## **Printing Reference**

# Tektronix

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# 1

# Getting Started

## Introduction

This manual explains how to install and use the printer drivers and utility software shipped with your Phaser® 300X color printer on both a CD-ROM and on a set of floppy diskettes. This software is designed to help you get the best prints from your printer. For your convenience, this manual is also available on the Phaser 300X printer's CD-ROM in Adobe Acrobat Reader PDF format; see Appendix C for instructions on installing and using Acrobat Reader.

## Using the printer

There are different ways to use the printer's features. Standard drivers are included for Macintosh and Windows applications, and downloadable utility files let you make selections to modify the printer's behavior. Refer to the tables on the following pages for details on the different ways to use the printer.

For UNIX workstation environments, Tektronix offers the optional PhaserPrint<sup>™</sup> software. PhaserPrint software includes the same printer options as the Macintosh and Windows drivers, and provides fast raster screen copy printing to Tektronix color printers. For VMS workstation environments, use the optional PhaserSym<sup>™</sup> software to print to your Phaser printer. Refer to Chapter 4, "Printing from UNIX and VMS Workstations," for more information. Chapter 4 also contains instructions for using the printer's utility files from a workstation.

## Standard and extended features configurations

The standard version of the printer has 10 Mbytes of memory and 39 resident fonts. The extended features option adds the following features:

- Ethernet card.
- PhaserMatch<sup>TM</sup> software for creating custom profiles.
- Preconfigured with the memory required for the additional features.

See your Phaser 300X Color Printer User Manual for more information on the printer's options.

#### Where to find information

#### Printed and on-line information

This manual is also available on the Phaser 300X printer's CD-ROM in the Macintosh *Manuals* folder or in the PC *MANUALS* directory.

The on-line documents are in Adobe's Acrobat PDF format. Refer to page C-1 for instructions on installing an Acrobat Reader application from the Phaser 300X printer's CD-ROM to view these documents.

#### Accessing on-line documents without a CD-ROM

If you want to access on-line information and you do not have a CD-ROM drive, you can get on-line documents in the following ways:

- From HAL or EuroHAL, the automated fax systems; see page 9-4 for instructions. These systems contain documents offering hints and tips for using the printer.
- From the Internet; see page 9-3 for instructions. The Tektronix Internet site includes on-line information about using your printer.
- The Acrobat Reader application, required for viewing the on-line documents, is also available from the Internet; see page 9-3 for instructions.

# **Using the printer's features**

	Macintosh drivers	Windows drivers	Workstation drivers	
When to use	Phaser 300X Driver (based on the LaserWriter 7.1.2 driver)	AdobePS 3 Driver	PhaserPrint™ for UNIX	
		<ul><li>Use this driver with Windows 3.1</li></ul>	• • • • • • • • • • • • • • • • • • • •	
	<ul> <li>Use this driver if you are printing large files and you want to disable the</li> </ul>	■ Use this driver if you are using the PhaserMatch™ software.	Demonstration copy	
	background printing feature.	AdobePS 4 Driver		
	■ Use this driver if you are using the PhaserMatch™ software.	Use this driver with Windows 95.		
	Adobe PSPrinter Driver 8.3.1	■ Use this driver if you are using the PhaserMatch™ software.		
	Use this driver if you are using the PhaserMatch™ software.	<ul> <li>Use this driver if you prefer Adobe's standard PostScript driver.</li> </ul>		
	<ul> <li>Use this driver if you prefer Adobe's standard PostScript driver.</li> </ul>	<ul> <li>This driver offers unique features, such as N-Up and Watermark.</li> </ul>		
	<ul> <li>This driver offers unique features, such as N-Up and Watermark.</li> </ul>	Microsoft PostScript Driver for Windows 95		
	<ul> <li>Use this driver with applications such as PageMaker.</li> </ul>	■ Use this driver if you prefer the		
	Phaser 300X GX Driver	Microsoft standard PostScript driver.		
	<ul><li>Use this driver with QuickDraw GX.</li><li>Use this driver if you are using the</li></ul>	Files for updating the Microsoft PostScript Driver for Windows NT		
	PhaserMatch™ software.	<ul> <li>Use this driver with Windows NT.</li> </ul>		
	PhaserPrint plug-in for Photoshop			
	Prints faster than a driver.			
	■ Supports PhaserMatch <sup>™</sup> software.			
Options/ Features	Printer-specific driver selections:			
	<ul> <li>Media size (see page 5-3).</li> <li>Print quality (see page 5-6).</li> <li>Color Control Strip (see page 5-11).</li> </ul>	<ul> <li>TekColor™ Color Corrections (see page 6-2).</li> <li>Finepoint™ Sharpening (see page 5-8).</li> </ul>		
Whore	■ Phaser 300X Color Printer Driver and	■ Phaser 300X Color Printer Driver	■ Phaser 300X	
Where to find	Utilities Software CD-ROM  Macintosh partition	and Utilities Software CD-ROM PC partition	Color Printer Driver and	
	■ Printer Software for Macintosh	■ Printer Software for Windows.	Utilities Softward CD-ROM PC partition,	
		■ AdobePS 3 Driver for Windows 3.1		
		■ AdobePS 4 Driver for Windows 95	UNIXDEMO directory	

		Downloadable utility files
When	All users	■ For selecting features not available in the supported drivers.
to use		For use with applications/computers that don't use the supported drivers.
		Use to modify the printer's default state.
		Print the color and font sampler charts.
		<ul> <li>For making changes to the printer when the printer is some distance away from the user</li> </ul>
Options/	All users	Many utility file selections affect the prints made by all users.
Features		■ Select print quality (see page 5-6).
		<ul> <li>Select TekColor color corrections (see Chapter 6).</li> </ul>
		<ul><li>Print color sampler charts (see page 7-4).</li></ul>
		<ul><li>Print font sampler charts (see Chapter 8).</li></ul>
		<ul> <li>Use the Tektronix PostScript error handler (see page 9-19).</li> </ul>
		<ul><li>Use the setscreen option (see page 9-24).</li></ul>
		■ Print a startup page (see page A-2).
		■ Enable or disable the printer's startup page (see page A-4).
		<ul><li>Print a configuration page (see page A-6).</li></ul>
		■ Change the printer's name (see page A-8).
		■ Reset the printer (see page A-11).
		<ul> <li>Use files for SCSI hard disk operation (see Appendix B).</li> </ul>
	PC and	<ul> <li>Add Control-D characters to utility files (see page A-14).</li> </ul>
	workstation only	<ul><li>Set serial port parameters (see page A-15).</li></ul>
		■ Set timeouts (see page D-2).
		■ Change printer language modes (see page D-5).
Where to find		lity files are available on the <i>Phaser 300X Color Printer Driver and Utilities Software</i> e page 4-4 for instructions on obtaining files from other locations.

# Printing From a Macintosh

## **Overview**

This chapter explains how to use the printer from a Macintosh computer.

- Installing the printer's software.
- Using a Macintosh printer driver, such as Adobe PSPrinter 8.3.1.
- Using the Phaser 300X GX printer driver with QuickDraw GX.
- Using the plug-in for Adobe Photoshop.
- Downloading files to the printer.
- Using PANTONE Color files.
- Using ColorSync color matching

## Installing the printer's software

Packaged with your printer is a CD-ROM and a set of floppy diskettes containing the software you need to use the printer. Included are drivers, printer description files, color sampler charts, and utility files.

The Phaser 300X printer's CD-ROM and diskettes include an installer application that automatically installs the printer's software onto your Macintosh hard disk. You can select a standard installation (Easy Install) from the diskettes or CD-ROM, or select individual items (Custom Install) from the CD-ROM only. See the table on page 2-3 for an overview of the Phaser 300X Installer.

To install and use a driver with your printer, follow the steps outlined in the following table.

Step 1: Install the printer's software	Step 2: Select a driver	Step 3: Set up the driver	Step 4: Use the driver's options
See page 2-2 to	Phaser 300X Driver (based on the LaserWriter 7.1.2 driver)	see page 2-6	see
install the printer's software, then	<ul> <li>Use this driver if you are printing large files and you want to disable the background printing feature.</li> </ul>		page 2-7
continue with	■ Use this driver if you are using the PhaserMatch™ software.		
driver setup.	Adobe PSPrinter Driver 8.3.1	see	see page 2-10 see page 2-13
	<ul> <li>Use this driver if you are using the PhaserMatch™ software.</li> <li>Use this driver if you prefer Adobe's standard PostScript driver.</li> <li>This driver offers unique features, such as N-Up and Watermark.</li> <li>Use this driver with applications such as PageMaker.</li> </ul>	page 2-8	
	Phaser 300X GX Driver	see	
	■ Use this driver with QuickDraw GX.	page 2-11	
	■ Use this driver if you are using the PhaserMatch <sup>™</sup> software.		

#### **Phaser 300X Installer overview**

	Software (installed location)	Description
Easy Install	Adobe PSPrinter Driver 8.3.1 System Folder:Extensions	Driver for use with all Macintosh systems.
	Phaser 300X Driver System Folder: Extensions	Custom driver based on the LaserWriter 7.1.2 printer driver.
	Phaser 300X GX Driver System Folder: Extensions	Driver for use with QuickDraw GX.
	Printer Descriptions System Folder:Extensions: Printer Descriptions	PPDs for use with drivers and applications.
	Fonts System Folder:Fonts	Screen fonts to match the printer's fonts.
	ColorSync Profile System Folder: Preferences: ColorSync™ Profiles	Printer profile for use with ColorSync 2.0.
	Samplers PhaserTools:Samplers	Color sampler charts and a fonts sampler.
	QuarkXPress PDF File QuarkXPress application folder: PDF	File for use with the QuarkXPress application.
	PhaserPrint Photoshop Plug-in Photoshop application folder: Plugs-ins: Acquire/Export	Custom plug-in for printing from Adobe Photoshop.
Custom Install	Manuals* PhaserTools:Manuals	Acrobat Reader PDF files of the printer's manuals.
(Includes items in Easy Install, plus additional software available only on the CD-ROM)	Printer Utilities* PhaserTools: Printer Utilities	Printer utility files for controlling printer features.
	Pantone Files* PhaserTools:Pantone Files	PANTONE Color library files and sampler chart.
	Adobe Acrobat Reader* PhaserTools	Installs an alias to the Acrobat Reader installer application onto your hard disk.
	PhaserMatch™** (PhaserTools:PhaserMatch) and (System Folder:Extensions:Preferences:PhaserMatch™)	Installs the PhaserMatch application onto your hard disk.

<sup>\*</sup> These items are available only with the Installer on the CD-ROM.

#### Note

If you are going to use the PhaserMatch application, you must install **both** the PhaserMatch application and one of the provided drivers on the printer's CD-ROM. The drivers contain support files required for using the PhaserMatch application.

<sup>\*\*</sup>This item is available only on the printer's CD-ROM for the extended features option.

## **Using the Macintosh Installer**

Use the installer application on the printer's CD-ROM or diskette to install the printer's standard software. Then, continue with driver setup instructions depending on the driver you are using.

- 1. Use either the Phaser 300X printer's diskettes or CD-ROM.
  - **Floppy diskettes:** Insert the Printer Software for Macintosh diskette into your computer's disk drive.
  - **CD-ROM:** Insert the Phaser 300X printer's CD-ROM into your computer's CD-ROM drive.
- 2. Double-click the **Phaser 300X Installer** icon. Click **Continue** until the **Easy Install** window appears.
- To install the items listed in the **Easy Install** window, click **Install**.

For details on each item, click **Read Me**.

- To see a list of individual options, select **Custom Install** from the pull-down menu (available with the installer on the CD-ROM only).
- **4.** Select individual items to install from the **Custom Install** window. Click the *I* buttons for information on each item. Click **Install** when you are ready to install the selected items.

## **Using printer drivers**

## **Print features quick reference: Macintosh printer drivers**

Feature	Description	Phaser 300X driver	Adobe PSPrinter driver	Phaser 300X GX driver	
Print-quality modes  Standard Enhanced Premium	See page 5-6	Print  → TekColor button  → TekColor Options  → Print Quality	Print Options button Print Options Print Quality	Printing  → Printer Driver Defaults  → Print Quality	
Color correction  Vivid Color  None Simulate Display SWOP Press Euroscale Press Commercial Press SNAP Press Monochrome Use Printer Settings Custom Profile*	See page 6-3	Print  → TekColor button  → Color Correction	Print  → Options button  → Color Correction	Printing  → Printer Driver Defaults  → Color Correction	
Media size	See page 5-3	Page Setup Paper	Page Setup  → Paper	Page Setup  → Paper Type	
Media source  ■ Tray ■ Manual	See page 5-5	Page Setup  Paper Source	Page Setup Paper Source	Print  → Paper Feed	
Finepoint Sharpening  True False	See page 5-8	Print  → TekColor button  → Finepoint Sharpening	Print  → Options button  → Finepoint Sharpening	Printing  → Printer Driver Defaults  → Finepoint Sharpening	
Color Control Strip  On Off	See page 5-11	Print  → TekColor button  → Color Control Strip	Print  → Options button  → Color Control Strip	Printing  → Printer Driver Defaults  → Color Control Strip	

<sup>\*</sup> Available with the printer's extended features option only.

## Using the Phaser 300X driver

#### Setting up the Phaser 300X driver

The Phaser 300X driver is a Tektronix-modified version of Apple's LaserWriter 7.1.2 printer driver. Use the Phaser 300X driver if you are using System Software 6.0.7, or 7.0 and later.

- Install the printer's software as described on page 2-2. Choose **Easy Install** to install all of the necessary software, or select Phaser 300X Driver in the Custom Install window.
- Select **Chooser** from the **Apple** menu.
- Click on the **Phaser 300X** printer driver icon on the left side of the **Chooser.** A list appears with the printers you have connected to your Macintosh or printers that are available on a network. (If the printer driver icon does not appear, **Restart** your Macintosh, and repeat the printer driver installation procedure; also check the cable connections on your computer and printer.)
- Click on the **Zone** your printer is in. See your network administrator if you have questions.
- Click on your Phaser 300X printer in the list of printers on the right side of the **Chooser**.
- Close the **Chooser** by clicking its close box.

#### **Using the Phaser 300X driver**

**Note** Refer to the table on page 2-5 for more information on the driver's options.

From the **File** menu, open the **Page Setup** dialog box. Use the **Paper** pop-up menu to select the printer's supported paper sizes.

From the **File** menu, open the **Print** dialog box to select media options.

Click the **TekColor** button in the **Print** dialog box to see the **TekColor Options** dialog box. Select printer-specific options as desired.

To use custom profiles created in the PhaserMatch application, select a custom profile in the **Color Corrections** list.

## **Using the standard Adobe driver**

#### Setting up the Adobe PSPrinter Driver

The Adobe PSPrinter driver uses printer-specific PPDs (PostScript Printer Description files) for information on a printer's page sizes, printing options, and media type options. To use the Adobe PSPrinter driver with a Phaser 300X printer, do the following steps. If the printer is busy, it may take some time to complete this set-up procedure; you may want to do this procedure when the printer is idle. You only have to set up a printer once.

- 1. Install the printer's software as described on page 2-2. Select **Easy Install** to automatically install all of the necessary software, or select **Adobe PSPrinter Driver** and **Printer Descriptions** in the Custom Install window.
- Open the **Chooser**.
- Select the **PSPrinter** driver icon.
- Click on the **Zone** your printer is in. See your network administrator if you have questions.
- Select your printer from the list.
- Still in the **Chooser**, click the **Setup** button to see a list of options.
- The correct PPD file should be selected automatically.

If the PPD file is not automatically selected, a dialog box opens showing the location of the PPD files you have installed in the *Printer Descriptions* folder, in the *Extensions* folder, inside your *System Folder.* Click one of the following PPDs and click **Select**:

- Use *TKP300X1.PPD* with the standard version of the printer.
- Use TK300XP1.PPD with the printer's extended features option.

- Note If you are not sure which configuration of the printer you have, the printer's startup page lists this information under Extended Features: Yes/No. See page A-2 for instructions on printing a copy of the printer's startup page.
- **8.** In the dialog box that appears, select the appropriate items under **Installable Options** then click **OK**.
- **9.** Click the **Chooser's** close box.

#### **Using the Adobe PSPrinter Driver**

Note *Refer to the table on page 2-5 for more information on the* driver's options.

Note Refer to the on-line user guide on the printer's CD-ROM for more information on using the Adobe PSPrinter driver.

From the **File** menu, open the **Page Setup** dialog box. Use the **Paper** pop-up menu to select the printer's supported paper sizes.

From the **File** menu, open the **Print** dialog box to select media options. If you are using the PhaserMatch application, the custom profile currently selected is displayed in the **Print** dialog box.

In the **Print** dialog box, click the **Options** button to see the **Print Options** dialog box. There are printer-specific features listed at bottom of the dialog box.

To use custom profiles created in the PhaserMatch application, select Custom Profile in the Color Corrections list. The Custom Profile list box appears listing the profile names you have created in the PhaserMatch application.

## Using the driver for QuickDraw GX

**Note** Refer page 2-17 for details on using the Phaser 300X GX driver.

#### Setting up the Phaser 300X GX driver

If you are using Apple Macintosh QuickDraw GX, use the Phaser 300X GX driver to print to your Phaser 300X printer.

- The Phaser 300X GX driver works with QuickDraw GX and non-QuickDraw GX applications.
- QuickDraw GX does not work with non-QuickDraw GX printer drivers. If you want to print from non-QuickDraw GX applications with a driver such as the Adobe PSPrinter, you must first disable QuickDraw GX.
- Install the printer's software as described on page 2-2. Select Easy Install to automatically install all of the necessary software, or select Phaser 300X GX Driver in the Custom Install window.
- 2. Select **Chooser** from the **Apple** menu.
- 3. Click the **Phaser 300X GX** printer driver icon on the left side of the **Chooser**. A list appears with the printers available on your network. (If the printer driver icon does not appear, **Restart** your Macintosh, and repeat the printer driver installation procedure; also, check the cable connections on your computer and printer.)
- 4. Click on the **Zone** your printer is in. See your network administrator if you have questions.
- **5.** In the **Connect via** field's pop-up menu, select your printer's communication method:
  - The **AppleTalk** option is the standard network connection.
  - The **Servers** option is used to select a shared desktop printer.

- **6.** Click on your Phaser 300X printer in the list of printers on the right side of the Chooser.
- 7. Click the **Create** button to create a desktop printer. An icon of the printer appears on the desktop with the same name as the printer selected in the Chooser.
- Close the **Chooser** by clicking its close box.

#### Using the Phaser 300X GX driver

**Note** Refer to the table on page 2-5 for more information on the driver's options.

#### Printing with a desktop printer

- If you are using QuickDraw GX applications, do *one* of the following:
  - Select any desktop printer in the **Print** dialog box.
  - Drag a document onto a desktop printer icon. The application corresponding to the document opens, prints the document, and then quits.
- If you are using non-QuickDraw GX applications, do one of the following:
  - Print to the *default* desktop printer with the **Print** command from the **File** menu.
  - Drag a document onto a desktop printer icon. The application corresponding to the document opens, displays the **Print** dialog box, and waits for you to click **Print**. After printing the document, the application quits.

#### **Selecting printing options**

Most of the commands in the **Printing** menu are standard QuickDraw GX driver commands, and are documented by Apple (see the Macintosh Guide on-line document for details). The last group of commands in this menu are printer-specific.

Use the **Printer Driver Defaults** command in the **Printing** menu to set default options for the selected desktop printer.

To use custom profiles created in the PhaserMatch application, select a custom profile in the Color Corrections list.

Note The printer defaults dialog box is also available through the **Print** command in the **File** menu for QuickDraw GX applications.

## **Printing from specific applications**

For printing from most applications, follow the instructions in Chapter 2 to install drivers and printer software. Refer to the following application notes for details on a few applications with special requirements.

## **General hints and tips**

For hints and tips on printing from a specific application, you can get information in the following places:

- HAL: Request a document catalog from HAL or EuroHAL, Tektronix' automated fax systems. Refer to "Using the automated fax systems" on page 9-4 for instructions on using HAL and EuroHAL.
- World Wide Web: If you have access to the Internet, you can view selected topics on the Phaser 300X printer's web page. Access the printer's documentation from this web address:

http://www.tek.com/Color\_Printers/userdoc/introduction.html

#### **QuarkXPress**

To use the printer with QuarkXPress, use the installer application on the printer's CD-ROM or diskettes to install the *Phaser 300X.PDF* printer description file. Refer to page 2-2 for instructions on installing the printer's software. Once the file is installed, the printer's name appears alphabetically in the list of installed printers in the QuarkXPress custom **Page Setup** dialog box.

### **Adobe Photoshop**

The PhaserPrint<sup>™</sup> software plug-in operates within the Photoshop application to improve the image data transfer time from your Macintosh to your printer. Use the installer application on the printer's CD-ROM or diskettes to install the PhaserPrint software plug-in. Refer to page 2-2 for instructions on installing the printer's software. Once the file is installed, select **PhaserPrint** from the **Export** pop-up menu in the **File** menu, and make printing selections. Refer to page 2-29 for details on using the PhaserPrint software plug-in.

#### **Pantone**

If you are using an application that produces PANTONE Colors, see page 2-43 for information on color library files available for specific applications.

## Other applications

To use the printer with Aldus PageMaker or FreeHand, and other applications, use the installer application on the printer's CD-ROM or diskettes to install the PPD printer description files. Refer to page 2-2 for instructions on installing the printer's software. Once the files are installed, you can use them to set up a PPD-driven printer driver, such as the Adobe PSPrinter, for your printer; see page 2-3 for instructions.

## **Using the Phaser 300X GX driver**

If you are using Apple Macintosh QuickDraw GX, use the Phaser 300X GX driver to print to your Phaser 300X printer.

- The Phaser 300X GX driver works with QuickDraw GX and non-QuickDraw GX applications.
- QuickDraw GX does not work with non-QuickDraw GX printer drivers. If you want to print from non-QuickDraw GX applications with a driver such as the Adobe PSPrinter, you must first disable QuickDraw GX; see page 2-28 for instructions.

## **System requirements**

**Note** You must have an optional PhaserShare card installed in the printer before using the installed software.

The Tektronix Phaser 300X GX printer driver requires the following hardware and software:

- An Apple Macintosh II computer, or later
- At least 8 Mbytes of RAM
- QuickDraw GX

## **Installing the Phaser 300X GX printer driver**

1. Follow the instructions in "Using the Macintosh Installer" on page 4 to install the Phaser 300X GX printer driver.

Select Easy Install to automatically install the printer's software, or select the **Phaser 300X GX printer driver** option in the Custom Install window on the printer's CD-ROM.

The driver is only installed if you are running QuickDraw GX on your Macintosh.

**2.** Go on to page 2-18 for instructions on creating a desktop printer.

## Creating a desktop printer

QuickDraw GX requires you to create desktop printers for printing. Depending on the type of application you are using, printing is as easy as dragging a document onto a desktop printer icon.

Note If you want to rename the printer listed in the **Chooser**, do so before creating any desktop printers. If you rename the printer in the **Chooser**, any desktop printers referring to that printer will not work, and must be removed to the Trash and recreated. See page A-8 for instructions on using the LaserWriter Utility to rename the printer.

- 1. Select **Chooser** from the **Apple** menu.
- Click the **Phaser 300X GX** printer driver icon on the left side of the **Chooser.** A list appears with the printers available on your network. (If the printer driver icon does not appear, **Restart** your Macintosh, and repeat the printer driver installation procedure; also, check the cable connections on your computer and printer.)
- In the **Connect via** field's pop-up menu, select your printer's communication method:
  - The **AppleTalk** option is the standard network connection.
  - The **Servers** option is used to select a shared desktop printer; see page 2-24 for details.
- Click on your Phaser 300X printer in the list of printers on the right side of the **Chooser**.
- 5. Click the **Create** button to create a desktop printer. An icon of the printer appears on the desktop with the same name as the printer selected in the Chooser.
- Close the **Chooser** by clicking its close box.

## **Setting up unique desktop printers**

You can create more than one desktop printer of the same physical printer. Each desktop printer can be set up with different print modes or options and given a descriptive name. This feature makes it easy to print to a specific printer with the options you want already selected.

- 1. Create a desktop printer; see page 2-18 for instructions.
- 2. Select (highlight) a desktop printer icon.

  The **Printing** menu appears in the menu bar at the top of the Macintosh screen.
- **3.** Use the **Printer Driver Defaults** command in the **Printing** menu to select options for desktop printers; see page 2-21 for details.
- **4.** To rename the desktop printer, highlight the icon on the desktop and type a new name. Renaming a desktop printer has no effect on the printer's name in the **Chooser**.

## Printing with a desktop printer

#### If you are using QuickDraw GX applications, do one of the following:

- Select any desktop printer in the Print dialog box.
- Drag a document onto a desktop printer icon. The application corresponding to the document opens, prints the document, and then quits.

#### If you are using non-QuickDraw GX applications, do one of the following:

- Print to the *default* desktop printer with the **Print** command from the **File** menu.
- Drag a document onto a desktop printer icon. The application corresponding to the document opens, displays the **Print** dialog box, and waits for you to click **Print**. After printing the document, the application quits.

## **Using the Printing menu**

Most of the commands in the **Printing** menu are standard QuickDraw GX driver commands, and are documented by Apple (see the Macintosh Guide on-line document for details). The last group of commands in this menu are printer-specific.

#### Control printing

Use the **Start Print Queue** and **Stop Print Queue** commands in the **Printing** menu to control the print queues on individual desktop printers.

- Select (highlight) a desktop printer icon.
- From the **Printing** menu, select either **Start Print Queue** or Stop Print Queue.

#### Designating a default desktop printer

- Select (highlight) a desktop printer icon.
- From the **Printing** menu, select **Set Default Printer**. A check-mark appears next to the command, and a bold outline appears around the desktop printer's icon.

#### Using printing extensions

Use the Extension Setup command in the Printing menu to specify which third-party printing extensions you want enabled for the currently selected desktop printer. By default, all printing extensions are enabled.

- Select (highlight) a desktop printer icon.
- Select Extension Setup from the Printing menu.
- Make selections as desired.
- 4. Click Save.

#### **Selecting printing options**

Use the **Printer Driver Defaults** command in the **Printing** menu to set default options for the selected desktop printer. This dialog box includes such options as the color corrections and print quality modes.

Note The printer defaults dialog box is also available through the **Print** command in the File menu for QuickDraw GX applications.

#### **Phaser 300X printer options**

Phaser 300X Defaults	Options	Where to find details
Color Correction	■ None	Chapter 6
	<ul><li>Vivid Color</li></ul>	
	<ul><li>Simulate Display</li></ul>	
	<ul><li>SWOP Press</li></ul>	
	<ul><li>Euroscale Press</li></ul>	
	<ul><li>Commercial Press</li></ul>	
	<ul><li>SNAP Press</li></ul>	
	Monochrome	
	<ul><li>Use Printer Setting</li></ul>	
	<ul><li>Custom profile list*</li></ul>	
Print Quality	<ul><li>Standard</li></ul>	Chapter 5
	■ Enhanced	
	■ Premium	
Finepoint Sharpening	Check box on or off (the default is on).	_
Color Control Strip	Check box on or off (the default is off).	_
Display Manual Feed Dialogs	Check box <b>on</b> to see a dialog box confirming each page you want to print with manual feed. (the default is on)	-

<sup>\*</sup>This option is available with the printer's extended features option only. See the Phaser 300X Color Printer User Manual for more information on the printer's options.

#### **Downloading printer utilities**

Use the **Printer Utilities** command in the **Printing** menu to download printer utility files to the selected desktop printer. This command cannot be used on a shared printer, except by the Macintosh hosting the shared printer.

- Select (highlight) a desktop printer icon.
- Select **Printer Utilities** from the **Printing** menu.
- In the **Utility** pop-up menu, select the utility you want downloaded to the printer, then click **OK**. See the following table for a list of utilities available in this dialog box.
- If you see an alert message, click **OK** or **Cancel** as desired.

The utilities in the following table can be downloaded to the printer with the **Printer Utilities** command from the **Printing** menu.

#### **Printer utilities**

Utilities	Where to find details
<ul><li>Print Startup Page</li><li>Print Configuration Page</li></ul>	Appendix A
<ul> <li>Print CMYK Sampler</li> <li>Print RGB Sampler</li> <li>Print HSB Sampler</li> <li>Print Fonts Sampler</li> <li>Print PANTONE Sampler</li> </ul>	Chapter 7

#### **Download PostScript files**

Use the **Send PostScript File** command in the **Printing** menu to download PostScript files to the selected desktop printer. For example, use this command to download the utility files included on the CD-ROM shipped with the printer. This command cannot be used on a shared printer, except by the Macintosh hosting the shared printer.

- 1. Select (highlight) a desktop printer icon.
- 2. Select **Send PostScript File** from the **Printing** menu.
- 3. Select the PostScript file you want to download.
- **4.** Click **Open** to send the file to the printer.

#### Setting up a shared printer

You can share a desktop printer in the same way you share files, folders, or volumes, with the **Sharing** command in the **File** menu. Both the host and client computers must have a copy of the same printer driver.

- Create a desktop printer; see page 2-18 for instructions.
- Highlight the desktop printer icon you want to share.
- Select **Sharing** from the **File** menu.
- Click the check box to turn on **Share this printer**.
- Click the close box.
- At the alert message, click **Save**.
- The desktop printer's icon changes to reflect the change in status to a shared printer.

#### Using a shared printer

If you want to use a printer hosted by another user's computer, do the following:

- 1. Open the **Chooser** from the **Apple** menu.
- Click the **Phaser 300X GX** printer driver icon on the left side of the Chooser.
- In the **Connect via** pop-up menu, select **Servers**.
- The list of printers in the **Chooser** changes to show only shared printers. Click on the shared printer you want to use.
- Close the **Chooser**.

#### **Printing from QuickDraw GX applications**

Use the following dialog boxes if you are using QuickDraw GX applications with the Phaser 300X GX driver.

#### **Using the Page Setup dialog box**

Select **Page Setup** from the **File** menu, then click the **More Choices** button to see the extended dialog box.

Row of icons: The scrollable icon list on the left side of the dialog box shows the printing extensions that are available to the printer driver. When selected, the **General** icon displays the normal **Page Setup** options. Select another icon to see a new set of options.

Refer to Apple's QuickDraw GX documentation for instructions on installing printing extensions; refer to page 2-20 to use the **Extensions Setup** command in the **Printing** menu to enable installed printing extensions.

- **Paper Type:** This is a list of page sizes available for the selected printer. Refer to page 5-3 for details on page size.
- Orientation and Scale: These are standard driver options described in Apple's documentation.
- Format for: This pop-up menu allows you to select a different desktop printer for formatting your document.

#### Using the Print dialog box

Select **Print** from the **File** menu, then click the **More Choices** button to see the extended dialog box.

- **Row of icons:** The scrollable icon list on the left side of the dialog box shows the printing extensions that are available to the printer driver. When selected, the **General** icon displays the normal **Print** options. Select another icon to see a new set of options. **Print Time** and **Paper Match** are part of the QuickDraw GX software and are always available.
- The rest of the options in this dialog box are standard driver options described in Apple's documentation.
- Paper Feed: Automatic or Manual When printing on manually fed media, you need to select **Manual** in this dialog box.

#### Using the TekColor printing extension

In the **Print** dialog box, select the **TekColor** icon in the scrollable list at the left of the dialog box to see printer options.

Note This dialog box is similar to the one that appears when you select **Printer Driver Defaults** from the **Printing** menu; refer to page 2-21 for details.

The default settings in this dialog box reflect the defaults for the selected desktop printer. With most applications, you can change the printing options and save those options with each document.

#### **Printing from non-QuickDraw GX applications**

If you are using non-QuickDraw GX applications with the Phaser 300X GX driver, the **Page Setup** and **Print** dialog boxes look similar to the standard LaserWriter driver. However, these dialog boxes have no printer-specific options, such as TekColor color corrections. These dialog boxes reflect the selections made in the default desktop printer. You cannot change these printer settings from an application, but you can change them by selecting (highlighting) the default desktop printer and using the **Printer Driver Defaults** command in the **Printing** menu.

You can also change the default desktop printer before you change printing selections. To change the default desktop printer, see page 2-20.

#### Changing a desktop printer's default selections

- 1. Click to highlight the default desktop printer.
- 2. From the **Printing** menu, select **Printer Driver Defaults**.
- Make desired printer selections, then click **OK** and return to your application.

#### Viewing printer status

Once you send a print job to a desktop printer, you can monitor the status of the print job in the **Printer Status** dialog box.

There are two ways to open the Printer Status dialog box:

- Select (highlight) the appropriate desktop printer icon, then select **Open** from the **File** menu.
- Double-click the appropriate desktop printer icon.

#### Disabling QuickDraw GX

You may want to disable QuickDraw GX when printing from some non-QuickDraw GX applications so you can use a driver such as the Adobe PSPrinter driver.

There are two ways to disable QuickDraw GX:

#### Method 1

- Open the **Extensions** folder inside the **System Folder**.
- Drag the **QuickDraw**<sup>TM</sup> **GX** extension onto the desktop.
- Select **Restart** from the **Special** menu.

#### Method 2

- Select Extensions Manager in the Control Panel.
- 2. Click to disable all QuickDraw GX entries, such as QuickDraw GX and QuickDraw Helper.
- Select **Restart** from the **Special** menu.

Any desktop printers created before you disabled QuickDraw GX will have an "X" drawn through their icons. These desktop printers remain unavailable for use until QuickDraw GX is re-enabled.

Note During installation, QuickDraw GX altered the Fonts folder inside your System Folder. If you disable QuickDraw GX, you may need to reinstall some fonts.

## **PhaserPrint Plug-in for Photoshop**

The PhaserPrint™ plug-in operates within the Photoshop application to improve the image data transfer time from your Macintosh to your printer. The Phaser 300X printer's CD-ROM and the Printer Software for the Macintosh diskette contain the PhaserPrint plug-in file for use with Photoshop, and Phaser 300X printers, and other supported Tektronix printers.

PhaserPrint software is compatible with Photoshop 2.0 and higher, and System 7.0 and higher. PhaserPrint software only produces correct output on supported printers. If you use this plug-in with a printer not listed in the PhaserPrint dialog box, the image may be placed incorrectly on the page, or colors may look incorrect, or your file may not print.

The PhaserPrint plug-in also works under QuickDraw GX if your default desktop printer refers to a printer supported by the PhaserPrint software.

#### Installing the plug-in

- 1. See "Installing the printer's software" on page 2-2 to install the printer's software.
  - From the printer's CD-ROM, or Printer Software for Macintosh diskette, select Easy Install to automatically install the printer's software.

Or,

- From the printer's CD-ROM, select the **PhaserPrint Photoshop Plug-in** in the **Custom Install** window.
- The plug-in is automatically installed in the Acquire/Export folder, inside the Plug-ins folder, in the Photoshop application folder, on your hard disk.

### Using the plug-in

- Open Photoshop and an image.
- If you don't already have a Phaser 300X printer selected as the default printer, open the **Chooser** and select a PostScript driver (such as the Adobe PSPrinter) and your Phaser 300X printer, or select an appropriate QuickDraw GX desktop printer.
- From the **File** menu, highlight **Export** to see the pop-up menu. Select **PhaserPrint** from the list; the **PhaserPrint** dialog box appears.
- In the **Printer** field, select **Phaser 300X**.
- PhaserPrint software bypasses the printer driver selected in the **Chooser.** Use the page setup and printing option selections in the **PhaserPrint** dialog box to print your images to your Phaser 300X printer.
- PhaserPrint software supports the following image modes selected from Photoshop's **Mode** menu. If you select a mode not listed here, an error message appears and your image is not printed.
  - Bitmap
  - Grayscale
  - Indexed Color
  - **RGB Color**
  - CMYK Color
  - Lab Color

However, in Photoshop 2.0, if you select an image mode not supported by the PhaserPrint software, the following inaccurate error message appears:

Could not complete the "PhaserPrint..." command because the export module does not work with Bitmap images.

The error message does not list the specific unsupported color mode you selected.

#### Selecting options in the PhaserPrint dialog box

#### Copies

Type in the number of copies to print, from 1 to 1000.

#### **Destination**

- This field allows you to choose between printing an image or saving the image to disk.
- The first radio button lists the name of the printer currently selected in the **Chooser**. If the selected printer is not a PostScript printer, this button is labeled Not network printer and the option is unavailable (grayed-out).
- The second radio button, **PostScript disk file**, lets you save an image to disk as a PostScript Level 2 file. When you click the **Save** button, another dialog box appears allowing you to choose a new or existing file for saving the PostScript code.

Also, when the **PostScript disk file** radio button is selected, the option ASCII-85 encode becomes available. If this option is selected, the image data is encoded using an ASCII-85 filter during file output, making the resulting PostScript file portable so it can be downloaded through interface ports that don't support binary data. If this box is not checked, image data is output in binary format.

#### **Printer**

- This pop-up menu lists the printers supported by the PhaserPrint software.
- Select your printer model (Phaser 300X) before selecting a paper size in the Media Size field.
- The setting you make in this field remains in effect until you change it.

#### **Media Size**

- Select a paper size from this pop-up menu.
- Paper sizes are printer-specific; select your printer in the Printer field before selecting a paper size.
- The setting you make in this field remains in effect until you change it.
- See page 5-4 for a list of media sizes.
- If you select Custom, enter the size in the Custom Media Size field.

#### **Orientation**

- Select either **Portrait** (vertical) or **Landscape** (horizontal) in the pop-up menu.
- The setting you make in this field remains in effect until you change it.
- Refer to the stylized representation of the page, in the lower left corner of the dialog box, to see how the orientation selection will look when printed.

#### **Color Correction**

- Select from the options in the pop-up menu.
- The setting you make in this field remains in effect until you change it.
- If **Lab** is the selected **Mode** in Photoshop, then the Color Corrections are not available.
- If **RGB** is the selected **Mode** in Photoshop, then the **Calibrated RGB** option is also available.
- See Chapter 6 for details on the following color corrections:

■ None ■ Vivid Color ■ S	Simulate Display
--------------------------	------------------

SWOP Press ■ Commercial Press ■ Euroscale Press

SNAP Press ■ Use Printer Setting Monochrome

■ Calibrated RGB\*

#### Rendering Intent

- This option is available in the following cases:
  - If the Mode in Photoshop is RGB, and you select Calibrated RGB as the Color Correction in PhaserPrint.
  - If the **Mode** in Photoshop is **Lab**.
- See page 6-13 for details on the following rendering intents:
  - Absolute Colorimetric
  - Relative Colorimetric
  - Saturation
  - Perceptual
  - Use Printer Setting (Uses the printer's default setting.)

<sup>\*</sup> RGB mode images are printed using the Calibrated RGB color space as determined by Photoshop's Monitor Setup in order to match the currently selected monitor's colors to the printer's colors. This option is unavailable if the image is not RGB.

#### Quality

- Select from the options in the pop-up menu.
- The setting you make in this field remains in effect until you change it.
- See Chapter 5 for details on the following print quality modes:
  - Standard
  - Enhanced
  - Premium

#### **Compress Image Data**

- Use this option to compress image data so less data needs to be sent to the printer.
- This option is useful if your network connection is slow, for example a busy Ethernet network or if you are using LocalTalk. For fast networks, printing may be faster without using this option.
- The default for this option is on.
- The setting you make in this field remains in effect until you change it.

#### Manual feed

- Check this box to manually feed media into the printer.
- The current settings for Media Size, Orientation, and Media apply to the type of media manually fed.
- The default for this option is **off**.

#### **Finepoint sharpening**

- Check this box on to use Finepoint Sharpening.
- See Chapter 5 for details on this option.

#### Color control strip

- Check this box on to print a band of test colors at the bottom of your print.
- See Chapter 5 for details on this option.

#### Stylized representation of the page

- The area in the lower left of the dialog box is a stylized representation of the page as it would look when printed using the current selections in the Scale, Printer, Media Size, Orientation, Enable image replication, Center images, and Image separation options. When you change any of these selections, the representation of the page is redrawn to reflect the new selection.
- If **Show color preview of image** is on, an approximate color image is displayed.

#### Scaling an image

- Scale to fit
  - Click this check box to scale the image to the largest size that will fit the image area of the currently selected page size or orientation.
  - This option automatically updates the value in the **Scale** field.

#### Scale

- Type in the percentage the image should be scaled, from 10 percent to 2000 percent.
- Use this option with the Enable image replication option to produce multiple copies of an image on a single page.

#### Alert message

The following message appears in the dialog box whenever a scaled image will not fit within the image area of the currently selected page size or orientation option:

Image does not fit page and will be clipped when printed.

#### **Center images**

- Check this box to center the image in the image area of the page.
- If this box is not checked, the lower left corner of the image is aligned with the lower left corner of the image area of the page.
- The setting you make in this field remains in effect until you change it.
- If the **Center images** box is checked *and* the **Enable image replication** box is checked, the set of replicated images are centered in the image area of the page.

#### **Enable image replication**

- Check this box to fill the image area of the page with as many copies of the image as will fit.
- The size of each replicated image is determined by the setting in the **Scale** text box.
- If the size of each replicated image (shown as black rectangles in the stylized representation of the page) is too small to display, the total image area of the printed page is shown as a single gray rectangle.

#### Image size

- This field reflects the dimensions, in inches or millimeters, of the image.
- If the value in the **Scale** box is out-of-range, the image dimensions are displayed with question marks.

#### Image separation

- This option is only available if the **Enable image replication** box is checked.
- Type in an amount, in inches or millimeters, to specify the amount of separation between each replicated image.
- The setting you make in this field remains in effect until you change it.
- A larger amount reduces the number of images that can be printed at one time.
- The minimum allowed separation value is **0** inches.
- The maximum separation value is 4 inches (or the metric equivalent).
- The default separation value is **0.125** (one-eighth) inches (or the metric equivalent).
- Valid characters for this field are 0 to 9 and a period (or decimal point).
- As you type in a value, the stylized representation of the page, and the **Number of images** and **Image layout** values, are dynamically updated. If the value entered in the **Image separation** field is out-of-range, the values in these other fields are replaced by question marks, and no images are shown in the stylized representation of the page. If the value is out-of-range, and you click the **Print** or **Save** button, the following alert is displayed:

The value for Image separation is out of range. It will be replaced with the closest allowed value.

#### **Number of images**

- This field displays the number of scaled images that will fit in the image area of the currently selected Media Size and Orientation options.
- The **Number of images** reflects the current **Image separation** value.
- If the **Enable image replication** box is not checked, this number is set to **1**.
- If either of the Scale or Image separation values are out-of-range, a question mark is displayed.

#### Image layout

- This field shows how the scaled images will fit horizontally and vertically in the image area of the currently selected **Media** and **Orientation** options.
- The **Image layout** reflects the current **Image separation** value.
- If the **Enable image replication** box is not checked, this number is set to 1 x 1.
- If either of the Scale or Image separation values are out-of-range, question marks are displayed.

#### Media size

- This field reflects the dimensions, in inches or millimeters, of the selected media size.
- Enter values in this field if you selected Custom Media Size.

#### Show color preview of image

This option displays an approximate color image, rather than a black box, in the **Stylized representation of the page** field.

## **Downloading files to the printer**

In addition to using the options in a supported driver, the utility files available on the printer's CD-ROM offer another method for changing the way the printer operates. In some cases, a selection can only be made with a utility file.

To use the files, send or download them to the printer with the LaserWriter Utility described below. If you are using QuickDraw GX, you can also download printer utilities from the Tektronix Phaser 300X GX printer driver; refer to page 2-22 for instructions. Refer to page 2-42 for a list of utility files.

#### Using the LaserWriter Utility to download files

The LaserWriter Utility is an Apple utility program you use on the Macintosh to send PostScript files and fonts to the printer.

The LaserWriter Utility version 7.7 is compatible with Apple System Software versions 7.0 and higher. If you are using System Software 6.x, check with the Tektronix BBS for another version of the *LaserWriter Utility* in the LW\_UTIL.SEA compressed archive file. Refer to page 9-2 for instructions on using the BBS.

Note The **LaserWriter Utility** cannot be used if the printer is connected to a print server. See your system administrator to temporarily remove the printer from the print server to download necessary files.

- Install a supported printer driver and the printer utilities from the printer's CD-ROM; see page 2-2 for instructions.
- Select the appropriate printer in the **Chooser**.
- Locate the *LaserWriter Utility* in the *PhaserTools* folder on your hard disk, and double-click its icon to start the application.
- Select **Download PostScript File** from the **Utilities** menu.

- **5.** Select the file you want sent to the printer, and click **Open**. (The printer's utility files were installed in the *Printer Utilities* folder, inside the *PhaserTools* folder.)
- 6. At the prompt Save PostScript output as: you are asked for a file name for saving printer output. Use the default name given in the edit box or type in a new name. (Printer output includes status messages generated by the printer reporting such conditions as out of paper.)
- 7. Click **Save** to send the file to the printer.
- 8. If no output is returned by the printer, the *LaserWriter Utility* displays a dialog box; click **OK** in the box to continue. If output is returned by the printer, you won't see this dialog box; check your hard disk for the file the utility created for the printer's output.

#### Using the LaserWriter Utility to perform other tasks

In addition to downloading PostScript files and fonts, you can use the *LaserWriter Utility* to perform the following specialized tasks:

Task	Where to find details
Enabling or disabling the printer's startup page	see page A-4
Changing the printer's name	see page A-8

All of the files in the following table can be downloaded to the printer with the LaserWriter Utility:

Downloadable utility files	,	Where to find details
Standard Quality	■ Premium Quality	Chapter 5
<ul><li>Enhanced Quality</li></ul>		
■ Commercial Press	■ Simulate Display	Chapter 6
■ Euroscale Press	■ Raw CMYK Colors	
<ul><li>SWOP Press</li></ul>	■ Raw RGB Colors	
<ul><li>SNAP Press</li></ul>	<ul> <li>Rendering Intent Absolute</li> </ul>	
■ Vivid Color	<ul> <li>Rendering Intent Perceptual</li> </ul>	
<ul> <li>No Color Correction</li> </ul>	<ul> <li>Rendering Intent Relative</li> </ul>	
Monochrome	<ul> <li>Rendering Intent Saturation</li> </ul>	
■ CMYK Sampler	■ PANTONE® Phaser 300X.ps	Chapter 7
■ HSB Sampler	■ RGB Sampler	
■ Fonts Sampler		Chapter 8
■ Setscreen On	■ Tek Error Handler	Chapter 9
■ Setscreen Off		
■ Print Start Page	■ Finepoint Sharpening On	Appendix A
<ul><li>Reset Printer</li></ul>	■ Finepoint Sharpening Off	
■ Configuration Page		
■ No SysStart Job	■ Format Printer Disk	Appendix B
■ Set SysStart Job	■ Initialize Printer Disk	

## **Using PANTONE Color files**

#### Note

For the latest information on color libraries, call Tektronix Customer Support in the U.S. and Canada at 1-800-835-6100. Outside the U.S. and Canada, contact your local Tektronix reseller.

Use the following PANTONE files with specific applications.

PANTONE Color file	Application
PANTONE® Phaser 300X.ai	<ul><li>Adobe Illustrator 3.0</li><li>Adobe Illustrator 5.0</li></ul>
PANTONE® Phaser 300X.acf	<ul><li>Aldus FreeHand 4.0</li><li>Aldus PageMaker 5.0</li><li>Adobe PageMaker 6.0</li></ul>

#### **Installing the Pantone files**

The PANTONE Color files are available on the printer's CD-ROM and on the Printer Software for Macintosh diskette.

- See page 2-2 to install the printer's software. Select Easy Install to automatically load all of the necessary software, or select a printer driver, such as the Adobe PSPrinter driver, and the *Pantone Files* item in the Custom Install window on the printer's CD-ROM.
- **2.** Locate the files in the *Pantone Files* folder inside the *PhaserTools* folder created on your hard disk by the installer application.

#### **Using the PANTONE Color templates**

#### Adobe Illustrator 3.0

The  $PANTONE^{\circledR}Phaser~300X.ai$  file is used by the application to properly specify PANTONE Colors for the Phaser 300X printer.

- See "Installing the Pantone files" on page 2-43 if you haven't already installed the files.
- Locate the *PANTONE* Phaser 300X.ai file in the *Pantone Files* folder, inside the Phaser Tools folder on your hard disk.
- Drag the *PANTONE*<sup>®</sup> *Phaser 300X.ai* file to the *Illustrator* application folder on your hard disk.
- 4. Use this file as a template to create documents for printing.

#### Adobe Illustrator 5.0

The PANTONE® Phaser 300X.ai file is used by the application to properly specify PANTONE Colors for the Phaser 300X printer.

- See "Installing the Pantone files" on page 2-43 if you haven't already installed the files.
- 2. Locate the *PANTONE* Phaser 300X.ai file in the *Pantone Files* folder, inside the PhaserTools folder on your hard disk.
- **3.** Drag the *PANTONE*<sup>®</sup> *Phaser 300X.ai* file to the *Illustrator* application folder on your hard disk.
- Choose Import Styles from the File menu in Illustrator and import the PANTONE® Phaser 300X.ai file.

#### Aldus FreeHand 4.0

The *PANTONE*<sup>®</sup> *Phaser 300X.acf* file is used by the application to properly specify PANTONE Colors for the Phaser 300X printer.

- 1. See "Installing the Pantone files" on page 2-43 if you haven't already installed the files.
- 2. Locate the *PANTONE*<sup>®</sup> *Phaser 300X.acf* file in the *Pantone Files* folder, inside the PhaserTools folder on your hard disk.
- 3. Place the *PANTONE* Phaser 300X.acf file in the Color folder in the Aldus folder, inside the System Folder.
- 4. Start FreeHand.
- 5. From the Colorlist window, choose Options, Import and select PANTONE® Phaser 300X.acf.

#### Aldus PageMaker 5.0

The *PANTONE*<sup>®</sup> *Phaser 300X.acf* file is used by the application to properly specify PANTONE Colors for the Phaser 300X printer.

- 1. See "Installing the Pantone files" on page 2-43 if you haven't already installed the files.
- 2. Locate the *PANTONE*<sup>®</sup> *Phaser 300X.acf* file in the *Pantone Files* folder, inside the PhaserTools folder on your hard disk.
- 3. Place the *PANTONE*® *Phaser 300X.acf* file in the *Color* folder in the Aldus folder, inside the System Folder.
- 4. Start PageMaker.
- 5. Choose Element, Define Colors, New, Libraries, then select *PANTONE*<sup>®</sup> *Phaser 300X.acf.*

#### Adobe PageMaker 6.0

The  $PANTONE^{\circledR}$  Phaser 300X.acf file is used by the application to properly specify PANTONE Colors for the Phaser 300X printer.

- 1. See "Installing the Pantone files" on page 2-43 if you haven't already installed the files.
- 2. Locate the *PANTONE*<sup>®</sup> *Phaser 300X.acf* file in the *Pantone Files* folder inside the *PhaserTools* folder on your hard disk.
- **3.** Place the *PANTONE*<sup>®</sup> *Phaser 300X.acf* file in the *Color* folder in the RSRC folder inside the Adobe PageMaker 6.0 folder.
- Start PageMaker.
- 5. Choose Element, Define Colors, New, Libraries, then select *PANTONE*<sup>®</sup> *Phaser 300X.acf.*

## **Using ColorSync color matching**

ColorSync 2.0 is a color matching system that attempts to match the screen's colors to the printer's colors. The software for the Phaser 300X printer includes a printer profile that contains specific color information required by ColorSync.

ColorSync adjusts an image's colors on the computer. The TekColor color corrections adjust an image's colors in the printer. You should use only one method of color adjusting at a time, or you may get unexpected results. For more information on color matching options, see Chapter 6 "Correcting Printed Colors."

To use ColorSync color matching, you need to do the following:

- See page 2-2 to install the Phaser 300X printer software. Select Easy Install to automatically install the printer's software, or install the Adobe PSPrinter driver option and the ColorSync Profiles option in the Custom Install window on the printer's CD-ROM.
- **2.** Set up the driver:
  - a. Open the Chooser from the Apple menu.
  - **b.** Select the **Adobe PSPrinter** driver.
  - **c.** Select your printer in the list.
  - **d.** Click the **Setup** button.

**e.** If the correct PPD file is installed on your hard disk, it is automatically selected.

If the PPD file is not selected automatically, the following dialog box opens showing the location of the PPD files you have installed.

Select the *PPD* file you need:

- Use the TKP300X1.PPD file with the standard version of the printer.
- Use the *TK300XP1.PPD* file with the printer's extended features option.

Note *If you are not sure which version of the printer you have, the* printer's startup page lists this information under Extended Features: Yes/No. See page A-2 for instructions on printing a copy of the printer's startup page.

- f. Click the **Select** button.
- **g.** Click **OK**, then close the **Chooser**.

- **3.** Select **ColorSync System Profile** in the **Control Panel**, and select the profile for your monitor.
- 4. Open an application that supports ColorSync 2.0.
- 5. Select **Print** from the **File** menu.
- **6.** In the **Print** dialog box, click **Options**.
- 7. In the **Options** dialog box, make the following selections:
  - **a.** Select **ColorSync Color Matching** in the **Print** pop-up menu.
  - **b.** Select your printer in the **Printer Profile** pop-up menu.
  - **c.** Select **None** in the **Color Corrections** pop-up menu.
  - d. Click **OK**.
- **8.** Click **Print** in the **Print** dialog box.

**Note** If printed colors are not what you expected, refer to Chapter 6, "Correcting Printed Colors," and Chapter 7, "Using Color" for more information about color.

# 3

## Printing From a PC

#### **Overview**

This chapter explains how to use the printer with a PC (IBM or compatible) computer, in these applications and environments:

- Installing the printer's software
- Using the printer with Windows 95
- Using the printer with Windows 3.1
- Using the printer with Windows NT
- Using a specific application
- Using the PC utility files
- Using PANTONE Color files
- Using host color correction
- Printing from DOS

**Note** The instructions in this chapter assume a basic familiarity with Windows operation and terminology. For additional information about Windows, refer to your Microsoft Windows documentation.

## Installing the printer's software

To install and use a driver with your printer, follow the steps outlined in the following table.

Step 1: Install the printer's software	Step 2: Select a driver	Step 3: Set up the driver	Step 4: Use the driver's options
See page 3-2 to install the printer's software, then continue with driver setup.	Windows 95: Microsoft PostScript driver	see	see page 3-13
	<ul> <li>Use this driver if you prefer the standard Microsoft PostScript driver for Windows 95.</li> </ul>	page 3-11	
	Windows 95: AdobePS 4 Driver	see	see page 3-8 see page 3-18
	■ Use this driver if you are using the PhaserMatch™ software.	page 3-6	
	<ul> <li>Use this driver if you prefer Adobe's PostScript driver for Windows 95.</li> </ul>		
	■ This driver offers unique features, such as N-Up and Watermark.		
	Windows 3.1: AdobePS 3 Driver	see	
	■ Use this driver with Windows 3.1.	page 3-15	
	■ Use this driver if you are using the PhaserMatch™ software.		
	Windows NT: Microsoft PostScript driver	see	see
	■ Use this driver with Microsoft Windows NT.	page 3-20	page 3-23

#### Note

If you are going to use the PhaserMatch application, you must install **both** the PhaserMatch application and one of the provided Adobe drivers on the printer's CD-ROM. The drivers contain support files required for using the PhaserMatch application.

#### **Software overview**

Software	Directory on CD-ROM or diskette	Description	Where to find details
Driver-support files*	WIN95_NT*	Files for use with the Microsoft PostScript driver for Windows 95 and Windows NT.	See page 3-11 and page 3-20
AdobePS 4 Driver	ADOBEPS4	Driver for Windows 95: Use this driver if you are also using the PhaserMatch software available on the CD-ROM for the printer's extended features option.	See page 3-6
AdobePS 3 Driver	WIN31DRV	Driver for Windows 3.1: Use this driver if you are also using the PhaserMatch software available on the CD-ROM for the printer's extended features option.	See page 3-15
QuarkXPress PDF File	QUARK	TKPH300X1.PDF	See page 3-26
PPDs		PostScript printer description files, used by some drivers and applications.	See page 3-24
Sampler Files	SAMPLERS	Color sampler charts and a font sampler	See page 7-4 and page 8-1
Pantone Files	PANTONE	Pantone color charts and color library files	See page 7-13 and page 3-31
Printer Utilities*	PHSR300X*	Printer-specific utility files	See page 3-27
PhaserPrint for UNIX*	UNIXDEMO*	Demo version of PhaserPrint for UNIX software	See page 4-2
Printer Tools*	TOOLS*	Adobe Acrobat Reader	See Appendix C.
Manuals*	MANUALS*	Adobe Acrobat Reader PDF versions of the printers manuals	These files are available on the printer's CD-ROM.
OS/2 driver*	OS2DRV*	Driver for OS/2	See the related Acrobat PDF file on the printer's CD-ROM.
PhaserMatch™**	PHSRMTCH**	PhaserMatch software available with the printer's extended features option only.	See the PhaserMatch User Manual and Release Note.

<sup>\*</sup> These items are available only on the printer's CD-ROM.
\*\* This item is available only on the printer's CD-ROM for the extended features option.

## **Using printer drivers**

## Print features quick reference: Windows printer drivers

Feature	Feature descriptions	Windows 3.1 AdobePS 3 PostScript driver	Windows 95 Microsoft PostScript driver	Windows 95 AdobePS 4 PostScript driver	
Print-quality modes  Standard Enhanced Premium	See page 5-6	Features tab  → Print Quality	Properties  → Device Options tab → Print Quality	Properties  → Device Options tab  → Print Quality	
Color correction  Vivid Color None Simulate Display SWOP Press Euroscale Press Commercial Press SNAP Press Monochrome Use Printer Settings Custom Profile*	See page 6-3	Features tab  Color Correction	Properties  Device Options tab  Color Correction	Properties Device Options tab Color Correction	
Media size	See page 5-3	Paper tab <b>→ Paper Size</b>	Properties  → Paper tab  → Paper Size	Properties  → Paper tab  → Paper Size	
Media source  ■ Tray ■ Manual	See page 5-5	Paper tab Paper Source	Properties Paper tab Paper Source	Properties  → Paper tab  → Paper Source	
Finepoint Sharpening  True False	See page 5-8	Features tab  Color Correction	Properties  Device Options tab  Color Correction	Properties  → Device Options tab  → Color Correction	
Color Control Strip On Off	See page 5-11	Features tab  Color Correction	Properties  Device Options tab  Color Correction	Properties  → Device Options tab  → Color Correction	

<sup>\*</sup> This feature is available if you have created custom profiles with the PhaserMatch application. PhaserMatch software is available with the printer's extended features option only.

## **Using the printer with Windows 95**

**Note** *If you are going to be using PhaserMatch software, install and use the AdobePS 4 driver described on page 3-6.* 

For better performance and added features when printing from Windows 95, it is recommended that you use a Windows 95 printer driver and not a Windows 3.1 printer driver. Using a Windows 3.1 printer driver in Windows 95 may cause printing problems.

To print from Windows 95, you can use either of the supported drivers available on the printer's CD-ROM and diskettes:

- AdobePS 4 Driver: Use this driver if you are also using the PhaserMatch software available on the CD-ROM for the printer's extended features option; see page 3-6 for instructions.
- Microsoft PostScript Driver for Windows 95: Update your existing Microsoft driver for the Phaser 300X printer if you prefer using the standard Microsoft driver; see page 3-11 for instructions.

#### Using the Adobe driver for Windows 95

#### Setting up the Adobe PostScript driver for Windows 95

The files for this driver are available only on the printer's CD-ROM. If you already have the driver installed and you are only adding a printer, such as the Phaser 300X printer, open the Control Panel, double-click the Adobe driver icon, then continue with Step 7.

- Insert the printer's CD-ROM into your CD-ROM drive.
- Click the **Start** icon in the taskbar on your screen. In the menu that appears, click Run.
- In the **Run** window, type in the drive the CD-ROM is in, followed by the \ADOBEPS4 directory and the file name SETUP.EXE and click **OK**. For example:

#### C:\ADOBEPS4\SETUP

- 4. When the **AdobePS4 PostScript Printer Driver Setup** dialog box appears, click the **Read** button if you wish to see a text file with driver instructions. Click **Next** to continue, or **Exit** to quit.
- In the **Install Setup Program** dialog box, decide if you want to copy the Adobe driver setup program to your hard disk, then click Next.

If you selected **Yes**, continue with the on-screen instructions.

- In the **Printer Type** dialog box, select your printer's connection:
  - Select Local Printer if your printer is connected directly to your computer, then click **Next**.
  - Select **Network Printer** if you are accessing your printer through a network. Click **Browse** to search the network and select a printer queue. Then click **Next**.

- 7. In the **Install PostScript Printer from PPD** dialog box, select the directory and drive for the printer's CD-ROM and the *ADOBEPS4* directory. Select your printer, then click **Next**.
  - Select Tektronix Phaser 300X if you have the standard version of the printer.
  - Select Tektronix Phaser 300X Extended if you have the printer's Extended Features option.
- **Note** If you are not sure which configuration of the printer you have, the printer's startup page lists this information under **Extended Features: Yes/No.** See page A-2 for instructions on printing a copy of the printer's startup page.
- **8.** In the **Local Port Selection** dialog box, select the port you want to use, then click **Next**. (You can configure the port in this dialog box at any time.)
- 9. In the Add Printer dialog box, type in the printer's name, select the printer as default, and decide if you want to print a test page. Click Next to continue.
- **10.** If you see the **Different Versions Detected** dialog box, click **Next** to update the files from the printer's CD-ROM.
- 11. When the installation is finished, the **Tektronix Phaser 300X Properties** dialog box appears. Make selections in the driver, referring to page 3-8 for more information on printer options.

Refer to the Adobe PostScript Printer Driver User Guide on the printer's CD-ROM (USRGUIDE.PDF) for more detailed information on the AdobePS 4 driver.

#### Using the AdobePS 4 Driver for Windows 95

Note *Refer to the table on page 3-4 for details on print options.* 

To select printing options, follow these steps:

- In the **Printers** window, click the **Phaser 300X** printer icon with the right mouse button, then select **Properties** from the menu.
- Click the following tabs to see printing options; refer to your Windows 95 documentation for more information on tabs and options.
- Click the **Details** tab to see timeout and other options.
  - Set the **Timeout settings**.

**Not Selected:** Type a value of **0**, or between **15** and **999**, in this text box to change the number of seconds Windows waits before notifying you that a printer is off-line. The default is 15 seconds.

**Transmission Retry:** On large or multiple-page documents you may see an Alert message that the printer is no longer accepting data before the job is completely sent to the printer. When using a shared printer, you should set this option to a larger value, such as 900 seconds (15 minutes) to avoid these unnecessary timeouts. Type a value between 45 and 999 in this text box; the default setting is 45 seconds.

Click the **Paper** tab to see media options, such as media sizes.

Click the **Graphics** tab to see graphics options.

Note If you are using host color correction, you need to make selections in the **Graphics** and **Device Options** tabs. Refer to page 3-35 for more information on host color correction.

- Click the **Device Options** tab to see printer-specific options, such as color corrections.
- **PhaserMatch:** If you have created custom profiles in the PhaserMatch application, you can access these profiles through the **Device Options** tab.
  - **a.** Under Printer Features, select Color Correction.
  - **b.** Under Change setting for: Color Correction, scroll to the bottom of the list and select **Custom**.
  - **c.** Under **Printer Features**, scroll to the bottom of the list and select Custom Profiles.
  - **d.** Under Change setting for: Custom Profiles, select the profile you created in the PhaserMatch application.

- Click the **PostScript** tab to see PostScript-related options.
  - The PostScript header contains important PostScript information that must accompany each print job; it is not a banner page printed with each job. If an option is not selected, an error message is displayed on your computer screen and your job does not print. Click one of the following in the **PostScript header** field:

Select **Download header with each print job**. This option downloads PostScript header information with each print job.

Click the **Send Header Now** button to save the PostScript header information in the printer, then select the **Assume header is downloaded and retained** option. This option makes print files a little smaller and faster than the first option, but you need to click the **Send Header Now** button every time the printer is turned off or reset.

Click the **Advanced** button to see more options. Select **Use PostScript Level 2 features**. Click **OK** when finished.

For faster printing, select **Binary communications protocol** under Data format.

# Using the Microsoft driver for Windows 95

#### Setting up the Microsoft PostScript driver for Windows 95

- 1. Insert the printer's CD-ROM into your CD-ROM drive.
- 2. Click the **Start** icon in the taskbar on your screen. In the menu that appears, click **Settings**.
- 3. In the menu that appears, click **Printers**; the **Printers** window appears.
- In the **Printers** window, double -click **Add Printer**.
- When the **Add Printer Wizard** window appears, click **Next**.
- Select your printer's connection:
  - Select Local Printer if your printer is connected directly to your computer, then click Next.
  - Select **Network Printer** if you are accessing your printer through a network. Click **Browse** to search the network and select a printer queue. Then click **Next**.
- 7. In the window listing **Manufacturers/Printers**, click the Have Disk button.
- **8.** In the **Install From Disk** dialog box, do the following:
  - a. Click **Browse**.
  - **b.** In the **Open** dialog box select the **Drive** for the printer's CD-ROM.
  - **c.** Select the \*WIN95\_NT* directory under **Folders**.
  - d. Click **OK**.

- **9.** A list of Tektronix printers appears. Select your printer in the list, then click Next.
  - Select **Tektronix Phaser 300X** if you have the standard version of the printer.
  - Select Tektronix Phaser 300X Extended if you have the printer's Extended Features option.
- Note If you are not sure which configuration of the printer you have, the printer's startup page lists this information under **Extended Features:** Yes/No. See page A-2 for instructions on printing a copy of the printer's startup page.
- **10.** Select the port your printer is connected to, then click **Next**.
- 11. It is recommended that you use the default printer name shown under **Printer name**. Click **Yes** if you want this printer to be the default printer. Then click **Next**.
- 12. At the prompt, Would you like to print a test page? click **Yes** to verify the printer's connection, or click **No**. Then click Finish.
  - A status bar appears while files are copied to your computer.
- **13.** If prompted, select the path for the PostScript driver files; these should be in your WINDOWS/SYSTEM directory.
  - If the files aren't installed on your hard disk, select the drive for the printer's CD-ROM and the \WIN95\_NT directory, and click OK.
  - The software you need is installed.
- **14.** If your printer is set up correctly, and you clicked **Yes** in Step 12, a test page prints showing the Windows 95 logo and information on your printer.
  - Your Phaser 300X printer is added to the **Printers** window.

#### Using the Microsoft driver for Windows 95

**Note** Refer to the table on page 3-4 for details on print options.

To select printing options, follow these steps:

- 1. In the **Printers** window, click the **Phaser 300X** printer icon with the right mouse button, then select **Properties** from the menu.
- Click the following tabs to see printing options; refer to your Windows 95 documentation for more information on tabs and options.
- Click the **Details** tab to see timeout and other options.
  - Set the Timeout settings.

**Not Selected:** Type a value of **0**, or between **15** and **999**, in this text box to change the number of seconds Windows waits before notifying you that a printer is off-line. The default is **15** seconds.

Transmission Retry: On large or multiple-page documents you may see an Alert message that the printer is no longer accepting data before the job is completely sent to the printer. When using a shared printer, you should set this option to a larger value, such as 900 seconds (15 minutes) to avoid these unnecessary timeouts. Type a value between 45 and 999 in this text box; the default setting is 45 seconds. (If you are having timeout problems, also see page D-2 for information on setting the printer's timeout.)

Click the Paper tab to see media options, such as media sizes.

Click the **Graphics** tab to see graphics options.

Use the **Print Quality** selections in the **Device Options** tab instead of the **Resolution Options** in the Graphics tab.

If you are using host color correction, you need to make selections in the **Graphics** and **Device Options** tabs. Refer to page 3-35 for more information on host color correction.

- Click the **Device Options** tab to see printer-specific options, such as color corrections.
- Click the **PostScript** tab to see PostScript-related options.
  - The PostScript header contains important PostScript information that must accompany each print job; it is not a banner page printed with each job. If an option is not selected, an error message is displayed on your computer screen and your job does not print. Click one of the following in the **PostScript header** field:

Select **Download header with each print job.** This option downloads PostScript header information with each print job.

Click the **Send Header Now** button to save the PostScript header information in the printer, then select the **Assume** header is downloaded and retained option. This option makes print files a little smaller and faster than the first option, but you need to click the **Send Header Now** button every time the printer is turned off or reset.

Click the **Advanced** button to see more options. Select **Use PostScript Level 2 features**. Click **OK** when finished.

For faster printing, select **Binary communications protocol** under Data format.

# Using the printer with Windows 3.1

The following procedure automatically installs the AdobePS 3 printer driver and PostScript printer description files (PPDs) required by some applications. The AdobePS 3 driver works faster and more efficiently with the Adobe PostScript interpreter inside your Phaser 300X printer than other drivers, especially if you are using TrueType fonts.

# Using the Adobe driver for Windows 3.1

## Setting up the Adobe PostScript driver for Windows 3.1

The files for this driver are available on the printer's CD-ROM and on the AdobePS 3 Driver diskette.

If you already have the driver installed and you are only adding the Phaser 300X printer, open the Control Panel, double-click the Adobe driver icon, then continue with Step 5.

If you already have the driver installed and you want to add a printer other than the Phaser 300X printer, open the Control Panel, double-click the Adobe driver icon, then continue with Step 5. Printer PPD files are located in the \WIN95\_NT directory on the printer's CD-ROM only.

- 1. Insert the printer's CD-ROM into your CD-ROM drive, or insert the AdobePS 3 Driver diskette into your disk drive.
- 2. In the **Program Manager** in Windows 3.1, select **Run** from the File menu.
- At the **Command Line**, do one of the following:
  - **CD-ROM:** Type in the drive the CD-ROM is in, followed by the  $\Min MIN 31DRV$  directory and the file name SETUP.EXE, and click **OK**. For example:

#### C:\WIN31DRV\SETUP

**Diskette:** Type in the drive the diskette is in, followed by the file name *SETUP.EXE*, and click OK. For example:

#### A:SETUP

- When the **README.WRI** dialog box appears, select one of the buttons as desired.
- 5. In the **PostScript Printer Driver Setup** dialog box, click **Continue** to begin the driver installation. This installer overwrites older versions of the Adobe PostScript driver.
- A message appears as files are copied to your hard disk. Click the **Restart Windows** button when the installation is complete.
- 7. When the **Install PostScript Printer from PPD** dialog box appears, select your printer in the **Printer Descriptions Available** list and click **Install**:
  - Select Tektronix Phaser 300X if you have the standard version of the printer.
  - Select Tektronix Phaser 300X Extended if you have the printer's Extended Features option.
- Note If you are not sure which configuration of the printer you have, the printer's startup page lists this information under Extended **Features:** Yes/No. See page A-2 for instructions on printing a copy of the printer's startup page.
- At the installation successful message, click **OK**.
- Click **Close** in the **Install PostScript Printer from PPD** dialog box.
- At the message, click **OK**; the **Control Panel** opens.
- 11. From the Control Panel, double-click Printers.

- 12. In the Printers dialog box, select the Tektronix Phaser 300X printer you just installed, then click **Connect**.
- 13. In the Connect dialog box, select the port the printer is connected to, then click **OK**.

Note Refer to the Adobe PostScript Printer Driver User Guide on the printer's CD-ROM (USRGUIDE.PDF) for more detailed information on the AdobePS 3 driver.

#### Using the AdobePS 3 driver for Windows 3.1

Note *Refer to the table on page 3-4 for details on print options.* 

To select printing options, follow these steps:

- From the **Control Panel**, double-click **Printers**.
- In the **Printers** dialog box, select the **Tektronix Phaser 300X** printer, then click **Setup**. A dialog box appears with the printer's name across the top.
- Click the following tabs to see printing options; refer to your Windows documentation for more information on tabs and options.
- Click the **Paper** tab to see media options, such as media sizes.
- Click the **Features** tab to see printer-specific options, such as color corrections.
  - Set the Timeout settings.

**Not Selected:** Type a value of **0**, or between **15** and **999**, in this text box to change the number of seconds Windows waits before notifying you that a printer is off-line. The default is 15 seconds.

**Transmission Retry:** On large or multiple-page documents you may see an Alert message that the printer is no longer accepting data before the job is completely sent to the printer. When using a shared printer, you should set this option to a larger value, such as **900 seconds** (15 minutes) to avoid these unnecessary timeouts. Type a value between 45 and 999 in this text box; the default setting is **45** seconds.

- **PhaserMatch:** If you have created custom profiles in the PhaserMatch application, you can access these profiles through the **Features** tab.
  - a. Under Feature, select Color Correction.
  - Under Selection, scroll to the bottom of the list and select Custom.
  - **c.** In the extra list that appears, select the profile you created in the PhaserMatch application.
- Click the PostScript tab to see PostScript-related options.
  - In the Performance Options field, select the Use PostScript Level 2 Features option.
- Click the **Job Control** tab to see print job-related options.
  - The PostScript header contains important PostScript information that must accompany each print job; it is not a banner page printed with each job. If an option is not selected, an error message is displayed on your computer screen and your job does not print. Click one of the following in the PostScript Header field:
    - Select **Download Each Job.** This option downloads PostScript header information with each print job.
    - Select the **Already Downloaded** option to save the PostScript header information in the printer, then click the **Download** button. This option makes print files a little smaller and faster than the first option, but you need to click the **Download** button every time the printer is turned off or reset.
  - For better performance, select the **Binary Mode** option.

# Using the printer with Windows NT

These instructions assume a basic familiarity with Windows NT operation and terminology. For additional information about Windows NT, refer to your Microsoft Windows NT documentation.

# Updating the driver software

Note You may need your original Windows NT setup diskettes (or CD-ROM) to complete this procedure if you need to install a *PostScript printer in Step 4.* 

- Start your system with Windows NT.
- If your computer has an Intel-compatible processor, such as the Intel I386, go on to Step 3.

If your computer is a MIPS, Alpha, or PowerPC, you need to edit the *PRINTER.INF* file on the Phaser 300X printer's CD-ROM.

**a.** The Phaser 300X printer's CD-ROM is read-only (write-protected). To edit the *PRINTER.INF* file, copy the following files from the WIN95\_NT directory on the CD-ROM to a new, formatted floppy diskette.

Note You only need one of the PPD files; select the one for your printer's configuration. If you are not sure which configuration of the printer you have, the printer's startup page lists this information under **Extended Features: Yes/No**. See page A-2 for instructions on printing a copy of the printer's startup page.

*Place all files at the top (root) level of the new diskette.* 

TEK1 PRINTER.INF *TKP300X1.PPD* (for the standard version of the printer) TK300XP1.PPD (for the printer's extended features option)

**b.** Open the copy of the *PRINTER.INF* file on the new diskette in a text editor such as **Notepad**.

**c.** Locate the following section in the *PRINTER.INF* file: [ProductType] STF\_PLATFORM = 1386

d. Replace the **I386** with one of the following, depending on your computer type:

**MIPS** (for a MIPS platform) **Alpha\_AXP** (for an Alpha platform) **ppc** (for a PowerPC)

- **e.** Save the *PRINTER.INF* file, and go on to Step **3**.
- From the **Main** window, double-click on the **Print Manager** icon.
- If you have a PostScript printer driver installed, go on to Step 5.

Note If you do not have a PostScript printer driver installed, install one now. You need a PostScript printer driver installed because the driver files are required to complete the Tektronix printer installation.

- **a.** From the **Printer** menu, select **Create Printer**; the **Create Printer** dialog box appears.
- **b.** Under **Driver**, scroll through the list and select a PostScript printer, such as the Apple LaserWriter NT, and click **OK**.
- **c.** Follow the on-line instructions to install the driver files from your Windows NT CD-ROM or diskettes.
- **5.** Install the Tektronix Phaser 300X printer. From the **Printer** menu, select Create Printer; the Create Printer dialog box appears.
- **6.** Under **Driver**, scroll to the end of the list and select **Other**; the **Install Driver** dialog box appears.

- When prompted, do one of the following.
  - If you are using the printer's CD-ROM: Type in the CD-ROM drive location. Click **OK**; the **Select Driver** dialog box appears.
  - If you are using an edited copy of the PRINTER.INF file from **Step 2:** Type in the disk drive location of the diskette. Click **OK**; the **Select Driver** dialog box appears.
- **8.** Under **Printer Driver**, choose your Phaser 300X printer from the list, then click **OK**.
  - Select Tektronix Phaser 300X if you have the standard version of the printer.
  - Select Tektronix Phaser 300X Extended if you have the printer's extended features option.
- Note If you are not sure which configuration of the printer you have, the printer's startup page lists this information under Extended **Features:** Yes/No. See page A-2 for instructions on printing a copy of the printer's startup page.
- **9.** In the **Windows NT Setup** dialog box, type in the same path you used in Step 7 (for example, *B*:). Click **Continue**; the **Noncritical Error** dialog box appears.
- **10.** When you are prompted for the location of the *PSCRPTUI.DLL* file and the *PSCRIPT.DLL* file, click **Ignore**. (These files were installed in the procedure in Step 4 or were already installed.)
- 11. When the Create Printer dialog box appears, fill in the other fields as desired, then click **OK**; the **PostScript Printer Setup** dialog box appears.
- Select options in the **PostScript Printer Setup** dialog box. Enabling the **Use Printer Halftoning** option is recommended. Then click **OK**; the **Windows NT Setup** dialog box appears.

- **13.** If you installed a PostScript printer in Step 4, follow this procedure to delete it. (Now that the Tektronix printer is installed, this printer is no longer needed.)
  - **a.** Select the printer you want to remove.
  - **b.** From the **Printer** menu, select **Remove Printer**.
  - **c.** At the prompt, click **OK** to remove the selected printer.

Note *Use the following page sizes with the Phaser 300X printer: Letter and A4.* 

# Selecting printer options in Windows NT

If you are using Microsoft Windows NT, follow the instructions in "Updating the driver software" on page 3-20 to print to a Phaser 300X printer. The update procedure provides printer page size information for Windows NT applications.

TekColor color corrections and other PostScript Level 2 printer features are not supported by the Windows NT driver.

- Refer to Chapter 6, "Correcting Printed Colors," for instructions on other ways of selecting color corrections.
- Refer to page 3-27 for information on using downloadable utility files to select printing features.
- Refer to your Microsoft Windows NT documentation for details on features in the Windows NT driver.

# **Printing from specific applications**

For printing from most applications, follow the instructions on page 3-2 to install drivers and printer software. Refer to the following application notes for details on a few applications with special requirements.

# General hints and tips

For hints and tips on printing from a specific application, you can get information in the following places:

- **HAL:** Request a document catalog from HAL or EuroHAL, Tektronix' automated fax systems. Refer to page 9-4 for instructions on using HAL and EuroHAL.
- **World Wide Web:** If you have access to the Internet, you can view selected topics on the Phaser 300X printer's web page. Access the printer's documentation from this web address:

http://www.tek.com/Color\_Printers/userdoc/introduction.html

## **Pantone**

If you are using an application that produces PANTONE Colors, see page 3-31 for information on color library files available for specific applications.

# Aldus PageMaker and FreeHand Adobe PageMaker **Macromedia FreeHand**

Some applications use PostScript printer description files (PPDs) to get information about a printer. To install printer description files, follow these steps:

1. Use either the printer's CD-ROM or the diskette:

**CD-ROM:** Insert the Phaser 300X printer's CD-ROM into your computer's CD-ROM drive, and open the WIN95\_NT directory. (The CD-ROM contains PPD files for all Tektronix Phaser printers.)

**Diskette:** Insert the AdobePS 4 Driver for Windows 95 diskette into your computer's disk drive. (The diskette contains PPD files for the Phaser 300X printer only.)

- 2. Copy the *PPD* files you want from the CD-ROM or diskette to your hard disk.
- **3.** Refer to the an application's documentation for instructions on where to install the files.

## **QuarkXPress**

The QuarkXPress application requires a printer-specific PDF file. To install this printer file, follow these steps:

1. Use either the printer's CD-ROM or the diskette:

**CD-ROM:** Insert the Phaser 300X printer's CD-ROM into your computer's CD-ROM drive.

**Diskette:** Insert the Printer Software for Windows diskette into your computer's disk drive.

- Open the *QUARK* directory.
- Copy the *PDF* file from the CD-ROM or diskette to the *PDF* subdirectory, in the application's directory, on your hard disk.

# Using the PC utility files

In addition to using the options in a supported driver, the utility files available on the printer's CD-ROM offer another method for changing the way the printer operates. In some cases, a selection can only be made with a utility file. To use the files, send or download them to the printer from the communications port your printer is connected to. You can use either the DOS method or the Windows method.

# Copying files from the CD-ROM or diskette

You can copy any of the files from the Phaser 300X printer's CD-ROM or Printer Software for Windows diskette to your computer's hard disk. You can also use the files directly from the CD-ROM or diskette.

Follow usual Windows or DOS procedures for copying files to your hard disk.

Use either the printer's CD-ROM or the diskette:

**CD-ROM:** Insert the Phaser 300X printer's CD-ROM into your computer's CD-ROM drive.

**Diskette:** Insert the Printer Software for Windows diskette into your computer's disk drive.

- **2.** Open one of the following directories:
  - **SAMPLERS**
  - **PANTONE**
  - PHSR300X (This directory is available on the printer's CD-ROM only.)
- 3. Copy the files you want from the CD-ROM or diskette to your hard disk.

Note Refer to page 3-31 for instructions on installing and using Pantone files.

## **Downloading files from Windows 3.1**

You can use the Copy command in the Windows File Manager to download PostScript files to the printer.

- Copy the utility files from the printer's CD-ROM, or use the files directly from the CD-ROM.
- 2. Select the utility file you want to send to the printer, for example RESET.PS.
- **3**. From the **File** menu, select **Copy**. The **Copy** dialog box appears with the utility file you selected listed in the **From** field.
- In the **To** field, type the port your printer is connected to. For example, type **LPT1**: for a parallel port connection, then click **OK**.
- If the **Confirm File Replace** dialog box appears, click **Yes** to continue; the file is downloaded to the printer.

## **Downloading files from Windows 95**

Use the DOS **COPY** command to send the desired file to the printer.

- Click **Start** in the taskbar on your screen.
- In the menu that appears select **Programs**.
- Select **MS-DOS Prompt** from the list.
- 4. Copy the utility files from the printer's CD-ROM, or use the files directly from the CD-ROM.
- 5. Use the DOS COPY command to send the desired file to the printer.

## Downloading files from DOS

- Copy the utility files from the printer's CD-ROM, or use the files directly from the CD-ROM.
- 2. Use the DOS COPY command to download PostScript files to the printer. For example, to reset the printer you would send the *RESET.PS* file to the printer.
  - If your printer is connected to the parallel (LPT) port, type the following command (where *x* is 1, 2, or 3):

#### **COPY RESET.PS LPTx:**

If your printer is connected to the optional serial (COM) port, type the following command (where *x* is 1, 2, or 3):

#### **COPY RESET.PS COMx:**

If your printer is connected to an optional Novell or TCP/IP network, you should follow the instructions provided with your network software.

All of the files in the following table can be downloaded to the printer using the DOS COPY command, or the File/Copy command in Windows 3.1.

Downloadable utility files		Where to find details	
■ STANDARD.PS	■ PREMIUM.PS	Chapter 5	
■ ENHANCED.PS			
■ FINEPNT.PS	■ FINEPOFF.PS	Chapter 5	
■ COMRCIAL.PS	■ RAWCMYK.PS	Chapter 6	
■ DISPLAY.PS	■ RAWRGB.PS		
■ EUROSCAL.PS	■ RENDABS.PS		
■ MONOCHRM.PS	■ RENDPER.PS		
■ NOCORECT.PS	■ RENDREL.PS		
■ SNAPRESS.PS	■ RENDSAT.PS		
■ SWOPRESS.PS			
■ VIVDCOLR.PS			
■ CMYK.PS	■ PANT300X.PS	Chapter 7	
■ HSB.PS	■ RGB.PS		
■ FONTS.PS		Chapter 8	
■ SCREENON.PS	■ TEKEHAND.PS	Chapter 9	
■ SCRENOFF.PS			
■ CTRLD.PS	■ DEVPARAM.PS	Appendix A	
■ PRNTNAME.PS	■ RESET.PS		
■ PRNTCNFG.PS	■ PRNTSTPG.PS		
■ NOSTRTPG.PS	■ STARTPG.PS		
■ FRMTDISK.PS	■ NOSYSSRT.PS	Appendix B	
■ INITDISK.PS	■ SYSTART.PS		
■ AIS.PS	■ HPGLTEST.PLT	Appendix D	
■ HPGL.PS	■ PSTEST.PS		
■ HPGLPENS.PS	■ PSCRIPT.PS		
■ CONFIG.PS			

# **Using PANTONE Color files**

Note

For the latest information on color libraries, call Tektronix Customer Support in the U.S. and Canada at 1-800-835-6100. Outside the U.S. and Canada, contact your local Tektronix reseller.

Use the following PANTONE files with specific applications.

PANTONE Color file	Application
TEK_300X.AI	<ul><li>Adobe Illustrator 3.0</li><li>Adobe Illustrator 4.02</li></ul>
TEK_300X.ACF	■ Aldus PageMaker 5.0
TEK_300X.PAL	■ CorelDRAW!

## Installing the files

The PANTONE Color files are available on the Phaser 300X printer's CD-ROM and the Printer Software for Windows diskette.

1. Use either the printer's CD-ROM or the diskette:

**CD-ROM:** Insert the Phaser 300X printer's CD-ROM into your computer's CD-ROM drive.

**Diskette:** Insert the Printer Software for Windows diskette into your computer's disk drive.

- **2.** Open the *PANTONE* directory.
- 3. Copy the PANTONE files you want from the CD-ROM or diskette to your hard disk.
- 4. Refer to the individual application notes in this section for instructions on where to install the files.

# **Using the PANTONE Color library files**

#### Adobe Illustrator 3.0 and 4.02

The TEK\_300X.AI file lets you customize PANTONE Colors for Adobe Illustrator and a Phaser 300X printer. This file is application-specific and printer-specific.

- 1. See "Installing the files" on page 3-31 if you haven't already installed the Pantone files.
- Place the *TEK\_300X.AI* file in Adobe Illustrator's *Color* directory.
- Start the Illustrator program.
- Open a file or image you want to use.
- From the **File** menu, select the **Open** command.
- In the dialog box that appears, locate the directory and file location of the *TEK\_300X.AI* file, and open the file.
- 7. When you are working on an image, use the **Paint** menu and either the Paint Style or Custom Color commands to select PANTONE Colors.

## Aldus PageMaker 5.0

The TEK\_300X.ACF file is used by the application to properly specify PANTONE Colors for the Phaser 300X printer.

- 1. See "Installing the files" on page 3-31 if you haven't already installed the Pantone files.
- **2.** Place the *TEK\_300X.ACF* file in the *USENGLSH\COLOR\* directory in the Aldus application directory.
- **3.** Start PageMaker.
- 4. Choose **Element**, **Define Colors**, **New**, **Libraries**, then select the Phaser 300X printer.

#### CorelDRAW!

The TEK\_300X.PAL file used by the CorelDRAW! application to properly specify PANTONE Colors for a Phaser 300X printer. This file is application-specific and printer-specific.

- See "Installing the files" on page 3-31 if you haven't already installed the Pantone files.
- Place the *TEK\_300X.PAL* file in the Corel application's directory.
- Open CorelDRAW!.
- Open the document you want to work in.
- Select the item you want filled with a PANTONE Color, then select the Fill tool icon (paint bucket).
- Select the **Fill tool** icon again, then select the **Open** button under Palette.
- 7. In the dialog box under **Path**, specify the location of the TEK\_300X.PAL file.
- **8**. Under **Files**, select the *TEK\_300X.PAL* file and select the Load button.

# **Using host color correction**

**Note** *Host color correction is available only with Windows 95.* 

Color correction from the host (your computer) attempts to match the screen's colors to the printer's colors. The software for the Phaser 300X printer includes a profile that contains specific color information required by the host color correction system.

You can adjust an image's colors on the computer, or use the TekColor color corrections to adjust an image's colors in the printer. You should use only one color correction method at a time, or you may get unexpected results. For more information on color correction options, see Chapter 6, "Correcting Printed Colors."

To use host color correction, do the following steps:

- Refer to "Installing the printer's software" on page 3-2 for instructions on installing a PostScript printer driver for Windows 95. The printer's color profile is automatically installed with a driver.
- 2. In the **Printers** window, move the cursor over the Phaser 300X printer icon, and click the right mouse button.
- **3.** In the menu that appears, click **Properties**; the **Properties** dialog box appears.
- 4. Click the **Graphics** tab.
- 5. In the Color Control field, select the Use image color matching option, then click the Choose image color matching method button.
- 6. In the **Image Color Matching** dialog box, select **Perform image color matching on the host**, and click **OK**.

- Click the **Device Options** tab.
- Highlight Color Correction in the Printer features field.
- Select None in the Change setting for: Color Correction field.
- **10.** Click **OK** when finished.

# **Printing from DOS**

**Note** Driver-selectable TekColor color correction features are available only though printer drivers such as the AdobePS 3 driver, the AdobePS 4, or the Microsoft PostScript driver. Refer to Chapter 6, "Correcting Printed Colors," for instructions on other ways of selecting color corrections.

**Note** If you are printing ASCII files directly to the printer, you will need PCL5 activated on your printer; refer to page D-11 for instructions.

## Printing from a driver

Many DOS applications include printer drivers for Tektronix printers. Check the application you are using for a printer driver for a Phaser 300X printer. Install and use the driver according to the application's documentation.

If the application you are using does not have a driver for a Phaser 300X printer, do one of the following:

- Check to see if other Tektronix Phaser series printers are listed, and choose one of those drivers.
- If no Tektronix Phaser series printers are listed, you can use a generic color PostScript printer driver. However, generic drivers do not have information on the printer's page sizes and image areas, and images may be clipped or shifted when printed.
- Contact the application's vendor, or call Tektronix Customer Support in the U.S. and Canada at 1-800-835-6100, for printing information. Outside the U.S. and Canada, contact your local Tektronix reseller.

Refer to the *Phaser 300X Color Printer User Manual* for information on using the DOS **MODE** command to disable timeouts on a parallel port.

# Printing from UNIX and VMS Workstations

## **Overview**

You can send print files from your workstation to a Phaser 300X printer as you would to any PostScript printer, for example, an Apple LaserWriter. Workstation users can print from any application that generates PostScript Level 1 or Level 2 output.

For more information on printing from a workstation, request a document catalog from HAL or EuroHAL, the Tektronix automated fax systems. Refer to page 9-4 for instructions on using these systems.

**Note** If you are printing ASCII files directly to the printer, you will need PCL5 activated on your printer; refer to page D-11 for instructions.

To use the TekColor color corrections and other printer features, use one or more of the following methods:

- PhaserPrint<sup>TM</sup> software for UNIX workstations provides a complete set of print management functions, including fast screen copy printing; see page 4-2.
- PhaserSym software for VMS workstations provides proper communication with the printer; see page 4-3.
- Downloadable utility files let you select printing options; see page 4-4 for a list of topics.

# **Printing from UNIX workstations**

For UNIX environments, Tektronix offers the optional PhaserPrint<sup>™</sup> software. PhaserPrint software offers driver-selectable printer options, and provides fast, raster file and screen copy printing to Tektronix color printers.

PhaserPrint software supports the following platforms and tested operating system versions:

Workstation	Operating System
Sun	SunOS 4.1.3, Solaris 2.3, 2.4
SGI	IRIX 4.0, 5.2, 5.3
HP 9000 700/800	HPUX 9.05
IBM RS/6000	AIX 3.2
DECstation	Ultrix 4.0, 4.4
DEC Alpha	OSF/1 1.3, 3.0

PhaserPrint software works with the workstation's native spooling system to print PostScript files and raster files in these formats: Sun Raster Format (SRF), **xwd**, and SGI RGB.

#### See a demo of PhaserPrint software

A demonstration copy of the PhaserPrint software, along with an on-line instruction guide, is provided on the printer's CD-ROM in the *UNIXDEMO* directory. If you would like to purchase a licensed version of the PhaserPrint software, contact your dealer, local Tektronix office, or in the United States, call **1-800-835-6100**.

# **Printing from VMS workstations**

For printing from VMS workstations, the optional PhaserSym<sup>TM</sup> software provides all the standard OpenVMS printing and queue management functions. It also includes additional features for selecting Tektronix printer options.

PhaserSym software is compatible with DEC workstations running OpenVMS version V5.4 or higher, or OpenVMS-AXP (Alpha) version V1.0 or higher.

PhaserSym software communicates over the printer's optional TCP/IP Ethernet interface, and is required for proper communication with the printer under VMS.

For ordering information, refer to the *Phaser 300X Color Printer User Manual*.

# Using the printer's software

For some printer features you can use the downloadable utility files available on the Phaser 300X printer's CD-ROM or Printer Software for Windows diskette.

Use the utility files to set up spool queues with printer features such as print quality and color corrections. The utility files can also perform such tasks as changing the printer's name, resetting the printer, and using an error handler; refer to page 4-4 for details.

The utility files are written in the PostScript Level 2 programming language, and in a few cases you may have to edit the files to change the default parameters.

# Obtaining the PC utility files

There are several ways to access the utility files:

- Use the Phaser 300X printer's CD-ROM.
- Mount the PC/DOS diskette; see page 4-9 for instructions.
- Download the Tektronix files from the Internet; see page 9-3 for instructions.
- Use the Tektronix Bulletin Board Service (BBS); see page 9-2 for instructions.

# Using the Phaser 300X printer's CD-ROM

Many workstations with newer operating systems can automatically mount a CD-ROM. Insert the Phaser 300X printer's CD-ROM into your CD-ROM drive; the icon for the CD-ROM should be visible on the screen.

If you don't see an icon for the CD-ROM on the screen, you must mount the CD-ROM using the proper mount command. Check with your system administrator, or **man** pages, for instructions on the proper command for your system.

# Using the utility files

The following table lists procedures and tasks for workstation users that can be performed with utility files:

Task	Where to find details
Selecting print quality	page 5-6
Turning off black substitution	page 6-12
Using Finepoint Sharpening	page 5-8
Selecting color corrections	page 6-2
Printing color sampler charts	page 7-4
Printing a font sampler	page 8-6
Using the Tektronix error handler	page 9-20
Using the Setscreen patch for halftone screens	page 9-26
Printing a startup page	page A-2
Enabling and disabling the startup page	page A-4
Printing a configuration page	page A-6
Changing the printer's name	page A-8
Resetting the printer	page A-11
Configuring a serial port	page A-15
Formatting a SCSI hard disk	page B-2
Initializing a formatted SCSI hard disk	page B-5
Controlling SysStart Job files	page B-7
Setting PostScript job and wait timeouts	page D-2
Changing the printer's language mode	page D-5

## **About Control-D characters**

When using the printer connected to the parallel or serial port, a Control-D character is used to indicate the end of a file. Without a Control-D character in the file, the printer will continue waiting for more input. All PostScript utility files, except *RESET.PS*, must end with a Control-D character when sent from a workstation to the printer over a parallel or serial interface. In the file descriptions, Control-D is denoted as **CTRL-D**. For more information about PostScript programming, refer to the *PostScript Language Reference Manual*, second edition, Adobe Systems Incorporated.

## Removing Control-D characters from utility files

- 1. Locate the *delctrld* UNIX shell script in the *PHSR300X* directory on the Phaser 300X printer's CD-ROM. (Or, see page 4-4 to obtain this shell script through another method.)
- **2.** Copy the script to your hard disk.
- **3.** To remove all Control-D characters from a file, type the following command:

#### delctrld filename1.ps filename2.ps

where *filename*1.*ps* is the utility file you want to remove Control-D characters from, and *filename*2.*ps* is the revised file with a new name. (Both *filename*1.*ps* and *filename*2.*ps* can have the same name, but the original file will be overwritten by the revision.)

**4.** Send the utility file to the printer as you would any PostScript file.

**4** *Printing from UNIX and VMS Workstations* 

#### **Adding Control-D characters to utility files**

- 1. Locate the *addctrld* UNIX shell script in the *PHSR300X* directory on the Phaser 300X printer's CD-ROM. (Or, see page 4-4 to obtain this shell script through another method.)
- **2.** Copy the script to your hard disk.
- **3.** To add Control-D characters to the beginning and end of a file, type the following command:

#### addctrld filename1.ps filename2.ps

where *filename1.ps* is the utility file you want to add Control-D characters to, and *filename2.ps* is the revised file with a new name. (Both *filename1.ps* and *filename2.ps* can have the same name, but the original file will be overwritten by the revision.)

**4.** Send the utility file to the printer as you would any PostScript file.

## Mounting the PC/DOS diskette on a workstation

#### SGI IRIX versions 4.0.x and 5

PC/DOS-formatted diskettes can be easily mounted in the SGI environment. For more information, print out the appropriate **man** pages on your system.

IRIX version 4.0.x uses the *msdosd* daemon to mount a floppy diskette. IRIX version 5 uses the *mediad* daemon to mount all types of devices, including floppy diskettes. Both operating system versions have the utilities *from\_dos* and *to\_unix* to convert files and add or remove Control-M characters.

To mount a diskette, insert the diskette into the disk drive.

#### msdosd

The *msdosd* daemon monitors a floppy diskette drive. When a diskette is inserted, it is mounted appropriately if it is in MS-DOS format. To specify a floppy disk drive, use the appropriate device special file in /dev/rdsk. High-density diskettes are mounted by using floppy devices with the *hi* suffix.

#### mediad

The *mediad* daemon monitors the removable media devices on a system. When a diskette is inserted, it is mounted if it makes sense for that media type and if there is a valid *file system* on it.

## **Sun running Solaris 2.3**

PC/DOS-formatted diskettes can be mounted in two ways in the Solaris environment, either automatically or manually. For more information, print out the appropriate **man** pages on your system.

#### **Automatic diskette mounting instructions**

If the volume manager is running, the PC/DOS diskette will be mounted automatically when the diskette is inserted in the disk drive.

To see if the volume manager is running, type the following command:

To see a list of the diskette's contents, do the following steps:

- 1. Run Open Windows.
- 2. Open the File Manager.
- 3. Insert the PC/DOS diskette.
- Click on the File button in the File Manager window, then click on Check for Floppy.

The **File Manager** displays the files on the diskette. You can then copy the files to your hard disk, or send the files to the printer using the **lp** print command.

#### **Manual diskette mounting instructions**

If the volume manager is not running, you can manually mount the PC diskette. You must have root privileges to use the **mount** command. Type the following command:

```
mount -F pcfs device-special directory-name
```

For example: mount -F pcfs /dev/diskette /floppy

Or, if the device name /dev/diskette - /pcfs pcfs -no- is in your /etc/vfstab directory, type the following command to mount the diskette: mount /pcfs

You can then copy the files to your hard disk or extract the file *unix.tar*, as described in "Extracting files from unix.tar" on page 4-13.

To eject the diskette, type: eject

Do not execute the **eject** command from within the mount point (the directory to which you mounted the diskette).

## **Sun running SunOS 4.1.3**

You must have root privileges to use the **mount** command. Type the following command:

```
mount -r -t pcfs device-name mount-point
```

```
For example: mount -r -t pcfs /dev/fd0c /mnt
```

You can then copy the files to your hard disk or extract the file *unix.tar*, as described in "Extracting files from unix.tar" on page 4-13.

To eject the diskette, type: eject

Do not execute the **eject** command from within the mount point (the directory to which you mounted the diskette).

## Extracting files from unix.tar

The file *unix.tar* contains all the shell scripts and other files needed for network configuration in UNIX environments. The file is in UNIX **tar** format.

#### Listing the contents of *unix.tar*

Type this command:

tar -tvf directory-name/unix.tar

Where *directory-name* is the mount point or the directory that contains the file. For example:

tar -tvf /mnt/unix.tar

#### **Extracting the files**

- 1. Change (cd) to the directory on your workstation where you want the files to reside.
- **2.** Type this command:

tar -xvf /directory-name/unix.tar

Where *directory-name* is the mount point or the directory that contains the file. For example:

tar -xvf /mnt/unix.tar

# Selecting Media and Image Options

## **Overview**

You can select different printing options depending on the type of document or file you are printing.

See the following topics for more information:

- Selecting print features
- Media sizes
- Manual feed
- Print quality
- Finepoint Sharpening
- Color Control Strip

## **Selecting print features**

You can select print features from a supported driver, as outlined in the following tables, or with downloadable utility files. Refer to page 2-40 and page 3-27 for instructions on downloading files.

#### Print features quick reference: Macintosh printer drivers

Feature	Phaser 300X driver	Adobe PSPrinter driver	Phaser 300X GX driver
Media size ■ See page 5-4	Page Setup  → Paper	Page Setup  → Paper	Page Setup <b>→ Paper</b>
Manual Feed	Print  → Paper Source	Print  → Paper Source	Print  → Paper Feed  → Manual
Print-quality modes  Standard Enhanced Premium	Print  → TekColor button  → Print Quality	Print  → Options button  → Print Options  → Print Quality	Printing  → Printer Driver Defaults  → Print Quality
Finepoint Sharpening  On Off	Print  → TekColor button  → Finepoint Sharpening	Print Options button Finepoint Sharpening	Printing  → Printer Driver Defaults  → Finepoint Sharpening
Color Control Strip	Print  → TekColor button  → Color Control Strip	Print  → Options button  → Color Control Strip	Printing  → Printer Driver Defaults  → Color Control Strip

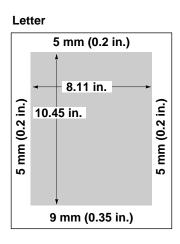
#### Print features quick reference: Windows printer drivers

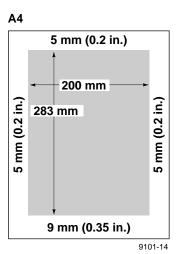
Feature	Windows 3.1 AdobePS 3 PostScript driver	Windows 95 Microsoft PostScript driver	Windows 95 AdobePS 4 PostScript driver
Media size ■ See page 5-4	Paper tab Paper Size	Properties  → Paper tab → Paper Size	Properties  → Paper tab → Paper Size
Manual Feed	Paper tab Paper Source	Properties  → Paper tab → Paper Source	Properties  → Paper tab → Paper Source
Print-quality modes  Standard Enhanced Premium	Features tab Print Quality	Properties  → Device Options tab → Print Quality	Properties  → Device Options tab  → Print Quality
Finepoint Sharpening  On  Off	Features tab  → Finepoint Sharpening	Properties  Device Options tab  Finepoint Sharpening	Properties  → Device Options tab  → Finepoint Sharpening
Color Control Strip	Features tab  → Color Control Strip	Properties  Device Options tab  Color Control Strip	Properties  → Device Options tab  → Color Control Strip

## **Media sizes**

The supported printer drivers available on the printer's CD-ROM and diskettes, let you choose the paper size you want to print on. The drivers support both US and metric media sizes. The default is **Letter** (8.5 x 11 inches). Refer to the *Phaser 300X Color Printer User Manual* for information on loading the media tray.

**Note** You can make paper size selections though the printer drivers only.





## Selecting media size from a driver

Refer to the quick reference tables on page 5-2 for instructions on selecting media sizes in the driver you are using.

#### Phaser 300X printer's paper sizes

Paper sizes	Dimensions	Print area
Letter	8.5 x 11 in.	8.01 x 10.56 in.
Legal	8.5 x 14 in.	8.07 x 13.51 in.
Letter Extra	9.5 x 12 in.	9.08 x 11.51 in.
Tabloid	11 x 17 in.	10.56 x 16.51 in.
Tabloid Extra	12 x 18 in.	11.7 x 17.5 in.
4 x 6 Card	4 x 6 in.	3.57 x 5.51 in.
5 x 7 Card	5 x 7 in.	4.56 x 6.51 in.
#10 Envelope	4.125 x 9.5 in.	3.67 x 9.01 in.
A3	297 x 420 mm	285.8 x 407.5 mm
A4	210 x 297 mm	197.6 x 285.8 mm
A5	148 x 210 mm	136.5 x 197.6 mm
A6	105 x 148 mm	93.8 x 135.5 mm
ISO B4	250 x 353 mm	238.8 x 340.8 mm
ISO B5	176 x 250 mm	164.4 x 237.4 mm
ISO B6	125 x 176 mm	113.6 x 163.7 mm
Compliment Slip	100 x 210 mm	88.6 x 197.6 mm
C6 Envelope	114 x 162 mm	102.7 x 149.6 mm
DL Envelope	110 x 220 mm	98.8 x 207.4 mm
50% A4 Envelope	162 x 220 mm	151.0 x 207.9 mm
A4 Envelope	220 x 324 mm	208.5 x 311.5 mm

## **Manual feed**

You can use a printer driver to print on manually fed media.

Refer to the *Phaser 300X Color Printer User Manual* for instructions on loading media.

## Selecting manual feed from a driver

Refer to the quick reference tables on page 5-2 for instructions on selecting manual feed in the driver you are using.

## **Print quality**

The print quality modes affect the quality of printed images and the time they take to print. You can make print quality selections from printer drivers and downloadable utility files.

#### Standard

This is the fastest, full-color printing mode, and is useful for most applications. This is the default setting.

#### Enhanced

This mode is best for some applications. **Enhanced** mode improves the print quality over **Standard** mode, but at a slower print time.

#### **Premium**

This mode produces the smoothest solid color shades with the highest level of detail. **Premium** mode improves the print quality over **Enhanced** mode, but at a slower print time.

## Selecting print quality from a driver

Refer to the quick reference tables on page 5-2 for instructions on selecting print quality options in the driver you are using.

## Selecting print quality with a utility file

Use downloadable utility files to make the selections outlined in the following table:

Computer	Downloading methods	Utility files
Macintosh	All Macintosh users: Use the LaserWriter Utility to download these files to the printer.	<ul><li>Standard Quality</li><li>Enhanced Quality</li><li>Premium Quality</li></ul>
	See page 2-40 for instructions.	
	QuickDraw GX users: Use the Phaser 300X GX driver to download these files to the printer.	
	See page 2-22 for instructions.	
PC/Windows	Use the DOS COPY command to download these files to the printer.	■ STANDARD.PS ■ ENHANCED.PS
	See page 3-29 for instructions.	■ PREMIUM.PS
	Use the Windows 3.1 File Manager to download these files to the printer.	_
	See page 3-28 for instructions.	
Workstation	<ul> <li>Use the appropriate commands for your workstation.</li> </ul>	_

## **Finepoint Sharpening**

Finepoint Sharpening uses a special rendering technique to produce sharp images with crisp edges and smooth color detail, for bitmap or scanned image data.

## Features of Finepoint Sharpening

- Works with all of the drivers' color correction options.
- Works with all color formats, such as CMYK (cyan, magenta, yellow, and black) and RGB (red, green, and blue).
- Does *not* change colors; **Finepoint Sharpening** sharpens the printed image and renders a finer dot grain.
- The **Finepoint Sharpening** option selected in the driver overrides any settings in the printer for prints made from the driver.
- Affects only bitmapped images.

## **Details on Finepoint Sharpening**

When the **Finepoint Sharpening** box is checked *on* in the driver, or the utility file is sent to the printer, your job is printed with a Tektronixproprietary technique that uses fine points, or grain, to produce a smoother halftone pattern, and edge-enhancement processing to sharpen and define image detail. Bitmapped (rasterized) images printed with Finepoint Sharpening look sharper, with crisp edges and smooth color detail.

When the **Finepoint Sharpening** box is not checked in the driver and the printer's standard defaults are reset, your job is printed with the printer's current default halftone screen. The default screen uses Adobe's Brilliant™ Screens technology.

Finepoint Sharpening works best with natural images, such as scanned photographs, with lots of detail, texture, and muted (less intense or saturated) colors.

## Image requirements for Finepoint Sharpening

Bitmapped images must meet the following requirements:

- The edges of the bitmapped image must align with (or be parallel to) the edges of the paper. That is, an image can only be rotated in multiples of 90 degrees, and it can be inverted or mirrored.
- The bitmapped image must be rectangular.
- If you specify a clippath shape (also called clipping path, mask, or masking) around an area in an image, it must be a rectangle and the edges of the clippath must align with (or be parallel to) the edges of the paper.

You may want to turn off Finepoint Sharpening for some bitmap images created in paint programs (such as pie charts and graphs with large areas of solid primary colors), in the following cases:

- In images where small areas or narrow bands of color, with either very high or very low in intensity (or saturation), disappear or have rounded corners when printed with **Finepoint Sharpening**.
- In images with dramatic shifts in colors, for example, where an area of dark color is next to an area of light color, or where an area of highly saturated color is next to an area of lightly saturated color. With the **Finepoint Sharpening** option checked *on*, you may see some "ghosting" or shading between these different color areas.

## **Selecting Finepoint Sharpening from a driver**

Refer to the quick reference tables on page 5-2 for instructions on selecting Finepoint Sharpening in the driver you are using.

## **Selecting Finepoint Sharpening with a utility file**

Use downloadable utility files to make the selections outlined in the following table:

Computer	Downloading methods	Utility files
Macintosh	All Macintosh users: Use the LaserWriter Utility to download these files to the printer.	<ul><li>Finepoint Sharpening Off</li><li>Finepoint Sharpening On</li></ul>
	See page 2-40 for instructions.	
	QuickDraw GX users: Use the Phaser 300X GX driver to download these files to the printer.	
	See page 2-22 for instructions.	
PC/Windows	<ul> <li>Use the DOS COPY command to download these files to the printer.</li> </ul>	■ FINEPNT.PS ■ FINEPOFF.PS
	See page 3-29 for instructions.	
	Use the Windows 3.1 File Manager to download these files to the printer.	-
	See page 3-28 for instructions.	
Workstation	<ul> <li>Use the appropriate commands for your workstation.</li> </ul>	_

## **Color Control Strip**

Check the Color Control Strip option in the provided drivers to print a band of colors along the bottom edge of your prints.

The colors on the strip are the printer's 8 primary and secondary colors: cyan, magenta, yellow, black, red (magenta and yellow), green (cyan and yellow), blue (cyan and magenta), and black (cyan, magenta, and yellow).

The colors are printed at 100 percent saturation or brightness, and also at 50 percent. The colors reflect the current color correction or PhaserMatch custom profile selected in the driver.

The printed band also includes information about the file, such as **File** (file name), **Color Profile** (color correction or PhaserMatch custom profile), and the **Date/Time** of printing.

Use this option to check the consistency of printed colors between prints made on the same printer, or between prints made on more than one of the same type or model of printer.

## Selecting the Color Control Strip from a driver

Refer to the quick reference tables on page 5-2 for instructions on selecting the Color Control Strip in the driver you are using.

## Correcting Printed Colors

This chapter explains how to select TekColor printing options so the printer accurately reproduces the colors you want on your prints.

The printer's TekColor color corrections provide several options to meet different printing requirements:

- For typical business and office printing, select the Vivid Color option before printing.
- For engineering and scientific imaging applications, try printing with the Simulate Display option.
- For graphic arts purposes, there are several printing press standards to choose from: **SWOP Press** (Specifications for Web Offset Publications), **SNAP Press** (Specifications for Non-Heat Advertising Printing), **Commercial Press** and **Euroscale Press**. Additionally, any custom profiles you have created in the PhaserMatch application will be available in the color corrections list.

Color corrections can be selected from printer drivers or set in the printer with downloadable utility files.

TekColor color corrections are performed in the printer. To use ColorSync color matching on a Macintosh, see page 2-47; to use host color correction in Windows 95, see page 3-35.

TekColor color corrections do not affect colors specified in the PostScript Level 2 international color standard CIE XYZ developed by the Commission Internationale de l'Eclairage (International Commission on Illumination). If you are using CIE colors, you can use the color rendering intents.

## **Deciding which color correction to use**

Color printers and computer display screens produce color differently. Printers use the subtractive primaries CMYK (cyan, magenta, yellow, and black), and produce color when light is reflected off the paper. Computers use the additive primaries RGB (red, green, blue) with a light-emitting CRT screen. The printer and the computer screen each have a different range of possible colors they can produce, with some overlap between them.

Software application packages specify color in different ways, for example as CMYK or RGB, or they may give you a choice. Get to know your applications so you can work more efficiently.

The TekColor color correction options are available for a finer degree of control over color. Since no single color correction option can address all uses, refer to the following table for the description that best fits your printing situation, and try the suggested color correction.

Printing objective or problem	Color correction to use	Where to find details	
Turn off all color corrections	No Color Correction	page 6-3	
Using PANTONE Colors	_		
Brightest, most vibrant colors	Vivid Color	page 6-3	
Overhead transparency presentations	_		
Blue colors are printing too purple	_		
Colors are washed out or faded	_		
Colors should match computer display screen*	Simulate Display	page 6-3	
Colors are too dark	_		
Colors should match a printing press standard	SWOP Press SNAP Press Euroscale Press Commercial Press Custom profiles**	page 6-4	
Print in gray scale	Monochrome	page 6-5	
Use printer's current color defaults	Use Printer Setting	page 6-5	
Use Adobe's standard color conversions	Raw CMYK Raw RGB	page 6-5	
Using CIE colors	Color rendering intents	page 6-13	

<sup>\*</sup>For other ways of matching the screen's colors, use ColorSync color matching on a Macintosh (see page 2-47, or use host color correction in Windows (see page 3-35).

<sup>\*\*</sup>Custom profiles are created with the PhaserMatch application. This software is available with the printer's extended features option.

## **Color correction descriptions**

## **Turning off all color corrections**

If you do not want to use any TekColor color corrections, you can specify no corrections from a supported driver or with utility files. Select no corrections when you are doing the following:

- Using applications that do their own color adjusting
- Using ColorSync on a Macintosh or host color correction in Windows
- Printing PANTONE Colors

### Printing the brightest colors and a truer blue

The **Vivid Color** option is the best choice for typical office printing. This option also makes printed blue appear less purple by reducing the amount of magenta used to print blue colors. Other colors in the cyan-blue-purple-magenta range in the image are also adjusted to compensate for the adjusted blue. Colors in the red-orange-yellow-green range are not affected. This selection is good for making presentation graphics, such as overhead transparencies, and for bright-looking colors that don't need to match the screen's colors or printing press colors.

**Vivid Color** adjusts CMYK colors using a method that adds black to other components. This option prints more saturated (darker) colors and may be useful for printing overhead transparencies for presentations from some applications, such as CorelDRAW!. Use this option if you have specified a color in the CMYK system, *and* the color has a black component, *and* the color appears lighter than you expected when printed.

## Simulating display screen colors

The **Simulate Display** option makes printed colors approximate the colors on a standard display screen. This selection should improve the screen-to-printer color accuracy for most applications that don't perform their own color corrections. This selection is best for applications that define colors as *RGB* (red, green, blue), *HLS* (hue, lightness, saturation), or *HSB* (hue, saturation, brightness).

## Closely match printing press colors

There are several printing press color correction options. Each press option conforms to a different printing standard. Use a press option if you are previewing work for a four-color job to be printed on a printing press. These options simulate a four-color commercial printing press, not solid spot colors, such as PANTONE Colors.

#### Note

If you are selecting PANTONE Colors in your application, use the **None** option; see page 6-3 for details. Also, use the **None** option with other color management systems, such as EfiColor.

#### Printing press color corrections

Press option	Inks	Base (paper)	Target match (equivalent 3M Matchprint®)
SWOP Press	SWOP/soy	publication	Specification for Web Offset Publications
			These are specifications for color separation films and color proofing that are used to ensure the consistency of printed colors between different publications. This option is typically used in the U.S.
			Tends to be high-volume, web press printing.
SNAP Press	SNAP	newsprint	Specifications for Non-Heat Advertising Printing
			This is a set of production standards for printing on uncoated and newsprint papers. This option is targeted to match typical colors for this type of printing in the U.S. Use this option if you are previewing work for a non-heat web offset printing press using newsprint paper.
Commercial Press	commercial	commercial	This option is typically used in the U.S., and is characterized to match commercial 3M Matchprint proofs.
			Tends to be high-quality, sheet-fed printing.
Euroscale Press	Euroscale	publication	This option is typically used in Europe, and is characterized to match the equivalent 3M Matchprint.
Custom profiles			Create custom profiles in the PhaserMatch application to fine-tune the printing press color corrections. Refer to the <i>PhaserMatch User Manual</i> for instructions.

## **Printing in gray scale**

The **Monochrome** option prints your color image as a monochrome gray scale (shades of gray between black and white). Use this option to print page masters for photocopying in black-and-white.

## Using the printer's current color defaults

The **Use Printer Setting** option is available only in the supported drivers. This option sends no color correction information to the printer. It uses the current default in the printer to process colors for printing. The printer's default can be one of the following:

- Any option selected with the switches on the printer's rear panel.
- Any of the color correction utility files sent to the printer, including custom profiles sent from the PhaserMatch application.

## Using simple color conversions

The following utility files use Adobe's standard color conversions to tell the printer what type of output device you want it to simulate. These options take less time to process than the other color correction options. For the best print speeds, match the raw color mode to your image data, either CMYK or RGB.

- Raw CMYK Colors (RAWCMYK.PS): Converts all colors (CMYK, RGB, grays) to CMYK colors. Use this file if your application specifies colors as CMYK (cyan, magenta, yellow, and black). This file lets you control the CMYK output of the printer's colors without using any TekColor color corrections.
- Raw RGB Colors (RAWRGB.PS): Converts all colors (CMY, CMYK, grays) to RGB colors. Use this file if your application specifies colors as RGB (red, green, and blue). This file lets you control the CMY output of the printer's colors without using any TekColor color corrections.

## **Selecting color corrections**

Color corrections can be selected in the following ways:

- "Selecting color corrections from a printer driver" on page 6-7
- "Selecting color corrections with downloadable utility files" on page 6-8
- "Selecting color corrections with a printer switch" on page 6-10

Note A color correction setting made in a supported driver overrides the printer's setting for prints made from the driver. However, the driver's **Use Printer Setting** option allows you to use the current rear panel switch selection or downloaded utility file.

## Selecting color corrections from a printer driver

Use the supported drivers to make the selections outlined in the following tables.

#### Print features quick reference: Macintosh printer drivers

Feature	Feature descriptions	Phaser 300X driver	Adobe PSPrinter driver	Phaser 300X GX driver
Color correction  None Vivid Color Simulate Display SWOP Press SNAP Press Euroscale Press Commercial Press Monochrome Use Printer Settings Custom profile*	See page 6-3	Print  → TekColor button  → Color Correction	Print Options button Color Correction	Printing  → Printer Driver Defaults  → Color Correction

<sup>\*</sup> This option is available with the printer's extended features option.

#### Print features quick reference: Windows printer drivers

Feature	Feature descriptions	Windows 3.1 AdobePS 3 PostScript driver	Windows 95 Microsoft PostScript driver	Windows 95 AdobePS 4 PostScript driver
Color correction  None Vivid Color Simulate Display SWOP Press SNAP Press Euroscale Press Commercial Press Monochrome Use Printer Settings Custom profile*	See page 6-3	Features tab  → Color Correction	Properties  → Device Options tab  → Color Correction	Properties  → Device Options tab  → Color Correction

<sup>\*</sup> This option is available with the printer's extended features option.

## Selecting color corrections with downloadable utility files

When you download a color correction utility file to the printer, Switches 8 and 9 on the printer's rear panel must both be in the *up* position for the color correction option to take effect. For example, before you download the Simulate Display (DISPLAY.PS) file to the printer, make sure Switches 8 and 9 are both up. Both switches must remain in the up position for the downloaded color correction to be available. If either switch's position is changed, the default color correction changes, although the default is restored when you put both switches back in the *up* position again. Refer to the topic "Selecting color corrections with a printer switch" on page 10 for more information.

#### **Utility file features**

- A utility file color correction is used when you select the **Use Printer Setting** option in the Tektronix driver.
- A utility file color correction is overridden by all driver color correction options, except **Use Printer Setting**.
- A utility file color correction is overridden if either switch is changed to another position. For example, Switch 8 up and Switch 9 *down* enables the Vivid Color color correction. Refer to "Selecting color corrections with a printer switch" on page 10 for more information.
- A utility file color correction remains in effect between print jobs and between printer power cycles.
- To change any utility file color correction, download another utility file to the printer.

Use downloadable utility files to make the selections outlined in the following table:

Computer	Downloading methods	Utility files
Macintosh	All Macintosh users: Use the LaserWriter Utility to download these files to the printer.	<ul><li>Commercial Press</li><li>Euroscale Press</li><li>Monochrome</li></ul>
	See page 2-40 for instructions.	<ul> <li>No Color Correction</li> </ul>
	<ul> <li>QuickDraw GX users:         Use the Phaser 300X GX driver to download these files to the printer.     </li> <li>See page 2-22 for instructions.</li> </ul>	<ul> <li>Simulate Display</li> <li>SWOP Press</li> <li>SNAP Press</li> <li>Raw CMYK Colors</li> <li>Raw RGB Colors</li> <li>Vivid Color</li> </ul>
PC/Windows	<ul> <li>Use the DOS COPY command to download these files to the printer.</li> </ul>	■ COMRCIAL.PS ■ EUROSCAL.PS ■ MONOCHRM.PS
	See page 3-29 for instructions.	■ NOCORECT.PS
	<ul> <li>Use the Windows 3.1 File Manager to download these files to the printer.</li> </ul>	■ DISPLAY.PS ■ SWOPRESS.PS
	See page 3-28 for instructions.	_ ■ SNAPRESS.PS
Workstation	Use the appropriate commands for your workstation.	■ RAWCMYK.PS ■ RAWRGB.PS
		■ VIVDCOLR.PS

## Selecting color corrections with a printer switch

You can use the printer's rear panel switches in different ways to set default color corrections. A change to a switch setting takes effect immediately at the start of the next job (not during a job); there is no need to reset the printer.

#### Note

If you use these switches, refer to page 9-29 for details on how these switches interact with the driver's color correction settings.

Use the printer's rear panel DIP Switches 8 and 9 to make the selections outlined in the following table:

To select this color correction:	Place the printer's rear panel switches in these positions:
Turn off all color corrections	Switch 8 down and Switch 9 down
Use Vivid Color (print a truer blue)	Switch 8 <i>up</i> and Switch 9 <i>down</i>
More closely match printing press colors (SWOP Press)	Switch 9 <i>up</i> and Switch 8 <i>down</i>
Use any color correction utility file that has been downloaded to the printer	Switch 8 <i>up</i> and Switch 9 <i>up</i>
(Euroscale Press is the factory default selection if no utility file has ever been downloaded to the printer.)	

#### Using the switches with a utility file

Place both Switches 8 and 9 in the *up* position then send a utility file to the printer to set a user-defined color correction. Refer to the above table for a list of available corrections.

## **Special considerations**

#### If your Phaser 300X printer is shared by other users on a network

Another user may use the downloadable color correction utility files, or the printer's rear panel switches, to change the printer's default color correction setting. If this situation occurs, the prints you make through a non-supported driver may not print as expected. Refer to "Sharing the printer on a network" on page 29 for details on how the color corrections interact with the driver settings for either supported or non-supported drivers.

#### **Application color corrections**

Some applications perform color corrections to improve screen-to-printer color matching. The TekColor color correction options in the supported drivers adjust colors in the printer after the application has performed its color corrections.

- If the application uses CIE (Commission Internationale de l'Eclairage) colors, the TekColor corrections will *not* be applied.
- If you select a TekColor color correction option other than None in a supported driver, the selection may override some application features.
- If you try one of the TekColor color correction options in a supported driver and the printed results are not what you expected, then select the **None** option and try reprinting your image.
- Select the **None** TekColor color correction option in a supported driver if you are using ColorSync color matching on a Macintosh (see page 2-47) or host color correction in Windows (see page 3-35).

#### If you are not using a provided driver

To use the color corrections with a non-PPD-driven driver, (or without one of the provided drivers) use the downloadable utility files or the printer's rear panel switches.

## **Using Black Substitution**

Each of the color correction options include **Black Substitution**. This feature takes each dot of composite black (printed with equal amounts of cyan, magenta, and yellow inks), or black plus any other ink, and prints with black ink only, saving ink and producing a "blacker" or pure black. In images where you have specified black areas as a percentage of cyan, magenta, and yellow, the printer uses that same percentage of black ink only.

If you prefer the brownish composite black, or if you want more color in a dark area, then turn off **Black Substitution**.

To turn off **Black Substitution** in a color correction option, follow these steps:

- Install the printer's utility files:
  - Macintosh: See "Installing the printer's software" on page 2-2 for instructions.
  - PC: See "Installing the printer's software" on page 3-2 for instructions.
- 2. Download the color correction utility file you want to the printer, then, download the Black Substitution (BLACKSUB.PS) utility file to the printer.
  - Macintosh: See "Downloading files to the printer" on page 2-40 for downloading instructions.
  - PC: See "Using the PC utility files" on page 3-27 for downloading instructions.
- If you are printing from a supported driver, select the **Use Printer Setting** option under **Color Corrections**; see "Selecting color corrections from a printer driver" on page 7 for details.

To turn **Black Substitution** back on, download the *Black Substitution* (BLACKSUB.PS) utility file to the printer.

## Using the rendering intents

## **Descriptions**

The color rendering intents are designed for use with images containing colors specified in the PostScript Level 2 international color standard, CIE XYZ, which was developed by the Commission Internationale de l'Eclairage (International Commission on Illumination).

Each color rendering intent provides a specific type of color matching.

#### Rendering Intent Absolute

For jobs in which the most important consideration is *matching* colors exactly to the computer's screen colors. This absolute rendering reproduces all colors exactly: the white in an image prints exactly as it appears on the computer screen; in other words, if the "white" appears to contain a color (such as blue or gray), that color is printed rather than the white of the paper.

#### Rendering Intent Relative

For jobs in which the most important consideration is *matching* colors exactly to the computer's screen colors. This relative rendering does not print the white areas in an image; rather, it uses the white of the paper.

#### Rendering Intent Saturation

Use this option for business graphics where the saturation, or brightness, of the colors is the most important consideration.

#### Rendering Intent Perceptual

Use this option to improve the appearance of scanned images.

## **Selecting**

#### From the PhaserPrint plug-in for Photoshop

If you are using Photoshop on a Macintosh, you can use the PhaserPrint plug-in to select color rendering intents. See page 2-29 for instructions.

#### From a downloadable utility file

Use the following downloadable utility files to set the printer's default color rendering intent:

Computer	Downloading methods	Utility files
Macintosh	All Macintosh users: Use the LaserWriter Utility to download these files to the printer.	<ul> <li>Rendering Intent Absolute</li> <li>Rendering Intent Perceptual</li> <li>Rendering Intent Relative</li> </ul>
	See page 2-40 for instructions.	<ul> <li>Rendering Intent Saturation</li> </ul>
	■ QuickDraw GX users: Use the Phaser 300X GX driver to download these files to the printer.	-
	See page 2-22 for instructions.	
PC/Windows	Use the DOS COPY command to download these files to the printer.	■ RENDABS.PS ■ RENDPER.PS
	See page 3-29 for instructions.	■ RENDREL.PS
	Use the Windows 3.1 File Manager to download these files to the printer.	- ■ RENDSAT.PS
	See page 3-28 for instructions.	
Workstation	Use the appropriate commands for your workstation.	-

## Using Color

## **Overview**

This chapter offers suggestions for using color.

- Working with color Provides some basic color theory with color illustrations.
- Printing the color charts

  Explains how to print and use the color sampler charts provided with the printer.

7-1

## Working with color

Whether you are producing color reports, memos, graphs, charts, overhead transparencies for presentations, color handouts, or design comps, there are a few things to keep in mind when using color.

#### Color basics

- A large area of color looks more saturated (brighter) than a small area of the same color.
- A color looks brighter against a dark background than it does against a white background.
- Colors look different due to the background color or to the surrounding colors.
- The appearance of a color varies with the type and amount of light, for example fluorescent lighting versus sunlight.

## General guidelines

- Keep a document or design simple and consistent.
- Select colors that look good together and that reinforce your message.
- Check your application for standard palettes to get you started.
- Use a color scheme of five or six shades, and in a series of images, use the colors in a consistent manner throughout the series.
- Use color to highlight the most important information, such as a bar or pie segment in a chart or graph.
- Use color to show relationships between objects, such as a range of values. Objects with a similar meaning or value should be in similar colors.
- Use color as graphic elements in the design of newsletters, logos, and brochures.
- Avoid red and green combinations; these colors are hard for people with red/green color blindness to distinguish.

## Using color in presentations

When used consistently, color in your presentations will help your audience remember key points. For example, graphics that represent your product should always appear in the same color. If you represent data graphically, be sure to put the most important data in red or the brightest, warmest color in your selected palette. Put the data you do not want to emphasize in cool colors.

#### Color design guidelines:

- Keep the design simple; use up to seven colors maximum.
- Use color to indicate related elements.
- Use complementary colors for basic color schemes; use split complements for more subtle effects.
- Avoid blue/red and yellow/purple combinations.
- Use full-strength warm colors (like reds, oranges, and yellows) sparingly for emphasis.
- Use a cool, dark background color that won't compete with the foreground. Use foreground colors that stand out clearly against the background. Research indicates that blue is the most preferred background color, followed by black, gray, brown, red, green, and purple.

#### Text and font guidelines:

- For readability, use dark text on a lighter background, or light text on a darker background. For example, white or yellow text with a deep blue background is very effective.
- Make text bold for emphasis.
- Recommended text sizes on overhead transparencies or slides:

Use a 40-point or larger font for titles.

Use 24- to 36-point fonts for body text.

Use 5 to 7 lines of text *maximum* per slide or overhead.

## **Color sampler chart overview**

You can select colors within an application using color component values. Component values are percentages of cyan, magenta, yellow, and black that are combined to make a particular color.

The color chart you print and use depends on how the application you are using selects color. Refer to the application's documentation for information on color selection, then print one or more of the color charts listed in the table below.

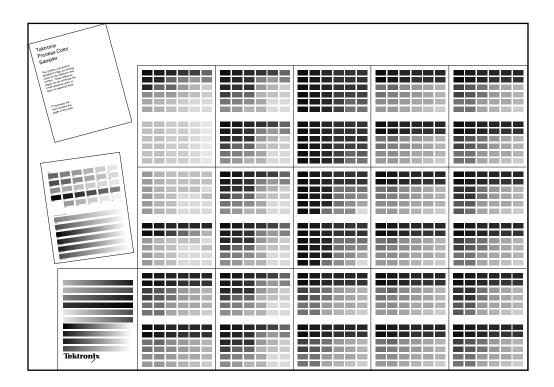
- The Macintosh files are located on the Phaser 300X printer's CD-ROM and on the Printer Software for the Macintosh diskette. Refer to page 2-2 for installation instructions.
- The PC files are located on the Phaser 300X printer's CD-ROM and on the Printer Software for Windows diskette. Refer to page 3-2 for installation instructions.

#### Color sampler chart files

Color sampler chart	Number of printed pages (Letter/A4)	Macintosh file name	PC file name
Print a sample of CMYK colors	18*	CMYK Sampler	CMYK.PS
Print a sample of RGB colors	12*	RGB Sampler	RGB.PS
Print a sample of HSB colors	12*	HSB Sampler	HSB.PS
Print a sample of PANTONE Colors	46	PANTONE® Phaser 300X.ps	PANT300X.PS

<sup>\*</sup> If you use Tabloid-, A3-, or Tabloid Extra-size paper, charts are printed two-up (two pages printed on one sheet).

The color sampler charts are made up of areas of color with each color's components listed below it. Each color sampler chart is several pages long; they are printed in panels that can be connected to form a wall chart or placed in a binder for easy reference.



## Before you print the CMYK, RGB, and HSB color charts

To match colors on the charts to colors selected within an application, use the same printer color correction to print the charts that you are going to use when selecting and printing those colors within an application.

For example, to print from a supported driver:

- **a.** Print a color chart with the *Vivid Color* utility file downloaded to the printer.
- **b.** Print from an application with the driver's **Vivid Color** option selected.

Or, to print from a non-supported driver:

- **a.** Print a color chart with the *Vivid Color* utility file downloaded to the printer.
- **b.** Print from an application with the *Vivid Color* utility file downloaded to the printer.

The following table lists the driver color correction selections with their corresponding downloadable utility files. (Refer to page 6-10 to use the printer's rear panel switches instead of utility files.)

### Which color correction to use

If you plan to print colors from an application with this color correction selected in a driver:	Then print the chart with the corresponding color correction utility file downloaded to the printer	
Driver Color Correction	Macintosh utility file name	PC utility file name
selection	(Make sure Switches 8 and 9 on the printer's rear panel are both in the <i>up</i> position <i>before</i> the utility file is downloaded to the printer.)	
Simulate Display	Simulate Display	DISPLAY.PS
Vivid Color	Vivid Color	VIVDCOLR.PS
Use Printer Setting	Any color correction utility file (Make sure you use the same color correction to print the chart and later to print the colors from an application.)	
Commercial Press	Commercial Press	COMRCIAL.PS
Euroscale Press	Euroscale Press	EUROSCAL.PS
SWOP Press	SWOP Press	SWOPRESS.PS
SNAP Press	SNAP Press	SNAPRESS.PS
Custom profile	Send a custom profile from PhaserMatch.*	
None	No Color Correction	NONE.PS

<sup>\*</sup> See the PhaserMatch User Manual for instructions.

## Printing the CMYK, RGB, and HSB color charts

### Macintosh users

Note *If you are using QuickDraw GX, you can print the color charts* from the Tektronix Phaser 300X GX printer driver; see page 2-22 for instructions.

1. Install the printer's software as described on page 2-2. Select Easy **Install** to automatically install the software, or select a printer driver, such as the *Adobe PSPrinter* driver, **and** the *Samplers* item in the Custom Install window.

If you need to select color corrections with downloadable utility files, also install the *Printer Utilities* item in the **Custom Install** window.

- Select the appropriate printer in the **Chooser**.
- Decide which color correction you need to use; see the table on page 7-7 for details.

If you are selecting a color correction with the printer's switches, refer to page 6-10 for instructions.

## If you need to download a color correction utility file:

- **a.** Locate the *LaserWriter Utility* in the *PhaserTools* folder on your hard disk, and double-click its icon to start the application.
- **b.** Choose **Download PostScript File** from the **Utilities** menu.
- **c.** Select a color correction file from the list, then click **Open**. (These files were installed in the *Printer Utilities* folder inside the *PhaserTools* folder.)
- **d.** At the prompt Save PostScript output as: you are asked for a file name for saving printer output. Use either the default name given in the edit box or type a new name. Click **Save** to send the file to the printer.

- **e.** If no output is returned by the printer, the *LaserWriter Utility* displays a dialog box; click **OK** to continue.
- 4. To print a color sampler chart, do the following:
  - **a.** Locate the *LaserWriter Utility* in the *PhaserTools* folder on your hard disk and double-click its icon to start the application.
  - **b.** Choose **Download PostScript File** from the **Utilities** menu.
  - **c.** Select the color sampler chart file from the list, then click **Open**. (The color sampler chart files were installed in the Samplers folder inside the *PhaserTools* folder.)
  - d. At the prompt Save PostScript output as: you are asked for a file name for saving printer output. Use either the default name given in the edit box or type a new name. Click **Save** to send the file to the printer.
  - **e.** If no output is returned by the printer, the *LaserWriter Utility* displays a dialog box; click **OK** to continue.
- Select colors within an application using the colors on the chart.
- Print your document using one of the following methods:
  - If you are printing from a supported driver: Print your document using a supported printer driver (such as the Phaser 300X GX or Adobe PSPrinter) with the same color correction option selected in the driver that you used with a downloaded utility file, or printer switch, to print the chart. Any other color correction selection in the driver can cause the colors to print differently.
  - **If you are not using a supported driver:** Print your document with the same downloaded utility file, or printer switch, you used to print the chart. Any other color correction selection can cause the colors to print differently.

### PC and workstation users

- 1. Install the samplers and utility files from either the Phaser 300X printer's CD-ROM or the Printer Software for Windows diskette; see page 3-27 for details.
- Decide which color correction you need to use; see the table on page 7-7 for details.

If you are selecting a color correction with the printer's rear panel switches, refer to page 6-10 for instructions.

If you need to download a color correction utility file:

- PC users: Use the DOS COPY command to send the file to the printer. (Windows 3.1 users can also use the **Copy** command in the File Manager.)
- Workstation users: Send a color correction file to the printer as you would any PostScript file.
- Print a color sampler chart using one of the following methods:
  - **PC users**: Use the DOS **COPY** command to send the file to the printer. (Windows 3.1 users can also use the **Copy** command in the File Manager.)
  - **Workstation users**: Send the file to the printer as you would any PostScript file.
- Select colors within an application using the colors on the chart.

- Print your document using one of the following methods:
  - If you are printing from a supported driver: Print your document using a supported printer driver (in Windows 95 or Windows 3.1) with the same color correction option selected in the driver that you used with a downloaded utility file, or with a printer switch, to print the chart. Any other color correction selection in the driver can cause the colors to print differently.
  - **If you are not using a supported driver:** Print your document with the same downloaded utility file, or with a printer switch, you used to print the chart. Any other color correction selection can cause the colors to print differently.

## **Printing the PANTONE Color chart**

Use the PANTONE Color sampler chart for your printer to select colors within an application that allows you to specify PANTONE Colors. For more information on using PANTONE Colors, see the related topics on the Tektronix World Wide Web server at http://www.tek.com/Color\_Printers/.

There are two ways to print the PANTONE Color sampler chart for your Phaser 300X printer:

- Open the *PANTONE* Phaser 300X.pdf file in Adobe's Acrobat Reader application, and print the pages you want; see "Printing individual pages from Acrobat".
- Download the PANTONE® Phaser 300X.ps file to the printer to print the entire sampler chart (about 46 pages in length); see "Printing the entire chart" on page 7-19.

Use only the None color correction option when printing the PANTONE Color sampler chart or when printing PANTONE Colors from an application. Using any other color correction will cause PANTONE Colors to print incorrectly.

## Printing individual pages from Acrobat

### **Macintosh**

You can open the *PANTONE* Phaser 300X.pdf file in Adobe's Acrobat Reader application, and print just the pages you want. Make sure you print on paper for best results.

- When you install the *Pantone Files* from the printer's CD-ROM, also install the Acrobat Reader Alias and the Printer Utilities option from the Custom Install window; see page 2-2 for instructions.
- Locate the *Acrobat Reader Alias* in the *PhaserTools* folder on your hard disk, and double-click the alias; the original source on the printer's CD-ROM opens.

- **3.** Follow the on-screen instructions to install Acrobat Reader onto your hard disk.
- **4.** Once Acrobat Reader is installed, locate the *PANTONE*® *Phaser* 300X.pdf file in the Pantone Files folder inside the PhaserTools folder on your hard disk. Double-click the file to launch Acrobat Reader and open the file.
- Select the appropriate printer in the **Chooser**.
- View and print pages from the color sampler chart file as desired.

### If you are printing from a supported driver (such as Adobe PSPrinter or Phaser 300X GX):

Print your document with the following selections. Any other selections in the driver will cause the PANTONE Colors to print differently.

- **None** color correction option
- **Standard** print quality mode

## If you are not using a supported driver:

- None color correction option
- Black Substitution on
- **Standard** print quality mode

- **a.** Locate the *LaserWriter Utility* in the *PhaserTools* folder on your hard disk, and double-click its icon to start the application.
- **b.** Choose **Download PostScript File** from the **Utilities** menu.
- **c.** Select the **No Color Correction** file from the list, then click Open. (This file was installed in the Printer Utilities folder inside the *PhaserTools* folder.)
- **d.** At the prompt Save PostScript output as: you are asked for a file name for saving printer output. Use either the default name given in the edit box or type a new name. Click **Save** to send the file to the printer.
- **e.** If no output is returned by the printer, the *LaserWriter Utility* displays a dialog box; click **OK** to continue.
- 7. Select PANTONE Colors within an application using the colors on the chart.
- Print your document using one of the following methods:

### If you are printing from a supported driver (such as Adobe PSPrinter or Phaser 300X GX):

Print your document with the following selections. Any other selections in the driver will cause the PANTONE Colors to print differently.

- None color correction option
- **Standard** print quality mode

## If you are not using a supported driver:

- None color correction option
- Black Substitution on
- Standard print quality mode

### PC

You can open the *PANT300X.PDF* file in Adobe's Acrobat Reader application, and print just the pages you want.

- Copy the *PANT300X.PDF* from the *PANTONE* directory on the printer's CD-ROM or Printer Software for Windows diskette. Or, use the file directly from the CD-ROM or diskette.
- Make sure you installed the Adobe's Acrobat Reader from the printer's CD-ROM.
- Once Acrobat Reader is installed, locate the *PANT300X.PDF* file, and double-click the file to launch Acrobat Reader and open the file.
- View and print pages from the color sampler chart file as desired.

### If you are printing from a supported driver (such as Adobe PS3 for Windows 3.1 or the Windows 95 PostScript driver):

Print your document with the following selections. Any other selections in the driver will cause the PANTONE Colors to print differently.

- **None** color correction option
- **Standard** print quality mode

## If you are not using a supported driver:

- **None** color correction option
- Black Substitution on
- **Standard** print quality mode
- Select PANTONE Colors within an application using the colors on the chart.

Print your document using one of the following methods:

If you are printing from a supported driver (such as Adobe PS3 for Windows 3.1 or the Windows 95 PostScript driver):

Print your document with the following selections. Any other selections in the driver will cause the PANTONE Colors to print differently.

- None color correction option
- **Standard** print quality mode

### If you are not using a supported driver:

- None color correction option
- Black Substitution on
- **Standard** print quality mode

## Printing the entire chart

### **Macintosh**

Use the LaserWriter Utility to download the PANTONE® Phaser 300X.vs file to the printer. This is a PostScript file that contains the necessary color correction and print quality information. Make sure you print the chart on paper for best results.

Note If you are using QuickDraw GX, you can print the PANTONE Color sampler chart from the Tektronix Phaser 300X GX printer *driver; see page 2-23 for instructions.* 

- See page 2-2 to install the *Pantone Files* from the printer's CD-ROM. You also need to install the *Printer Utilities* option from the Custom Install window.
- Locate the files in the *PhaserTools* folder on your hard disk.
- Select the appropriate printer in the **Chooser**.
- To print the chart, do the following:
  - **a.** Locate the *LaserWriter Utility* in the *PhaserTools* folder on your hard disk, and double-click its icon to start the application.
  - **b.** Select **Download PostScript File** from the **Utilities** menu.
  - **c.** Select the  $PANTONE^{\textcircled{R}}$  Phaser 300X.ps file, and click **Open**. (This file was installed in the Pantone Files folder inside the PhaserTools folder.)
  - **d.** At the prompt Save PostScript output as: you are asked for a file name for saving printer output. Use the default name given in the edit box or type in a new name. Then click **Save** to send the file to the printer.
  - **e.** If no output is returned by the printer, the *LaserWriter Utility* displays a dialog box; click **OK** to continue.

- 5. Select PANTONE Colors within an application using the colors on the chart.
- Print your document using one of the following methods:

If you are printing from a supported driver (such as Adobe PSPrinter or Phaser 300X GX):

Print your document with the following selections. Any other selections in the driver will cause the PANTONE Colors to print differently.

- None color correction option
- Standard print quality mode

## If you are not using a supported driver:

- **None** color correction option
- **Standard** print quality mode

### PC and workstation users

This is a PostScript file that contains the necessary color correction and print quality information. Make sure you print the chart on paper for best results.

- Copy the *PANT300X.PDF* from the *PANTONE* directory on the printer's CD-ROM or Printer Software for Windows diskette. Or, use the file directly from the CD-ROM or diskette. You may also need the utility files in the *PHSR300X* directory on the printer's CD-ROM.
- 2. Print the PANTONE Color chart using one of the following methods:
  - **PC users**: Use the DOS **COPY** command to send the file to the printer. (Windows 3.1 users can also use the **Copy** command in the File Manager.)
  - **Workstation users**: Send the file to the printer as you would any PostScript file.
- Select PANTONE Colors within an application using the colors on the chart.
- Print your document using one of the following methods:

If you are printing from a supported driver (such as Adobe PS3 for Windows 3.1 or the Windows 95 PostScript driver):

Print your document with the following selections. Any other selections in the driver will cause the PANTONE Colors to print differently.

- **None** color correction option
- **Standard** print quality mode

## If you are not using a supported driver:

- **None** color correction option
- **Standard** print quality mode

# 8

## Using Fonts

## **Overview**

This chapter explains how to use fonts and print a font sampler from either a Macintosh or a PC.

Note

For general information on fonts, request a document catalog from HAL or EuroHAL, the Tektronix automated fax systems. Refer to page 9-4 for instructions on using these systems.

The printer is shipped with the following standard fonts:

Courier

Courier Bold
Courier Oblique
Courier Bold Oblique

ITC Avant Garde Gothic Book
ITC Avant Garde Gothic Book Oblique
ITC Avant Garde Gothic Demi

ITC Avant Garde Gothic Demi ITC Avant Garde Gothic Demi Oblique

ITC Bookman Light
ITC Bookman Light Italic
ITC Bookman Demi
ITC Bookman Demi Italic

Helvetica Bold Helvetica Oblique Helvetica Bold Oblique

Helvetica Condensed

Helvetica Condensed Bold

Helvetica Condensed Oblique

Helvetica Condensed Bold Oblique

Helvetica Narrow Bold

Helvetica Narrow Oblique
Helvetica Narrow Bold Oblique

New Century Schoolbook

New Century Schoolbook Bold New Century Schoolbook Italic

New Century Schoolbook Bold Italic

Palatino
Palatino Italic
Palatino Bold
Palatino Bold Italic

Times Roman
Times Bold
Times Italic
Times Bold Italic

ITC Zapf Chancery Medium Italic

☆\*% \*\*\*□\* \*\*\*■\*\*\*▼▲ (ITC Zapf Dingbats)

Σψμβολ (Symbol)

8873-24

## **Macintosh fonts**

## **Using Macintosh screen fonts**

Note If you already have these fonts installed on your computer, you don't need to install them again.

The Phaser 300X printer's CD-ROM, and the Printer Software for the Macintosh diskette, contain screen fonts for the printer's standard fonts.

You need to install the screen fonts on your computer if you want to see the printer's standard resident typefaces on the Macintosh screen. If you select a font the printer doesn't have, the Macintosh creates a representative font for printing.

## Installing the fonts

1. Use either the Phaser 300X printer's CD-ROM or Printer Software for the Macintosh diskette. Select **Easy Install** to automatically install the printer's software, or select *Phaser Screen Fonts* in the **Custom Install** window on the printer's CD-ROM. Refer to "Installing the printer's software" on page 2-2 for more information.

The fonts are automatically installed in the Fonts folder, inside the System Folder, on your hard disk.

Select the printer font you want to use within an application and see the same font on the screen.

## **Printing a font sampler from a Macintosh**

You can print a sample of the printer's resident fonts by downloading the *Fonts Sampler* utility file to the printer.

Note If you are using QuickDraw GX, you can print the fonts sampler from the Tektronix Phaser 300X GX printer driver; see page 2-22 for instructions.

- 1. Use either the Phaser 300X printer's CD-ROM or Printer Software for the Macintosh diskette. Select **Easy Install** to automatically install the printer's software, or select *Samplers* in the **Custom Install** window on the printer's CD-ROM. Refer to "Installing the printer's software" on page 2-2 for more information.
- **2.** Select the appropriate printer in the **Chooser**.
- **3.** Locate the *LaserWriter Utility* in the *PhaserTools* folder on your hard disk, and double-click its icon to start the application.
- 4. Choose **Download PostScript File** from the **Utilities** menu.
- Select the *Font Sampler* file from the list, then click **Open**. (This file was installed in the *Samplers* folder inside the *PhaserTools* folder.)
- **6.** At the prompt Save PostScript output as: you are asked for a file name for saving printer output. Use either the default name given in the edit box or type a new name.
- 7. Click **Save** to send the file to the printer.
- **8.** If no output is returned by the printer, the *LaserWriter Utility* displays a dialog box; click **OK** to continue.

## Downloading fonts to the printer from a Macintosh

The fonts resident in your printer are stored as outlines and are always available for printing. The PostScript interpreter in the printer can also accept and store additional fonts known as downloadable fonts. If you want to print PostScript outline fonts that are not built into the printer, you can transfer or download outline fonts from your computer to the printer. Downloading fonts saves print time if you plan to print several documents or a large document using those fonts.

When you download a font, it is stored in the printer's memory. You can download as many outline fonts as the printer's memory allows.

- 1. Use either the Phaser 300X printer's CD-ROM or Printer Software for the Macintosh diskette. Select **Easy Install** to automatically install the printer's software, or select a driver options and *Samplers* in the **Custom Install** window on the printer's CD-ROM. Refer to "Installing the printer's software" on page 2-2 for more information.
- Select the appropriate printer in the **Chooser**.
- **3.** Locate the *LaserWriter Utility* in the *PhaserTools* folder on your hard disk, and double-click its icon to start the application.
- To send fonts to the printer, use the **Download Fonts** command in the File menu.
  - (To send PostScript files to the printer, refer to "Using the LaserWriter Utility to download files" on page 40.)
- Select the font then click **Open**. The font is sent to the printer. The font remains available until the printer is reset or turned off.

## **PC** fonts

## **Using fonts with Windows**

Before printing, you need to make sure the fonts specified in your document are installed in the printer or are set up correctly in Windows. If you request a font in an application that is not resident in the printer, or is not correctly installed in Windows, the text is printed in the Courier typeface. Or, to use fonts that are not resident in the printer, do one of the following:

- Use a font downloader supplied with your font package to download the desired font to the printer.
- Edit your WIN.INI file so the Windows driver automatically downloads the fonts you need as part of a print job. Refer to your Microsoft Windows documentation for details on this procedure.

Some font packages automatically update the PostScript port entries in your *WIN.INI* file when you reinstall the fonts. Refer to the font package's documentation for instructions.

For more information on using fonts with Windows, request a document catalog from HAL or EuroHAL, the Tektronix automated fax systems. Refer to page 9-4 for instructions on using these systems.

## Printing a font sampler from a PC

You can print a sample of the printer's resident fonts by downloading the *FONTS.PS* utility file to the printer.

- Copy the files from the SAMPLERS directory on either the Phaser 300X printer's CD-ROM or the Printer Software for Windows diskette. Or, use the files directly from the CD-ROM or diskette.
- **2.** Use one of the following methods to send the *FONTS.PS* file to the printer:
  - **PC users**: Use the DOS **COPY** command to send the file to the printer. (Windows 3.1 users can also use the Copy command in the File Manager.)
  - Workstation users: Send the file to the printer as you would any PostScript file.

## Downloading fonts to the printer from a PC

The fonts resident in your printer are stored as outlines and are always available for printing. The PostScript interpreter in the printer can also accept and store additional fonts known as downloadable fonts. If you want to print PostScript outline fonts that are not built into the printer, you can transfer or download outline fonts from your computer to the printer. Downloading fonts saves print time if you plan to print several documents or a large document using those fonts.

When you download a font, it is stored in the printer's memory. You can download as many outline fonts as the printer's memory allows.

A font downloader is an interactive program that lets you transfer Adobe fonts and other PostScript files to the printer. Check your font package for a downloader application. Or, check the Tektronix Bulletin Board Service (BBS) for a PC font downloader; refer to page 9-2 for instructions.

## Troubleshooting

## **Getting help**

## **Electronic addresses and telephone numbers**

**Note** For more information on Tektronix on-line services, request a document catalog from HAL or EuroHAL, the Tektronix automated fax systems. Refer to page 9-4 for instructions on using these systems.

■ Customer service	U.S. and Canada: 1-800-835-6100 (toll-free)
<ul><li>Technical support</li></ul>	Outside U.S. and Canada:
<ul><li>Ordering</li></ul>	Contact your local dealer or Tektronix representative.
■ Service	
HAL fax library	U.S. and Canada: 1-800-835-6100
	All locations: (503) 682-7450
EuroHAL fax library	Refer to page 9-5 for numbers for specific countries.
Bulletin Board Service (BBS)	(503) 685-4504 (using a modem and computer)
Internet	
<ul><li>World Wide Web</li></ul>	http://www.tek.com/Color_Printers/
■ Tektronix ftp server	ftp://ftp.tek.com/cpid/bbs
<ul><li>Technical Support</li></ul>	support@ColorPrinters.tek.com
<ul><li>America On-Line</li></ul>	Keyword: Tektronix
■ CompuServe	Go Tektronix

## **Using the Tektronix Bulletin Board Service**

The Tektronix Bulletin Board Service (BBS) is available for direct downloading of the latest versions of printer drivers, utilities, and files. If you have a Macintosh or PC, communication software, and modem, you can call the system and use the menus to locate and download the files you want.

To access the BBS 24 hours a day, 7 days a week, call (503) 685-4504.

For a detailed instruction guide on system requirements, terminal settings, protocol, modem, how to connect to our BBS, and how to download files, request a document catalog from HAL or EuroHAL, the Tektronix automated fax systems. Refer to page 9-4 for instructions on using these systems.

## Reaching the Customer Support staff

If your problem is still not resolved after trying the suggestions in this chapter, call the Tektronix Customer Support Hotline in the United States Monday through Friday, from 6 AM to 5 PM PST at 1-800-835-6100. Outside the U.S., contact your reseller or local Tektronix office.

Also, refer to the HAL catalog for articles on using the printer, specific applications, and computing environments; see page 9-4 for instructions on using HAL and EuroHAL.

## Using the Tektronix World Wide Web site

Tektronix has a site on the World Wide Web (WWW). You can reach the site from a WWW browser at the following address:

### http://www.tek.com/Color\_Printers/

At the Tektronix Color Printer home page, explore options such as customer support documents and new product information. New and updated information is always being added, so check the WWW site frequently.

## Using the Tektronix World Wide Web server to download files

You can access the Tektronix World Wide Web server (WWW) to download files such as utilities or drivers. Use a web browser such as Netscape or Mosaic and follow these steps:

- 1. Start your web browser and enter the following address:
  - ftp://ftp.tek.com/Color\_Printers/bbs
- 2. Click on the appropriate platform (*macintosh*, *pcs*, *or unix*).
- **3.** Click on 300X for Phaser 300X printer-specific files.
- **4.** Select the files you need; the system prompts you to select a location for downloading the files.

## Using the automated fax systems

As an alternative to using the Customer Support Hotline, and to provide up-to-date information quickly, Tektronix has set up HAL and EuroHAL, two interactive, automated fax systems. These automated fax systems provide Macintosh, PC, and workstation users with the latest technical hints and tips (like color matching), solutions to common technical problems, and application notes (like CorelDRAW! and QuarkXPress).

You may call HAL or EuroHAL from anywhere in the world. The fax systems are available 24 hours a day, seven days a week.

### Use HAL in the U.S.A. and Canada

If you have a fax machine and a touch-tone voice telephone, you can order a HAL catalog listing all of the information offered by HAL.

Note Before ordering documents from HAL, order a catalog listing the numbers of available documents. You may want to replace your catalog periodically, since the system is often updated.

- 1. Before you call, write down the area code and telephone number for your fax machine. HAL will ask you to key this number through the keypad on your voice telephone. If you are calling from outside the United States or Canada, you'll need to know the international access code to reach your country from the United States. Without a complete fax number, HAL cannot call your fax machine.
- Call (503) 682-7450 (direct) or, in the U.S. and Canada, call **1-800-835-6100**. Call only from a touch-tone voice telephone.
- At the prompt, choose the option for **technical documentation** via fax.
- Follow through the voice-prompted (English) menu.
- Order individual documents by entering the desired document's number as listed in the HAL catalog. Enter the number by using your telephone's keypad.
- You can order up to three documents per call.
- The HAL catalog or documents you request are faxed to you in a matter of minutes.

## **Use EuroHAL in Europe**

EuroHAL includes many documents, some in English and some in other European languages. If a local version of the document you want is available, EuroHAL will send it in your language. Otherwise, it will send English documents.

If you have a tone-dial telephone and a fax machine, then you can use EuroHAL. If your telephone has star (\*) and hash mark (#) keys then it can probably use tones; ask your local telephone supplier if you are not sure. If your telephone does not have these keys or has a dial, you will need to buy a tone dialer from your local telephone or electronics shop. This small box is held to the phone and will send the standard tones that you need to talk to EuroHAL.

1. To use EuroHAL, dial one of the numbers listed in the following table.

Country	Numbers
Austria	
Belgium	
Denmark	00 44 1908 681 839
Finland	
Italy	
Switzerland	
France	05 90 81 86
Germany	0130 819 220
Holland	09 44 1908 681 839
Norway	0 95 44 1908 681 839
Spain	07 44 1908 681 839
Sweden	0 09 44 1908 681 839
UK	01908 681 839
Other countries	+44 1908 681 839 (where + is your country's International Access Code)

## **9** Troubleshooting

2. EuroHAL answers and asks which language you want to use.

For English Press 1
For French Press 2
For German Press 3

- **3.** The first time you use EuroHAL, you should order a catalog. The catalog lists all of the available documents and is continuously updated.
- 4. EuroHAL asks you for your fax machine number. If you are calling from outside the UK, add your country code first, as shown in the following table.

Country	Country code	Your area code and fax number	Press # when finished
Austria	00 43	area code fax number	#
Belgium	00 32	area code fax number	#
Denmark	00 45	area code fax number	#
Finland	00 358	area code fax number	#
France	00 33	area code fax number	#
Germany	00 49	area code fax number	#
Holland	00 31	area code fax number	#
Italy	00 39	area code fax number	#
Norway	00 47	area code fax number	#
Spain	00 34	area code fax number	#
Sweden	00 46	area code fax number	#
Switzerland	00 41	area code fax number	#
UK		just enter your fax number	#
Other countries	00 xx	area code number	#

## **Downloading files from the Tektronix ftp server**

The utility files included with the printer on a PC/DOS diskette and CD-ROM, let you set up the printer from UNIX and VMS workstations to select print quality modes, color correction modes and other features. If you don't have the means of transferring these files from the PC diskette, or you cannot use the CD-ROM, you can request files from the Tektronix anonymous ftp server.

If you can exchange electronic mail with other Internet sites, you can access the Tektronix ftp server. From this server you can retrieve driver and utility files and color printer information.

To log onto the Tektronix ftp server and download utility files, follow these instructions:

1. Type the following at the system prompt:

### ftp ftp.tek.com

The system responds:

```
Name (ftp.tek.com:<login name>) :
```

**2.** Type **anonymous** and press the Return key.

The system responds:

```
Guest login ok, send your complete e-mail address as password.
```

- **3.** Enter your e-mail address and press the Return key.
- **4.** Change directories to your printer-specific directory:

```
cd Color_Printers/UNIX/<Tektronix printer>/utilities
```

**5**. To download the utility files, type the following command:

```
mget *
```

The system prompts you for each file in the directory, to which you respond **y** (yes) or **n** (no).

**6.** To exit the ftp session, type **quit** or **bye**; then press the **Return** key.

## **Getting printer service**

If your printer needs service, call 1-800-635-6100 (in the U.S., from 6:00 am to 5:00 pm PST). Outside the U.S., contact your Tektronix dealer or local Tektronix office.

## Viewing on-line documents

If you don't have a CD-ROM drive, you can access on-line documents and information in the following ways:

- From HAL (see page 9-4 for instructions).
- From the Tektronix World Wide Web site (see page 9-3 for instructions).

## Opening the READ ME files on the Macintosh diskette

The Phaser 300X printer's CD-ROM and Printer Software for the Macintosh diskette contain READ ME files providing information that arrived too late to be included in this manual. The READ ME files were written in the SimpleText program. You must have a copy of SimpleText for System Software 7.1 and later (or *TeachText* for earlier systems) installed on your hard disk to read these files. If you don't have a copy already installed, copy SimpleText (or TeachText) from the same Apple system software diskettes you last used to upgrade your computer.

## Improving print speed

Note There are different ways to improve print speed, such as by upgrading to EtherTalk on a Macintosh, to Novell on a PC, or to TCP/IP on a workstation. For more information, request a document catalog from HAL or EuroHAL, the Tektronix automated fax systems. Refer to page 9-4 for instructions on using these systems.

If you tried to print a document with bitmapped images, but are dissatisfied with the speed of the output, here are some suggestions.

#### All users

- When you use any color correction option (other than **None**), your printer can take longer to process bitmapped images. Select color corrections from the supported drivers, with downloadable utility files, or with the printer's rear panel switches; see page 6-6 for instructions.
- The **Standard** print quality option prints faster than the **Enhanced or Premium** options. Select print quality modes from the supported drivers or with downloadable utility files; see page 5-6 for details.

### Macintosh users

If you are using Adobe Photoshop, you can print using the Tektronix PhaserPrint plug-in to improve the image data transfer time from your Macintosh to the printer. See page 2-29 for instructions on installing and using the plug-in.

### Windows 3.1 users

- From the **Control Panel**, double-click **Printers**.
- In the **Printers** dialog box, select the **Tektronix Phaser 300X** printer, then click **Setup**. A dialog box appears with the printer's name across the top.
- **3.** Click the **PostScript** tab.
- In the Performance Options field, select the Use PostScript Level 2 Features option.
- Click the **Job Control** tab.
- For better performance, select the **Binary Mode** option.
- From your application, choose the **Tektronix Phaser 300X** as your printer.
- Try printing the document again.

### Windows 95 users

- 1. Click the **Start** icon in the taskbar on your screen; a menu appears.
- 2. Move the cursor over **Settings**; another menu appears.
- 3. In the menu, click **Printers**; the **Printers** window appears.
- 4. In the **Printers** window, select the **Phaser 300X** printer icon, then select **Properties** from the **File** menu.
- 5. Click the **PostScript** tab, then click the **Advanced** button.
- **6.** Select **Use PostScript Level 2 features**.
- 7. Select Binary communications protocol under Data format.
- 8. Click **OK** when finished.
- **9.** Try printing the document again.

### **UNIX workstation users**

Workstation users can use the PhaserPrint software for UNIX to increase printer performance when printing bitmapped images; refer to page 4-2 for details.

## If your file doesn't print

If you've configured a supported driver for your printer but your printer isn't printing, try the following suggestions. If these suggestions fail to solve the problem, copy the Tektronix PostScript Level 2 error handler utility to your printer to determine what is wrong. Refer to page 9-19 for information on using the error handler.

## General things to check for

### Macintosh users

- Open the **Chooser** and select a supported driver, such as the Adobe PSPrinter, and your printer.
  - If the driver isn't installed or properly set up with your printer, refer to page 2-2 for instructions.
  - Make sure **Background Printing** is turned **off**.
  - Close the Chooser and try printing again.
- If you are having trouble printing from the Finder in System 7.1, for example if the driver's dialog boxes are not opening, it may be because the Finder doesn't have enough allocated memory. Reinstall a supported driver to automatically allocate enough memory for printing from the Finder.
- For PCI-based PowerMacs, you should be using the latest version of **Open Transport**, available from Apple Computer.

### Windows users (general)

- Check to make sure you have configured the communications ports and the Handshake option correctly. Refer to page A-6 to print a configuration page for helpful information.
- Make sure you are using the correct cables for your computer and printer. See the *Phaser 300X Color Printer User Manual* for cable information.

### Windows 3.1 users

- Make sure your printer is connected to the port you selected in the driver's Printers/Connect dialog box.
- Try resetting the **Transmission Retry** timeout option in the driver's **Printers/Connect** dialog box to **850** seconds.
- Check the Options dialog box to make sure Printer, not Encapsulated PostScript File, is selected in the driver's Print To box.
- If the error message Windows Header has not been downloaded to the printer appears on your computer screen, open the driver's Options dialog box and turn on the Send Header with Each Job check box. Refer to page 3-18 for details.

### Windows 95 users

- Make sure your printer is connected to the port you selected in the driver's **Details** tab.
- Try resetting the **Transmission Retry** timeout option in the driver's **Details** tab to **850** seconds.
- Make sure the correct port is selected in the driver's **Details** tab.
- If the error message Windows Header has not been downloaded to the printer appears on your computer screen, click the PostScript tab and click one of the options for PostScript Header. Refer to page 3-6 for details.

#### If you are using PC/NFS

If you have PC/NFS software installed on your computer, you need to make the following selection in the **Network Options** dialog box:

- From the **Main** window, double-click the **Print Manager** icon.
- From the **Options** menu in the **Print Manager**, select Network Settings.
- In the **Network Options** dialog box, uncheck the **Print Net Jobs Direct** box.
- 4. Click **OK**.

#### If you can't print from Windows to an LPT port

#### Windows 3.1

If your printer is connected through an LPT (parallel) port and your document doesn't print, try the following:

- Double-click the **Printers** icon in the **Control Panel**.
- In the **Printers** dialog box, choose your printer from the list of installed printers.
- Click the **Connect** button; the **Connect** dialog box appears.
- Change your port connection from LPTx to LPTx.DOS (where *x* is 1, 2, or 3).
- Click **OK**.

Note Also, refer to page 9-21 for instructions on fixing timeout problems in Windows.

#### Windows 95

- 1. Select **Start** in the taskbar on your screen.
- 2. In the menu that appears, select **Settings**.
- 3. In the next menu, select **Printers**; the **Printers** window appears.
- **4.** Click on your printer's icon and select **Properties** from the **File** menu.
- 5. Click the **Details** tab.
- Click Add Port.
- Click Other.
- 8. Make sure **Local Port** is highlighted, then click **OK**.
- **9.** Type **LPTx.DOS** (where **x** is 1, 2, or 3).
- **10.** Click **OK**.
- 11. In the **Details** tab, the *Print to the following port* should be **LPT.DOS** (unknown local port).

#### Check the printer's language mode

If your file doesn't print, the language on the printer's port you are using may have been changed.

Note PCL5 is optional and must be authorized before you can use it; see *page D-11 for instructions.* 

- 1. Print a copy of the printer's configuration page to see the language mode on each port. Refer to page A-6 for instructions on printing a configuration page.
- If the printer port you are using has the wrong language set for the type of application you are using, send one of the following utility files to the printer:
  - To print PostScript files, use the *PSCRIPT.PS* file to set up a port to receive PostScript; see page D-6 for details.
  - To print HP-GL files, use the *HPGL.PS* file to set up a port to receive HP-GL; see page D-6 for details.
  - To print PostScript, or HP-GL, or PCL5 files interchangeably, use the AIS.PS file to set up a port for automatic language selection; see page D-6 for details.

## PostScript printing errors

**Note** For information on specific applications, request a document catalog from HAL or EuroHAL, the Tektronix automated fax systems. Refer to page 9-4 for instructions on using these systems.

If you get a PostScript error when printing from Aldus PageMaker, Aldus FreeHand, QuarkXPress, or Canvas, you may be using an older or incorrect version of the printer description file. For instructions on using printer description files, refer to the following depending on your computer type:

- **Macintosh:** see page 2-15.
- PC: see page 3-24.
- You should always use the most current printer description file.
   To determine the date of the file you are using, do the following:
  - Macintosh users:

Select (highlight) a printer description file and choose **Get Info** from the **File** menu. Make a note of the version date.

■ Windows 3.1 users:

Check a printer description file's creation date in the **File Manager**. Make a note of the version date.

Windows 95 users:

Check a printer description file's creation date in the **Windows Explorer.** Make a note of the version date.

2. Check the Tektronix Bulletin Board Service (BBS) to see if the printer description files you have are the most recent. Refer to page 9-2 for instructions on using the BBS.

#### Using a PostScript error handler

The error handling utility is useful for diagnosing problems when a job doesn't print. This utility installs a PostScript error-handling function in the printer to help determine the cause of some PostScript printing problems. PostScript errors are printed on a page with other status information when an error occurs. This utility can be useful to programmers for debugging PostScript code.

**To turn on the error handler:** Follow the instructions below.

**To turn off the error handler:** See page A-11 for instructions on resetting the printer.

Use the following utility files for your computer type:

Macintosh file name	PC file name
Tek Error Handler and LaserWriter Utility	TEKEHAND.PS

#### **Macintosh users**

- 1. Install the utility files from the Phaser 300X printer's CD-ROM; refer to page 2-2 for instructions.
- Select the appropriate printer in the **Chooser**.
- 3. Locate the *LaserWriter Utility* in the *PhaserTools* folder on your hard disk, and double-click its icon to start the application.
- Choose **Download PostScript File** from the **Utilities** menu.
- Select the *Tek Error Handler* file from the list, then click **Open**. (This file was installed in the *Printer Utilities* folder inside the *PhaserTools* folder.)

- 6. At the prompt Save PostScript output as: you are asked for a file name for saving printer output. Use either the default name given in the edit box or type a new name. Click **Save** to send the file to the printer.
- 7. If no output is returned by the printer, the *LaserWriter Utility* displays a dialog box; click **OK** continue.

- 1. Copy the utility files from the Phaser 300X printer's CD-ROM, or use them directly from the CD-ROM.
- **2.** Send the *TEKEHAND.PS* file to the printer using one of the following methods:
  - **PC users**: Use the DOS **COPY** command to send the file to the printer; refer to page 3-29 if you need instructions. (Windows 3.1 users can also use the **Copy** command in the **File Manager**; see page 3-28 if you need instructions.)
  - Workstation users: Send the file to the printer as you would any PostScript file.

#### Fixing timeout problems in Windows

If print jobs are timing out and not printing, you need to increase the timeout value in Windows (see the following instructions) and in the printer (see page D-2).

Try one of the following procedures to change the Windows timeout. If the Windows procedure doesn't work for you, try the DOS procedure. Then, follow the procedure to change the printer's timeout.

#### Windows timeout: From Windows 3.1

- Open the **Control Panel** from the **Main** menu.
- Double-click the **Printers** icon to open the **Printers** dialog box.
- Click the **Connect** button to open the **Connect** dialog box.
- Increase the **Transmission Retry** to **999** seconds by typing in the new number.
- Click **OK**.

#### Windows timeout: From Windows 95

- Click the **Start** icon in the taskbar on your screen; a menu appears.
- Move the cursor over **Settings**; another menu appears.
- In the menu, click **Printers**; the **Printers** window appears.
- In the **Printers** window, select the **Phaser 300X** printer icon, then select **Properties** from the **File** menu.
- Click the **Details** tab and increase the **Transmission Retry** to 999 (or higher) seconds by typing in the new number.
- Click **OK**.

#### From DOS (and Windows 3.1)

**Note** To use this procedure, the printer must be connected directly to your computer, not on a network.

1. At the DOS prompt, issue the DOS **MODE** command by typing the following:

MODE LPT1:,,P

- 2. Start Windows 3.1.
- 3. Open the **Control Panel** from the **Main** menu.
- **4.** Double-click the **Printers** icon to open the **Printers** dialog box.
- **5.** Click the **Connect** button to open the **Connect** dialog box.
- **6.** Change the port selection from **LPT1** to either **LPT1.DOS** or **LPT1.OS2**, depending on the options you see in the dialog box.
- 7. Click **OK**.

## Printed colors are not what you expected

#### In general

- Select another **Color Correction** option in a supported driver and print your image again; refer to page 6-2 for more information.
- If you are not using a supported driver and are sharing the printer with other users on a network, another user may have changed the printer's color adjustment setting. Refer to page 9-29 for more information.
- If you use the driver's **Use Printer Setting** option and printed colors are not what you expected, check the following:
  - A selection may have been made with the switches on the printer's rear panel. These settings change the printer's color correction setting.
  - A color correction utility file may have been downloaded to the printer. These files change the printer's color correction setting.
    - Refer to page 9-29 for details on how these settings affect prints made from a driver.
- If you have the printer's extended features option, you can use PhaserMatch to customize profiles for better color matching between the printer and a specific printing press. Refer to the PhaserMatch User Manual for instructions.

#### **Printing PANTONE Colors**

If Phaser 300X printer-specific PANTONE Colors are not printing as expected, make sure you are printing without any color corrections. Refer to "Printing the PANTONE Color chart" on page 12 for more information.

If you have questions about PANTONE Color Matching, refer to the HAL article on PANTONE Colors. Refer to page 9-4 for instructions on using the HAL and EuroHAL fax systems.

There are many variables in process reproduction of colors generated by the Phaser 300X printer, any one of which may affect the quality of the PANTONE Color simulation, including:

- Type of ink used
- Type of ink film used
- Effective final resolution
- Dot structure/halftones

#### Blue colors look too purple

If printed blue colors look too purple, print your document with the **Vivid Color** color correction. Refer to "Selecting color corrections" on page 6 for instructions and more information.

#### Using the Tektronix halftone screens

Tektronix halftone screens are designed for Tektronix printers, and improve print quality over application-set halftone screens. The Setscreen Off (SCRENOFF.PS) utility file redefines some PostScript operators, such as the setscreen, setcolorscreen and sethalftone. When downloaded to the printer, this file prevents applications from overriding the Tektronix proprietary halftone screens.

Use the following utility files depending on your computer type:

Macintosh file name	PC file name
Setscreen On Setscreen Off and LaserWriter Utility	SCREENON.PS SCRENOFF.PS

#### **Macintosh users**

- Install the utility files from the Phaser 300X printer's CD-ROM; refer to page 2-2 for instructions.
- Select the appropriate printer in the **Chooser**.
- Locate the *LaserWriter Utility* in the *PhaserTools* folder on your hard disk, and double-click its icon to start the application.
- Choose **Download PostScript File** from the **Utilities** menu.
- Select one of the Setscreen files from the list, then click **Open**. (These files were installed in the *Printer Utilities* folder inside the *PhaserTools* folder.)
- At the prompt Save PostScript output as: you are asked for a file name for saving printer output. Use either the default name given in the edit box or type a new name.
- 7. Click **Save** to send the file to the printer.
- If no output is returned by the printer, the *LaserWriter Utility* displays a dialog box; click **OK** continue.

- 1. Copy the utility files from the Phaser 300X printer's CD-ROM, or use the files directly from the CD-ROM.
- **2.** Use one of the following methods to send the files to the printer:
  - **PC users**: Use the DOS **COPY** command to send the file to the printers. (Windows 3.1 users can also use the **Copy** command in the **File Manager**.)
  - Workstation users: Send the file to the printer as you would any PostScript file.

## Selecting page sizes in Windows applications

In some Windows applications, you can select printer page sizes in a **Print Setup** dialog box accessed from the **File** menu. If you use a **Print Setup** dialog box to select the Phaser 300X printer from your application, some page sizes may not be visible in the list.

If the Phaser 300X printer page size you want to use is not visible in the list, do the following:

#### Windows 3.1

- From the **Main** window, open the **Control Panel** and double-click the **Printers** icon.
- In the **Printers** dialog box, select the **Phaser 300X** in the list of printers.
- Click the **Setup** button.
- In the **Setup** dialog box, select the page size you want and click **OK**.
- Return to your application. If you open the **Print Setup** dialog box again from within your application, the page size selection may be blank. The page size you just selected in the driver is still selected, it is just not visible in the list.
- Print as usual.

If you open the **Print Setup** dialog box from within an application, and the page size selection is blank, the blank represents the page size last selected from the printer driver through the **Control Panel**. You can leave the page size selection blank and print as usual, or you can select another page size from the list.

#### Windows 95

- 1. Click the **Start** icon in the taskbar on your screen; a menu appears.
- Move the cursor over **Settings**; another menu appears.
- In the menu, click **Printers**; the **Printers** window appears.
- 4. In the **Printers** window, select the **Phaser 300X** printer icon, then select Properties from the File menu.
- 5. Click the **Paper** tab.
- Choose your page size, and click **OK**.
- **7.** Return to your application.

## Sharing the printer on a network

#### Driver, utility files, and switch interactions

If your Phaser 300X printer is shared by other users on a network, using the downloadable utility files or the printer's rear panel switches to change the printer's default color correction setting can affect prints made by other users.

- When you print from a supported driver with any TekColor color correction selection *except* **Use Printer Setting**, the driver selection *overrides* the following selections *for prints made from the driver*:
  - A color correction utility file, if one has been downloaded to the printer.
  - The selection made with the printer's rear panel switches.
- When you print from a supported driver with the **Use Printer Setting** option, your images are printed with one of the following selections:
  - A color correction utility file, if one has been downloaded to the printer.
  - The selection made with the printer's rear panel switches.
- When you print from a non-supported driver, your images are printed with one of the following selections:
  - A color correction utility file, if one has been downloaded to the printer.
  - The selection made with the printer's rear panel switches.
- If the colors on your prints are not what you expected, print a configuration page to see the current color correction selection in the printer; see page A-6 for instructions.

### If the LaserWriter Utility does not work

The *LaserWriter Utility* cannot be used if the printer is connected to a print server. See your system administrator to temporarily remove the printer from the print server to download any of the PostScript utility files.



# Modifying Printer Operations

The Phaser 300X printer's CD-ROM contains utility files that let you control or modify some of the printer's features. This appendix explains how to perform the following tasks:

- Printing a startup page
- Enabling and disabling the startup page
- Printing a configuration page
- Changing the printer's name
- Resetting the printer
- Adding Control-D characters to PC utility files
- Configuring a printer's serial port for use with a PC

## Printing a startup page

The printer's startup page contains basic information about the printer, such as the number of fonts or amount of memory installed. Use the following files for your computer type to print a copy of the printer's startup page without turning the printer off and on.

Macintosh file name	PC file name
Print Start Page and LaserWriter Utility	PRNTSTPG.PS

#### Macintosh users

Note If you are using QuickDraw GX, you can use the Tektronix Phaser 300X GX driver to print a copy of the printer's startup page; refer to page 22 for instructions.

- 1. Install the utility files from the Phaser 300X printer's CD-ROM; refer to page 2 for instructions.
- Select the appropriate printer in the **Chooser**.
- **3.** Locate the *LaserWriter Utility* in the *PhaserTools* folder on your hard disk, and double-click its icon to start the application.
- Choose **Download PostScript File** from the **Utilities** menu.
- Select the *Print Start Page* file from the list, then click **Open**. (This file was installed in the *Printer Utilities* folder inside the *PhaserTools* folder.)
- At the prompt Save PostScript output as: you are asked for a file name for saving printer output. Use either the default name given in the edit box or type a new name.
- Click **Save** to send the file to the printer.
- If no output is returned by the printer, the *LaserWriter Utility* displays a dialog box; click **OK** to continue.

- 1. Copy the utility files from the Phaser 300X printer's CD-ROM, or use the files directly from the CD-ROM.
- **2.** Use one of the following methods to send the *PRNTSTPG.PS* file to the printer:
  - **PC users**: Use the DOS **COPY** command to send the file to the printer. (Windows 3.1 users can also use the Copy command in the File Manager.)
  - Workstation users: Send the file to the printer as you would any PostScript file.

## **Enabling and disabling the startup page**

You can choose to have a startup page print each time the printer is turned on or reset, or you can disable the startup page.

Use the following files for your computer type.

Macintosh file name	PC file name
LaserWriter Utility	NOSTRTPG.PS STARTPG.PS

#### **Macintosh users**

- 1. Install the utility files from the Phaser 300X printer's CD-ROM; refer to page 2 for instructions.
- Select the appropriate printer in the **Chooser**.
- Locate the LaserWriter Utility in the PhaserTools folder on your hard disk, and double-click its icon to start the application.
- Choose **Set Startup Page** from the **Utilities** menu.
- Select either the **on** or **off** button, then click **OK**.

- 1. Copy the utility files from the Phaser 300X printer's CD-ROM, or use the files directly from the CD-ROM.
- **2.** Select one of the following files:
  - Use the *STARTPG.PS* file to enable printing of the printer's startup page.
  - Use the *NOSTRTPG.PS* file to stop the printer from printing a startup page.
- **3.** Use one of the following methods to send the desired file to the printer:
  - PC users: Use the DOS COPY command to send the file to the printer. (Windows 3.1 users can also use the **Copy** command in the File Manager.)
  - Workstation users: Send a file to the printer as you would any PostScript file.

## Printing a configuration page

A configuration page is similar to the printer's startup page, but it also provides details about each available communications port. Use the following files for your computer type.

Macintosh file name	PC file name
Configuration Page and LaserWriter Utility	PRNTCNFG.PS

#### **Macintosh users**

Note *If you are using QuickDraw GX, you can use the Tektronix* Phaser 300X GX driver to print a copy of the configuration page; refer to page 22 for instructions.

- 1. Install the utility files from the Phaser 300X printer's CD-ROM; refer to page 2 for instructions.
- Select the appropriate printer in the **Chooser**.
- Locate the *LaserWriter Utility* in the *PhaserTools* folder on your hard disk, and double-click its icon to start the application.
- Choose **Download PostScript File** from the **Utilities** menu.
- Select the *Configuration Page* file from the list, then click **Open**. (This file was installed in the *Printer Utilities* folder inside the *PhaserTools* folder.)
- At the prompt Save PostScript output as: you are asked for a file name for saving printer output. Use either the default name given in the edit box or type a new name.
- Click **Save** to send the file to the printer.
- If no output is returned by the printer, the *LaserWriter Utility* displays a dialog box; click **OK** to continue.

- 1. Copy the utility files from the Phaser 300X printer's CD-ROM, or use the files directly from the CD-ROM.
- 2. Use one of the following methods to send the *PRNTCNFG.PS* file to the printer:
  - PC users: Use the DOS COPY command to send the file to the printer. (Windows 3.1 users can also use the Copy command in the File Manager.)
  - Workstation users: Send the file to the printer as you would any PostScript file.

## **Changing the printer's name**

This procedure lets you change the printer's name. The printer's name has the following characteristics:

- Is printed on the startup and configuration pages.
- Is used by both LocalTalk and EtherTalk to identify the printer.
- Appears in the **Chooser** on a Macintosh.
- Can be up to 31 characters long, and may contain any printable characters except @ (at sign) and : (colon).
- The default printer name is **Phaser 300X**. If more than one printer with the same name appears in the same zone, numbers are appended to the names of the printers added later, for example Phaser 300X-1 and Phaser 300X-2.
- A name change is persistent across printer power cycles.

To change the printer's name, use the following files for your computer type.

Macintosh file name	PC file name
LaserWriter Utility	PRNTNAME.PS

#### **Macintosh users**

Note *If you are using QuickDraw GX, remove any desktop printer* icons that refer to the old printer name and make new desktop printers after changing the printer's name; see page 18 for instructions.

- 1. Install the utility files from the Phaser 300X printer's CD-ROM; refer to page 2 for instructions.
- 2. Select the appropriate printer in the **Chooser**.
- 3. Locate the LaserWriter Utility in the PhaserTools folder on your hard disk, and double-click its icon to start the application.
- **4.** Select **Name Printer** from the **Utilities** menu; the currently selected printer is listed in the dialog box.
- Type the new name in the edit box.
- Click the **Rename** button.
- At the confirmation dialog box, click **OK**.
- **8.** Open the **Chooser** to reselect the printer with its new name.

- Copy the utility files from the Phaser 300X printer's CD-ROM.
- View the *PRNTNAME.PS* file in a text editor.
- Edit the file to substitute a different printer name for (My Printer Name) in the /PrinterName line.
- Use one of the following methods to send the file to the printer:
  - **PC users**: Use the DOS **COPY** command to send the file to the printer. (Windows 3.1 users can also use the **Copy** command in the File Manager.)
  - Workstation users: Send the file to the printer as you would any PostScript file.

Note Some text editors add a carriage return or line feed after the last Control-D character in a file you are editing. If your computer is connected to the printer through the parallel port, or the optional serial port, the extra characters will start a new job and the printer times out after a few minutes. To avoid this, copy the *CTRLD.PS* file to the printer after you send the **PRNTNAME.PS** file; see page A-14 for more information on the CTRLD.PS file.

## Resetting the printer

The *Reset Printer* (*RESET.PS*) file resets the printer to its power-on conditions (*not* its factory default conditions), without turning the printer's power switch off and on. The power-on conditions include any custom changes made to the printer that are stored in the printer's NVRAM, or changes that are persistent across printer power cycles. For example, if you used a downloadable utility file to change the printer's name or to set a color correction, these are power-on conditions that are not altered by resetting the printer. Resetting the printer erases changes that are not persistent across printer power cycles, such as the Tektronix error handler utility.

This file restarts the printer as soon as all the jobs in its queue are finished. The printer remains unavailable while it initializes. Use the following files for your computer type.

Macintosh file name	PC file name
Reset Printer and LaserWriter Utility	RESET.PS

#### **Macintosh users**

#### Note

Do not use the **Restart Printer** command in the LaserWriter Utility's **Utilities** menu. Follow this procedure to reset the printer using the LaserWriter Utility to download the Reset Printer utility file.

- 1. Install the utility files from the Phaser 300X printer's CD-ROM; refer to page 2 for instructions.
- 2. Select the appropriate printer in the **Chooser**.
- 3. Locate the *LaserWriter Utility* in the *PhaserTools* folder on your hard disk, and double–click its icon to start the application.
- 4. Choose **Download PostScript File** from the **Utilities** menu.
- 5. Select the *Reset Printer* file in the list then click **Open**. (This file was installed in the *Printer Utilities* folder inside the *PhaserTools* folder.)

- Note The process of resetting the printer takes a few minutes to complete. You will receive a message on your screen indicating the connection has been interrupted during the reset. The connection is re-established after the reset, so you can ignore this message; click the Continue button.
- 6. At the prompt Save PostScript output as: you are asked for a file name for saving printer output. Use either the default name given in the edit box or type in a new name.
- 7. Click **Save** to send the file to the printer.
- **8.** If no output is returned by the printer, the *LaserWriter Utility* displays a dialog box; click **OK** to continue.

- 1. Copy the utility files from the Phaser 300X printer's CD-ROM, or use the files directly from the CD-ROM.
- **2.** Use one of the following methods to send the *RESET.PS* file to the printer:
  - PC users: Use the DOS COPY command to send the file to the printer. (Windows 3.1 users can also use the Copy command in the File Manager.)
  - Workstation users: Send the file to the printer as you would any PostScript file.

## Adding Control-D characters to PC files

The ADDCTRLD.BAT and CTRLD.PS files are included for users who want to write their own PostScript files.

Copy the utility files from the Phaser 300X printer's CD-ROM.

Note If your computer is connected to the printer through the parallel port, or the optional serial port, you need to have Control-D characters in your utility files or in the files you create. However, if your computer is connected to a network such as NetWare or TCP/IP, you should not add Control-D characters to a utility file.

The non-text Control-D character is required at the end of PostScript files sent to the printer's parallel port or optional serial port; it signals "end-of-job." A Control-D should precede and follow most PostScript data files. ADDCTRLD.BAT and CTRLD.PS help you add two Control-D characters to your files.

#### ADDCTRLD.BAT

ADDCTRLD.BAT is a batch file that adds a Control-D to the beginning and the end of a file. Use this file if you are creating your own PostScript files.

To use ADDCTRLD.BAT, copy ADDCTRLD.BAT and CTRLD.PS to the same directory on your hard disk. Type the following command:

#### ADDCTRLD filename

where *filename* is the name of the file that needs Control-D characters.

#### CTRLD.PS

CTRLD.PS contains some PostScript comments plus the Control-D character. Copy CTRLD.PS to the beginning and/or end of your PostScript files before you send them to the printer. (PostScript utility files on the Phaser 300X printer's CD-ROM and on the Printer Software for Windows diskette already have Control-D characters at the beginning and end.) You can send CTRLD.PS to the printer by itself to make sure the printer is in the "end-of-job" condition.

## Configuring a printer's serial port

If your printer has the optional serial port installed, you can configure the port using the *DEVPARAM.PS* file.

Note To modify the **DEVPARAM.PS** file, you should be familiar with the PostScript **setdevparams** command. You should also know how to use PostScript dictionaries and key value pairs.

You should edit the *DEVPARAM.PS* file and send it to the printer *before* using other files to change the printer's performance.

The following example sets these parameters:

- Flow control to *Xon/Xoff*
- Parity to none
- Data bits to 8
- Stop bits to 2
- Baud rate to 9600

In this example, the changes are persistent across jobs and across printer power cycles; they remain in effect until you change them again.

```
(%Serial_NV%) 6 dict begin
          /Password
                           () def
          /FlowControl /XonXoff def
/Parity /None def
                           8 def
          /DataBits
          /StopBits 2 def
                           9600 def
          /Baud
currentdict end setdevparams
```

- 1. Copy the utility files from the Phaser 300X printer's CD-ROM.
- **2.** View the *DEVPARAM.PS* file in a text editor and substitute the values you want to use for the current values. The possible values for each parameter are listed in the following table (see page A-17); the values are case-sensitive and must be entered exactly as shown in the table.
- **3.** Save the file.
- **4.** Configure the printer's port to receive PostScript; see page D-6 for instructions.
- **5.** Use one of the following methods to send the file to the printer:
  - PC users: Use the DOS COPY command to send the file to the printer. (Windows 3.1 users can also use the Copy command in the File Manager.)
  - Workstation users: Send the file to the printer as you would any PostScript file.

#### **Parameter values**

Parameter key	Allowed values	Туре
FlowControl	XonXoff (software) Dtr (hardware)	string
Parity	Even Odd None Space	string
DataBits	7 8	integer
StopBits	1 2	integer
Baud	300 600 1200 2400 4800 9600 19200 38400	integer
Enabled	true false	boolean
CheckParity	true false	boolean
On	true false	boolean
Interpreter	PostScript	string
Protocol	Normal Raw Binary	string

## Using SCSI Hard Disks

#### **Overview**

You can add a SCSI hard disk to your printer to store optional fonts. This appendix explains how to use a SCSI hard disk connected to your printer.

- Selecting a SCSI hard disk
- Formatting a SCSI hard disk
- Initializing a formatted SCSI hard disk
- Enabling and disabling SysStart job execution

## Selecting a SCSI hard disk

The Phaser 300X printer can use most SCSI hard disks that support the full SCSI command set. Also, most SCSI hard disks that work with an Apple LaserWriter will work with a Phaser 300X printer. Contact your computer or printer dealer for information.

To order the LaCie Quantum 1 Gigabyte SCSI hard disk, use Tektronix part number Z350DSK. Refer to the printer's user manual for ordering information.

For additional information on SCSI hard disks, request a document catalog from HAL or EuroHAL, the Tektronix automated fax systems. Refer to "Using the automated fax systems" on page 4 for instructions on using HAL.

## Formatting a SCSI hard disk

#### Caution

The following procedure erases all data from all SCSI hard disks connected to the printer. Disconnect from the printer any hard disk you do not want reformatted, for example, a disk containing fonts.

This procedure formats and initializes all SCSI hard disks connected to the printer so the disks are usable with the PostScript Level 2 Phaser 300X printer. The formatting process erases all information already on the disk; be sure you want the disk formatted before you use this procedure. If you have a disk containing information you want to keep, such as fonts, turn off all devices, then disconnect the disk from the printer before using this file to format other disks.

Use this procedure to format and initialize a SCSI hard disk.

#### Note

Some hard disks are formatted at the factory and do not require this formatting procedure; check the documentation that came with your hard disk to see if the disk needs formatting. If your disk is already formatted, go on to "Initializing a formatted SCSI hard disk" on page B-5.

Use the following files for your computer type:

Macintosh file name	PC file name
Format Printer Disks and LaserWriter Utility	FRMTDISK.PS

#### Caution

Once you start the formatting procedure, there is no way to cancel the formatting process.

#### **Macintosh users**

- 1. Install the utility files from the Phaser 300X printer's CD-ROM; refer to page 2 for instructions.
- **2.** Select the appropriate printer in the **Chooser**.
- **3.** Locate the *LaserWriter Utility* in the *PhaserTools* folder on your hard disk, and double-click its icon to start the application.
- 4. Choose **Download PostScript File** from the **Utilities** menu.
- **5.** Select the *Format Printer Disks* file from the list, then click **Open**. (This file was installed in the *Printer Utilities* folder inside the *PhaserTools* folder.)
- 6. At the prompt Save PostScript output as: you are asked for a file name for saving printer output. Use either the default name given in the edit box or type a new name.
- 7. Click **Save** to send the file to the printer.
- **8.** If no output is returned by the printer, the *LaserWriter Utility* displays a dialog box; click **OK** to continue.

#### PC and workstation users

- 1. Copy the utility files from the Phaser 300X printer's CD-ROM, or use the files directly from the CD-ROM.
- 2. Use one of the following methods to send the FRMTDISK.PS file to the printer:
  - **PC users**: Use the DOS **COPY** command to send the file to the printer. (Windows 3.1 users can also use the Copy command in the File Manager.)
  - Workstation users: Send the file to the printer as you would any PostScript file.

# Initializing a formatted SCSI hard disk

Some hard disks are formatted at the factory; check the documentation that came with your hard disk to see if the disk needs formatting.

If your SCSI hard disk is formatted, it only needs to be initialized. Use this procedure to initialize the hard disk.

If your SCSI hard disk is not formatted, refer to "Formatting a SCSI hard disk" on page B-2 for formatting and initializing instructions.

Use the following files for your computer type:

Macintosh file name	PC file name
Initialize Printer Disks and LaserWriter Utility	INITDISK.PS

#### **Macintosh users**

- 1. Install the utility files from the Phaser 300X printer's CD-ROM; refer to page 2 for instructions.
- 2. Select the appropriate printer in the **Chooser**.
- **3.** Locate the *LaserWriter Utility* in the *PhaserTools* folder on your hard disk, and double–click its icon to start the application.
- 4. Choose **Download PostScript File** from the **Utilities** menu.
- **5.** Select the *Initialize Printer Disks* file from the list, then click **Open**. (This file was installed in the *Printer Utilities* folder inside the *PhaserTools* folder.)
- 6. At the prompt Save PostScript output as: you are asked for a file name for saving printer output. Use either the default name given in the edit box or type a new name.
- 7. Click **Save** to send the file to the printer.
- **8.** If no output is returned by the printer, the *LaserWriter Utility* displays a dialog box; click **OK** to continue.

#### PC and workstation users

- 1. Copy the utility files from the Phaser 300X printer's CD-ROM, or use the files directly from the CD-ROM.
- 2. Use one of the following methods to send the *INITDISK.PS* file to the printer:
  - PC users: Use the DOS COPY command to send the file to the printer. (Windows 3.1 users can also use the **Copy** command in the File Manager.)
  - Workstation users: Send the file to the printer as you would any PostScript file.

# **Enabling and disabling SysStart Job execution**

The *Set SysStart Job* (*SYSTART.PS*) file enables automatic execution of a file named SysStart (if one is found) on a hard disk connected to the printer's SCSI port, each time the printer is turned on or reset. The SysStart job is similar to an Init file; it executes automatically each time the printer is turned on.

Use the following files for your computer type:

Macintosh file name	PC file name
Set SysStart Job No SysStart Job and LaserWriter Utility	SYSTART.PS NOSYSSTR.PS

#### **Macintosh users**

- 1. Install the utility files from the Phaser 300X printer's CD-ROM; refer to page 2 for instructions.
- 2. Select the appropriate printer in the **Chooser**.
- 3. Locate the *LaserWriter Utility* in the *PhaserTools* folder on your hard disk, and double–click its icon to start the application.
- 4. Choose **Download PostScript File** from the **Utilities** menu.
- 5. Select one of the following files from the list, then click **Open**. (These files were installed in the *Printer Utilities* folder inside the *PhaserTools* folder.)
  - Use the *Set SysStart Job* file to enable automatic execution of the SysStart job.
  - Use the No SysStart Job file to disable automatic execution of the SysStart job.

- 6. At the prompt Save PostScript output as: you are asked for a file name for saving printer output. Use either the default name given in the edit box or type a new name.
- 7. Click **Save** to send the file to the printer.
- If no output is returned by the printer, the *LaserWriter Utility* displays a dialog box; click **OK** to continue.

#### PC and workstation users

- 1. Copy the utility files from the Phaser 300X printer's CD-ROM, or use the files directly from the CD-ROM.
- **2.** Select one of the following:
  - Use the SYSTART.PS file to enable automatic execution of the SysStart job.
  - Use the *NOSYSTRT.PS* file to disable automatic execution of the SysStart job.
- 3. Use one of the following methods to send the desired file to the printer:
  - **PC users**: Use the DOS **COPY** command to send the file to the printer. (Windows 3.1 users can also use the **Copy** command in the File Manager.)
  - **Workstation users**: Send a file to the printer as you would any PostScript file.

## **Appendix**



# Viewing the On-line Documents

In addition to this manual, some topics and information are available on-line on the Phaser 300X printer's CD-ROM. The on-line documents are in Adobe Acrobat's PDF file format and can be viewed with the Acrobat Reader application included on the CD-ROM.

# **Using Acrobat Reader**

Copies of Acrobat Reader are available on the Phaser 300X printer's CD-ROM for the following computer types:

- Macintosh
- PC/Windows

# For users who cannot use the CD-ROM

If some users of this printer cannot use the Phaser 300X printer's CD-ROM, the Acrobat installers can be copied from the CD-ROM to a file server. Or, download the Acrobat installers from the Internet; see page 3 for instructions.

# **Installing Acrobat Reader for a Macintosh**

#### System requirements

- 68020 or greater Macintosh computer
- System Software 7.0 or greater
- 2 Mbytes application RAM
- 1.5 Mbytes hard disk space

#### Installing the software

**Note** The installer program automatically restarts your computer at the end of the installation procedure; save and close all open applications before starting the installation.

- 1. Insert the Phaser 300X printer's CD-ROM into your computer's CD-ROM drive.
- 2. Open the *Third Party Tools* folder.
- 3. Double-click the *Acrobat Reader Installer* icon.
- **4.** At the introduction screen, click **Continue**.
- **5.** At the on-line license agreement, read or print a copy of the document, then click **Continue**.
- 6. In the Acrobat Reader Installer dialog box, use the Select Folder and Switch Disk buttons to specify where you want the software installed, then click Install.
- Decide how you want the fonts installed, and click either System or Font Suitcase.

The software is installed in the location you specified.

8. At the installation successful dialog box, click **Restart**.

Acrobat Reader is now ready for use. If you specified **Font Suitcase** in Step 7, you may need to go back and install fonts into your *System Folder* before you can use Acrobat Reader.

## **Using Acrobat Reader**

- Locate an Acrobat file (with a PDF extension) you want to view, and double-click to launch the Acrobat Reader application and open the file.
- **2.** View or print the file as desired.

# **Installing Acrobat Reader for Windows**

#### System requirements

- 386- or 486-based personal computer (a 486 is recommended)
- Microsoft Windows 3.1 or greater
- 4 Mbytes system RAM
- 2 Mbytes hard disk space

## Installing the software

**Note** The Installer program automatically restarts your computer at the end of the installation procedure; save and close all open applications before starting the installation.

- 1. Insert the Phaser 300X printer's CD-ROM into your CD-ROM drive.
- 2. Start Windows.
- 3. From the **Main** window, open the **File Manager**.
- **4.** Change to the location of the CD-ROM and the \TOOLS directory.
- **5.** Double-click the *acroread.exe* file.
- **6.** At the on-line license agreement, click **Accept**.
- In the Acrobat Reader Installer dialog box, install files in the default subdirectory C:\ACROREAD, or type in a new path, and click Install.
- **8.** Click **OK** at the product registration notice.

**9.** Personalize your copy of Acrobat Reader and click **OK**.

The files are automatically installed, and the Installer program restarts your computer.

The Acrobat Reader icon is located in the *Program Manager*.

## **Using Acrobat Reader**

- Locate an Acrobat file (with a PDF extension) you want to view, and double-click to launch the Acrobat Reader application and open the file.
- 2. View or print the file as desired.

# Viewing on-line documents

Many of the chapters or topics in this manual are available as on-line documents on the Phaser 300X printer's CD-ROM. The CD-ROM may also contain topics that are available only on-line.

## Accessing on-line documents without a CD-ROM

If you want to access on-line information and you do not have a CD-ROM drive, you can get some of the on-line documents in the following ways:

- From HAL or EuroHAL, the automated fax systems; see page 4 for instructions. These systems contain documents offering hints and tips for using the printer.
- From the Internet, see page 3 for instructions. The Tektronix Internet site includes on-line information about using your printer.

The Acrobat Reader application, required for viewing on-line documents, is also available from the Internet; see page 3 for instructions.

# Appendix

# Using Different Printer Language Modes

The printer recognizes the following printer or page description languages:

- PostScript Level 1 and Level 2
- HP-GL (Hewlett-Packard's Graphics Language)
- Monochrome PCL5 (Printer Command Language)

PC and workstation users who want to use applications that output data in these different language modes, must first set up a printer port to receive data in a particular language.

**Note** *PCL5 is optional and must be authorized before you can use it; see page D-11 for instructions.* 

This appendix explains how to perform the following tasks:

- Setting PostScript and HP-GL timeouts
- Changing printer language modes
- Testing printer language mode changes
- Setting default HP-GL pen colors
- Authorizing PCL5

# Setting PostScript and HP-GL job and wait timeouts

Note The HP-GL job timeout is the same as the PostScript job timeout.

The following timeouts can be set in the printer:

- The **wait timeout** is the amount of time in seconds that the printer waits for data to come from the computer during a job. If the data stream pauses for longer than the specified number of seconds, a timeout error is generated and the job is canceled.
- The **job timeout** is the amount of time any single job may be active before it must print.
  - In PostScript mode, if the value is exceeded, a timeout error is generated.
  - In HP-GL mode, if the timeout value is too small, an image may be split across two pages; if the value is too large, multiple-page prints may be combined on one page.

You can use the CONFIG.PS file to change the PostScript and HP-GL job and wait timeout values. When sent to the printer, your edited version of the *CONFIG.PS* file changes the values in the printer, but *only* while the printer is turned on; if the printer is turned off or reset the values return to their defaults. To restore your desired timeout settings, you must send your edited *CONFIG.PS* file to the printer again.

Note The CONFIG.PS file affects printer operation. If the printer is shared on a network, using this file may affect the prints requested by other users.

- Configure the printer's port to receive PostScript; see page D-6 for instructions.
- Copy the utility files from the Phaser 300X printer's CD-ROM.
- Open the *CONFIG.PS* file in a text editor.

The default values for the printer are **0** seconds for the job timeout and **40** seconds for the wait timeout. A timeout value of **0** indicates no timeout; the printer waits indefinitely.

In the following example, the timeouts are set to their default values.

```
3 dict begin
   /Password() def
  /JobTimeOut 0 def
  /WaitTimeOut 40 def
currentdict end setsystemparams
1 dict begin
   currentpagedevice /ManualFeedTimeout known
{   /ManualFeedTimeout 60 def } if
currentdict end setpagedevice
```

 To change CONFIG.PS to specify different timeouts, substitute new values for 0 and 40 in the JobTimeOut and WaitTimeOut lines.

Permitted timeout values are as follows:

■ **JobTimeOut**: 0 to 999

■ **WaitTimeOut**: 0, or 15 to 999

■ ManualFeedTimeout: 0 to 999

■ To specify no timeout, use 0

**Note** To avoid timeouts or job cancellation on Windows multiple-page or multiple-copy print jobs, you may want to set the **WaitTimeOut** to a high value or to 0 (zero).

- **D** Using Different Printer Language Modes
  - **5.** Use one of the following methods to send the *CONFIG.PS* file to the printer:
    - **PC users**: Use the DOS **COPY** command to send the file to the printer. (Windows 3.1 users can also use the **Copy** command in the **File Manager**.)
    - Workstation users: Send the file to the printer as you would any PostScript file.

# Changing the printer's language mode

**Note** *PCL5* is optional and must be authorized before you can use it; see page D-11 for instructions.

In the factory default configuration, the printer expects to receive PostScript data on all ports. If you want to use an HP-GL application, you must explicitly set up a printer port to receive HP-GL data, or enable Adobe IntelliSelect<sup>TM</sup> automatic language selection. If you want to use a PCL5 application, you must enable automatic language selection on a port.

Changing the language of the printer between PostScript, HP-GL, and PCL5 is port-specific. The ports, such as parallel, serial, or LocalTalk, can each be configured differently. You can change the default language on any port so whenever the printer is turned on it expects to receive PostScript, or HP-GL, or PCL5 data on a specific port. If automatic language selection is enabled on a particular port, it becomes the default on that port, allowing you to send PostScript, HP-GL, and PCL5 files to that port.

Changes to the language on any port remain in effect even if the printer is turned off or reset.

Note

The following files affect printer operation. If the printer is shared on a network, using these files may affect the prints requested from other users.

# Printing PostScript files

Use the PSCRIPT.PS file to change a printer's port to accept only PostScript data. After you copy this file to a port, the printer expects PostScript files on that port. The port's language change is persistent across print jobs and across printer power cycles. To use, send the *PSCRIPT.PS* file to the printer.

# **Printing HP-GL files**

Use the *HPGL.PS* file to change a printer's port to accept *only* HP-GL data. After you copy this file to a port, the printer expects HP-GL files on that port. The port's language change is persistent across print jobs and across printer power cycles. To use, send the *HPGL.PS* file to the printer.

# **Printing PCL5 files**

Use the AIS.PS file to change a port to automatic language selection. After you copy this file to a port, the printer will accept monochrome PCL5 (if PCL5 is enabled, see page D-11), or PostScript, or HP-GL files on that port. The port's language change is persistent across print jobs and across printer power cycles. To use, send the AIS.PS file to the printer.

## Sending a language mode file to the printer

- Copy the utility files from the Phaser 300X printer's CD-ROM, or use the files directly from the CD-ROM.
- Use one of the following methods to send a file to the printer:
  - **PC users**: Use the DOS **COPY** command to send the file to the printer. (Windows 3.1 users can also use the **Copy** command in the File Manager.)
  - **Workstation users:** Send the file to a printer as you would any PostScript file.

# **Testing printer language mode changes**

# **HP-GL** mode

*HPGLTEST.PLT* is an HP-GL file that prints a single line of text if the printer is operating in HP-GL mode.

Send the *HPGLTEST.PLT* file to the printer after you send *HPGL.PS* or *AIS.PS*, to make sure the language change was made correctly.

# PostScript mode

*PSTEST.PS* is a PostScript file that prints a single line of text if the printer is operating in PostScript mode.

Send the *PSTEST.PS* file to the printer after you send *PSCRIPT.PS* or *AIS.PS*, to make sure the language change was made correctly.

#### Sending a language test file to the printer

- 1. Copy the utility files from the Phaser 300X printer's CD-ROM, or use the files directly from the CD-ROM.
- 2. Use one of the following methods to send a file to the printer:
  - **PC users**: Use the DOS **COPY** command to send the file to the printer. (Windows 3.1 users can also use the **Copy** command in the **File Manager**.)
  - Workstation users: Send the file to the printer as you would any utility file.

# **Setting default HP-GL pen colors**

Use the *HPGLPENS.PS* file to change the color and width of the default pen colors. The HP 7475A plotter actually has only six pens, but the printer's emulation supports up to 256 pens.

HP-GL pen settings cannot be made persistent across printer power cycles; pen settings revert to the default when the printer is turned off. To restore your pen settings, you must download your edited HPGLPENS.PS file to the printer whenever the printer has been turned off or reset.

The pen color change is persistent across jobs but not across printer power cycles; it affects all HP-GL jobs that immediately follow it until the next printer reset.

Note The HPGLPENS.PS file affects printer operation. If the printer is shared on a network, using this file may affect the prints requested from other users.

In HPGLPENS.PS, pen number, pen width, red value, green value, and blue value are listed in parentheses after /ColorSetup, as shown below:

```
/ColorSetup (pen number width red value green value
blue_value...)
```

In the following example, all pen widths are set to 0.35 millimeters. Pen 0 is white (this is the background pen color), pen 1 is black, pen 2 is red, pen 3 is green, pen 4 is blue, pen 5 is cyan, pen 6 is magenta, and pen 7 is yellow.

```
CTRL-D
(%HP7475A%) << /Password ()
               /ColorSetup (0 0.35 1.0 1.0 1.0
                            1 0.35 0.0 0.0 0.0
                             2 0.35 1.0 0.0 0.0
                             3 0.35 0.0 1.0 0.0
                             4 0.35 0.0 0.0 1.0
                             5 0.35 0.0 1.0 1.0
                             6 0.35 1.0 0.0 1.0
                             7 0.35 1.0 1.0 0.0)
            >> setdevparams
CTRL-D
```

Allowable values for pen numbers are **0** through **255**. Pen width is measured in millimeters. Red, green, and blue values can be any number between **0.0** and **1.0**. The following table shows the red, green, and blue combinations for each of the eight basic colors.

**HP-GL** pen color values

Pen color number	Color	Red value	Green value	Blue value
0	white	1.0	1.0	1.0
1	black	0.0	0.0	0.0
2	red	1.0	0.0	0.0
3	green	0.0	1.0	0.0
4	blue	0.0	0.0	1.0
5	cyan	0.0	1.0	1.0
6	magenta	1.0	0.0	1.0
7	yellow	1.0	1.0	0.0

To add a new pen, you must redefine pens 0 through 7 first, then add the new pens you want.

To set pen widths and colors to values other than those in *HPGLPENS.PS*, follow these steps:

- 1. Configure the printer's port to receive PostScript; see page D-6 for instructions.
- 2. Copy the utility files from the Phaser 300X printer's CD-ROM.
- 3. Open the *HPGLPENS.PS* file in a text editor.

- **D** Using Different Printer Language Modes
  - **4.** Edit the file and substitute the values you want for those in the file. Color values can be any decimal number between **0.0** and **1.0**.

For example, to change pen 4 to a purple color and a width of .5 mm, edit *HPGLPENS.PS* and change the line for pen number 4 to the following:

4 0.5 1.0 0.0 0.5

- **5.** When you have finished editing the file, use one of the following methods to send the *HPGLPENS.PS* file to the printer:
  - **PC users**: Use the DOS **COPY** command to send the file to the printer. (Windows 3.1 users can also use the **Copy** command in the **File Manager**.)
  - Workstation users: Send the file to the printer as you would any PostScript file.

# **Authorizing PCL5**

The ability to print PCL5 files has the following requirements:

- Optional Ethernet connection
- 22 Mbytes of printer memory
- Call Tektronix for an authorization code for PCL5

If you have the printer's extended features option, you already have Ethernet and the required memory; call for an authorization code.

If you don't have the above items, see the *Phaser 300X Color Printer User Manual* for ordering information. After you receive and install these items in your printer, call for an authorization code.

For an authorization code, you need to call, fax, or e-mail Tektronix Customer Support. Refer to "Getting an authorization code" on page D-12 for details on contacting Tektronix and the information you need to provide. When you receive the code number, you need to send it to the printer to activate PCL5.

The authorization code is derived from the printer's hardware address, therefore, each authorization code is valid for only one specific printer. If you are installing several Tektronix printers on your network, be careful to send each authorization code only to the printer for which it has been issued.

You can send the authorization code to the printer from the following computers; refer to these locations for more information:

- "Authorizing PCL5 from a PC" on page D-13.
- "Authorizing PCL5 from a Macintosh" on page D-16.
- "Authorizing PCL5 from a UNIX workstation" on page D-18.

# Getting an authorization code

#### What information to provide

When requesting an authorization code for PCL5, you need to provide the following printer information. This information is available on the printer's configuration page; refer to page A-6 for printing instructions.

- Printer model number
- Printer serial number
- Printer ID

#### **How to contact Tektronix**

In the U.S. and Canada, communicate with Tektronix Customer Support in one of the following ways. International customers, contact your local Tektronix field office.

1-800-835-6100
(503) 682-2980
PhaserHelp
World Wide Web: http://www.tek.com/Color_Printers/
Technical Support: pcl.authorization@tek.com

# **Authorizing PCL5 from a PC**

To authorize PCL5 from a PC, use the *AUTHRIZR.EXE* utility on either the Phaser 300X printer's CD-ROM or the Printer Software for Windows diskette. When using the utility, keep in mind the following information about the user interface:

- You can work with the AUTHRIZR.EXE utility using a mouse or the keyboard.
- When using the keyboard, the following conventions apply:
  - The Tab key moves the selection from one screen element to another.
  - If a screen element has a white letter, you can select that element by holding the Alt key and typing the white letter.
  - If a button is highlighted, press **Enter** to execute that function.
  - Use the arrow keys to scroll through lists and select the item you want. Press Enter to make your selection.

To authorize PCL5, follow these steps:

- 1. Connect a PC to the printer via the parallel port (see your printer's user manual for instructions). You can also use a connection over a NetWare network.
- Turn on the printer.
- **3.** Create a directory called *PHASER* on the **C**: drive of your PC.
- **4.** Copy the following files from the **PHSR300X** directory on the printer's CD-ROM to the *PHASER* directory on your hard disk:
  - AUTHRIZR.EXE
  - ADDCTRLD.BAT
  - CTRLD.PS

**Note** ADDCTRLD.BAT is a batch file that adds a Control-D character to the beginning and the end of a file. ADDCTRLD.BAT calls the file CTRLD.PS, which contains the Control-D character. These files must reside in the same directory.

- **5.** Use the *AUTHRIZR.EXE* utility to create a PostScript file containing the authorization code.
  - **a.** Change to the directory containing the files you copied from the printer's CD-ROM or diskette. Type:

#### CD C:\PHASER

**b.** Run the *AUTHRIZR.EXE* utility. Type:

#### **AUTHRIZR**

The **Authorization Code** dialog box appears.



- **c.** Enter your authorization code number, including the hyphens (–), in the dialog box and click **OK**.
- **d.** A save dialog box appears. By default, the file is saved in the current directory (*C*:\*PHASER*) with the name *AUTHRIZE.PS*. Click **OK** to save the file.
- **e.** A dialog box appears containing important information about the file created by the *Authorizer*; read the information and click **OK**.
- 6. If you are sending the file to the printer via a parallel interface, you must add Control-D characters to the beginning and end of the AUTHRIZE.PS file containing the printer's authorization code. To do this, run ADDCTRLD.BAT by typing:

#### ADDCTRLD AUTHRIZE.PS

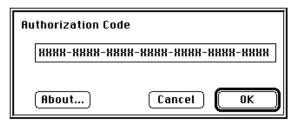
7. Use the DOS **COPY** command to send the file containing the authorization code to the printer. For example, if the printer is connected via LPT1, type:

#### COPY C:\PHASER\AUTHRIZE.PS LPT1:

**8.** Reset the printer; see page A-11 for instructions.

# **Authorizing PCL5 from a Macintosh**

- 1. Connect a Macintosh to the printer via EtherTalk or TokenTalk.
- **2.** Turn on the printer.
- **3.** Install the utility files from the Phaser 300X printer's CD-ROM; refer to page 2 for instructions.
- **4.** Use the *Authorizer* utility to create a PostScript file containing the authorization code:
  - **a.** Locate the installed files in the *Printer Utilities* folder inside the *PhaserTools* folder on your hard disk.
  - **b.** Double-click on the *Authorizer* icon. The **Authorization Code** dialog box appears:



- **c.** Enter your authorization code number, including the hyphens (–), in the dialog box, then click **OK**. Another dialog box appears.
- **d.** In the dialog box, type in a name for the PostScript file that will contain the authorization code. Choose a location on your hard disk for the file and click **OK**.
- **e.** A dialog box appears containing important information about the files created by the *Authorizer*; read the information and click **OK**.

- **5.** Use the *LaserWriter Utility* to send the PostScript file containing the authorization code to the printer:
  - **a.** Select the printer in the **Chooser**.
  - **b.** Locate the *LaserWriter Utility* in the *PhaserTools* folder on your hard disk.
  - **c.** Double-click on the **LaserWriter Utility** icon to start the application.
  - **d.** From the **Utilities** menu, select **Download PostScript File**. Select the name of the file you created in Step 4d from the list, then click the **Open** button.
  - **e.** At the prompt Save PostScript output as: you are prompted to name the log file that the *LaserWriter Utility* creates for PostScript errors. Use either the default name given in the edit box or type in a new name.
  - f. Click **Save** to send the file to the printer.
  - **g.** If the printer reports no PostScript errors, the *LaserWriter Utility* displays a dialog box; click **OK** to continue.
- **6.** Reset the printer; see page A-11 for instructions.

# Authorizing PCL5 from a UNIX workstation

To authorize PCL5 from a UNIX workstation, use the *authoriz.unx* script on the Phaser 300X printer's CD-ROM. This script creates a PostScript file you can send to the printer to authorize the PCL5 protocol. However, since PCL5 is not yet authorized, you cannot send the file to the printer using a PCL5 connection. You must use another connection to send the file to the printer. For example, use a serial connection if a serial port is available on the host workstation.

- 1. Connect the printer to the host computer's serial port using a null-modem cable.
- Make sure the serial communication parameters of the host and the printer are the same. The printer's configuration page reports the printer's current serial communication parameters. Refer to the printer's user manual, or to page A-15 in this manual, for default values and information on how to configure the printer's serial port.
- Turn on the printer.
- Copy the following files from the Phaser 300X printer's CD-ROM, and place them together in the same directory on your hard disk:
  - authoriz.unx
  - jobhandl.unx
  - addctrld
  - delctrld

If you cannot use the CD-ROM or diskette, see page 4 for alternative ways of obtaining the utility files.

- **5.** Run the script *authoriz.unx*:
  - **a.** Change (cd) to the directory where you placed the printer's utility files.
  - **b.** Type the name of the script, redirecting the output to a file:

#### authoriz.unx > filename

- **c.** When prompted, enter the authorization code, including the hyphens (–).
- **6.** If you are sending the file to the printer via a serial or parallel interface, you must add Control-D characters to the beginning and end of the file. Use the script *addctrld* to do this. Type the following command:

#### addctrld filename1.ps filename2.ps

where *filename1.ps* is the file you want to add Control-D characters to, and *filename2.ps* is the revised file with a new name. (Both *filename1.ps* and *filename2.ps* can have the same name, but the original file will be overwritten by the revision.)

7. Send the file with Control-Ds to the printer via the commands **tip** or **cu**.

If you need host-specific instructions, check the following:

- The Tektronix Information Server (via Internet); see page 3.
- HAL, the Tektronix automated fax system; see page 4.
- **8.** Reset the printer; see page A-11 for instructions.

**Note** You can **remove** all Control-D characters from files using the script **delctrld** in the same way as **addctrld**. Refer to page 7 for details.

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