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C O L O R   P R I N T E R

PHASERSHARE® NETWORKING
SETUP GUIDE

Tektronix®

Tektronix®

Phaser® 850 Color Printer
PhaserShare® Networking Setup Guide

V1 November 1999

Contents

Contents

Network Printing with Tektronix Color Printers

This guide provides information to help you quickly install your printer in the following environments:

■ Windows 95 and Windows 98

■ Windows NT

■ Novell NetWare

■ EtherTalk or TokenTalk

For information on installing the printer in UNIX environments, see the PhaserShare Networking Manual.

The PostScript utility files on the printer's CD-ROM can be sent to the printer for network configuration in DOS environments. The printer's CD-ROM also contains a DOS application, NWSET, for printer configuration on NetWare networks.

For information on how to use the DOS configuration files, see the *README* files on the printer's CD-ROM. PC users: the *README* file for PostScript utility files is in the *UTILS* directory; the *README* file for NWSET is in the *NETWARE* directory. Macintosh users: the *ReadMe* file for PostScript utility files is in the *Network Utilities* folder.

For information on installing into OS/2 environments, see the PhaserShare Networking Manual.

Before you begin network configuration

■ Set up your printer and connect it to the network. See your printer's user documentation for information about setting up the printer. For information about connecting the printer to the network, see *Connecting Your Printer to a Network* on page 3.

■ **For NetWare environments.** To speed the setup process and avoid conflicts, familiarize yourself with the components of your network. You should know which version(s) of NetWare are installed, which versions of client software are used, and the network topology (frame types, routers, hubs, and cabling).

The printer's Configuration Page

The information supplied on the Configuration Page is helpful when you are installing and configuring the printer on a network. There are two ways to print the Configuration Page:

- **Use the printer's front panel.** Use this method if your printer is not yet configured on the network. Refer to *Printing a Configuration Page from the Phaser 850 front panel* on page 2.

- **Use PhaserLink Printer Management Software.** With a TCP/IP connection and a World Wide Web browser, you can use PhaserLink Printer Management Software; see *Printing a Configuration Page: PhaserLink Printer Management Software* on page 2.

Printing a Configuration Page from the Phaser 850 front panel

1. When the front panel displays **READY TO PRINT,** press the up-arrow button until **Menu** is highlighted. Press **Select.**

2. Press the down-arrow button until **Printer Configuration** is highlighted. Press **Select.**

3. Press the down-arrow button until **Print Configuration Page** is highlighted. Press **Select.**

4. To return the printer to normal operation, press the down-arrow button until **Exit** is highlighted. Press **Select.**

Printing a Configuration Page: PhaserLink Printer Management Software

1. Connect to the printer via PhaserLink (see *Accessing the printer from a browser* on page 33).

2. On the left side of any PhaserLink page, click **Settings.**

3. In the **REPORTS** group, click **Print Configuration Page.**

The printer's networking software

The printer's software CD-ROM contains software for installing your printer on a network. The CD-ROM also contains online documentation, printer drivers, and other printer software. A single integrated installer is used to install printer drivers and other software. For information on running the installer, see *Using the Tektronix Installer* on page 5.

Connecting Your Printer to a Network

Direct Ethernet Connection to Macintosh or PC

Requirements

■ Two RJ-45, twisted-pair, 10Base-T cables

■ An Ethernet-port hub

Procedure

1. Turn off your computer and the printer.

2. Connect one end of an Ethernet cable to the Ethernet port on your computer. Connect the other end to the hub.

3. Connect the other cable to the hub and the Ethernet port on the printer.

> **Note**
>
> The printer is not a SCSI device. Do not connect the printer to your computer through the SCSI ports.

4. Turn on your computer and printer.

3094-73
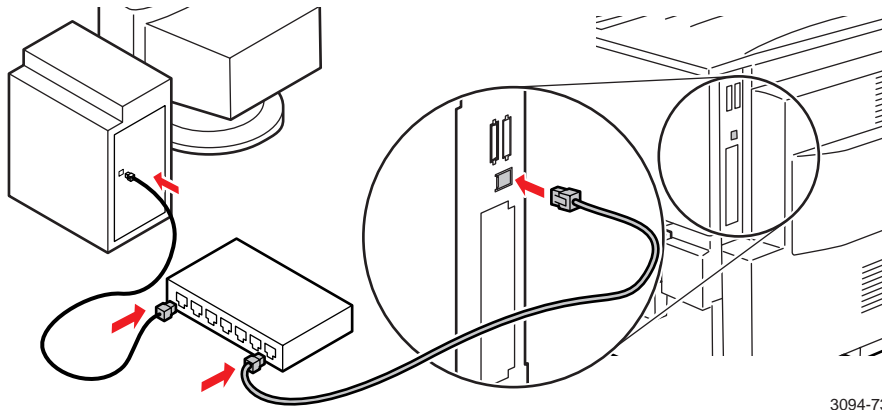
After the computer and printer are connected, refer to the configuration instructions for your network type.

The printer's Ethernet interface

■ Conforms to IEEE 802.3 and Ethernet II standards.

■ Twisted pair (10BaseT or 100BaseTx) connection.

■ Thick coax (10Base5) and thin coax (10Base2) connections require adapters; contact your dealer to obtain adapters, cables, and terminators.

Caution

> To avoid damaging the Ethernet interface, turn off the printer before making any Ethernet connections.

Ethernet connections and indicators

1. RCV indicator (green); blinks while the interface is receiving.

2. XMT indicator (yellow); blinks while the interface is transmitting.

3. Twisted pair (10BaseT) connector.

0180-01A
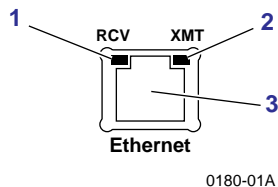
Ethernet cables

100BaseTx requires Category 5 (100-Ohm UTP) cabling.

To fully comply with EMI (electro-magnetic interference) specifications, the use of shielded or screened cables may be required. "Shielded" describes IBM-defined cables used with the DB-9 connector. "Screened" describes cables that are electrically similar to Category 4 UTP (Unshielded Twisted Pair), but with an added shield or screen.

Do not use "silver satin" telephone extension cables for 10BaseT networks, either as drop cords or as patch cables in the wiring closet. (Silver satin cables are flat, usually silver or gray, with 28-gauge stranded or tinsel conductors.) Do not use shielded twisted pair cable intended for IBM Token Ring networks or voice-grade (level 1 or 2) unshielded twisted pair cables. **These cables do not meet the requirements for 10BaseT and will lead to unreliable operation.**

Token Ring connection

The printer can be connected to a Token Ring network using an optional Tektronix PhaserShare Token Ring Card. For information on installing the printer on Token Ring networks, see the PhaserShare Networking Manual.

Using the Tektronix Installer

Tektronix Installer for Windows

The Tektronix installer for Windows is on your printer's software CD-ROM. A single integrated installer is used to install printer drivers and other software.

The Tektronix installer automatically performs printer installation tasks and creates a printer. In most cases, you are required only to make a few installation choices, clicking **Next** to move from screen to screen.

Each installer screen provides text that describes the choices for that screen. If you are unsure about which choice to make, click the name of the item to highlight it, then read the explanation in the **Description** field. To make your choices, check the boxes for the desired items and click **Next** to continue.

Running the installer from the printer's CD-ROM

1. Insert the printer's software CD-ROM into the CD-ROM drive.

    ■   If the Windows autorun feature is enabled, the CD-ROM launches automatically.

    ■   If the Windows autorun feature is disabled, double-click **My Computer,** then double click the CD icon to launch the CD-ROM.

2. Click **Install Printer Driver.**

3. Follow the on-screen instructions to complete the installation.

Running the installer from the printer's hard disk

You can run the installer from the printer's optional hard disk, if one is installed. This method requires that you already have a TCP/IP connection to the printer.

1. Connect to your printer via PhaserLink (see *Accessing the printer from a browser* on page 33).

2. Scroll to the bottom of the PhaserLink **Status** page. In the **LINKS** group, click **Install Drivers.**

Tektronix Installer for Macintosh

Running the installer from the printer's CD-ROM

1. Insert the printer's software CD-ROM into the CD-ROM drive.

2. Click **Start Me First.**

3. Follow the on-screen instructions to complete the installation.

Running the installer from the printer's hard disk

You can run the installer from the printer's optional hard disk, if one is installed. However, this method requires that you already have a TCP/IP connection to the printer.

1. Connect to the printer via PhaserLink (see *Accessing the printer from a browser* on page 33).

2. Scroll to the bottom of the PhaserLink **Status** page. In the **LINKS,** group, click **Install Drivers.**

Novell NetWare

Configuration software for NetWare Networks

For Windows environments, the following software is available:

■ **PhaserShare Administrator** (Tektronix). Use this application to configure the printer and the network when using NetWare 3.x and 4.x.

■ **NWAdmin** (Novell). Use this utility to manage existing queues on networks running NetWare 4.x in NDS mode.

For DOS environments, see the PhaserShare Networking Manual.

Printing the Configuration Page

Your printer's Configuration Page reports information that you need for NetWare configuration. For information on printing a Configuration Page, see *The printer's Configuration Page* on page 2.

On the printer's Configuration Page, all zeros in one or more of the **IPX Networks** fields indicates that the printer does not recognize the network connection; this probably indicates a faulty cable connection, an incorrect frame type, or **Reply to Get Nearest Server** has not been set to **on.** It must be set to **on** for at least one file server or router on the same segment as the printer.

Installing the PhaserShare Administrator

The PhaserShare Administrator is on the printer's CD-ROM. A single integrated installer is used to install printer drivers, the PhaserShare Administrator, and other software.

1. Run the installer as described in *Tektronix Installer for Windows* on page 5.

2. When prompted, make the following selections:

　　■ Select **Custom Install.**

　　■ When prompted to select the components and sub-components you want to install, check **Net Admin. Support** under **Components,** then check **PhaserShare (NetWare)** under **Sub-components.**

　　■ To install the drivers and PPD files for your printer (recommended for first-time installations), check **Drivers** under **Components,** then check **Printer Driver** under **Sub-components.**

Novell NetWare

Setting up the printer on a NetWare network

Note

> If a password is used in Bindery mode, it must be set on the printer with the PhaserShare Administrator (or PhaserLink Printer Management Software) and on the file server with PCONSOLE. If a password is used in NDS mode, it must be set on the printer with the PhaserShare Administrator (or PhaserLink Printer Management Software) and on the file server with the NWAdmin utility or PCONSOLE.

Log on to the file server

Note

> Many of the operations performed using the PhaserShare Administrator require SUPERVISOR privileges (for example, creating queues).

NetWare 3.x. Log on to the default NetWare file server as SUPERVISOR or SUPERVISOR equivalent. Use the PhaserShare Administrator to set up notify lists on NetWare 3.x servers.

NetWare 4.x, Bindery mode. Log on to the default NetWare file server as SUPERVISOR, SUPERVISOR equivalent, or ADMIN /B.

NetWare 4.x, NDS (NetWare Directory Services) mode. Log on to the default NetWare file server as ADMIN or ADMIN equivalent. On NetWare 4.1, use the NWAdmin utility to set up the notify list for a printer.

Note

> While not required, it is recommended that you log in only to the file servers to be configured with this printer.

Start the PhaserShare Administrator

Double-click the PhaserShare Administrator icon or select it from the **Start** menu. Refer to your Windows documentation for complete information on how to start applications.

Select a print server

In the **Main** window **Printer List,** click the print server name/printer name.

Note

> If the printer is not in the list of available printers, there could be a network hardware problem, an incorrect frame type, or incorrect search options settings. See *Troubleshooting Windows configurations* on page 10.

Launch the Quick Configuration Wizard

Click **Quick Configuration** to launch the Quick Configuration Wizard.

Configure the printer and set up queues

1. If desired, change the **Print Server Name** or **Printer Name.**
2. Select connection mode(s) by checking the box(es) for **Bindery Services, NDS Services,** or both.
3. Click **Next;** the dialogs that follow allow you to configure Bindery connections, NDS connections, or both.

Bindery connections

1. Select either the configuration file server or the preferred file server from the drop-down list; click **Next.**
2. If the file server you want is not on the list, proceed with these steps:
   a. Click **File Servers.**
   b. In the **File Servers Browse** dialog box, select the server you want. Click **OK.**
   c. In the **File Server Selection** dialog box, select either the configuration file server or the preferred file server. Click **Next.**
3. Create and select a new queue, or select an existing queue. Click **Finish.**

NDS connections

1. Specify the current **Directory Services Tree** (the tree where the print server will reside).
2. Specify the current **Directory Services Context** (the location in the directory services tree where the print server will reside).
3. Create and select a new queue, or select an existing queue. Click **Finish.**

Verify information and finish

After you have entered the configuration information, the Quick Configuration Wizard displays the **Configured Printer Information** dialog box, which reports the information you have entered.

1. Verify that the information is correct.

    ■ If the information is correct, click **Apply Changes.**

    ■ If the information is not correct, click **Back** to return to previous dialog boxes and correct the information. Click **Next** to return to the **Configured Printer Information** dialog box. Click **Apply Changes.**

    ■ To exit the wizard and return to the **Main** window without making any changes, click **Cancel.**

2. After you click **Apply Changes,** the printer resets; the changes take effect when the reset is complete.

3. After the reset, you are prompted to print a test page. It is recommended that you print a test page to verify a successful installation.

Troubleshooting Windows configurations

Printer does not appear in the Main window printer list

1. Make sure that the printer is turned on and properly connected to the network. Try a different network drop or port.

2. Make sure that NetWare is enabled on the printer. This is reported on the printer's Configuration Page in the **NetWare** field. For information on enabling protocols, see *Disabling and Enabling Protocols* on page 41. If you are using bindery emulation, make sure that NDS is disabled. From the PhaserShare Administrator **Print Server** tab, uncheck the **Directory Services** checkbox.

3. If your network uses a router, configure the router to not suppress NetWare SAP (Service Advertising Protocol) packets or packets of the frame type the printer is using.

Testing from the PhaserShare Administrator

The following steps provide a simple test of the Administrator:

1. Click **Search Options.**

2. In the **Search Options** dialog box, click the following radio buttons:

    ■ **Sort by: Print Server Name**
    ■ **Select by: All Tektronix Printers**

3. Click **OK.**

In the printer list, if the **Printer Name** is listed as **<Information Not Available>,** the Administrator is unable to communicate with the printer using SNMP over IPX; this indicates that either the printer selected is an unsupported printer or the network configuration is incorrect. If the printer is not listed, check the printer's Configuration Page for network errors.

Note

> The PhaserShare Administrator displays an SNMP error when the client computer running the PhaserShare Administrator is not attached to a file server with the same frame type as the printer is using. The same error is displayed if a version of the PhaserShare Administrator below 3.6 is used to configure a newer Tektronix printer. The **Printer Not Responding** dialog box is displayed with the message: **This printer is not responding to SNMP queries. Please check the printer and try again.** Click **OK** and correct the problem.

Testing the file server-to-printer connection

1. First use the **CAPTURE** command to redirect an LPT port output to a network queue. For example:

    CAPTURE   NB   NFF   NT   Q=PHASER   L=1

    where:

    NB specifies **NO BANNER**
    NFF specifies **NO FORM FEED**
    NT specifies **NO TABS**
    Q=PHASER specifies **PHASER** as the queue name
    L=1 specifies port **LPT1**

2. Use any text editor to create a two-line ASCII file with the following contents:

    %!
    showpage

3. Use the **COPY** command to send the file to the printer. For example, if the file is called *SHOWPAGE*, and the printer is assigned to LPT1, type:

    COPY   SHOWPAGE   LPT1:

    If the file server-to-printer connection is functional, the printer ejects a blank page.

Cannot submit job to a queue

Use NWAdmin verify that the user is a queue user.

1. Log in as ADMIN and launch NWAdmin. Browse the directory services tree to the location of the print queue object for this printer. Double-click the print queue object to view its properties.

2. The **identification** view is displayed by default. If it is not displayed, select it. Make sure that all of the **Operator Flags** at the bottom left corner of the window are checked.

3. Click **Users;** this view displays a list of queue users and queue user groups. Verify that the list of users, groups, and group memberships are correct. For more details, consult the NetWare Administrator documentation.

4. Click **Assignment;** this view displays the print servers and printers assigned to service this print queue. Assign the appropriate objects to this print queue.

Note

> For the print server to attach and service the print queue, the print server object name in the tree must match the print server name in the printer.

Job appears in queue, but printer does not service it

1. Verify that the printer has been set up to service the queue.

    a. Log in as ADMIN and launch NWAdmin. Browse the directory services tree to the location of the print queue object for this printer. Double-click the print queue object to view its properties.

    b. Click **Assignment;** this view displays the print servers and printers assigned to service this print queue.

    c. The **Authorized print servers** window and the **Printers servicing print queues** window should list the names of the objects linked to this print queue. If a print server object is not linked to this print queue, create or modify a print server object and assign it to this print queue. If a printer object is not linked to this print queue, create or modify a printer object and assign it to this print queue. See the NetWare user documentation for more details.

2. Check that the printer was able to log in to the file server:

    a. At the file server's console, type: **load monitor.**

    b. From the **Available Options** menu, select **Connection Information.**

    If the printer has logged in, its print server name is displayed in the list. If the print server name is not on the list, continue with Steps 3 through 5.

3. Verify that there was an available connection slot for the printer. Since the printer consumes a login connection, the file server may need an available connection for the printer to log in.

4. Verify that the password the printer saved (if one was set) is the same as the one on the file server. Mismatched passwords can result if **PCONSOLE,** rather than the PhaserShare Administrator, is used to set the password. Use the PhaserShare Administrator to enter a new password to ensure that they are the same.

    a. In the **Print Server** tab, click **Set Password.**

    b. In the **Set Password** dialog box, enter the password in both fields and click **OK.**

5. Verify that the printer's print server name matches the one in the NDS tree. The Configuration Page reports the printer's print server name. For information on printing a Configuration Page, see *The printer's Configuration Page* on page 2.

6. Verify that the frame type the printer is using is supported by the file server. See *Printer does not appear in the Main window printer list* on page 10.

7. Verify that at least one file server or router on the same segment as the printer has **Reply to Get Nearest Server** set to **on.**

Job is serviced, but does not print

■ Check the PhaserShare Administrator **Printer Info** dialog box for reported error conditions.

■ Download the PostScript Error Handler to the printer. For information on using the Tektronix PostScript Error Handler, see your printer's user documentation.

■ Use the correct Tektronix driver for your printer.

■ Verify that the Print Server protocol is enabled; use the printer's front panel or check the Administrator's **Print Server** tab.

■ Banners, form feeds, and tabs may interfere with the print job. Try disabling these.

Setting IPX frame types from the Phaser 850 front panel

1. When the front panel displays **READY TO PRINT,** press the up-arrow button until **Menu** is highlighted. Press **Select.**

2. Press the down-arrow button until **Printer Configuration** is highlighted. Press **Select.**

3. Press the down-arrow button until **Network Settings** is highlighted. Press **Select.**

4. Press the down-arrow button until **NetWare** is highlighted. Press **Select.**

5. Press the down-arrow button until **IPX Frame Type** is highlighted. Press **Select.**

6. Press the down-arrow button until the desired frame type is highlighted. Press **Select** until **On** is displayed. If desired, you can set more than one frame type.

7. To return the printer to normal operation, press the down-arrow button until **Exit** is highlighted. Press **Select.**

TCP/IP Configuration Overview

Setting the printer's IP address

The Tektronix Installer for Windows automatically sets the printer's IP address under the following conditions:

■ The printer has a network connection.

■ TCP/IP is installed on the computer.

■ The IP address has not already been assigned (for example, from the front panel or by DHCP).

During the installation process, you can accept the automatically assigned address or assign a different one.

The Tektronix installer for Windows is the recommended method for setting IP address in Windows environments; for other environments, see *Setting the Printer's IP Address* on page 22.

Host (computer) configuration

Refer to the topic for your environment:

■ *Windows 95 and Windows 98: PhaserPort Software* on page 15.

■ *Windows NT* on page 18.

■ *TCP/IP for Macintosh* on page 20.

■ For TCP/IP Unix Host configuration, see the <u>PhaserShare Networking Manual.</u>

■ For TCP/IP configuration for OS/2 Warp and LAN Server, see the <u>PhaserShare Networking Manual.</u>

Printing the Configuration Page

Your printer's Configuration Page reports important information that you will need for TCP/IP configuration. For information on printing a Configuration Page, see *The printer's Configuration Page* on page 2.

Windows 95 and Windows 98: PhaserPort Software

TCP/IP configuration for a PC

If you don't already have a TCP/IP address configured for your PC, contact your system administrator to ensure that the configuration is made according to your company guidelines. If there is no TCP/IP network already in place, configure your PC with a unique address such as 192.1.1.1. To check the IP address for your PC, follow these steps:

1. From the **Start** menu, click **Run.**

2. Enter: **winipcfg.** (If the file is not found, TCP/IP may not be installed.)

3. Click **OK.**

4. Choose your network adapter from the list.

5. The IP address is listed in the **IP Address** field.

For more information on installing and configuring TCP/IP in Windows environments, see your Microsoft Windows documentation.

Setting up the printer for TCP/IP printing

The Tektronix Installer for Windows automatically performs the following functions to set up your printer:

■ Locates your printer on the network.

■ Suggests an IP address for the printer if one has not already been assigned (for example, from the front panel or by DHCP). You are given the opportunity to accept the automatically assigned address or assign a different one. For information on other methods of setting the printer's IP address, see *Setting the Printer's IP Address* on page 22.

■ Installs PhaserPort for Windows (if not already installed). PhaserPort for Windows is a Tektronix port monitor for printing over Windows 95 and Windows 98 TCP/IP peer-to-peer networks.

■ Installs the driver.

■ Creates a printer in the **Printers** window.

Choose the procedure appropriate for your environment:

■ For installation on a workstation for peer-to-peer printing, see the next topic, *Installation on workstations for peer-to-peer printing.*

■ For installation on workstations when print jobs are to be sent through a print server to the printer, see *Installation on workstations for client-server printing* on page 16.

Installation on workstations for peer-to-peer printing

1. Run the installer as described in *Tektronix Installer for Windows* on page 5.

2. When prompted, select **Easy Install, Minimal Install,** or **Custom Install.** Continue following the on-screen instructions.

3. The installer attempts to find your printer on the network; if it cannot find the printer, a dialog is displayed prompting you for more information. The on-screen descriptions provide more information.

4. Follow the remaining on-screen instructions to complete the installation.

Installation on workstations for client-server printing

Use this procedure to install the printer on workstations when print jobs are to be sent through a print server to the printer.

1. Run the installer as described in *Tektronix Installer for Windows* on page 5.

2. When prompted, select **Easy Install, Minimal Install,** or **Custom Install.** Continue following the on-screen instructions.

3. The installer searches for the printer:

   ■ If the installer finds the printer (printer device, or physical printer), you must identify the print server queue, so select **Choose a different printer.** This advances the installer to the next screen, where you can identify the print server queue.

   ■ If the installer does not find the printer (printer device, or physical printer), select **Choose the printer myself.** This advances the installer to the next screen, where you can identify the print server queue.

4. When prompted: **How your printer connected?** Select **Shared by a network server (client/server).**

5. When prompted: **Select a printer to set up,** browse the displayed Network Neighborhood tree and select the print server queue.

6. Follow the remaining on-screen instructions to complete the installation.

Adding a port to an existing printer

Use this procedure to add a port after you have installed the printer.

1. Select your printer:

   a. From the **Start** menu, select **Settings**, then click **Printers**.

   b. In the **Printers** window, right-mouse click on your printer.

2. From the pop-up menu, choose **Properties**.

3. When the properties dialog for the printer is displayed, click **Details**.

4. Click **Add Port**, then select **Other**.

5. Highlight **PhaserPort** and click **OK**; this displays the **Add PhaserPort** dialog.

    a. In the **Description** field, enter a name for the port (this can be the printer name/model, location, or any other descriptive name of your choice), such as **Phaser 850**.

    b. In the **Name/Address** field, enter the IP address or DNS name of the printer (for example, 192.1.1.2), and click **OK**.

       If you don't know the printer's IP address or DNS name, click **Browse** to display a list of printers on the network. Double-click the printer you want; PhaserPort automatically enters the information into the **Add PhaserPort** dialog. To search the network again, click **Refresh**; to narrow down the search by using subnets, click **Advanced**.

    a. Click **OK**.

6. Click **OK** again to apply the changes; the printer driver is now configured to use your new **PhaserPort**.

Changing a port's IP address

If the IP address of the printer is changed, change the IP address of the corresponding port:

1. Select your printer:

    a. From the **Start** menu, select **Settings,** then click **Printers.**

    b. In the **Printers** window, right-mouse click your printer, then click **Properties.**

2. In the **Properties** dialog, click **Details.**

3. Verify that **PhaserPort** appears in the **Print to the following port** field and click **Port Settings.**

4. In the **Configure PhaserPort** dialog, enter the correct IP address or DNS name for the printer. If you don't know the printer's IP address or DNS name, click **Browse** to display a list of printers on the network. Double-click the printer you want; PhaserPort automatically enters the information into the **Configure PhaserPort** dialog. To search the network again, click **Refresh;** to expand the search to other subnets, click **Advanced.**

5. Click **OK.**

6. Click **OK** again to apply the changes.

Windows NT

These procedures are valid for Windows NT 4.x. For information about driver installation for later versions of Windows NT, visit the Tektronix web site:

www.tektronix.com/Color_Printers/support/

The following procedures describe how to use the Tektronix installer for Windows to set up the printer in Windows NT 4.x environments.

The installer's automatic setup is provided when the installer is running on an Intel-based platform, for information on Windows NT setup on non-Intel platforms, see the PhaserShare Networking Manual.

Choose the procedure appropriate for your environment:

■ For installation on a server to support client-server printing or for installation on a workstation for peer-to-peer printing, see the next topic, *Installation on servers or on workstations for peer-to-peer printing.*

■ For installation on workstations when print jobs are to be sent through a print server to the printer, see *Installation on workstations for client-server printing* on page 19.

The Tektronix Installer for Windows automatically performs the following functions to set up your printer:

■ Locates your printer on the network.

■ Suggests an IP address for the printer if one has not already been assigned (for example, from the front panel or by DHCP). You are given the opportunity to accept the automatically assigned address or assign a different one. For information on other methods of setting the printer's IP address, see *Setting the Printer's IP Address* on page 22.

■ Installs Microsoft TCP/IP Printing Services (if not already installed).

■ Installs the driver.

■ Creates a printer in the **Printers** window.

Installation on servers or on workstations for peer-to-peer printing

1. Run the installer as described in *Tektronix Installer for Windows* on page 5.

2. When prompted, select **Easy Install, Minimal Install,** or **Custom Install.** Continue following the on-screen instructions.

3. The installer attempts to find your printer on the network; if it cannot find the printer, a dialog is displayed prompting you for more information. The on-screen descriptions provide more information.

4. Follow the remaining on-screen instructions to complete the installation.

Installation on workstations for client-server printing

Use this procedure to install the printer on workstations when print jobs are to be sent through a print server to the printer.

1. Run the installer as described in *Tektronix Installer for Windows* on page 5.

2. When prompted, select **Easy Install, Minimal Install,** or **Custom Install.** Continue following the on-screen instructions.

3. The installer searches for the printer:

    ■   If the installer finds the printer (printer device, or physical printer), you must identify the print server queue, so select **Choose a different printer.** This advances the installer to the next screen, where you can identify the print server queue.

    ■   If the installer does not find the printer (printer device, or physical printer), select **Choose the printer myself.** This advances the installer to the next screen, where you can identify the print server queue.

4. When prompted: **How your printer connected?** Select **Shared by a network server (client/server).**

5. When prompted: **Select a printer to set up,** browse the displayed Network Neighborhood tree and select the print server queue.

6. Follow the remaining on-screen instructions to complete the installation.

TCP/IP for Macintosh

Setting up the Macintosh Ethernet port for TCP/IP

If your Macintosh is not already set up for TCP/IP, perform this procedure to set it up.

1. From the **Apple** menu, select **Control Panels > TCP/IP.**

2. From the **Connect via** menu, select **Ethernet.**

3. Specify how the Macintosh will obtain it's IP address: **Manually** or by **DHCP.**

4. If you select **Manually,** specify the IP address in the dialog box.

5. Close the dialog box.

Creating an LPR Printer with LaserWriter 8.5.1

1. Open the **Desktop Printer Utility.** (This Apple utility is usually found in a folder called **Apple LaserWriter Software.**)

2. Under **Create Desktop,** select **Printer (LPR).** Click **OK.**

3. Under **PostScript Printer Description (PPD) File,** click **Change.** Choose the appropriate PPD from the list and click **Select.** If your printer's PPD is not listed, you must install it from the printer's CD-ROM.

4. Under **Internet Printer,** click **Change.** In the **Printer Address** field, enter the printer's IP address or domain name. In the **Queue** field, enter **PS** (all upper-case). Click **OK.**

5. Close the dialog box; when prompted, click **Save.**

6. Under **Save desktop printer as,** type a name for the desktop printer. Click **Save.**

Two methods are available for printing via LPR:

■ Use the new Desktop Printer (LPR).

■ Use the LaserWriter 8.5.1 driver (any printer can be selected) and select the appropriate LPR printer from the application by selecting **File > Print > Printer.**

Creating an AppSocket Printer with LaserWriter 8.6

Tektronix provides Macintosh AppSocket printing with PhaserPort for MacOS, on the printer's CD-ROM. PhaserPort for MacOS provides a high-speed, bi-directional communications channel using the new plug-in communication architecture of Apple LaserWriter version 8.6.

AppSocket provides two advantages over LPR:

■ AppSocket can be faster than LPR because AppSocket can print the file as it is being received, while LPR requires that the entire file be queued before printing can begin.

■ AppSocket provides feedback on print job status, which is not available through LPR.

PhaserPort for MacOS System Requirements

■   Macintosh PowerPC.

■   Apple's LaserWriter version 8.6 or later, with Desktop Printing enabled.

■   OpenTransport version 1.1 or later networking. TCP/IP networking provided by
    MacTCP software is not supported. The Macintosh must be properly configured to
    communicate with the printer (see *Setting up the Macintosh Ethernet port for TCP/IP*
    on page 20).

Files and Installation

PhaserPort for MacOS consists of two files:

■   *PhaserPortLib,* a special type of shared library recognized by the LaserWriter driver
    version 8.6.

■   *PhaserPort Printer Tool,* a Macintosh PowerPC application for creating desktop
    printers that communicate with *PhaserPortLib.*

To install PhaserPort for MacOS:

1.   Copy *PhaserPortLib* into the folder *System Folder : Extensions : Printing Plug-Ins.*

2.   Copy the *PhaserPort Printer Tool* to any folder on the Macintosh.

Creating a desktop printer with PhaserPort for MacOS

1.   Launch the *PhaserPort Printer Tool.*

2.   In the **Printer Internet Address** field, enter the printer's IP address or DNS name.

3.   In the **Desktop Printer Name** field, enter a name for the desktop printer.

4.   Click **Verify** to contact the printer over the TCP/IP network and verify it's network
    configuration.

5.   Click **Create** to create the desktop printer.

6.   In the Finder, use the Printing Menu's Setup command to finalize the configuration of
    the new desktop printer.

NOTE

> Certain utilities, such as Adobe Font Downloader, are not compatible with
> PhaserPort for MacOS software, because they attempt to directly communicate
> with the printer using the AppleTalk protocol. If you must use this software,
> create an AppleTalk desktop printer, and then delete this printer after running
> and quitting the non-compatible software.

Setting the Printer's IP Address

Automatic IP addressing

The Tektronix Installer for Windows sets the printer's IP address under the following conditions:

■ The printer has a network connection.

■ TCP/IP is installed on the computer.

■ The IP address has not already been assigned (for example, from the front panel or by DHCP).

During the installation process, you can accept the automatically assigned address or assign a different one. For small networks, the automatically assigned address will work in most cases. For large networks, see your network administrator to determine if the suggested address will work.

The Tektronix installer for Windows is the recommended method for setting IP address in Windows environments; for other environments, see the next topic, *Other methods for setting the printer's IP address.*

Note

> With a Windows 95 or Windows 98 peer-to-peer connection, if you change the printer's IP address after the first-time installation, you must change the port's address on the PC through PhaserPort for Windows (see *Changing a port's IP address* on page 17).

Other methods for setting the printer's IP address

You can set the printer's IP address by any of the following methods:

■ **Front panel.** See *Setting the IP address from the Phaser 850 front panel* on page 23.

■ **DHCP.** When turned on or reset, the printer receives its IP address information from a DHCP server. See *Setting the IP address: DHCP* on page 24.

■ **Downloaded configuration file.** Can be used on hosts that do not have BOOTP, or DHCP. For UNIX, use a Tektronix-provided shell script to prepare a configuration file. Sending the file to the printer stores the IP address information in the printer's memory, where the printer reads it when reset. See the PhaserShare Networking Manual.

■ PC and Macintosh users can also set IP parameters using PostScript utility files; see the *README* files on the printer's CD-ROM. The PC *README* file is in the *UTILS* directory; the Macintosh *README* file is in the *Network Utilities* folder.

■ **PhaserLink Printer Management Software.** After setting the printer's IP address by another method, you can perform the rest of the TCP/IP configuration using PhaserLink Printer Management Software, if you have a World Wide Web browser. See *Setting the IP address: PhaserLink Printer Management Software* on page 26.

Note

When two or more IP address methods are used simultaneously, the printer uses the first address that it successfully obtains.

Information needed for IP addressing

Information	Comments
Internet (IP) address for the printer	Format is x.x.x.x, where x represents a decimal number from 0 - 255.
Network mask	If you are unsure, leave this blank; the printer will choose an appropriate mask.
Default Router/Gateway address	Router address. You need this address if you want to communicate with the printer from anywhere other than the local network segment.
Broadcast address	This is the address the printer uses to **send** broadcast packets. Regardless of how this parameter is set, the printer **accepts** broadcast packets from any of the commonly used broadcast address conventions.
	It should not be necessary to set this address, because the printer calculates it automatically. However, you can override the default setting.

Setting the IP address from the Phaser 850 front panel

1. When the front panel displays **READY TO PRINT,** press the up-arrow button until **Menu** is highlighted. Press **Select.**

2. Press the down-arrow button until **Printer Configuration** is highlighted. Press **Select.**

3. Press the down-arrow button until **Network Settings** is highlighted. Press **Select.**

4. Press the down-arrow button until **TCP/IP** is highlighted. Press **Select.**

5. Set the IP address:

   a. Press the down-arrow button until **IP Address** is highlighted. Press **Select.**

   b. Press the right-arrow button to highlight the part of the address that you want to set. Press the up- or down-arrow buttons to change the numbers.

   c. When the address is set, press **Select.**

6. Set the network mask:

   a. Press the down-arrow button until **Network Mask** is highlighted. Press **Select.**

   b. Press the right-arrow button to highlight the part of the address that you want to set. Press the up- or down-arrow buttons to change the numbers.

   c. When the address is set, press **Select.**

7. Set the default router/gateway address:

    a. Press the down-arrow button until **Default Router/Gateway Address** is highlighted. Press **Select.**

    b. Press the right-arrow button to highlight the part of the address that you want to set. Press the up- or down-arrow buttons to change the numbers.

8. To return the printer to normal operation, press the down-arrow button until **Exit** is highlighted. Press **Select.** You are prompted to reset the printer; the changes will not take effect until the printer is reset.

Setting the IP address: DHCP

DHCP (Dynamic Host Configuration Protocol) is a system in which UNIX and Windows NT servers can allocate IP addresses dynamically. The printer is a DHCP client; when the printer is reset, it receives an IP address from the DHCP server.

Enabling DHCP on the printer

Make sure that the printer's DHCP protocol is enabled. You can do this from the front panel; see *Disabling and enabling protocols: Phaser 850 front panel* on page 42.

Installing the DHCP server

1. In **Control Panel:Network,** select **Add Software.**

2. Select **TCP/IP components.**

3. In the second window that is displayed, select **DHCP server.**

Setting up a DHCP server

1. Access your DHCP management utility:

    ■ **Windows NT 4.x.** Click **Start;** select **Programs,** then **Administrative Tools (Common).** Select **DHCP Manager.**

    ■ **Windows NT 3.5x.** Go to the **Network Administration** group and select **DHCP Manager.**

2. Configure DHCP with a *scope*; a scope is a range of IP addresses available for allocation to DHCP clients. For example, the scope could be the IP addresses 192.2.194.101 through 192.2.194.254.

Defining a scope in Windows NT 4.x

   a. Click **Start, Programs, Administrative Tools, DHCP Manager.**

   b. Double-click **Local Machine.**

   c. Click **Scope, Create.**

   d. Enter the IP information to define the scope.

Defining a scope in Windows NT 3.5.x

   a. Open the **Network Administration** group.

   b. Double-click **DHCP Manager.**

   c. Double-click **Local Machine.**

   d. Click **Scope, Create.**

   e. Enter the IP information to define the scope.

3. Define the *lease*. A lease is a pre-determined time that the printer holds the IP address. When the lease time expires, the printer queries the DHCP server again to renew its lease of the IP address. It is recommended that you set the lease to **Unlimited.**

4. Define a name for the scope. You are prompted to activate the newly created scope; answer **Yes.**

5. Restart the DHCP server:

   a. In **Control Panel:Services,** scroll to **DHCP Server.**

   b. Click **Stop;** click **Start.**

   c. Click **Close.**

6. Reset the printer. The printer receives its IP address from the server. Print a Configuration Page to obtain the IP address. See *The printer's Configuration Page* on page 2.

7. Using **Add Printer Wizard** (Windows NT 4.0) or **Print Manager** (Windows NT 3.5x), verify that a Windows NT printer port refers to the printer's IP address or DNS name.

8. Configure the printer's DHCP client software.

Supported DHCP fields

The printer recognizes the DHCP fields listed in the following table.

Field	Description	Values
gw	Gateway address list	List of IP addresses separated by spaces.
ha	Hardware address	Hexadecimal; the *ha* tag must be preceded by the *ht* tag.
ht	Hardware type (see Assigned Numbers RFC)	Unsigned decimal, octal, or hexadecimal integer, or one of the following symbolic names: **For UNIX Ethernet:** *ethernet* or *ether* for 10-Mbit Ethernet (DIX encapsulation); *ieee802* for IEEE 802 Ethernet (SNAP encapsulation). **For UNIX Token Ring:** *token ring* **For OS/2 Ethernet or Token Ring:** *ether*
ip	IP address	Single IP address.
lg	Log host address(es)	List of IP addresses separated by spaces.
sm	Subnet mask	Single IP address.
dn	IP domain name	Single domain name.
ds	DNS server IP address	Printer recognizes up to two IP addresses, separated by spaces.

Setting the IP address: PhaserLink Printer Management Software

After setting the printer's IP address by another method, you can perform the rest of the TCP/IP configuration using PhaserLink Printer Management Software, if you have a World Wide Web browser.

1. Connect to the printer via PhaserLink (see *Accessing the printer from a browser* on page 33).

2. On the left side of any PhaserLink page, click **Settings.**

3. In the **INTERFACES** group, click **TCP/IP.**

4. Enter your printer's settings and click **Apply** at the bottom of the page.

5. The printer responds by displaying a dialog box that allows you to reset the printer. The changes will not take effect until the printer is reset.

DNS (Domain Name Service)

The printer supports DNS through an embedded DNS stub resolver. The DNS resolver protocol communicates with one or more DNS servers to request the IP address for a given host name or the host name for a given IP address.

To use an IP host name for the printer, the system administrator must have already configured one or more DNS servers and a local DNS domain name space database.

To set up the printer for DNS, supply an IP domain name and up to two DNS name server IP addresses. There are two ways to set up the printer:

■ DHCP. See *Setting the IP address: DHCP* on page 24.

■ With TCP/IP, you can use PhaserLink. See the next topic, *Setting up the printer for DNS using PhaserLink Printer Management Software.*

Setting up the printer for DNS using PhaserLink Printer Management Software

After setting the printer's IP address, you can set up the printer for DNS using PhaserLink Printer Management Software, if you have a World Wide Web browser.

1. Connect to the printer via PhaserLink (see *Accessing the printer from a browser* on page 33).

2. On the left side of any PhaserLink page, click **Settings.**

3. In the **INTERFACES** group, click **TCP/IP.**

4. Set **Domain Name Service Resolver** to **Enabled.**

5. Enter the following information:

   ■ Primary Name Server IP Address (required)

   ■ Second Name Server IP Address (optional)

   ■ IP Domain Name (required)

   ■ Additional Search Domain Name(s) (optional)

6. When you are finished entering the settings, click **Apply** at the bottom of the page.

7. The printer displays a dialog box that allows you to reset the printer. New parameters will not take effect until the printer is reset.

EtherTalk and TokenTalk Configuration

Setting up the Macintosh Ethernet port for EtherTalk

1. From the **Apple** menu, select **Control Panels > AppleTalk.**

2. From the **Connect via** menu, select **Ethernet built-in.**

Setting up the printer for EtherTalk or TokenTalk

1. Print the Configuration Page. It reports the printer's default name, which you need for EtherTalk and TokenTalk configurations. For information on printing a Configuration Page, see *The printer's Configuration Page* on page 2.

2. Verify that the printer is in the **Chooser.** See the next topic *Finding the printer's name in the Chooser* on page 28.

3. When you have located the printer in the **Chooser,** you may want to change the printer's name or zone. See *Changing the printer's name (optional)* on page 29 or *Changing the printer's EtherTalk/TokenTalk zone (optional)* on page 30.

Finding the printer's name in the Chooser

1. From the **Apple** menu, select **Chooser.**

2. In the upper-left corner of the **Chooser,** click the LaserWriter 8 icon. If the LaserWriter 8 icon is not in the **Chooser,** you need to install the printer driver.

3. If a list of zones appears in the lower-left portion of the **Chooser,** select the proper zone.

Note

> The printer's default zone is listed on the Configuration Page in the EtherTalk or TokenTalk field. For more information on the Configuration Page, see *The printer's Configuration Page* on page 2.

4. A list of printers appears in the right portion of the **Chooser;** find your printer's name. The printer's default name is listed on the Configuration Page (see *The printer's Configuration Page* on page 2). If the name does not appear, see *Troubleshooting* on page 31.

Note

> It is possible for the **Printer Name** field on the Configuration Page to be blank. When the printer is turned on, it uses a default name and then checks to see that no other printer on the network has the same name. If enough printers with the same default name are present, it can take several minutes for the printer to establish a unique name. If the **Printer Name** field on the Configuration Page is blank, wait a short time and reprint the Configuration Page.

Changing the printer's name (optional)

There are three ways to change the printer's name:

■ Use the *Apple Printer Utility*; see *Changing the printer's name: Apple Printer Utility* on page 29.

■ With a TCP/IP connection and a World Wide Web browser, you can use PhaserLink Printer Management Software; see *Changing the printer's name: PhaserLink Printer Management Software* on page 30.

The name is reported on the Startup Page and Configuration Page; the name also appears in the **Chooser.** The name can be up to 31 characters long. It may contain any printable characters; however, the characters @ : = * are deleted from the name used on AppleTalk. A change is persistent across printer power cycles.

Notes regarding printer names

■ If you have more than one printer in the same zone and you choose a name for one printer that is already assigned to another, the second printer registers itself on the network with the number 1 appended to the name. For example, if you attempt to assign a printer the name **Tektronix** and another printer in the zone already has the same name, the printer you are naming appears on the network as **Tektronix-1.**

■ The added number is recalculated each time the printer is turned on. If you have more than one printer with the same name on the network, the printers' names on the network depend on the order in which the printers are turned on. To avoid this confusion, it is recommended that you assign each printer on the network a unique name.

■ The added number appears in the **Chooser,** on the printer's front panel, and on the Startup Page. On the Configuration Page, the name, without the characters @ : = *, and with the added number, appears in the **EtherTalk** or **TokenTalk** areas. The **Printer Name** under **General Information** is the name as it was set, not as it appears in the **Chooser.**

Changing the printer's name: *Apple Printer Utility*

1. Locate the *Apple Printer Utility,* included on your printer's CD-ROM.

2. Double-click the **Apple Printer Utility** icon; the **Printer Selector** window is displayed.

3. Select the zone (if applicable) and the printer. Click **Open Printer;** a dialog box is displayed containing **Printer Information** and **Printer Preferences.**

4. Click the triangle to the left of **Printer Preferences.** Click the triangle to the left of **Name;** this displays a dialog box containing a field for the printer's name. Enter the new name in the field.

5. Click **Send.**

6. To reselect the printer with its new name, open the **Chooser.**

Changing the printer's name: PhaserLink Printer Management Software

1. Connect to the printer via PhaserLink (see *Accessing the printer from a browser* on page 33).

2. On the left side of any PhaserLink page, click **Settings.**

3. In the **INTERFACES** group, click **EtherTalk** or **TokenTalk.**

4. In the **Printer Name** field, enter the desired printer name, then click **Apply** at the bottom of the page.

Changing the printer's EtherTalk/TokenTalk zone (optional)

There are two ways to change the printer's zone:

■ With a TCP/IP connection and a World Wide Web browser, you can use PhaserLink Printer Management Software; see the next topic *Changing the printer's zone: PhaserLink Printer Management Software* on page 30.

■ You can also change the printer's zone using PostScript utility files; see the *README* files on the printer's CD-ROM. The Macintosh *README* file is in the *Network Utilities* folder; the PC *README* file is in the *UTILS* directory.

Changing the printer's zone: PhaserLink Printer Management Software

1. Connect to the printer via PhaserLink (see *Accessing the printer from a browser* on page 33).

2. On the left side of any PhaserLink page, click **Settings.**

3. In the **INTERFACES** group, click **EtherTalk** or **TokenTalk.**

4. In the **Zone** field, enter the desired zone, then click **Apply** at the bottom of the page.

Troubleshooting

If the printer is not in the **Chooser,** use the following troubleshooting procedure.

1. Check that the Configuration Page shows a printer name, a node number, and a zone.

    ■   If there is no node number, verify that the printer is properly cabled to the network. Test the cable segment by plugging in a new cable segment or using the cable segment of a printer that is in the **Chooser.**

    ■   If your network uses zones, and there is no zone name on the Configuration Page, or if the Configuration Page shows the wrong zone, see *Changing the printer's EtherTalk/TokenTalk zone (optional)* on page 30.

    Note

    > The printer cannot create a zone; it must already exist.

2. If the Configuration Page shows the correct printer name, node number, and zone, and the printer is still not visible in the **Chooser,** check the following items:

    ■   If there is a Novell NetWare server on the network, verify that the NetWare server has been configured for AppleTalk Phase 2 routing and addressing.

    ■   If there is a Windows NT server on the network, verify that the printer has not been captured by a Windows NT machine.

    ■   If the printer continually reboots when connected to the network, it is possible that a router is broadcasting a zone of ***,** which is an invalid zone.

    ■   If using QuickDraw GX, the GX drivers must be installed. If you don't use QuickDraw GX, disable the QuickDraw GX, QuickDraw Helper, and ColorSync extensions.

IPP (Internet Printing Protocol)

Run the Tektronix Installer

1. Run the Tektronix installer as described under *Tektronix Installer for Windows* on page 5.

2. When the prompted to select how your printer is connected, click **Other.**

3. Complete the installation by following the on-screen instructions.

Obtain the printer's URL (Network Path)

1. Connect to the printer via PhaserLink (see *Accessing the printer from a browser* on page 33).

2. On the left side of the page, click **Settings.**

3. In the **INTERFACES** group, click **IPP.**

4. The **Network Path** field on the PhaserLink IPP page reports the printer's URL.

Create an IPP printer

Create an IPP printer

1. Select **Start > Settings > Printers.**

2. Double-click **Add Printer** to launch the Microsoft Add Printer Wizard.

3. When prompted, select **Network Printer.**

4. When prompted for Network Path (Windows 9x) or URL (Windows NT), enter the printer's URL, which follows the format:

    http://*printer-ip-address***:631**

    for *printer-ip-address* substitute your printer's IP address or DNS name. (The printer's URL is reported on the PhaserLink IPP page in the **Network Path** field.)

PhaserLink Printer Management Software

PhaserLink Printer Management software is a printer administration and support tool using World Wide Web technology. With PhaserLink software, you can access printer status and manage your printer over a TCP/IP network using a web browser.

PhaserLink Printer Management software gives you the following capabilities:

■ Receive printer status and manage printers, independent of network servers and operating systems.

■ Define a link to your local web server's support page.

■ Access online manuals and technical support information by using built-in links to the Tektronix web site.

PhaserLink Printer Management software provides an easy-to-use, consistent interface that you can use for most of the configuration tasks described throughout this guide.

PhaserLink Printer Management Software requires only a World Wide Web browser and a TCP/IP connection between the printer and the network. (TCP/IP and HTTP must be enabled in the printer.)

For complete information on using PhaserLink Printer Management Software, see the PhaserLink Online Help.

Accessing the printer from a browser

Once a TCP/IP connection to the printer has been established and the printer's IP address is set, you can visit the printer's Status page from your web browser by entering the printer's URL (Uniform Resource Locator), just as you would to visit any web site. The printer's URL is:

http://*printer's-IP-address***/**

where *printer's-IP-address* is the IP address or DNS name you set during TCP/IP configuration.

Example using IP addess: **http://192.1.1.1/**

Example using DNS name: **http://Tektronix_Marketing/**

Printer Management

Job accounting

The printer stores information about jobs printed in a log file. The log file is stored either in the printer's memory or on a hard disk, if one is connected to the printer. If the log file is stored in the printer's memory, it is lost when the printer is reset; therefore, it is recommended that a hard disk be used for job accounting.

The log file is a list of job accounting records. Each record contains fields such as user name, job name, pages printed, job times, and toner used. Not all fields are supported by all printers. For details, refer to the PhaserShare Administrator or PhaserLink Printer Management Software online help.

The job accounting values reported vary depending on the protocol and print command used when each job was printed. For example, using NPRINT over NetWare provides the printer with the most information about the job being printed. When using Windows and NetWare, the job name is often LST: or LST:BANNER. Other jobs from other ports may provide even less information about the job.

Job accounting is available through the PhaserShare Administrator and PhaserLink Printer Management Software. See the next topic, *Job accounting: PhaserShare Administrator* or *Job accounting: PhaserLink Printer Management Software* on page 34.

Job accounting: PhaserShare Administrator

1. Display the **Job Display** tab:

    a. In the **Main** window, click **Configure Printer.**

    b. In the **Configure Printer** dialog box, click **Job Display.**

2. When the **Job Display** tab is first displayed, the job summary list is empty and the **Total Number of Jobs** field reports the number of jobs stored by the printer. To get job information, click **Get Jobs.**

For complete information on PhaserShare Administrator job accounting, including clearing job information, exporting job information to a file, and job accounting file formats, see the PhaserShare Administrator online help.

Job accounting: PhaserLink Printer Management Software

1. Connect to the printer via PhaserLink (see *Accessing the printer from a browser* on page 33).

2. On the left side of any PhaserLink page, click **Settings.**

3. In the **REPORTS** group, click **Job Accounting** to display the **Job Accounting Links** page. The **Job Accounting Links** page has links that enable you to browse, download, and clear job accounting records.

For complete information on PhaserLink Printer Management Software job accounting, including clearing job information, downloading job information to a file, and job accounting file formats, see the PhaserLink Help (click **Help** on the left side of the **Job Accounting Links** page).

Intelligent Ready

Intelligent Ready is an automated system that monitors the printer's usage and warms up the printer when you are most likely to need it. You can turn Intelligent Ready on or off from the printer's front panel. PhaserLink Printer Management Software provides full control of the printer's automatic warm-up and standby settings.

Enabling and disabling Intelligent Ready from the Phaser 850 front panel

1. When the front panel displays **READY TO PRINT,** press the down-arrow button until **Menu** is highlighted. Press **Select.**

2. Press the down-arrow button until **Printer Configuration** is highlighted. Press **Select.**

3. Press the down-arrow button until **Default Printer Settings** is highlighted. Press **Select.**

4. Press the down-arrow button until **Advanced Printer Settings** is highlighted. Press **Select.**

5. Press the down-arrow button until **Intelligent Ready** is highlighted. Press **Select** until **On** or **Off** is displayed.

6. To return the printer to normal operation, press the down-arrow button until **Exit** is highlighted. Press **Select.**

Setting up Intelligent Ready using PhaserLink Printer Management Software

1. Connect to the printer via PhaserLink (see *Accessing the printer from a browser* on page 33).

2. On the left side of the page, click **Settings.**

3. In the **SETTINGS** group, click **Warm-up Settings.**

4. Follow the instructions on the page to set up Intelligent Ready or standby settings.

5. Click **Apply** to save your changes.

PhaserLink Status Notification

PhaserLink Status Notification allows the printer to automatically send email to the system administrator and others under the following conditions:

■   When printer errors, warnings, and alerts occur.

■   When the printer requires attention (for example, when service is required).

■   When a reply to a PhaserLink Remote Internet Printing message is desired. See the *PhaserLink Remote Internet Printing User Manual* for more information on PhaserLink Remote Internet printing.

Three designated users can receive messages: SysAdmin, Service, and Key User. Printer messages reporting errors, alerts, and warnings can be individually assigned to any of these users. You can customize the message text and the subject line in the Status Notification messages.

Status Notification is supplied by the printer's SMTP (Simple Mail Transport Protocol) client.

Setting up PhaserLink Status Notification

1.   Connect to the printer via PhaserLink (see *Accessing the printer from a browser* on page 33).

2.   On the left side of the page, click **Settings.**

3.   In the **INTERFACES** group, click **Status Notification.**

4.   Follow the instructions on the page to set up Status Notification.

5.   Click **Apply** to save your changes.

For complete information on PhaserLink Status Notification, see the PhaserLink Help (click **Help** on the left side of the **Status Notification** page).

Usage Profile reports

The printer can generate reports detailing printer usage. Usage profile reports track over 160 items, including:

■ Unique printer information, such as printer name, date installed, total pages printed, options installed, and network ID.

■ Supplies usage data (for example, toner or ink). By tracking supplies usage, you can order supplies in advance, so your printer will always be well-stocked with supplies.

■ Media and tray information, such as how often prints are made on paper compared to transparencies, and how often each tray is used.

■ Job characteristics, such as size and timing of jobs.

Types of Usage Profile reports

■ **Job report.** The job report contains information on the last printed job. This report can only be emailed; it cannot be printed, because printing it creates a new job that overwrites the report data. The job report is useful in environments where billing for each print job is required.

■ **Full report.** The full report contains detailed printer usage information for all jobs printed during the life of the printer. The full report is available in several formats. See the following table for details.

Full report formats

Printed	Emailed
Viewable; fields are labeled for easy reading. Three formats available: ■ Empty fields omitted. ■ All fields shown. ■ For OCR (optical character recognition). All fields are shown, with labels, but the reports is set up to be readable by OCR equipment. All text is in a monospace font and each data value is in a fixed location on the page.	Two formats available: ■ For viewing. Empty fields omitted; fields labeled for easy reading. ■ For spreadsheet. All fields shown; for easy import into spreadsheets, most data is numerically encoded, and field labels are omitted.

The following topics provide details on Usage Profile reporting:

■ *Printing reports from the Phaser 850 front panel* on page 38.

■ *Printing reports from the Phaser 850 front panel (all fields shown)* on page 38.

■ *Printing reports for OCR from the Phaser 850 front panel* on page 38.

■ *Printing reports from PhaserLink Printer Management Software* on page 38.

■ *Sending reports via email from the Phaser 850 front panel* on page 39.

■ *Sending reports via email: PhaserLink Printer Management Software* on page 39.

■ *Setting up Usage Profile reporting* on page 39.

Printing reports from the Phaser 850 front panel

1. When the front panel displays **READY TO PRINT,** press the up-arrow button until **Menu** is highlighted. Press **Select.**

2. Press the down-arrow button until **Supplies Information** is highlighted. Press **Select.**

3. Press the down-arrow button until **Print Usage Profile** is highlighted. Press **Select.**

4. To return the printer to normal operation, press the down-arrow button until **Exit** is highlighted. Press **Select.**

Printing reports from the Phaser 850 front panel (all fields shown)

1. When the front panel displays **READY TO PRINT,** press the up-arrow button until **Menu** is highlighted. Press **Select.**

2. Press the down-arrow button until **Troubleshooting** is highlighted. Press **Select.**

3. Press and hold the left-arrow button; while holding the left-arrow button, quickly press the **Select** button. Release both buttons.

4. Press the down-arrow button until **Print Usage Profile** is highlighted. Press **Select.**

5. To return the printer to normal operation, press the down-arrow button until **Exit** is highlighted. Press **Select** until the front panel displays **READY TO PRINT.**

Printing reports for OCR from the Phaser 850 front panel

1. When the front panel displays **READY TO PRINT,** press the up-arrow button until **Menu** is highlighted. Press **Select.**

2. Press the down-arrow button until **Troubleshooting** is highlighted.

3. Press and hold the left-arrow button; while holding the left-arrow button, quickly press the **Select** button. Release both buttons.

4. Press the down-arrow button until **Print OCR Usage Profile** is highlighted. Press **Select.**

5. To return the printer to normal operation, press the down-arrow button until **Exit** is highlighted. Press **Select** until the front panel displays **READY TO PRINT.**

Printing reports from PhaserLink Printer Management Software

1. Connect to the printer via PhaserLink (see *Accessing the printer from a browser* on page 33).

2. On the left side of the page, click **Settings.**

3. In the **REPORTS** group, click **Usage Profile Reports.**

4. Click **Print Report.** This prints a full report with empty fields omitted.

Sending reports via email from the Phaser 850 front panel

Note

> To send Usage Profile reports via email, the printer must be properly set up via PhaserLink Printer Management Software. For more information, see *Setting up Usage Profile reporting* on page 39.

1. When the front panel displays **READY TO PRINT,** press the up-arrow button until **Menu** is highlighted. Press **Select.**

2. Press the down-arrow button until **Supplies Information** is highlighted. Press **Select.**

3. Press the down-arrow button until **Email Usage Profile Full Report** or **Email Usage Profile Job Report** is highlighted. Press **Select.**

4. To return the printer to normal operation, press the down-arrow button until **Exit** is highlighted. Press **Select.**

Sending reports via email: PhaserLink Printer Management Software

Note

> To send Usage Profile reports via email, the printer must be properly set up via PhaserLink Printer Management Software. For more information, see the next topic *Setting up Usage Profile reporting.*

1. Connect to the printer via PhaserLink (see *Accessing the printer from a browser* on page 33).

2. On the left side of any PhaserLink page, click **Settings.**

3. In the **REPORTS** group, click **Usage Profile Reports.**

4. Click the link to email the desired type of report.

Setting up Usage Profile reporting

1. Connect to the printer via PhaserLink (see *Accessing the printer from a browser* on page 33).

2. On the left side of the page, click **Settings.**

3. In the **SETUP** group, click **Usage Profile Setup.**

4. Follow the instructions on the page for setting up reports.

5. Click **Apply** to save your changes.

For complete information on Usage Profile reporting, including descriptions of each field in the report, see the PhaserLink Help (click **Help** on the left side of the **Usage Profile Setup** page).

Usage Analysis

The Tektronix Usage Analysis Tool is a Windows client/server application that allows system administrators to automatically track Tektronix printer usage and obtain job accounting records. The tool supports large networks, with many users and printers.

Job accounting and printer usage data is stored in a database. The application can be run on multiple clients using a single server. The data can be exported to a spreadsheet for viewing, analysis, and billing.

System requirements

- IP network.

- Tektronix Color Printers with Ethernet interface (optional hard disk recommended).

- A PC with at least 32 MB of RAM. At least 1 GB of hard disk space is recommended for the server.

- Supported operating systems: Windows 95, Windows 98, Windows 2000, Windows NT 4.0, Windows NT 3.5.1.

- For export to spreadsheet (for graphing, billing, data analysis): Microsoft Excel 97 or Excel 2000.

Installing the Usage Analysis Tool

The Usage Analysis Tool is on the printer's CD-ROM. A single integrated installer is used to install printer drivers, the Usage Analysis Tool, and other software. The same installer is used for client and server installations.

1. Run the installer as described in *Tektronix Installer for Windows* on page 5.

2. When prompted, make the following selections:

   - Select **Custom Install.**

   - When prompted to select the components and sub-components you want to install, check **Net Admin. Support** under **Components,** then check **Usage Analysis Tool** under **Sub-components.**

During installation, additional components may be installed, such as JavaVM, runtime Microsoft Access, and the Windows database interface (ODBC).

Using the Usage Analysis Tool

Complete information on using the Usage Analysis Tool is provided by the application's online Help system.

Disabling and Enabling Protocols

After your network configuration is complete, you may want to disable protocols that you are not using to avoid unnecessary network traffic. There are four ways to disable protocols:

■ Use the printer's front panel; see *Disabling and enabling protocols: Phaser 850 front panel* on page 42.

■ In NetWare environments, you can use the PhaserShare Administrator; see *Disabling protocols: PhaserShare Administrator* on page 42.

■ With a TCP/IP connection and a World Wide Web browser, you can use PhaserLink Printer Management Software; see *Disabling protocols: PhaserLink Printer Management Software* on page 43.

■ Send the appropriate PostScript utility file to the printer. See the *README* files on the printer's CD-ROM. The PC *README* file is in the *UTILS* directory; the Macintosh *README* file is in the *Network Utilities* folder.

You can enable protocols by the same procedures; just select the command to enable a protocol rather than disable it.

Determining which protocols are enabled

All protocols can be enabled and disabled. The Configuration Page reports which protocols are enabled. If a protocol is enabled, the field for that protocol lists the current parameters. If the protocol is disabled, the field for that protocol contains an entry reading **Disabled.**

Disabling and enabling protocols: Phaser 850 front panel

1. When the front panel displays **READY TO PRINT,** press the up-arrow button until **Menu** is highlighted. Press **Select.**

2. Press the down-arrow button until **Printer Configuration** is highlighted. Press **Select.**

3. Press the down-arrow button until **Network Settings** is highlighted. Press **Select.**

4. Press the down-arrow button until the desired protocol is displayed (for DHCP/BOOTP, display **TCP/IP** at this point). Press **Select.**

    For HTTP, EtherTalk, TokenTalk, and IPP

    a. Press **Select** until **On** or **Off** is displayed.

    b. Press the **Menu** button.

    For TCP/IP, BOOTP/DHCP and NetWare

    a. Press the down-arrow button until **TCP/IP** or **NetWare** is highlighted. (For DHCP/BOOTP, display **TCP/IP** at this point.) Press **Select.**

    b. Press the down-arrow button until **TCP/IP interface, BOOTP/DHCP** or **NetWare** is highlighted.

    c. Press **Select** until **On** or **Off** is displayed.

To return the printer to normal operation, press the down-arrow button until **Exit** is highlighted. Press **Select.**

Disabling protocols: PhaserShare Administrator

1. In the PhaserShare Administrator **Main** window, select the desired printer from the **Printer List.**

2. Click **Configure Printer.**

3. In the **Configure Printer** dialog box, click the **Ethernet** (or **Token Ring**) tab.

4. In the **Ethernet** (or **Token Ring**) tab, click **Protocol Settings.**

5. In the **Protocol Settings** dialog box, click the tab for the protocol you want to disable.

6. On the tab for the selected protocol, find the field for enabling or disabling the protocol. Select **No.**

7. Click **OK.**

For more information on the PhaserShare Administrator, see *Novell NetWare* on page 7.

Disabling protocols: PhaserLink Printer Management Software

1. Connect to the printer via PhaserLink (see *Accessing the printer from a browser* on page 33).

2. On the left side of any PhaserLink page, click **Settings.**

3. In the **INTERFACES** group, click the link for the protocol you want to disable; this displays the page for that protocol.

4. At the top of the page is a field labeled with the name of the protocol; to disable the protocol, select **Disabled,** then click **Apply** at the bottom of the page.

Getting Help

Help from the World Wide Web

Tektronix Color Printer web site	**www.tek.com/Color_Printers/**
Documentation	**www.tek.com/Color_Printers/userdoc/introduction.html**
Technical support	**www.tek.com/Color_Printers/support/colcare.html**
Color use tips for novices and experts	**www.colorize.com**
PhaserLink Printer Management software	**www.tek.com/Color_Printers/products/phaserlink.html**
TekSMART™ Knowledge Base	**www2.tek.com/TekSMART/**
Anonymous FTP server	**ftp.tek.com/Color_Printers/**
email update notices	**www.tek.com/Color_Printers/support/subscribe.html**

Help by phone

Customer Support Centers

Australia 1-800-811-177	**France** 01 69 86 8137	**New Zealand** **+61 2 9888 0100**
Austria 0660 5804	**Germany** 0180 525 3535	**Norway** (22) 723 801
Belgium 02 720 9602	**Hong Kong** 2585-6655	**Singapore (ASEAN)** 1-800-356-5565
Brazil 0800 16 0220	**India (South Asia)** (91) 80-227-5577	**Spain** 902 239 272
Canada 1-800-835-6100	**Italy** 02 45 287 000	**Sweden** (08) 299 071
China **10-6235-1230**	**Japan** 81 3 3448 4872	**Switzerland** 155 9493
Denmark (44) 533 444	**Korea** 2-528-5299	**Taiwan** (02) 2757-1571
Eastern Europe and the Middle East +44 1908 68187	**Luxembourg** 400 847	**Thailand** **2-645-4407**
Finland 0203 206 30	**Netherlands** (040) 267 0440	**U.K.** (01) 908 681 707
		U.S. 1-800-835-6100

All other locations: Contact local Tektronix dealers or Tektronix offices.
For a list of dealers in your area, visit:

 www.tek.com/Color_Printers/contacts/

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