b>
Windows NT 4.0 Enhanced Postscript Client-Direct-to-Printer	Windows NT 4.0 Enhanced PCL Client-Direct-to-Printer	3
Windows NT 4.0 Enhanced Postscript Client-Direct-to-Printer	Windows NT 4.0 Enhanced PCL Client-Direct-to-Printer	3
Windows NT 4.0 Enhanced Postscript Client/Server	Windows NT 4.0 Enhanced PCL Client/Server	4
Windows NT 4.0 Enhanced Postscript Client/Server	Windows NT 4.0 Enhanced PCL Client/Server	4

### **Change Procedures Page Location Table**

<b>Change Procedure 1</b>	page 27
<b>Change Procedure 2</b>	pages 28-29
<b>Change Procedure 3</b>	page 30
<b>Change Procedure 4</b>	page 31

### **Change Procedures**

Below are the change procedures that correspond to the tables in the " Changing Drivers' Printer Description Language" section. These are the recommended procedures for changing the Document Centre printer driver PDLs. Follow all of the steps in the change procedure you identified on the worksheet, to ensure you complete the change successfully.

## Change Procedure 1

**NOTE:** During the change procedure, if you are prompted to replace or keep the existing driver, always select **Replace**.

1. On the workstation, select [**Start:Settings:Printers**].
2. Right-click on the appropriate Document Centre printer object and select **Properties**.
3. Select the **Details** tab.
4. Click **New Driver**.
5. Click **Yes** to confirm that you want to continue. The **Select Device** dialog box is displayed.
6. Click **Have Disk**, and browse to the CentreWare Print and Fax Drivers CD or network location of the print/fax driver files you are changing. Click **OK**.

## Change Procedure 2 - Three Versions

This procedure has three versions, described below. To change your drivers, follow the procedure that applies to your system's configuration.

Version 2a - For environments with Windows 9x servers sharing 9x drivers.

Version 2b - For environments with Windows NT 4.0 servers sharing 9x drivers.

Version 2c - For environments with Windows 2000 servers sharing 9x drivers. You must delete the entire printer share from the server and workstation(s), then reinstall it using the same driver PDL for both the print server and the printer share.

### Version 2a

Use this procedure in environments with Windows 9x servers sharing 9x drivers.

**NOTE:** During the change procedure, if you are prompted to replace or keep the existing driver, always select **Replace**.

1. On the workstation, select [**Start:Settings:Printers**].
2. Right-click on the appropriate Document Centre printer object and select **Properties**.
3. Select the **Details** tab.
4. Click **New Driver**.
5. Click **Yes** to confirm that you want to continue. The **Select Device** dialog box is displayed.
6. Click **Have Disk**, and browse to the CentreWare Print and Fax Drivers CD or network location of the print/fax driver files you are changing. Click **OK**.
7. Log on to a client workstation as a user (non-administrator).
8. Select [**Start:Settings:Printers**].
9. Wait for all disk activity to cease, then reboot the workstation to complete the installation of the new printer drivers from the server.
10. Repeat steps 7 through 9 for each client you need to upgrade.

### Version 2b

Use this procedure in environments with Windows NT 4.0 servers sharing 9x driver. .

1. On the server, select [**Start:Settings:Printers**].
2. Right-click on the appropriate printer object and select **Properties**.
3. On the **General** tab, click **New Driver**.
4. Click **Yes** to confirm that you want to change the print/fax driver and access the **Add Printer Wizard**.
5. Click **Have Disk**, and browse to the CentreWare Print and Fax Drivers CD or network location of the print and fax driver files you are changing. Click **OK**.
6. Verify the path and click **OK**.
7. Select **Yes** or **No** to identify the Document Centre as your default printer. Click **Next**.
8. Indicate if you want to print a test page. Click **Next**.
9. Click **Finish**. The new print/fax driver is installed.
10. Log on to a client workstation as a user (non-administrator).
11. Select [**Start:Settings:Printers**].
12. Wait for all disk activity to cease, then reboot the workstation to complete the installation of the new printer drivers from the server.
13. Repeat steps 10 through 12 for each client you need to upgrade.

### Version 2c

Use this procedure to change the printer driver on a Windows 2000 server sharing Windows 9x drivers. You must delete the entire printer share from the server and workstation(s), then reinstall it using the same driver PDL for both the print server and the printer share.

1. Log on as an administrator and close all applications (for example, email or virus protection).
  2. Select [**Start:Settings:Printers**].
  3. Select the Document Centre printer object to delete.
  4. Record the printer object's name exactly as it appears.
  5. Right-click on the Document Centre printer object and select **Delete**.
  6. Click **Yes** to confirm you want to delete the printer.
  7. Double-click **Add Printer** in the **Printers** folder.
  8. Select the type of network, either **My Computer** or **Network printer server**.
  9. When prompted to install the printer driver, click **Have Disk**. Browse to the location of your new printer driver files and select the .INF file. Click **OK**.
  10. When prompted to enter the name of the printer object, use a name different from that recorded in step 4.
  11. Select **Yes** or **No** to identify the Document Centre as your default printer. Click **Next**.
  12. When prompted to share the printer, click **Yes** and enter a share name. Select the operating systems accessing this printer queue and click **Next**.
  13. Indicate if you want to print a test page. Click **Next**.
  14. Click **Finish**.
  15. If prompted to install the printer driver, click **Have Disk**. Browse to the location of your printer driver files and select the same .INF file selected earlier in this procedure. Click **OK**.
- If your client(s) use Windows NT or 2000, continue with the procedure below. Otherwise, the change is complete.
16. Log on the client as a user.
  17. Select [**Start:Settings:Printers**].
  18. Right-click on the old Document Centre printer object and select **Delete**.
  19. Reinstall the new shared printer object on the workstation using the new share name.

### Change Procedure 3

**NOTE:** During the change procedure, if you are prompted to replace or keep the existing driver, always select **Replace**.

1. Log on as an administrator and close all applications (for example, email or virus protection).
2. Select [**Start:Settings:Printers**].
3. Select a Document Centre printer object to change.
4. Record the Document Centre printer object's name exactly as it appears.
5. Right-click on the Document Centre printer object and select **Delete**.
6. Click **Yes** to confirm that you want to delete the printer object.
7. Select **Add Printer** in the **Printers** folder.
8. Select the type of network, either **My Computer** or **Network printer server**.
9. When prompted to install the printer driver, click **Have Disk**. Browse to the location of your printer driver files and select the correct .INF file. Click **OK**.
10. When prompted to enter the name of the printer object, use a name different than recorded in step 4.
11. Proceed through the wizard until you click **Finish** to complete the driver change.

## Change Procedure 4

**NOTE:** After you use a version of this upgrade procedure be aware of the following:

An issue exists with the Windows NT Enhanced PCL printer driver where the process spoolss.exe consumes all available resources of the host machine (PCL SPIN). This only occurs when all the following conditions are met:

- A Windows NT Enhanced PCL printer driver is loaded on a Windows 2000 server.
- This Windows NT Enhanced PCL printer driver is shared out to NT clients where a user(s) has Administrator rights on the Windows 2000 server or domain.
- Remote administration of the printer object or accessing the printer properties, document defaults or printer settings of the NT Enhanced PCL driver loaded on the Windows 2000 server is attempted from an NT client where the user has administrator rights on the Windows 2000 server or domain. This can occur either by accessing the printer object in the printers folder or through the print dialogue box of an application.

Both CPU utilization and memory resources will rise and continue to climb until they are exhausted.

To avoid this scenario, users with Administrator rights to a Windows 2000 print server or domain must administer the printer object for the Windows NT Enhanced PCL printer driver printer driver from either a Windows 2000 client or from the server itself.

**NOTE:** During the change procedure, if you are prompted to replace or keep the existing driver, always select **Replace**.

1. Log on as an administrator and close all applications (for example, email or virus protection).
2. Select **[Start:Settings:Printers]**.
3. Select a Document Centre printer object to change.
4. Record the Document Centre print object's name exactly as it appears.
5. Right-click on the Document Centre printer object and select **Delete**.
6. Click **Yes** to confirm that you want to delete the printer.
7. Select **Add Printer** in the **Printers** folder.
8. Select the type of network, either **My Computer** or **Network printer server**.
9. When prompted to install the printer driver, click **Have Disk**. Browse to the location of your printer driver files and select the correct .INF file. Click **OK**.
10. If prompted to enter the name of the printer object, use a name different than the one recorded in step 4.
11. Proceed through the wizard until you click **Finish** to complete the driver change.
12. Log on the client as a user.
13. Select **[Start:Settings:Printers]**.
14. Right-click on the old Document Centre printer object and select **Delete**.
15. Reinstall the new shared printer object on the workstation using the new shared printer name.

## Additional Information

Xerox Document Centre Technical Support Organization welcomes feedback on all DC Tips documentation - send feedback via e-mail to:

[USA.DSSC.Doc.Feedback@mc.usa.xerox.com](mailto:USA.DSSC.Doc.Feedback@mc.usa.xerox.com).

Other DC Tips are available at the following URL:

<http://www.xerox.com/DocumentCentreFamily/Tips>.

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# Worksheet

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Use this worksheet to record important information about your print driver upgrade or PDL change.

## Prerequisites

1. Server or Client Operating System: \_\_\_\_\_

2. Current Print Driver:

\_\_\_\_\_

Operating System	PDL	Version
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Standard       Enhanced

3. CentreWare Version that Includes Current Driver: \_\_\_\_\_

4. Type of Driver

Installation:  Client-Direct-to Printer

Client/Server

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## Procedure

Upgrade No. \_\_\_\_\_

Change No. \_\_\_\_\_