Xerox Multifunction Devices

Customer Tips

Dc04cc0327 February 26, 2004 ... for the user

Upgrade Procedure for NT Enhanced Interface Drivers

CAUTION: To either upgrade or change the PDL of an NT Enhanced kernel mode driver, DO NOT click New Driver in the driver's Properties in the Printers folder!

Purpose

This document provides instructions for upgrading NT Enhanced Interface print drivers on a Windows NT, 2000, XP or 2003 platform. These processes involve print drivers shared from a server or local installs on workstations. You should have an intermediate level of understanding of Windows operating systems and printer driver installation to perform these procedures.

If you are planning an upgrade, please follow the procedure outlined in this document.

Upgrade Procedure for NT Enhanced Interface Drivers

Caution: To either upgrade or change the PDL of an NT Enhanced kernel mode driver, DO NOT click **New Driver** (located on Advanced tab in Windows 2000/XP/2003) or **New Driver** (located on the General tab in Windows NT) in the driver's Properties in the Printers folder! Doing so can result in driver and/or feature corruption or blue screens. NT print drivers run at the kernel mode level. Because of this, driver corruption can lead to operating system crashes. Please see the section "Background-Kernel Mode vs. User Mode Drivers." at the end of this document for more information.

These failures occur because the operating system locks dll files in memory. The operating system does not release these files from memory when you use the **New Driver** button, so that they do not update to the newer version. This can cause conflicts between the new driver files and the old dll's, still resident on the system. This procedure outlines the recommended method to ensure all files are updated to the appropriate version.

If you have attempted to upgrade an NT Enhanced Interface print driver and are now experiencing failures, please see Customer Tip # dc00cc0115 *Uninstalling Windows NT 4.0 and 2000/XP Printer Drivers* located at www.xerox.com/documentcentrefamily/tips to help correct these issues.

For each Document Centre print driver you wish to upgrade, we recommend that you delete all printer objects associated with that print driver and reinstall a new driver. Follow the same process to change a driver PDL (Printer Description Language) - PostScript to PCL or PCL to PostScript.

If the driver(s) you delete are on a server in a PnP (Point n Print) environment, also delete the print drivers from the workstations.

This document applies to these Xerox products:

	WC Pro 32/40 Color
	WC Pro 65/75/90
ij.	WC Pro 35/45/55
	WC M35/M45/M55
x	DC 555/545/535
x	DC 490/480/470/460
x	DC 440/432/425/420
x	DC 332/340
x	DC 265/255/240
x	DC 220/230
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Deleting the Driver in Windows NT

- 1. Log on to the server or workstation as an administrator and close all applications.
- 2. Select [Start:Settings:Printers].
- 3. Right-click on the Document Centre printer object and click **Delete**.
- 4. Click **Yes** to confirm you want to delete the printer.

Note: delete all printer objects associated with that printer driver. Repeat steps 3 and 4 for any additional printer driver objects.

5. Reboot the workstation or server. Continue with the procedure in the section "Reinstall the Deleted Printers."

Deleting the Driver in Windows 2000, XP or 2003

- 1. Log on to the server or workstation as an administrator and close all applications.
- 2. Select [Start:Settings:Printers].
- 3. Right-click on the Document Centre printer object and click **Delete**.
- 4. Click **Yes** to confirm you want to delete the printer.

Note: delete all printer objects associated with that printer driver. Repeat steps 3 and 4 for any additional printer driver objects.

5. Click Start.

Note: Do not use the

delete procedures to

remove corrupted print drivers. For uninstall

procedures please see

dc00cc0115 Uninstalling

Windows NT 4.0 and 2000/XP Printer Drivers.

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- 6. Select Run.
- 7. In the field type: **cmd** and click **OK**. A DOS window appears.
- 8. At the c: prompt type **net stop spooler** and press **Enter**. The print spooler closes down.
- 9. At the c: prompt type **net start spooler** and press **Enter**. The print spooler restarts.
- 10. Close the DOS window.
- 11. Access the Printers folder and select [File>Server Properties].
- 12. Select the **Drivers** tab and click on the listing of the print object you just deleted.
- 13. Click Remove then click Close.

The driver is successfully deleted.

Reinstall the Deleted Printers

Caution: To either upgrade or change the PDL of an NT Enhanced kernel mode driver, DO NOT click **New Driver** (located on Advanced tab in Windows 2000/XP/2003) or **New Driver** (located on the General tab in Windows NT) in the driver's Properties in the Printers folder!

- 1. Access the **Printers** folder and open the **Add Printer** wizard.
- 2. Select the type of network, either **Local printer** or **Network printer**.
- 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.

Note: If you use the Add Printer Driver Wizard in a Windows NT server or workstation environment and a prompt appears to replace or keep the existing driver, always select **Replace**.

- 4. Specify if you want the Document Centre to be your default printer. Click **Next**.
- 5. Indicate if you want to print a test page. Click **Next**.

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6. Click **Finish**. The printer driver upgrade is now complete.

Configure the printer options you require in the printer Properties.

Background - Kernel Mode Drivers vs. User Mode (excerpt taken from Microsoft Windows Printing Interoperability Abstract)

In Windows NT 4.0 all printer drivers run in kernel mode. The Windows printing environment refers to these drivers as Version 2 drivers. For Windows 2000 and later Microsoft moved to user mode drivers (called Version 3 drivers) for system reliability and robustness. Windows 2000 and later environments support user mode drivers natively, and kernel mode drivers solely for backward compatibility. A driver error that occurs in kernel mode is able to crash the entire server, while the effect of an error in user mode is restricted to the driver process, generally the spooler. Restarting the spooler is much faster than rebooting the entire system, and allows other services on the server to continue while the spooler is down.

Further information on kernel mode and user mode drivers can be found at the following URL:

http://www.microsoft.com/windows2000/technologies/fileandprint/print/miginterop.asp

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Additional Information

Xerox Customer Service welcomes feedback on all documentation - send feedback via e-mail to: USA.DSSC.Doc.Feedback@mc.usa.xerox.com.

You can reach Xerox Customer Support at 1-800-821-2797 (USA), TTY 1-800-855-2880 or at http://www.xerox.com.

Other Tips about Xerox multifunction devices are available at the following URL: http://www.xerox.com/DocumentCentreFamily/Tips.

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