The Windows Printing System (README.WRI)

This document contains information that is not included in the *WinLaser 400 User's Reference* or in the online Help. The Windows Printing System online Help, however, contains comprehensive information, including information usually found in a README file.

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Contents

This document contains information on the following topics:

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1. Setup Requirements

You must have the following to set up the Windows Printing System for the WinLaser 400 Printer:

1.   386sx host processor or higher.
2.   Windows** 3.1 or Windows for Workgroups 3.10 or higher running in 386 enhanced mode.
3.   At least 4 MB of RAM installed on the host PC (8 MB recommended). Printing speed
     will improve significantly with 8 MB or more of RAM on the PC.

4.   At least 8 MB of virtual memory on the host PC. To set virtual memory size, select control panel in Windows and then 386 Enhanced. We recommend that you use a Permanent swap file if possible.

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2. Fast Printing Direct to Port

To get all the benefits of dynamic two way communication with a local printer, the "Fast Printing Direct to Port" option must be selected. To determine if this option is selected, use the following procedure:

1. From the Control Panel, select the Printers icon.
2. From the Printers dialog box, choose the Connect button.
3. In the Connect dialog box, verify that "Fast Printing Direct to Port" is selected. If it is not selected, select it.
4. Close all open dialog boxes and exit from the Control Panel.

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3. Print spoolers

For best printer performance and control, use the Windows Print Manager to spool print jobs.

Note: Hardware spoolers will disable dynamic two way communications.

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4. Additional printer ports

To establish printer ports greater than LPT3, perform the following steps:

1. Open the **WIN.INI** file with a text editor such as Notepad.
2. Go to the **[ports]** section of the WIN.INI file.
3. Define the new port. For example, to add LPT4 to the list of ports, add on a new line**:**
    LPT4:=
4. Save the WIN.INI file.
5. Exit and restart Windows.

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5. Using Multiple WPS Printers

There can be only one Windows Printing System Printer assigned to a port at any given time. Before installing a second Windows Printing System Printer you must connect any existing printer to file using the Windows Control Panel. When switching from one Windows Printing System printer to another, you should first connect them both to file and then connect the new printer to the lpt port.

If you have installed the Windows Printing System Cartridge product you must remove it completely from your system.

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6. MS-DOS Printing Support

Your WinLaser 400 will support printing from MS-DOS** applications, but only when running them in Windows, either from a Windows MS-DOS window or from the Windows MS-DOS full screen session. The WinLaser 400 does not support printing when Windows is not running. When printing from an MS-DOS application you should select the **HP** Series II** printer driver.

2

Jobs sent to the PCL** 4 Emulation are processed on the PC before being sent to the printer.

MS-DOS Printing functions in Windows Enhanced Mode only.

SPEED

Printing done from an MS-DOS window or a windowed MS-DOS application will print faster than when done from the Windows MS-DOS full screen or in exclusive mode.

It may also be possible to reduce the time required to print a document by modifying the "Auto Form-Feed" setting in the "WinLaser 400 MS-DOS Settings" program. The form-feed time is how long after the last byte has been received the system will wait for more data. Depending on the speed of your PC and applications, you may be able to reduce this time.   If you reduce this time too far print jobs will be split into multiple jobs. The optimal value for each PC and user will be slightly different, so experiment to find the time that works best for you.

MEMORY

Any out-of-memory messages posted by the PCL 4 emulation have to do with the amount of RAM on the PC.   If you have problems running graphic jobs, you may increase the amount of memory available to PCL. To do this, edit the wps.ini file found in the Windows directory.
1. Find the section titled WPSLA,PORT:
     (where PORT is the printer port your printer is on).
2. Add the following line:
         PCL_MEMUSE=2
         and save the wps.ini.

     More memory should now be available to the emulation.

    If you still receive out-of-memory messages, restart Windows and print your PCL job before
    opening any other application. If you are still unable to print the complete page, either simplify
    the page or add RAM to the PC.

To restore your system settings, change the line
     PCL_MEMUSE=2 to PCL_MEMUSE=1.

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7. Printing a Captured Windows Printing System File

To print a file that has been captured to file from a Windows Application, you must exit Windows.
From there, you can use an MS-DOS *copy* command to copy the file to your printer using the */b* parameter.

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8. Windows Application Printing Notes

Aldus** Pagemaker**

The image control option available in Pagemaker allows for the adjusting of screen frequencies and screen angles on print brushes. Adjusting these can often improve the appearance of many printed images.

3

Arts & Letters**

If the document you are printing appears to have incorrect clipping rectangles or gradient fill areas; try adding the following statement to the A&L section of the WIN.INI:
    Gradient Clip=0.

CorelDRAW!**

CorelDRAW! generates its own brush patterns; so the halftoning options under the Graphics option in the Windows Printing System setup panel will have limited effect on the output.

Microsoft** Excel**

To print a Microsoft Excel document using the Windows Printing System header and trailer options, set these options from the control panel before starting Excel. Do not use the Print Setup from inside the application.

Microsoft Word**

On Word versions prior to 6.0, the Windows Printing System does not support printing the first page of a document from the manual source location and the remainder of the document from tray 2.

Wordperfect**

The PCL driver supplied with WordPerfect does not support the Windows Printing System. WordPerfect documents can be printed using the Windows Printing System as the printer driver. See the Windows Printing System online Help and the *WinLaser 400 User's Reference* for more information about printer drivers.

Windows Printing System does not simultaneously support over 128 TrueType fonts when using WordPerfect
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To get uncollated copies with WordPerfect, use Setup to select Uncollated in the WinLaser 400 Setup options *and* in the WordPerfect Print Dialog Copies Group select Generated By: "Printer".

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9. General Installation and Printing Hints

Using other drivers with the same printer - It is OK to use PCL 4 Windows print drivers with the WinLaser 400 printer. However, you should not begin a print job using the Windows Printing System software or the PCL 4 Windows driver when the other print driver is being actively used unless you are spooling the jobs through the Windows Print Manager.

Changing Printers - If you want to print to a different printer on the same LPTx port as the WinLaser 400, you should first connect the WinLaser 400 to another LPTx port or to 'FILE', and then connect the other printer driver to the LPTx port. When you want to print using the WinLaser 400 again, you should then switch the port connections back to their original configuration. Do not attempt to print to another printer if both it and the WinLaser 400 are connected to the same lpt port.

IBM* PS/2* with Parallel Port DMA - If the Windows Printing System cannot find the WinLaser 400

printer during installation or if you are having trouble recovering from paper out conditions and offline conditions; it may be necessary to disable the parallel port arbitration level on the host PS/2 machine using the PS/2 diagnostics. The default arbitration level on IBM PS/2 machines is '7'. Try changing this to 'Disabled'.

Installations with Network Software Active - If you are having trouble completing installation of the Windows Printing System software and you are logged on to an IBM token ring network or Novell Network; log off the network and then reinstall the Windows Printing System software. In some cases it may be necessary to reboot your computer and not load the networking software.

No Bi-directional communication or intermittant communications - Make sure you are using a supported fully shielded six foot parallel printer cable. Minolta recommends using an IEEE-1284 compatible cable.

Installation problems with Lexmark 4039 or 4049 printers connected to this PC -
If you have a Lexmark or IBM 4039 or 4049 printer on your PC and the installation program can not find the printer, do the manual installation. After completing the installation you will be able to use your system and connect to the printer.

PC Memory - The Windows Printing System will work in most host systems with the minimum prerequisite of 4MB RAM memory. However, for more sophisticated setups (e.g. networks, multiple concurrent application sessions, etc.), increased memory may be required. If you are having unusual problems, adding memory to your system may correct them. You may also want to review Chapter 14, Optimizing Windows, in the *Microsoft Windows User's Guide.* This chapter describes several items which you can alter to potentially improve printing performance. Such items include smartdrive size, virtual disk swap size, and efficient memory management.

Printer Memory - The WinLaser 400 printer can print all 150 dpi jobs and most 300 dpi quality jobs in .5 MB of printer RAM. 300 dpi print jobs with high graphics content may require additional memory.

Win-OS/2* - The Windows Printing System is not supported under Win-OS/2.

Document Fidelity (150 dpi vs. 300 dpi quality) - Because many applications position text in device coordinate space, line endings and/or page endings may vary when changing between 150 dpi and 300 dpi printing. If your job is sensitive to line endings and/or page endings, always use the same resolution.

Printing Darkness – If you find that your output is too dark or too light, you can try the following to lighten the print:

- Adjust the Brightness and Contrast controls under the Graphics option in the driver setup
- Try switching the Print Darkness setting under the Graphics option in the driver setup

Large Number of Fonts - Some applications load all available fonts during their startup. If you have a large number of fonts and are having problems starting applications; you should remove some of the unused fonts from your system and try again.

Adobe Type Manager** (ATM**) Support – The Windows Printing System supports ATM level 2.51 or higher. Earlier versions are not supported.

Improving Performance – To further improve the performance of the Windows Printing System; you may wish to consider doing the following:

5

- Increase PC host memory to 8 MB or higher
- Increase WinLaser 400 printer memory to 2.5 MB or 4.5 MB; especially if you perform a great deal of graphics printing.
- Increase the available virtual memory in Windows
- Run MEMMAKER, if you are running a version of MS-DOS which supports this command, to free up conventional memory.

Unexpected Print Job Lost Messages - If while printing you receive a message indicating "Print Job Lost"; you may be able to work around or correct the problem by trying any of the following:

- Delete unused files on your host system to free up additional hard disk space.
- From within Windows change the virtual swap file from TEMPORARY to PERMANENT.
- From within Windows change the virtual swap file such that the TEMPORARY swap file size is smaller than the available free disk space on your hardfile.
- Try running your print job again, but turn the Print Manager off.

Interactions with Screen Savers - If your screen saver is invoked while you are formatting a job, and then a Windows Printing System message is displayed, you may have to clear your screen saver before you can respond to the message. Use your keyboard rather than the mouse to deactivate your screen saver.

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10. Windows system fonts

When you install the Windows Printing System, your system fonts should not change. If the system fonts do change, it is caused by one of the Windows-based applications. To restore your system fonts, see your Windows documentation.

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11. Vector fonts

Microsoft does not support or recommend the use of vector fonts (such as Modern, Roman, and Script) when printing with the Windows Printing System.

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12. Removing the Windows Printing System

Use the following procedure to remove the Windows Printing System from your computer.

1. From the Control Panel, select the Printers icon.
2. From the Printers dialog box, select the Windows Printing System printer and choose the Remove button.
3. To confirm that you want to remove the Windows Printing System printer, choose the Yes button.
4. Close all open dialog boxes and exit from the Control Panel.
5. Delete the WinLaser 400 MS-DOS Settings icon from the Minolta group. See your Windows users's documentation for instructions.
6. Exit from Windows.
7. Change to the Windows directory.
8. Delete the following files:
    WPS.INI
    WPSLA.HLP
    WPSLAFP.HLP
    WPSSETUP.INF

9. Edit the WIN.INI file. Under the [windows] section, delete the following:
    C:\WINDOWS\SYSTEM\WPSIOMON from the run= line.
    (The c:\windows will be replaced by the path to your windows directory.)

10. Edit the SYSTEM.INI file. Under the [386Enh] section, delete the following lines:
    device=wpsljvpd.386
    device=vwpscomd.386

11. Change to the Windows SYSTEM directory and delete the following files:
    WPSLAHRE.DLL
    WPSLA.DRV
    WPSCOM.DLL
    WPSLAQP.DLL
    WPSLJVPD.386
    VWPSCOMD.386
    WPSLAFP.EXE
    WPSPCL4.DLL
    WPSINT.DIR
    WPSINT.BMP
    WPSIOMON.DLL
    WPSIOMON.EXE
    WPSCHIFX.EXE
    WPSLP.DLL
    WPSAPD.DLL
    WPSU1284.DLL
    WPSLAPSM.DLL

12. Change to the Windows WPS directory and delete all files.

13. If you want to delete the Windows Printing System sounds, delete the following files:
    PADDPAP.WAV
    PCOMMERR.WAV
    PCOVER.WAV
    PDONE.WAV
    PERROR.WAV
    PJAM.WAV
    PPAUSED.WAV
    PRESUME.WAV
    PSTARTED.WAV
    PSTOPPED.WAV

14. If you don't want to use the enhanced Print Manager provided with the Windows Printing System, delete **PRINTMAN.EXE** from the Windows directory and **COMMCTRL.DLL** from the Windows SYSTEM directory. Then, you should reinstall Windows to replace these files with the originals. If you are using Microsoft Windows for Workgroups, reinstall Windows for Workgroups.
    NOTE: You should not normally need to do this. Only if after removing the other components and you are still having problems should you remove these modules, because you WILL have to reinstall Windows.

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13. Message: "TrueType Rasterizer is Not Enabled"

The Windows Printing System uses TrueType fonts. When TrueType fonts are not enabled, this message will be display. Use the following steps to enable TrueType fonts:

7

1. From the Control Panel, choose the Fonts icon.
2. From the Fonts dialog box, choose the TrueType button.
3. From the TrueType dialog box, select the Enable TrueType Fonts option.
4. Choose the OK button.
5. Restart Windows.

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14. Windows Printing System Support as a Local Printer

Your WinLaser 400 printer can be used as a local printer only.
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15. PowerSaver

The WinLaser 400 printer has a powersaver feature that automatically shuts down many of its components when not in use. The decreases the consumption of energy when the printer is not in use. It may lead to a slight delay in printing the first page of a print job. If you wish to avoid this delay, you can turn powersaver off from the Options Dialog Box in the Windows Printing System Setup.

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16. Product Support

Minolta hopes that you are satisfied with your purchase of your WinLaser 400 printer and that you are successful with printing under Windows using the Windows Printing System software.

In the event that you should need technical assistance with your WinLaser 400 printer or Windows Printing System software, contact your point of purchase.

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8

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