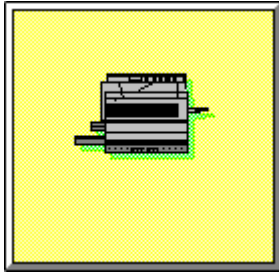
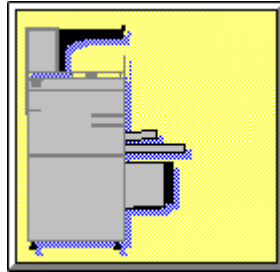


Help on Network Printing Software for Windows 95 systems

Digital Network Printing Software provides support for printing directly to networked Digital printers from Windows 95™ systems. To learn more, pick the Digital printer type you have:



Desktop Printer



PrintServer Printer

Desktop Printer Contents

▶ Expand

[What the Network Printing Software for Windows 95 Systems Will Do for You](#)

[Setting Up Printers to Print on the Network](#)

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Troubleshooting

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What the Network Printing Software for Windows 95 systems Will Do for You

No other vendor provides network printing capability with the same built-in features as Digital's Network Printing Software for Windows 95 systems. With this software, you will:

- Have a printing system that improves print quality.
- Print files faster.
- Print to any Digital printer **anywhere** on the network.
- Create a PostScript file that reads the defaults of the Digital printer where it is printed and prints it the way you expected, making better use of a shared pool of printers.
- Select how you want your file to be printed --
 - Which paper trays to use.
 - Whether to print duplex (double-sided) or simplex (single-sided).
 - And more!
- Track the status of your printer.
- Select how you want to set up your printer --
 - Whether to have a banner page to separate print jobs.
 - Which paper trays to use by default.
 - How to track printer usage.
 - And more!

See also:

[Printing to a PrintServer Printer in Different Environments](#)

[About Digital PrintServer Printers](#)

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What the Network Printing Software for Windows 95 systems Will Do for You

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 - Which paper trays to use.
 - Whether to print duplex (double-sided) or simplex (single-sided).
- Select how you want to set up your printer --
 - Whether to have a banner page to separate print jobs.
 - Which paper trays to use by default.
 - How to track printer usage.
 - And more!

See also:

[Printing to a Desktop Printer in Different Environments](#)

[About Digital Desktop Printers](#)

[Licensing Information](#) for Network Printing Software for Windows 95 systems

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Printing to a Single PrintServer Printer from Multiple System Environments

Network Printing Software for Windows 95 systems supports many different operating environments.

- A **direct printing environment** is one where several Windows 95 workstations or servers communicate with a Digital network printer over TCP/IP without any intervening servers. Workstations and servers alike receive print and job status directly from the network printer.
- A **Windows 95 client-server printing environment** is one where several Windows 95 workstations are networked to a Windows 95 server.
- A **mixed operating system client-server printing environment** is one where workstations running different operating systems are networked to a Windows 95 server.

In any client-server environment, the server communicates directly with a Digital network printer; it routes print jobs from client workstations to the printer and sends individual print job status back to the client workstations that originated the print job. You can find out if toner ran out part way through your print job, or if the printer jammed so that you can fix the problem and receive your completed job -- without any pages missing!

Different network protocols can exist between the workstation and server machines, but the server communicates with the printer over TCP/IP.

Printing to a Single Desktop Printer from Multiple System Environments

Network Printing Software for Windows 95 systems supports many different operating environments.

- A **direct printing environment** is one where several Windows 95 workstations or servers communicate with a Digital network printer over TCP/IP without any intervening servers. Workstations and servers alike receive job status directly from the network printer.
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In any client-server environment, the server communicates directly with a Digital network printer; it routes print jobs from client workstations to the printer and sends individual print job status back to the client workstations that originated the print job. Different network protocols can exist between the workstation and server machines, but the server communicates with the printer over TCP/IP.

About Digital PrintServer Printers

Network Printing Software for Windows 95 systems, V5.0-3aMS provides the capability to print directly to Digital PrintServer printers from Windows 95™ systems. If you have the Windows NT 3.5 media, you can load PrintServer Software onto your system and configure and manage your PrintServer printer to take advantage of the special features built into it.

The printers supported include:

PrintServer 17	PrintServer 17/600
PrintServer 20	turbo PrintServer 20
PrintServer 32	PrintServer 20 Kanji*
PrintServer 40 Plus*	turbo PrintServer 20 Kanji*
PrintServer 32 Kanji*	PrintServer 40 Plus Kanji*

* You CANNOT load the PrintServer software onto these printers from Windows 95 or Windows NT systems.

A few of the special capabilities of a Digital PrintServer printer are:

- [Print job status](#)
- [Network protocols.](#)
- [Predictable job completion](#)
- [Adobe PostScript standard](#)
- [Works on many platforms](#)

Print job status

The PrintServer printer supplies detailed print job status visible through the Windows NT Event Viewer: when your print job started, finished, and what happened during the job (if the PrintServer printer ran out of paper, is running low on toner, or is jammed). You receive all this information without ever leaving your chair, even if the PrintServer printer is in another building. Or on another continent.

Network protocols

Your Digital PrintServer printer has a real network address. It is a host on your TCP/IP protocol network and an end node on your DECnet protocol network.

Predictable job completion

Your PrintServer printer **automatically reprints** any pages that are lost if the printer runs out of paper or toner, if a mechanical problem occurs, if a door is open, or if a paper jam occurs. It will not duplicate pages that have been successfully delivered.

Adobe PostScript standard

Digital's PrintServer printers offer a PostScript Level 1 and Level 2 page description language interpreter. Digital and Adobe have worked closely to ensure that your PrintServer printer conforms perfectly to the Adobe PostScript standard outlined in Adobe's PostScript Language Reference Manual, 2nd Edition (the "red book").

Works on Many Platforms

A single PrintServer printer can be shared among a large number of different operating system platforms, on both TCP/IP protocol and DECnet protocol **simultaneously**. The list of network transports and printing platforms is growing continuously. Platforms currently supported include:

- Windows NT
- SunOS
- HP-UX
- IBM-AIX
- SCO UNIX
- SCO UNIX/DECadvantage
- Novell NetWare
- Sun Solaris
- Silicon Graphics IRIX
- AT&T Unison
- OSF/1 AXP
- OpenVMS VAX and AXP
- ULTRIX

Contact your Digital Sales representative for more information on printing from these environments to your PrintServer printer.

About Digital Desktop Printers

Network Printing Software for Windows 95 systems, V5.0-3aMS provides support for printing directly to networked Digital desktop printers from Windows 95™ systems, including:

[DEClaser 3500 with Network Interface Card via TCP/IP](#)

[DEClaser 5100 with Network Interface Card via TCP/IP](#)

[DECcolorwriter 1000 with RapidPrint network server via TCP/IP](#)

Both the Network Interface Card and the RapidPrint network server can communicate with these network protocols:

TCP/IP

Novell

EtherTalk

LAT

DEClaser 3500 -- a 12-page per minute laser printer suitable for small to medium group usage of up to 10 employees. It prints at 600 x 600 dots per inch and supports PostScript Level 2, PCL5e, ANSI, and ASCII. The DEClaser 3500 has 53 resident fonts and provides a special feature, called DECimage, which increases PostScript resolution with 256 levels of gray.

The DEClaser 3500 printer comes standard with three interfaces: serial, parallel, and the Network Interface Card. All three interfaces are available simultaneously. That means you can use one printer to support PCs, Macintosh systems, UNIX workstations, PC LANs, and Digital and IBM terminal networks.

DEClaser 5100 -- a 8-page per minute laser printer suitable for small to medium group usage of up to 10 employees. Its standard print setting is 600 x 600 dots per inch, but 1200 x 1200 dpi is also available. It supports PostScript Level 2, PCL5e, and ASCII. The DEClaser 5100 has 73 scaleable PostScript fonts and 47 PCL fonts, and provides a special feature, called DECimage, which increases PostScript resolution with 256 levels of gray.

The DEClaser 5100 printer comes standard with three interfaces: serial, parallel, and AppleTalk. All three interfaces are available simultaneously. That means you can use one printer to support PCs, Macintosh systems, UNIX workstations, PC LANs, and Digital and IBM terminal networks.

DECcolorwriter 1000 is a fast 2-page per minute, 600 x 300 dots per inch thermal wax printer. It uses the Pantone standard color system, and supports PostScript Level 2, HP-GL, and PCL5. It has 17 resident fonts and up to 39 optional fonts.

Warranty and Services Information

Software Warranty

Warranty for this software product is provided by Digital with the purchase of a license for the product as defined in the Software Warranty Addendum included with the Software Product Description (SPD) for this product.

For More Information ...

For more information on licensing, Software Product Descriptions (SPD), and other topics:

Telephone...

- In the US, call the Digital Components and Peripherals Technical Support Hotline at 1-800-345-9000.
- In Europe, call the following toll-free numbers:

Austria	0660.6214
Belgium	0800.1.5246
Denmark	8001.0108
Finland	08001.13395
France	05.42.34.63
Germany	0130.82.1996
Italy	1678.700.61
Ireland	1800.55.3352
Israel	177.330.6901
Luxembourg	0800.2898
Netherlands	06.022.2142
Norway	8001.1240
Sweden	020.797.338
Switzerland	155.2390
UK	0800.96.2769

If a toll free number is not available for your country, call 33-92 95 50 60.

Internet mail...

Europe	VHC_SUPPORT@ULYSSE.ENET.DEC.COM
US and other countries	PRINTERS@DIGITAL.COM

Licensing Information

Network Printing Software for Windows 95 systems, V5.0-3aMS, is furnished under the licensing provisions of Digital Equipment Corporation's Standard Terms and Conditions.

The license to use this software is included with each PrintServer, DEClaser, or DECcolorwriter printer.

This license give users the right to:

- Use the software on a single CPU or equipment configuration and the right to copy this software for use on any CPU or equipment configuration on the local area network that requires access to a PrintServer, DEClaser, or DECcolorwriter printer.

See Also

[Warranty and Services Information](#)

Printing

Digital Network Printing Software for Windows 95 systems gives direct access to printers, allowing you to print documents to your printers just as you would to any PostScript printer.

Printing to a network printer differs from printing to a physically connected printer. With connected printers, you can print from the command by specifying the copy command and a port name, such as LPT1. However, you cannot use the same method to print to a network printer.

These topics describe the typical ways to print documents with network printers:

- ▣ [Printing from Applications](#)
- ▣ [Printing Text Files](#)

Printing from Applications

Printing from applications to a Digital network printer is done exactly as it is with any other type of printer. Use the **Print Setup** menu item from within your application to select the desired printer and options, and use the **Print** menu item to print documents.

Printing Text Files

You can print text files to a network printer. The name "text file" is somewhat misleading: any file that can be viewed with the Notepad can be printed as a text file. This includes .ini files, command files, and some data files.

To Print Text Files:

1. Use Notepad to display the file.
2. Select Print Setup from Notepad's File menu to select the desired printer and options.
3. Use Notepad's Print menu item to print the file.

Managing PrintServer Printers

Managing a Digital network printer from your Windows 95 system is almost identical to managing any other PostScript printer. For the most part, you will use standard Printers Folder interfaces to pause printers, resume printers, share printers on the network, and monitor printers. Use the Add Printer wizard to add a new printer. (Double click on the Add Printer icon in the Printers Folder to start the wizard).

Some tasks are specific to network printers, for example, configuring the address of the printer so that users on the network can print to the printer.

These topics describe typical print management tasks:

- [Setting Up Client/Server Printing](#)
- [Managing Ports](#)
- [Debugging Tools](#)

For information about PrintServer printer tray defaults, see one of these topics:

- [Setting PrintServer Printer Tray Defaults](#)
- [Overriding PrintServer Printer Input and Output Tray Defaults](#)
- [Returning to PrintServer Printer Default Tray Settings](#)

See Also:

Windows 95 Help for information on general print problems. To get to the help, click on the Start button and then click on Help.

Managing Digital Desktop Printers

Managing a Digital network printer from your Windows 95 system is almost identical to managing any other PostScript printer. For the most part, you will use standard Printers Folder interfaces to create printers, pause printers, resume printers, control access to printers, share printers on the network, and monitor printers. Some tasks are specific to network printers, for example, configuring the address of the printer so that users on the network can print to the printer.

These topics describe typical print management tasks:

- [Setting Up Client/Server Printing](#)
- [Managing Ports](#)
- [Debugging Tools](#)

See Also:

Windows 95 Help for information on general print problems. To get to the help, click on the Start button and then click on Help.

Setting Up Client/Server Printing for PrintServer Printers

Using Network Printing Software for Windows 95 systems allows you to print directly from any of your systems running Windows 95 to any of your Digital network printers. However, you may still want to use two systems running Windows 95 in a client/server relationship to print your documents.

Note: Digital recommends using Network Printing Software for Windows 95 systems by installing it on every system on the local network, rather than sharing printing services.

When sharing print services, one system is used as a print server and has Network Printing Software for Windows 95 systems installed. Network printers are directed by this system, and are shared on the network. Other systems act as print clients, connecting to the network share created on the server system.

See Also:

[Licensing Information](#)

[Printing to a Single PrintServer Printer from Multiple System Environments](#)

Setting Up Client/Server Printing for Desktop Printers

Using Network Printing Software for Windows 95 systems allows you to print directly from any of your systems running Windows 95 to any of your Digital network printers. However, you may still want to use two systems running Windows 95 in a client/server relationship to print your documents.

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See Also:

[Licensing Information](#)

[Printing to a Single PrintServer Printer from Multiple System Environments](#)

Managing Ports

The Windows 95 print system communicates with the network printer through a port. You can configure more than one port connected to the same network printer. This is particularly useful if you want to set different default settings for all jobs printed to that port. For example, one port can be set up so that there are banner pages between print jobs that are printed on blue paper that is in the top tray. Another port to the same printer can be set up without banner pages between jobs.

When you first set up the network printing environment, you will probably need to create several new ports.

Later, if you need to alter the port settings for a Digital network printer, you can easily configure the existing port to new settings.

See Also:

- [Adding Ports](#)
- [Configuring Existing Ports](#)

Configuring Existing Ports

If the address of a network printer changes, or if you want to change the options associated with a printer, you need to configure the port for the network.

To configure a network port:

1. Choose Start from the taskbar. Choose "Settings, printers" to get to the Printers Folder.
2. Select the icon representing the Digital network printer.
3. Select Properties from the File menu.
4. Click on the Details tab.
5. Click on the Port Settings button.
6. Modify the fields in the Configure Port -- Digital Network Port Dialog or one of its subsidiary dialogs. If you have questions about a field in the dialog box, choose the Help button.
7. Choose the OK button in the Configure Port -- Digital Network Port Dialog.

See Also:

[Configure Port -- Digital Network Port Dialog](#)

Debugging Tools

Digital Network Printing Software for Windows 95 contains powerful debugging tools that can be used by end users and support personnel to get detailed information about printer and operating system states. The debugging tools can be used to write information dynamically to the screen and/or to write the same data to a file.

Trace can be run for long periods of time and writes all information to a file.

Bubble runs in memory and writes the same information to the screen.

Since Bubble runs in memory, it can consume all available dynamic memory if it is not monitored carefully. The Logging Options dialog box provides a Clear button to flush all logged messages and clear memory. If you enable Trace, all the same messages are logged to a file.

See Also:

[Logging Options dialog box](#)

Setting PrintServer Printer Tray Defaults

There are two ways to set the PrintServer printer's default tray settings.

Using the PrintServer Supporting Host Software

One way is through the supporting host software, available for UNIX, OSF/1, Windows NT, OpenVMS, and several other platforms. The supporting host software will be available on the **Error! Bookmark not defined.** operating system in a future release.

Exiting the PostScript Server Loop

A second way is to submit a PostScript print job that uses the `exitserver` operator to exit the `server loop` and makes a persistent change to the state of the printer. This persistent state change can be erased simply by powering off the PrintServer printer, then turning it on.

WARNING: Exiting the server loop and making persistent changes to the printer's state is a powerful PostScript feature, but must be performed only by a person with PostScript expertise.

See Also:

[Overriding PrintServer Printer Input and Output Tray Defaults](#)

[Returning to PrintServer Printer Default Tray Settings](#)

Overriding PrintServer Printer Input and Output Tray Defaults

Network Printing Software for Windows 95 systems allows you to override PrintServer input and output default trays through a simple dialog box to tailor the print jobs users print through this port.

You may want to override the default tray settings if the PrintServer printer trays are always set to print on standard U.S. letter size paper. If many users need to print files on A4 size paper, create a port that specifically meets their needs to print A4 paper. That way, users do not have to rely on their default print job settings and can simply send the file to the port to print on A4 paper.

Note: Changes you make to the default tray settings of the port affect only the jobs users print through this port.

To override PrintServer printer tray default settings:

1. First, add a port. See [Adding Ports](#).
2. In the Add Port dialog box, make sure the port type selected is specific to your PrintServer printer. You cannot configure a generic PrintServer port ("PrintServer Printer via TCP/IP".) Select the Options button.
3. Choose the Options button and see the [PrintServer Printer Options Dialog](#) for more information about these fields that customize tray settings for your print jobs.

See Also:

[Returning to PrintServer Printer Default Tray Settings](#)

[PrintServer Printer Options Dialog](#)

[Setting PrintServer Printer Tray Defaults](#)

Returning to PrintServer Printer Default Tray Settings

When you select new options for the Digital PrintServer printer through the Digital Network Printer Options dialog box, you **override the default tray settings**.

To **return** to the default tray settings for the PrintServer printer, click on the appropriate boxes in the Digital PrintServer Printer Options dialog box and eliminate the "X" in the box.

Note: Changes you make to the port's tray settings affect only the jobs users print through this port.

See Also:

[Setting PrintServer Printer Tray Defaults](#)

[Overriding PrintServer Printer Input and Output Tray Defaults](#)

Glossary

Select a term from the list below to learn more about its meaning:

- [Banner page](#)
- [Bidirectional](#)
- [Bubble](#)
- [DECnet protocol](#)
- [Exitserver](#)
- [Internet address](#)
- [Network address](#)
- [PCL](#)
- [Port](#)
- [PostScript](#)
- [PrintServer printer](#)
- [PostScript Printer Description \(PPD\) file](#)
- [Server loop](#)
- [TCP/IP protocol](#)
- [Trace file](#)

Banner page

The banner page is printed before a document. It has a distinctive design and contains information about the document. Banner pages are enabled with the Options dialog box.

Bidirectional

Ability to carry on two-way communication. Digital PrintServer printers provide bidirectional communication between the printer and users. The PrintServer printer relays informational messages and error messages back to your system.

Bubble

This debugging tool runs in memory and can consume all available dynamic memory if it is not monitored carefully.

DECnet protocol

A networking transport, originally developed by Digital Equipment Corporation, now a de facto, worldwide, open standard.

DECnet is a robust technology, and has matured over the past several decades to the extent that it is now supported on systems with diverse hardware architectures, and offered for sale by many vendors, including Digital.

Digital PrintServer printers can communicate using TCP/IP protocol or DECnet protocol.

Exitserver

Exiting the server loop requires the PostScript exitserver operator.

Taken from PostScript Language Program Design by Adobe Systems, Inc.:

"The exitserver operator is a specialized and environment-dependent system operator available in most devices that support batch PostScript jobs (it is not part of the standard language definition). Its purpose is to exit the server loop. The exitserver operator requires a password, and will result in an "invalidpassword" error if the incorrect password is given.

Since the job server loop is generally responsible for cleaning up the state of the interpreter between jobs, any changes that are made outside the server loop by using the exitserver operator will remain as part of the permanent state of the interpreter for all subsequent jobs."

To reset the state of the PrintServer printer's interpreter, turn the PrintServer off and then back on again.

See PostScript Language Program Design by Adobe Systems, Inc. (published by Addison Wesley Publications, 1988) for more information.

Internet address

Or IP address. The address by which a device is known on the network -- the local area network, or a larger, wide-area network. Computer systems communicate with network devices through internet addresses.

Network address

The physical, Ethernet address used by the hardware to communicate on the network.

PCL page description language

Hewlett Packard's proprietary page control language (PCL) . Several Digital laser printers offer PCL support; support for PCL will be available through Network Printing Software for Windows 95 systems in a later release.

Port

A virtual connector through which the print spooler communicates with a printer.

PostScript page description language

A means of describing a document so that it can be printed. PostScript was developed by Adobe Systems, Incorporated, and is used to drive a wide range of devices, including Digital's PrintServer printers.

PostScript Printer Description (PPD) file

A text file that follows certain PostScript standards as outlined by Adobe Systems, Inc. This file acts as a formatted table of information. Using the information in the PPD, applications and components can access all printer features -- output trays, image enhancement operators, duplex capabilities, and others -- in a controlled way.

If you install or use PPD files that are inappropriate for your printer, the spooling system may generate PostScript code that produces errors in the printer, or the file fails to print, or the file prints with different formatting than you anticipated.

PrintServer printer

Digital Equipment Corporation's PrintServer printers are a family of fully bidirectional, high-speed, high-capacity printers that connect directly to the Ethernet and offer powerful remote management capabilities.

Server loop

Taken from PostScript Language Program Design by Adobe Systems, Inc.:

"The execution stack starts out with a procedure that is an infinite loop. The interpreter is always busy executing this loop, even when the interpreter is in an idle state. This loop is known as the server loop, and each time around the loop it checks to see if there is a new job to execute (if one of the communications ports has become active).

When a new job is discovered, a file object representing the standard input file is opened and placed on the execution stack. This file object is executed until the end-of-file indication is reached, at which point it is popped off the execution stack, and the interpreter reenters the server loop.

The primary task of the server loop is to isolate one batch job from another."

See PostScript Language Program Design by Adobe Systems, Inc. (published by Addison Wesley Publications, 1988) for more information.

Trace file

A trace file stores messages to use in debugging. To view the trace file, copy the file to a temporary filename; you cannot view the trace file itself while it is writing messages. Another useful debugging tool is Bubble.

TCP/IP protocol

A networking transport that provides communication across any set of interconnected networks, between computers with diverse hardware architectures, using almost any packet-switched network hardware. The TCP/IP protocol can be used to connect to networking hosts that are not running the Windows 95 operating system.

Digital PrintServer printers can communicate using TCP/IP protocol or DECnet protocol.

Add Port -- Digital Network Port Dialog

Creates a new port for printing to a Digital network printer.

Choose one of the following buttons for more information about the dialog box:

- [Port Type](#)
- [TCP/IP](#)
- [DECnet](#)
- [Name](#)
- [Address](#)
- [Port Name](#)
- [Options Button](#)

Digital Network Printer Port Type

Select the port type from the list. The port type by default is "Other PrintServer Printer", but even if you want to add a port for a PrintServer printer, you should specify which particular model you have to take full advantage of the features offered in this software. You cannot soft load a PrintServer if you do not specify which model it is in the port type.

If you have a desktop printer connected to the network with a Network Interface Card over TCP/IP, you should select "DEClaser 5000 Series Ethernet Card". If your printer uses a RapidPrint network server over TCP/IP, select the "Digital RapidPrint Server" port type.

TCP/IP

Selects the TCP/IP protocol for communicating with the printer.

- ▶ Choose this button to use the TCP/IP protocol with the printer.

DECnet

Selects the DECnet protocol for communicating with the PrintServer printer. You cannot print to a Digital desktop printer via DECnet. You cannot soft load a PrintServer printer via DECnet.

NOTE: If you want to print from a Windows 95 system to a Digital PrintServer printer through the DECnet protocol, you must obtain Digital's PATHWORKS for Windows 95 systems. See your authorized Digital distributor for more details about the release of this product.

- ▶ Choose this button to use the DECnet protocol with the printer.

Name

Specifies the name of the printer for each of the protocols.

- ▶ For TCP/IP protocol, enter the host name of the printer.
- ▶ For DECnet protocol, enter the node name of the printer.

Address

Specifies the address of the printer for each of the protocols.

- ▶ For TCP/IP protocol, enter the TCP/IP address of the printer.
- ▶ For DECnet protocol, enter the DECnet address of the printer.

Options Button

Displays an Options dialog box.

- ▶ To set available options for the port, or to configure the remote device, choose the Options button.

See Also

[PrintServer Printer Options Dialog](#)

[DEClaser 5000 Series Ethernet Card Options Dialog](#)

[RapidPrint Options Dialog](#)

Port Name

Specifies the name of the port.

- ▶ Enter a name for the port.

See Also

Port Names

Port Names

A port name must conform to the following rules:

- The name must be 1 to 50 characters long
- The name must not contain a backslash (\)
- The name must not be the same as an existing port name. Two port names that differ only in the case of the letters are considered the same.

Configure Port -- Digital Network Port Dialog

Configures an existing port for printing to a Digital network printer.

Choose one of the following buttons for more information about the dialog box:

- Digital Network Printer Port Type
- TCP/IP
- DECnet
- Name
- Address
- Port Name
- Options Button

Port Name

Displays the name of the port being configured. It is not possible to change the name of an existing port.

PrintServer Printer Options Dialog

The Digital PrintServer Printer Options dialog allows you to control advanced features of the printer. It lets you select input and output trays at the port level through a simple dialog. By creating several ports to the same PrintServer printer, each with different input or output tray selections, you can have diverse needs met simultaneously by one printer. For example, print letters from your word processor with paper from the large capacity input tray, and direct them to the upper output tray. On another port, print spreadsheets on ledger sized paper in input tray #2. And on still another port, print presentation graphics using transparencies in input tray #1 and direct them to the side output.

Choose one of the following buttons for more information about the dialog box and how to control the look of your print job:

- [Print Banner Page](#)
- [Banner Page from Input Tray Number](#)
- [Document from Input Tray Number](#)
- [Print to Output Tray Number](#)
- [Tray Number Hints Button](#)
- [Data Type](#)
- [Configure Button](#)
- [Logging Button](#)

Print Banner Page

In addition to the separator pages that the Print Manager provides, you can print PostScript banner pages that contain more information. If you are printing from a PrintServer printer, make sure you enter which tray number you want to use for the banner page in the Banner Page from Input Tray Number field.

Use banner pages on desktop printers that will print PostScript **only**. Although Digital networked desktop printers can print PCL files, the printer cannot print banner pages and PCL files. Turn banner pages off on ports through which users can print PCL files.

- ▶ Choose the Print Banner Page check box to print banner pages.

Banner Page from Input Tray Number

You can print banner pages from a different tray than the print job's paper tray. You can use colored paper or a different size paper for the banner page to make your print job distinct from any others.

► Enter a number in the field depending on the PrintServer printer type and the desired input tray. Valid choices are 1, 2, 3, and 99. No error checking is performed; if you enter an invalid number, the banner page will print from the default input tray.

Note: Make sure you choose the Print Banner Page check box to print banner pages.

See Also

[Tray Number Hints Button](#)

Document from Input Tray Number

You can choose to print from a different input tray should your print job require special paper or a different input media.

- ▶ Enter a number in the field depending on the PrintServer printer type and the desired input tray. Valid choices are 1, 2, 3, and 99. No error checking is performed; if you enter an invalid number, jobs will print from the default input tray.

See Also

[Tray Number Hints Button](#)

Print to Output Tray Number

You can select the output tray in which you want your completed print job delivered.

► Enter a number in this field depending on the PrintServer printer type and the desired output tray. Valid choices are 1 through 99. No error checking is performed; if you enter an invalid number, jobs will be delivered to the default output tray.

This option is helpful if you share a PrintServer printer with another department and want to separate completed print jobs. Use this option if you have a PrintServer printer with a mailbox stacker and want to deliver confidential material to a locked mailbox to ensure privacy.

See Also

[Tray Number Hints Button](#)

Tray Number Hints Button

The tray number hints button unfolds to display two tables to help you select the tray numbers to enter in the PrintServer Printer Options dialog box:

		PrintServer 17	PrintServer 20	PrintServer 32	PrintServer 40
Input	1	Top	Top	Top	Top
Tray	2	Bottom	Middle	Middle	Middle
Number	3	Not Applicable	Large Capacity	Large Capacity	Large Capacity
	99	Envelope	Not Applicable	Not Applicable	Not Applicable
Output	1	Top	Lower	Lower	Side (face-down)
Tray	2	Side (face-up)	Side (face-up)	Side (face-up)	Side (face-up)
Number	3	Not Applicable	Upper	Upper	Top
	4-99	Mailbox (4-13)	Not Applicable	Mailbox (4-23)	Not Applicable

Input Tray Number:

The first table shows the trays available when printing a banner page or the body of your print job. Find your PrintServer model (listed across the top of the screen) and decide which tray you will use. Enter the corresponding number (1, 2, 3, or 99) in the Options dialog box.

Output Tray Number:

The second table shows the output trays where your print job can be delivered. Enter the corresponding number (1 through 99) in the Options dialog box.

No error checking is performed. If you enter a number that does not correspond to the tray choices available in the printer, the default tray will be used instead.

Data Type

PostScript is the data type automatically selected. A future version of this software may support PCL.

Configure Button

You can remotely configure characteristics of PrintServer printers, the DEClaser Ethernet card, and RapidPrint.

- ▶ Choose this button to display a Configure dialog box.

See Also

[Configure PrintServer Dialog](#)

[Configure Ethernet Card Dialog](#)

[Configure RapidPrint Dialog](#)

Logging Button

The software will record detailed information in the system event log and recording debugging traces to a file.

- ▶ Choose this button to display the Logging Options dialog box.

See Also

[Logging Options Dialog](#)

Parallel

Selects the parallel port for communicating with the printer.

- ▶ Choose this button to use the parallel port with the printer.

Serial

Select the serial port for communicating with the printer.

- ▶ Choose this button to use the serial port with the printer.

Other

Enter a port address other than the default of 10001 or 10002.

- ▶ Choose this button to make the Telnet port number field active. Be sure to enter the Telnet port number.

DEClaser 5000 Series Ethernet Card Options Dialog

Controls the TCP/IP network settings for the DEClaser Ethernet card. The Ethernet card is a multi-protocol network interface card for the DEClaser 5100 and the DEClaser 3500 printers.

Choose one of the following buttons for more information about the dialog box and how to control the look of your print job:

- [Print Banner Page](#)
- [Configure Button](#)
- [Logging Button](#)

RapidPrint Options Dialog

The options dialog for RapidPrint lets you take advantage of the capabilities of Network Printing Software for Windows 95 systems. RapidPrint is a multi-protocol network interface for the DECcolorwriter 1000 printer and other peripherals. Network Printing Software for Windows 95 systems communicates with RapidPrint via the TCP/IP protocol.




Choose one of the following buttons for more information about the dialog box and how to control the look of your print job:

- [Print Banner Page](#)
- [Parallel](#)
- [Serial](#)
- [Other](#)
- [Configure Button](#)
- [Logging Button](#)

Logging Options Dialog

Controls the amount of information recorded in debugging traces. All PrintServer printer models record detailed bidirectional message information; DEClaser 5100, DEClaser 3500, and DECcolorwriter 1000 printers record minimal information.

Choose one of the following buttons for more information about the dialog box:

-  [Trace File](#)
-  [Trace Window](#)
-  [Trace File Name](#)
-  [Log Level](#)

Trace File

- ▶ Choose the File check box to enable writing debugging traces to a file.

Trace Window

The messages in the trace window are stored in virtual memory and can eventually consume all available virtual memory. The Clear button erases the contents of the window and releases the associated memory. If you enable Trace File, all the same messages are written to the file.

- ▶ Choose the Window check box to enable writing debugging traces to a window.

Log Level

Log level lets you control the amount of detail in information written to the operating system event log.

- ▶ Enter a number between 0 and 3 in this field. Zero represents the least detail – only fatal errors are written to the event log. Three represents the most detail – all messages from fatal errors to information messages, and all messages indicating a retry, are written to the event log.

Trace File Name

If you have enabled writing debugging traces to a file, you must enter a valid file name in this field to indicate where the traces should be written.

- ▶ Enter the full path name for the file you wish to create.

Configure PrintServer Dialog

Controls network settings of the PrintServer printer.

Choose one of the following buttons for more information about the dialog box:

- ▶ [Enable SoftLoad and Configuration](#)
- ▶ [Ethernet Hardware Address](#)
- ▶ [Subnet Mask](#)
- ▶ [IP Address of Default Gateway](#)
- ▶ [Printer Front Panel Language](#)
- ▶ [Install PrintServer Files](#)
- ▶ [Options](#)

Enable SoftLoad and Configuration

▶ If you select this option, you can load the PrintServer internal software and other supporting files onto the PrintServer printer.

If you want to load the PrintServer software onto the PrintServer printer after a port has been created for the printer, you **must** select this check box. Also, you **must** choose the Install PrintServer Files button and enter the location of the PrintServer software to load the printer.

You **cannot load** a PrintServer printer over the DECnet protocol.

Ethernet Hardware Address

- ▶ Enter the Ethernet address of the PrintServer; it is displayed when the printer is powered on. You must enter the Ethernet address to associate the hardware with its internet address, which you entered in the Add Port Dialog box. Do not arbitrarily change this field later or the PrintServer printer will not operate.

Subnet Mask

▶ Enter the subnet mask if the printer or RapidPrint server is in a different subnet than the host PC system. By default, no subnet mask address is displayed.

See your network administrator for the correct subnet mask address to enter in this field. **Do not** use a different address or you will have inconsistent and/or unexpected results. The software does not verify that the subnet mask is a valid one for your network environment.

IP Address of Default Gateway

- ▶ Enter the gateway address of the default network gateway between the printer or the RapidPrint server and other network areas.

Printer Front Panel Language

► Select a language in which to display PrintServer messages on the front panel. English is the default.

Other choices are: Dutch, French, German, Italian, Norwegian, Portuguese, Spanish, and Swedish.

Install PrintServer Files

► Choose this button to display the Install PrintServer Files dialog box and install the files to load the PrintServer printer with PostScript software images, fonts, and other features onto your host PC system. You must have the Microsoft Windows NT 3.5 media to load the files.

When the dialog box for PRNTRSRVR.DAT file location displays,

Insert the Network Printing Software for Windows NT product CD into your CD drive.

In the dialog, enter the location of the PRNTRSRVR.DAT file, which contains the PrintServer printer soft-loading files. Type

[drive]:\drvlib\print\decmon

where [drive] = the drive letter assigned to the CD-ROM player.

Note: If you get an error message, simply follow this procedure again. The Network Printing Software creates a directory for the PrintServer printer soft-load files if the default directory does not exist on your Windows 95 system. The PrintServer printer soft-load files are copied into \WIN32APP\DECPSMON on your system drive.

The installation will continue in the background for a few minutes; a status box will notify you when the procedure is complete. You must select the Enable Softload and Configuration check box on the Configure PrintServer dialog to load the PrintServer software from the host PC system onto the PrintServer printer. Turn the PrintServer off and on again to load the printer.

Options

This feature will be implemented in a future release.

Configure Dialog

Controls network settings of the RapidPrint server and the DEClaser Ethernet card.

Choose one of the following buttons for more information about the dialog box:

- ▶ [Internet Protocol](#)
- ▶ [Serial Port](#)
- ▶ [Send Details to Device](#)

Internet Protocol Button

Select this button to change the internet address of the RapidPrint server or the Ethernet card to a different subnet. This is only possible as long as a gateway exists between the host system's network and the network of the RapidPrint server or the DEClaser 5100 or DEClaser 3500 printers with the Ethernet card.

- ▶ Choose this button to display the Internet Protocol Details dialog box.

See Also

[Internet Protocol Details Dialog](#)

Serial Port Button

Select this button to change the RapidPrint server's serial port settings.

- ▶ Choose this button to display the Serial Port Details dialog box.

See Also

[Serial Port Details Dialog](#)

Send Details to Device Button

Select this button to permanently change the RapidPrint server or the Ethernet card with the new settings you specified. You must select this button to save any subnet mask or other network address settings and serial port settings; otherwise, any changes you make are not saved.

- ▶ Choose this button to display the Send Details message box.

See Also

[Send Details Message Box](#)

Internet Protocol Details Dialog

Controls the Internet (IP) address of the printer or RapidPrint server and its default network gateway. Also controls the subnet mask address.

Note: There is no error checking on individual fields. An error message is displayed if any of the following conditions occurs:

- The Internet protocol address, subnet mask, or gateway address format is incorrect.
- The specified gateway is not in the same subnet as the Internet protocol address.

Choose one of the following buttons for more information about the dialog box:

▶ [Internet Protocol \(IP\) Address](#)

▶ [Subnet Mask](#)

▶ [IP Address of Default Gateway](#)

Internet Protocol (IP) Address

- ▶ Enter the IP address of the device. The current address of the device is displayed by default. This is the same address as is displayed in the Add Port -- Digital Network Port Dialog or Configure Port -- Digital Network Port Dialog. After successfully changing the address of the device, the address of the port is automatically updated to reflect the change.

Serial Port Details Dialog

Controls the serial port settings of RapidPrint.

Choose one of the following buttons for more information about the dialog box:

- ▶ [Baud Rate](#)
- ▶ [Data Rate](#)
- ▶ [Parity](#)
- ▶ [Stop Bits](#)
- ▶ [Xon/Xoff](#)
- ▶ [Hardware](#)
- ▶ [Default](#)

Baud Rate

▶ Enter the baud rate of the serial port. Choices range between 1200 and 38400. The factory default is 19200.

Data Rate

- ▶ Enter the data rate of the serial port. Choices are 7 or 8. The factory default is 8. Note that you will get an error message if you choose 7 and set the parity to "none".

Parity

▶ Enter the parity of the serial port. Choices are none, odd, even. The factory default is none. Note that you will get an error message if you choose none and set the baud rate to 8.

Stop bits

- ▶ Enter the stop bits of the serial port. Choices are 1 or 2. The factory default is 1.

Xon/Xoff

▶ Check the box to set software flow control on. If the cable to the printer is a "4-wire" cable, then you generally have to select Xon/Xoff flow control and may have to uncheck the hardware flow control box.

Both flow control settings are set on by default, so that the flow control wires in the printer cable and the software protocol can work together. If neither flow control box is checked, the serial port will not operate correctly.

Hardware

▶ Check the box to set hardware flow control on. If the printer is not capable of, or configured for, Xon / Xoff flow control, you usually have to select hardware flow control and uncheck the Xon / Xoff flow control box.

Both flow control settings are set on by default, so that the flow control wires in the printer cable and the software protocol can work together. If neither flow control box is checked, the serial port will not operate correctly.

Defaults Button

- ▶ Choose this button to reset all details to the factory default.

These are the Serial Port factory defaults:

Baud Rate = 19200

Data Rate = 8

Parity = none

Stop Bits = 1

Flow Control, Xon/Xoff = on

Flow Control, Hardware = on

Send Details to Device Message Box

This is a message box that presents the internet protocol and serial details you set. You must select "Yes" to commit the changes and program the printer with the new network settings. You may select "No" to cancel all the settings you made and leave the device unchanged.

The internet protocol details and serial details are presented. (Serial details do not apply to the DEClaser Ethernet card.) Other characteristics will be programmed to default values.

Other characteristics will be programmed to default values

When you select "Yes" to send IP and serial details to the device, the characteristics listed below are set to these default values. However, through other means, any of these characteristics may have been changed from these values. When you select "Yes" to send IP and serial details to the device, you will erase any prior changes and set these characteristics to the default values listed.

<u>Characteristic</u>	<u>Default Value</u>
<u>IP Details:</u>	
Forward Broadcast	No
Trailers	No
Base Port Number	10000
Keep Alive	Yes
Maximum Transmission Unit	1500
Broadcast	No
System Description	Digital (TM) RapidPrint Interface or Digital (TM) DEClaser (TM) 5000 Series Ethernet Card
System Object Identifier	1.3.6.1.4.1.24
Network	Ethernet
Serial In or Out	Out
<u>Serial Details:</u>	
No additional serial details.	
<u>Other Details:</u>	
Start of Job data	None
End of Job Data	None
Version	0
Protocols	Novell & TCP/IP enabled; all others disabled

Troubleshooting

If printing to a Digital network printer is not working as you expect, there may be something wrong.

If this is your first time troubleshooting Network Printing Software for Windows 95 systems, consult [General Tips](#) first.

Select a symptom from the list below to troubleshoot your system.

- ▶ [Nothing is printed](#)
- ▶ [Banner page is printed, but document isn't printed](#)
- ▶ [Banner page information is incorrect](#)
- ▶ [Only part of the document is printed](#)
- ▶ [Properties information for the printer is incorrect](#)
- ▶ [A spool.exe application error occurred](#)
- ▶ [The PrintServer printer's front panel displays a "? 54" message](#)
- ▶ [The PrintServer printer doesn't appear to soft load](#)

See Also

[Help on Troubleshooting Printers](#)

General Troubleshooting Tips

Follow these tips to make troubleshooting easier:

- Turn on the Trace and/or Bubbles option in the Logging Options dialog box.
- Turn on banner pages to determine if they can print properly.

Symptom: Nothing is printed

There are a number of possibilities for why nothing prints. If you do not have banner pages enabled, enable them now, since they may help to narrow the causes of the problem. Enable the banner pages in the Digital printer port's Options dialog box.

Select the description of your situation:

- ▶ The document remains in the print queue with a status of Printing, and nothing happens
- ▶ The document appears to print successfully, but nothing is printed
- ▶ The banner page is printed, but the document isn't printed

Symptom: The document remains in the print queue with a status of Printing, and nothing happens

The communication to the printer must be checked:

- ▶ The Digital printer is busy printing one or more jobs from other systems
- ▶ Check that your system can communicate with the printer
- ▶ Check that the network protocol is started
- ▶ Check to see the network address is correct

Check that the network protocol is started

Check that the network protocol you are using to communicate with the printer is started:

1. Choose Start from the taskbar. Choose "Settings, printers" to get to the Printers Folder.
2. Select the icon representing the PrintServer printer.
3. Select Properties from the File menu.
4. Click on the Details tab.
5. Click on the Port Settings button.
6. In the Configure Port -- Digital Network Port Dialog, make sure the port type selected is specific to your printer. In the Configure Port -- Digital Network Port Dialog, check that the correct network protocol is selected.
7. Make sure the correct network driver is loaded. Double click the Network icon in the Control Panel.
8. Select the Configuration page and check that the TCP/IP protocol is installed (it will be listed on the dialog box if it is). If the protocol is not listed, select the Add-Protocol button and select Microsoft TCP/IP to install it from the Windows 95 media.
9. If TCP/IP is installed, select Properties and make sure the IP address is valid for your network and the correct one for your Windows 95 system.

See Also:

Windows 95 Help for information on general print problems. To get to the help, click on the Start button and then click on Help.

Check that your system can communicate with the printer

Once the proper network protocol is started, there may still be reasons why your system cannot communicate with the printer.

Network Printing Software for Windows 95 may be attempting retries to the printer. The software will retry once a minute for 30 minutes before it stops trying. If the logging level for Trace or Bubbles is set high enough, you will get a message for each retry. Lower levels of logging will only log the last message indicating failure. Set the Trace or Bubbles option in the Logging Options dialog box to use either of these debugging tools.

If Network Printing Software for Windows 95 is retrying, it indicates that it cannot reach the printer for some reason. Check that your system can reach the printer. Depending on the network protocol, see:

- ▶ Checking PrintServer printer connectivity over TCP/IP Protocol
- ▶ Checking DEClaser printer connectivity over TCP/IP Protocol
- ▶ Checking RapidPrint connectivity over TCP/IP Protocol

If you do have basic connectivity to the printer, your Windows 95 system may still not be able to communicate with your printer. For example, there may be network bridges that pass the ping packets, but not the print protocol packets needed to print on the printer. Check with your network administrator about possible network problems.

The printer is busy printing one or more jobs from other systems

Check to see that the network protocol is started, and check to be sure your printer is connected over a TCP/IP network. If the print queue gives the status of your print job as "printing" but nothing is happening, then your printer may be busy printing another job sent to it from another system. (To see the printer's print queue, select your printer in the Printers Folder and select Open from the File menu.)

Wait several minutes until the other print job is complete (the printer might be busy loading fonts or printing pages from that job). Then your job should start printing.

Check to see that the port's network address is correct

Check the Configure Port -- Digital Network Port Dialog to be sure you entered the correct TCP/IP address for the printer. (Check this address against the TCP/IP network database for your site.)

If you entered the incorrect network address, your job will retry that address for 30 minutes before failing. To correct the address:

1. Choose Start from the taskbar. Choose "Settings, printers" to get to the Printers Folder.
2. Select the icon representing the Digital network printer.
3. Select Properties from the File menu.
4. Click on the Details tab.
5. Click on the Port Settings button.
7. In the Configure Port -- Digital Network Port Dialog, make sure the port type selected is specific to your printer.
8. Make sure the network address is correct.

The subsequent print job will be directed to the new network address, however the current job will continue to retry at the old address for 30 minutes until it fails. Delete and resubmit the current print job, or restart your Windows 95 system.

If the printer's name and address are in the system's hosts file or in a network database, it is more difficult to incorrectly enter the TCP/IP address since Network Printing Software for Windows 95 checks the hosts file to compare names and addresses and notifies you of any discrepancies.

See Also

[Configure Port -- Digital Network Port Dialog](#)

Checking PrintServer printer connectivity over TCP/IP protocol

You use the **ping** command to determine whether your system has a route to another TCP/IP host.

At a command prompt, enter the **ping** command. Give the TCP/IP name of your printer as an argument on the command line. **Ping** will try to send packets to the printer, which the printer will try to return.

For example:

```
C:> ping lps32a
Pinging host lps32a.widget.com (lps32a) : 17.123.145.14
ICMP Echo Reply:TTL 30
ICMP Echo Reply:TTL 30
ICMP Echo Reply:TTL 30
ICMP Echo Reply:TTL 30
Host lps32a.widget.com replied to all 4 of the 4 pings
```

In this example, the host lps32a returned all 4 packets successfully. This means that your system and your printer can successfully communicate over the TCP/IP network.

If the name of your printer is not known to the system, **ping** can tell you that:

```
C:> ping lps32z
lps32z: unknown host
```

Alternatively, you can specify a network address rather than a name.

For example:

```
C:> ping 12.123.123.1
```

Note: Substitute a valid network address on your system in place of the address given above.

If your printer is not reachable from your system, **ping** will display the failure.

For example:

```
C:> ping lps32b
Pinging host lps32b.widget.com (lps32b) : 17.123.145.15
Host lps32b.widget.com replied to 0 of the 4 pings
```

If you cannot **ping** the printer, but you know it is working, and you know the physical cabling between your Windows 95 system and the printer is correct, then there might be a couple of other causes:

1. Check to see that the port's network address is correct.
2. The TCP/IP network topology might be set up so that your Windows 95 system is in one subnet and the printer is in a different subnet. You must configure your printer so it recognizes the subnet router between the two subnets. Also you must configure your Windows 95 system so it recognizes the subnet router. See Configuring your system and your network printer for TCP/IP router access.

Configuring your system and your network printer for TCP/IP router access

Note: If the terms "subnet" and "subnet router" are not meaningful to you, contact your network administrator to correctly configure your TCP/IP router access. Do not attempt to configure it yourself.

First, configure your **Error! Bookmark not defined.** system to recognize a subnet router. Then, configure your printer for subnet router access:

To configure your PrintServer printer to recognize the gateway router between it and the host Windows 95 system, see [Changing the Address of a PrintServer Printer](#).

To configure your DEClaser printer to recognize the gateway router between it and the host Windows 95 system, see [Changing the IP Address of a DEClaser 3500/5100 Series Ethernet Card](#).

To configure your RapidPrint server to recognize the gateway router between it and the host Windows 95 system, see [Changing the IP Address of the RapidPrint Server](#)

Checking DEClaser printer connectivity over TCP/IP protocol

You use the **ping** command to determine whether your system has a route to another TCP/IP host.

At a Windows 95 command prompt, enter the **ping** command. Give the TCP/IP name of your printer as an argument on the command line. **Ping** will try to send packets to the printer, which the printer will try to return.

For example:

```
C:> ping lps32a
Pinging host lps32a.widget.com (lps32a) : 17.123.145.14
ICMP Echo Reply:TTL 30
ICMP Echo Reply:TTL 30
ICMP Echo Reply:TTL 30
ICMP Echo Reply:TTL 30
Host lps32a.widget.com replied to all 4 of the 4 pings
```

In this example, the host lps32a returned all 4 packets successfully. This means that your system and your printer can successfully communicate over the TCP/IP network.

If the name of your printer is not known to the system, **ping** can tell you that:

```
C:> ping lps32z
lps32z: unknown host
```

Alternatively, you can specify a network address rather than a name.

For example:

```
C:> ping 12.123.123.1
```

Note: Substitute a valid network address on your system in place of the address given above.

If your printer is not reachable from your system, **ping** will display the failure.

For example:

```
C:> ping lps32b
Pinging host lps32b.widget.com (lps32b) : 17.123.145.15
Host lps32b.widget.com replied to 0 of the 4 pings
```

If you cannot **ping** the printer, but you know it is working, and you know the physical cabling between your Windows 95 system and the printer is correct, then there might be some other causes:

1. Check to see the port's network address is correct.
2. Check to make sure the printer's internet address is a valid one on your network. Power cycle the DEClaser printer to make it print a Status and Configuration Report. See your network administrator for a valid internet address for the printer and compare it to the address on the Status and Configuration Report. (See Sample Default Status and Configuration Report for a sample of the default report. The top half of the report gives network information; the bottom half of the report notes whether the network configuration is active.)
If it is not a valid internet address, you must reset the Network Interface Card. See Correcting the Network Address on a DEClaser 3500 Printer or Correcting the Network Address on a DEClaser 5100 Printer for more information. After you reset the card, go through the procedure to set up the Network Interface Card on your network. See Scenario #1 in the desktop printer's Setting Up Printers to Print on the Network.
3. The TCP/IP network topology might be set up so that your Windows 95 system is in one

subnet and the printer is in a different subnet. You must configure your printer so it recognizes the subnet router between the two subnets. Also, you must configure your Windows 95 system so it recognizes the subnet router. See [Configuring your system and your network printer for TCP/IP router access.](#)

See also

[Getting the Printer's Hardware Address: DEClaser 3500/5100 Network Interface Card Configure Port -- Digital Network Port Dialog](#)

Checking RapidPrint connectivity over TCP/IP protocol

You use the **ping** command to determine whether your system has a route to another TCP/IP host.

At a Windows 95 command prompt, enter the **ping** command. Give the TCP/IP name of your RapidPrint server as an argument on the command line. **Ping** will try to send packets to the printer, which RapidPrint will try to return.

For example:

```
C:> ping lps32a
Pinging host lps32a.widget.com (lps32a) : 17.123.145.14
ICMP Echo Reply:TTL 30
ICMP Echo Reply:TTL 30
ICMP Echo Reply:TTL 30
ICMP Echo Reply:TTL 30
Host lps32a.widget.com replied to all 4 of the 4 pings
```

In this example, the host lps32a returned all 4 packets successfully. This means that your system and your printer can successfully communicate over the TCP/IP network.

If the name of your RapidPrint server is not known to the system, **ping** can tell you that:

```
C:> ping lps32z
lps32z: unknown host
```

Alternatively, you can specify a network address rather than a name.

For example:

```
C:> ping 12.123.123.1
```

Note: Substitute a valid network address on your system in place of the address given above.

If your printer is not reachable from your system, **ping** will display the failure.

For example:

```
C:> ping lps32b
Pinging host lps32b.widget.com (lps32b) : 17.123.145.15
Host lps32b.widget.com replied to 0 of the 4 pings
```

If you cannot **ping** the printer, but you know it is working, and you know the physical cabling between your Windows 95 system and the printer is correct, then there might be some other causes:

1. Check to see the port's network address is correct.
2. Check to make sure RapidPrint's internet address is a valid one on your network. Power cycle the RapidPrint server to make it print a Status and Configuration Report. See your network administrator for a valid internet address for the RapidPrint server and compare it to the address on the Status and Configuration Report. (See Sample Default Status and Configuration Report for a sample of the default report. The top half of the report gives network information; the bottom half of the report notes whether the network configuration is active.)
If it is not a valid internet address, you must reset RapidPrint.. After you reset the server, go through the procedure to set up RapidPrint on your network. See Scenario #1 in the desktop printer's Setting Up Printers to Print on the Network.
3. The TCP/IP network topology might be set up so that your Windows 95 system is in one subnet and RapidPrint is in a different subnet. You must configure your RapidPrint server so it recognizes the subnet router between the two subnets. Also, you must

configure your Windows 95 system so it recognizes the subnet router. See [Configuring your system and your network printer for TCP/IP router access.](#)

See also

[Getting the Printer's Hardware Address: RapidPrint Network Server](#)

[Configure Port -- Digital Network Port Dialog](#)

Symptom: The document appears to print successfully, but nothing is printed

Here are some possible causes and actions:

1. A PostScript error may have occurred.
2. Your system may not be able to communicate properly with the printer.
3. If you are sharing the printer with other systems, check the set up.

A PostScript error may have occurred

If you think a PostScript error occurred, see the banner page for an error message. To print PostScript error information, select your printer in the Printers Folder, then select Properties from the File menu. Select the PostScript page and set the Print PostScript Error Information check-off box.

Here are some possible causes and actions:

1. Double-check that the printer driver matches the model of the printer. Select your printer in the Printers Folder, then select Properties from the File menu. Select the Detail page. Make sure that the driver listed in the Driver field matches the printer model.
2. If you are printing a previously-generated PostScript file, it may not have been created for the proper model of printer.
3. There might be a problem with the PostScript code the application produced. Report the problem to the application developers.

Symptom: Banner page is printed, but document isn't printed

Most likely, this is because of a PostScript error in the document.

Symptom: Banner page information is incorrect

If the system name and/or the print destination on the banner page are incorrect:

1. Check the Digital Printer Options dialog box to make sure the information is specified correctly.
2. If the information in the dialog box is correct, you are probably sharing print services with another system and the configuration is incorrect. To efficiently use a shared printer, install Network Printing Software for Windows 95 systems on every system.

Symptom: Only part of the document is printed

Most likely, this is because of a PostScript error in the document.

Symptom: Properties information for the printer is incorrect

If the system name and/or the print destination in the printer's Properties page are incorrect:

1. Check the Digital Printer Options dialog box to make sure the information is specified correctly.
2. If the information in the dialog box is correct, you are probably sharing print services with another system and the configuration is incorrect. To efficiently use a shared printer, install Network Printing Software for Windows 95 systems on every system.

Symptom: A spool.exe application error occurred

You are sharing a printer with another system. When you used the Printers Folder to create the printer, you used the same port name you already used to connect to the printer from the Printers Folder.

Symptom: The PrintServer printer's front panel displays a "? 54" message

If you turned the printer off and then on again to load the PrintServer software files and configure the printer, but its front panel displays the "? 54" message, then the PrintServer printer cannot find the soft load files on the host system and cannot complete the soft load process.

There may be several reasons that the printer is not soft-loading:

▶ Check the network protocol used to soft load the PrintServer printer

▶ You may have typed in the wrong hardware address.

Get the correct address (see Steps #1 and #2 in Getting the Printer's Ethernet Address).

Then go to Changing the Address of a PrintServer Printer.

▶ The PrintServer software may not be loaded onto the Windows 95 host system. Or, if the PrintServer files are on the host system, they were not transferred to the PrintServer printer. Check to see if the directory containing the PrintServer printer soft-load files, \WIN32APP\DECPSMON, is on your system.

If the directory exists and there are files in the directory, then the PrintServer files are loaded on your system.

Now, complete the process by loading the PrintServer files onto the printer. Check off the Enable Soft-Loading and Configuration checkbox in the Configure Printer Dialog.

See Configuring the Printer for complete instructions (you can ignore the steps for selecting the Install PrintServer Files button).

If the directory does not exist, the soft-load files are not located on your Windows 95 system.

You must load them onto the Windows 95 system, configure the printer, and enable soft-loading to transfer the PrintServer files from the host system onto the PrintServer printer. See Configuring the Printer for instructions.

▶ The network router between the Windows 95 system and the PrintServer printer is not passing TCP/IP broadcast messages between them.

See your network administrator to correct this condition.

Check the network protocol used to soft load the PrintServer printer

You **cannot** soft load (boot) a PrintServer over the DECnet protocol from a Windows 95 system. TCP/IP is the only network protocol currently supported for soft loading a PrintServer printer from a Windows 95 system.

You **can print only** from a Windows 95 system to a Digital PrintServer printer through the DECnet protocol, but you must obtain Digital's PATHWORKS for Windows 95 systems. See your authorized Digital distributor for more details about the release of this product.

Double-check the settings you made in the Configure Port -- Digital Network Port Dialog to make sure you selected TCP/IP protocol if you want to soft load the PrintServer printer.

Symptom: The PrintServer printer doesn't appear to soft load

If you are unsure whether the PrintServer printer is properly loading from your Windows 95 system, go to the printer and turn it off/on. Watch the front panel and see if it completes Steps 1 through 6 in [Getting the Printer's Ethernet Address](#). If Steps 3 through 6 do not occur, the printer is not soft-loading.

There may be several reasons that the printer is not soft-loading:

▶ [Check the network protocol used to soft load the PrintServer printer](#)

▶ You may have typed in the wrong hardware address.

Get the correct address (see Steps #1 and #2 in [Getting the Printer's Ethernet Address](#)).

Then go to [Changing the Address of a PrintServer Printer](#).

▶ The PrintServer software may not be loaded onto the Windows 95 host system. Or, if the PrintServer files are on the host system, they were not transferred to the PrintServer printer. Check to see if the directory containing the PrintServer printer soft-load files, \WIN32APP\DECPSMON, is on your system.

If the directory exists and there are files in the directory, then the PrintServer files are loaded on your system.

Now, complete the process by loading the PrintServer files onto the printer. Check off the Enable Soft-Loading and Configuration checkbox in the Configure Printer Dialog.

See [Configuring the Printer](#) for complete instructions (you can ignore the steps for selecting the Install PrintServer Files button).

If the directory does not exist, the soft-load files are not located on your Windows 95 system.

You must load them onto the Windows 95 system, configure the printer, and enable soft-loading to transfer the PrintServer files from the host system onto the PrintServer printer. See [Configuring the Printer](#) for instructions.

▶ The network router between the Windows 95 system and the PrintServer printer is not passing TCP/IP broadcast messages between them. See your network administrator to correct this condition.

Correcting the Network Address on a DEClaser 3500 Printer

If you erred and mistyped either the NETWORK ADDRESS or the HARDWARE ADDRESS of the Network Interface Card when you configured a Digital DEClaser 3500, you must reset the card to its factory defaults and configure the Network Interface Card again.

Follow this procedure to reset the card to its factory defaults:

1. Turn printer off.
2. Remove controller board (presuming it is in the printer already).
3. Remove the Network Interface Card (NIC) and change jumper 6 from OFF to ON.
4. Put the NIC back into controller, then put controller into the printer.
5. Power on the printer. Wait for the little green LED to signal 3 quick lights, then a long pause. This pattern will repeat about 30 seconds later.
6. Once you have seen the pattern repeat, power down the printer.
7. Remove the controller board. Remove the Network Interface Card. Change jumper 6 back to the OFF position. Put the NIC and the controller board back into the printer.
8. Power on the printer. A new test page will print and indicate that all settings are set to the factory default state.

Now, follow the [arp and ping instructions](#) to associate the correct network address and hardware address of the Network Interface Card.

Correcting the Network Address on a DEClaser 5100 Printer

You must use the software utility that was shipped with the Network Interface Card to change the address. This software is only available on Macintosh or Novell systems.

Setting Up Printers to Print on the Network

The basic steps for setting up a printer include:

- ▶ Installing the Ethernet card or RapidPrint Network Server
- ▶ Adding and configuring the printer

For information on required hardware and software, see the [Prerequisites](#) section.

For detailed instructions, choose the scenario that matches your situation:

▶ [Scenario 1:](#)

Printing to a brand new printer, or to a printer not connected to any network

▶ [Scenario 2:](#)

Printing to an "established" printer that is on another network with an IP address

The basic tasks for maintaining the printing environment include:

▶ [Scenario 3:](#)

Changing the printer's address

▶ [Scenario 4:](#)

Setting up additional ports

Setting Up Printers to Print on the Network

The basic steps for setting up a printer include:

- ▶ Ensuring that the printer is physically connected to the network.
- ▶ Adding the printer
- ▶ Configuring the printer: specifying the network settings and front panel language; loading the PrintServer software onto the printer

For detailed instructions, choose the scenario that matches your situation:

▶ Scenario 1:

Printing to a brand new printer, or to a printer not connected to any network

▶ Scenario 2:

Printing to an "established" printer that is on another network with an IP address

The basic tasks for maintaining the printing environment include:

▶ Scenario 3:

Changing the printer's address

▶ Scenario 4:

Setting up additional ports

For information on required hardware and software, see the [Prerequisites](#) section.

For information on printing from a Windows 95 system to a Digital PrintServer printer through the DECnet protocol, see the [Using DECnet Network Protocol](#) section.

Using DECnet Network Protocol

It is possible to print only (not load PrintServer software) via DECnet from a Windows 95 system to a Digital PrintServer printer using Digital's PATHWORKS for Windows 95 systems.

With PATHWORKS for Windows 95 systems, configuring your environment to access the DECnet protocol will be as simple as the setup for TCP/IP network access. Follow the directions in [Adding Ports](#), but enter a DECnet address instead of a TCP/IP address.

For more information, see [Warranty and Services Information](#).

Prerequisites

To successfully install and use Network Printing Software for Windows 95 systems, you need the following:

1. An Intel, Alpha AXP, or MIPS system with the Windows 95 operating system installed.
2. An additional 8 MB of disk space for the PrintServer software files.
3. A mouse and keyboard.
4. TCP/IP protocol, installed and operational.

It is possible to print only (not load PrintServer software) via DECnet from a Windows 95 system to a Digital PrintServer printer using Digital's PATHWORKS for Windows 95 systems.

5. A supported Digital printer.

Supported Printers

The following Digital printers are supported by this release of Network Printing Software for Windows 95 systems:

DEClaser 3500 with Network Interface Card via TCP/IP

DEClaser 5100 with Network Interface Card via TCP/IP

DECcolorwriter 1000 with RapidPrint Network Interface via TCP/IP

PrintServer 17

PrintServer 17/600

PrintServer 20

turbo PrintServer 20

PrintServer 32

PrintServer 20 Kanji*

PrintServer 40 Plus*

turbo PrintServer 20
Kanji*

PrintServer 32 Kanji*

PrintServer 40 Plus
Kanji*

* You CANNOT load the PrintServer software onto these printers from Windows 95 or Windows NT systems. You CAN load the PrintServer software onto these printers from VMS, ULTRIX, OSF/1 and other systems.

For more information about desktop printers, see [About Digital Desktop Printers](#).

For more information about PrintServer printers, see [About Digital PrintServer Printers](#).

Adding Ports



Before you can create a printer associated with a physical PrintServer printer or another Digital network printer, you must add a port. Ports represent communication channels to printers.

Each printer must have its own port.

To Add a Port:

1. Choose Start from the taskbar. Choose **Settings, printers** to get to the Printers Folder.
or,
Double click on the My Computer icon. Then double click on the Printers Folder icon.
2. Double click on the Add Printer icon.
3. In the Printer Installation Wizard, click the Next button. In the next screen, choose **Local printer**.
4. In the Manufacturer field, choose Digital. In the Printers field, choose only printers that have "/Net" appended to their names if you want to print from the network. Choose from:
 - ▶ Digital turbo PrintServer 20/Net
 - ▶ Digital PrintServer 17/Net
 - ▶ Digital PrintServer 17 12 MB/Net
 - ▶ Digital PrintServer 17/600/Net
 - ▶ Digital PrintServer 32/Net
 - ▶ Digital PrintServer 40 Plus/Net
 - ▶ DECcolorwriter 1000 17 fonts
 - ▶ DECcolorwriter 1000 39 fonts
 - ▶ DEClaser 5100/Net

If the printer name is not displayed, click the Have Disk button and install the printer driver from this directory on your Windows 95 CD ROM: admin\prttools\decpsmon

NOTE: To add a network port for a DECcolorwriter 1000, see [Creating a Network Port for a DECcolorwriter 1000 Printer](#).

5. Click on the Next> button.
6. The Printer Installation Wizard's Port screen displays. Choose the Add Port button to create a new port name to associate with your Digital network printer.
7. In the Add Port dialog box, type the information for your Digital network printer. For more information about specific fields, choose the Help button.
8. Click on OK.

See Also:

[Add Port Dialog Box](#)

Changing the Address of a PrintServer Printer



Installation/Maint. Tasks

If:

- ▶ The PrintServer printer's TCP/IP address has been set, and
- ▶ The internet address is valid, and
- ▶ The PrintServer Software is loaded on the PrintServer printer...

...then you can change the printer's network address, subnet mask, or gateway.

Note:

- ▶ You can change the printer's subnet mask only if a gateway exists between the printer's network and the host Windows 95 system's network. The gateway **must be** in the same subnet as the printer's internet address. The gateway address is not verified to determine if it is a gateway. See your network administrator for more information.
- ▶ If another system is also loading the PrintServer software to the printer, you must change the printer's IP address on that system as well as your own.
- ▶ If you change a printer's address to a different subnet than the Windows 95 system that loads the PrintServer software, a network router must be set up to pass TCP/IP broadcast messages between the printer and the Windows 95 system. See your network administrator for more information.

To Change the Address of a PrintServer Printer:

1. Choose Start from the taskbar. Choose "Settings, printers" to get to the Printers Folder.
2. Select the icon representing the PrintServer printer.
3. From the File menu, select Properties.
4. Click on the Details tab.
5. At the Print To field, click on the Port Settings... button to change the address of the current port.
6. In the Configure Port -- Digital Network Port Dialog, make sure the port type selected is specific to your PrintServer printer. (You cannot configure a generic PrintServer port, that is, "Other PrintServer Printer via TCP/IP or DECnet".) Select the Options button.
7. In the PrintServer Printer Options dialog box, select the Configure button.
8. In the Configure PrintServer dialog box, change the Ethernet address, subnet mask, default gateway, and other information for your printer. For help on specific fields, choose the Help button.

See Also:

[Configure Port -- Digital Network Port Dialog](#)

[Configure PrintServer Dialog](#)

Getting the Printer's Hardware Address: DEClaser 3500/5100 Series Ethernet Card

Installation/Maint. Tasks

Take the following steps to get the hardware address of the printer's Ethernet card. You must associate the Ethernet card's hardware address, or network address, with an internet address so that the printer will accept print jobs over the network.

1. Plug in the DEClaser printer and plug in network connections. Be sure the jumper for ThinWire Ethernet (the default) is correct. See the Ethernet card installation guide for information specific to network connections.
2. Power on the DEClaser printer. The Status and Configuration Report prints as part of the printer's warm up cycle. See [Sample Default Status and Configuration Report](#) for a sample of the default report. Copy the network address from the Network Address line on the report. Check the bottom half of the Status and Configuration Report to see if the network configuration is active.

Note:

- ▶ If the TCP/IP field is active and the internet address is valid, the DEClaser printer is already configured to operate on a network.
- ▶ The Ethernet card's internet address must be in the same network subnet as the host Windows 95 system. See your network administrator for details.

3. If you want to:
 - Change the printer's internet address to be on a different subnet from the host Windows 95 system, or
 - If the printer does not have a subnet and gateway defined...
...go to [Changing the IP Address of the Ethernet Card](#)
4. If the TCP/IP field is inactive, use the arp and ping commands (in an MS-DOS window) to associate the printer's internet address with its Ethernet address.

Changing the IP Address of a DEClaser 3500/5100 Series Ethernet Card



Installation/Maint. Tasks

Follow these steps to change the printer's internet address. This is only possible if a gateway exists between the printer's network and the host Windows 95 system's network.

Note: The gateway must be in the same subnet as the printer's IP address. The gateway address is not verified to determine if it is a gateway; see your network administrator for more information.

To Change the IP Address:

1. Choose Start from the taskbar. Choose "Settings, printers" to get to the Printers Folder.
2. Select the icon representing the DEClaser printer.
3. From the File menu, select Properties.
4. Click on the Details tab.
5. At the Print To field, click on the Port Settings... button to change the address of the current port.
6. In the Configure Port -- Digital Network Port Dialog, choose the port for the DEClaser 3500/5100 series Ethernet card. Select the Options button.
7. In the Ethernet Card Options dialog box, select the Configure button.
8. In the Configure dialog box:
 - Click on the Internet Protocol Details... button to change the printer's network address.
 - Click on the Serial Port... button to change serial port settings.
 - Click on the Send Details to Device button to permanently program the new address.
 - For more information about specific fields, choose the Help button.

See Also:

[Configure Ethernet Card Dialog](#)

Sample Default Status and Configuration Report



Installation/Maint. Tasks

Unit Serial No: 180105 Version: 01.00 E15
Network Address: 00:40:af:15:fc:48
Network Topology: Ethernet Connector: Thinnet
Network Speed: 10 Mega Bits
AppleTalk Network Information
 Frame Type: 802.2 SNAP On
802.3
 Protocol Address: Net Number 32 Node Number 102 Socket Number
 111
 AppleTalk Zone: Default Zone
DEC LAT Network Information
 Frame Type: Ethernet II
 Protocol Address

Novell inactive
AppleTalk Connection Information
 AppleTalk Printer Name: DEClaser
5100
TCP/IP inactive
DEC LAT Connection Information
 Node name: LAT_0040af15fc48
 Port name: Port_1

Sample Revised Status and Configuration Report



Installation/Maint. Tasks

Unit Serial No: 180105 Version: 01.00 E15
Network Address: 00:40:af:15:fc:48
Network Topology: Ethernet Connector: Thinnet
Network Speed: 10 Mega Bits
AppleTalk Network Information
 Frame Type: 802.2 SNAP On
802.3
 Protocol Address: Net Number 32 Node Number 102 Socket Number
 111

 AppleTalk Zone: Default Zone
TCP/IP Network Information
 Frame Type: Ethernet II
 Protocol Address:16.34.160.97 Subnet Mask: 255.0.0.0
DEC LAT Network Information
 Frame Type: Ethernet II
 Protocol Address

Novell inactive
AppleTalk Connection Information
 AppleTalk Printer Name: DEClaser
5100
TCP/IP Connection Information
Port Number: 10001
DEC LAT Connection Information
 Node name: LAT_0040af15fc48
 Port name: Port_1

Getting the Printer's Hardware Address: RapidPrint Network Server



Installation/Maint. Tasks

Follow these steps to set up a RapidPrint network interface via TCP/IP. With this release of Network Printing Software for Windows 95 systems, the DECcolorwriter 1000 printer and other parallel printers can operate on the network with RapidPrint.

1. Plug in the RapidPrint server and plug in network connections. Be sure the network connections are correct. See the RapidPrint installation guide for information specific to network connections.
2. Power on the RapidPrint server. The Status and Configuration Report prints as part of the printer's warm up cycle. See [Sample Default Status and Configuration Report](#) for a sample of the default report. Copy the network address from the Network Address line on the report. Check the bottom half of the report to see if the network configuration is active.

Note: If the TCP/IP field is active and the internet address is valid, RapidPrint is already configured to operate on a network.

If the TCP/IP connection has been set and the internet address is valid, you can change RapidPrint's [internet address](#) to be on a different subnet from the host Windows 95 system. Go to [Changing the IP Address of the RapidPrint Server](#).

3. If the TCP/IP field is inactive, use the [arp and ping commands](#) (in an MS-DOS window) to associate the printer's internet address with its Ethernet address.

Note: The RapidPrint server's internet address must be in the same network subnet as the host Windows 95 system to perform the initial set up. See your network administrator for details.

Changing the IP Address of the RapidPrint Server



Installation/Maint. Tasks

Follow these steps to change the RapidPrint server's internet address to a different subnet. This is only possible if a gateway exists between the RapidPrint server's network and the host Windows 95 system's network.

Note: The gateway MUST BE in the same subnet as the RapidPrint server's IP address. The gateway address is not verified to determine if it is a gateway; see your network administrator for more information.

To Change the IP Address:

1. Choose Start from the taskbar. Choose "Settings, printers" to get to the Printers Folder.
2. Select the icon representing your printer.
3. From the File menu, select Properties.
4. Click on the Details tab.
5. At the Print To field, click on the Port Settings... button to change the address of the current port.
6. In the Configure Port -- Digital Network Port Dialog, choose the port for the RapidPrint server. Select the Options button.
7. In the RapidPrint Server Options dialog box, select the Configure button.
8. In the Configure RapidPrint dialog box:
 - Click on the Internet Protocol Details... button to change the printer's network address.
 - Click on the Serial Port... button to change serial port settings.
 - Click on the Send Details to Device button to permanently program the new address.
 - For more information about specific fields, choose the Help button.

See Also:

[Configure RapidPrint Dialog](#)

Scenario 1: Printing to a brand new printer, or to a printer not connected to any network (Desktop printers)



To set up a brand new printer or a printer that is not connected to any network, take the following steps.

1. Install the Ethernet card (DEClaser 3500 or 5100 printer) or RapidPrint Network Server (DECcolorwriter 1000 or other parallel printer)
2. Get the printer's hardware address:
DEClaser 3500/5100 Series Ethernet Card
RapidPrint Network Server
3. Use the ping command to ping the address you intend to use for the network interface card to ensure that the address is not already being used.
4. Add a port
5. Use the arp and ping commands (in an MS-DOS window) to associate the printer's internet address with its Ethernet address.

Scenario 2

Scenario 3

Scenario 4

Scenario 1: Printing to a brand new printer, or to a printer not connected to any network (PrintServer printers)



To set up a brand new printer or a printer that is not connected to any network, take the following steps.

1. Ensure that the printer is physically connected to the network.
2. Get the printer's Ethernet address
3. Add a port
4. Configure the printer
5. Power cycle the printer

Scenario 2

Scenario 3

Scenario 4

Arp and Ping Commands



Arp command

Use the **arp** command to associate the printer's internet address with its Ethernet address. Choose Start from the taskbar. Choose Programs, MS-DOS prompt to get to an MS-DOS window. Type:

arp -s [internet name or internet address] [Ethernet address]

If the printer's internet address has a name registered in the DNS (Domain Name Service) or the hosts file, then you can use the name rather than the numeric address; see your network administrator for this information.

The network address is the physical address of the Ethernet card or RapidPrint server and is displayed on the second line of the Status and Configuration report. Make sure to replace the colons separating numbers with hyphens. Some examples follow.

Note: Substitute a valid internet address on your system in place of the example address given here.

Type:

```
C:> arp -s myprinter 00-40-af-15-fc-48
```

You can specify a network address rather than a name. For example:

```
C:> arp -s 16.34.160.97 00-40-af-15-fc-48
```

The system echoes to notify you of the change made. For example:

```
C:> arp -s myprinter 00-40-af-15-fc-48
MYPRINTER mapped to Ethernet address 00-40-AF-15-FC-48
```

Note: The arp command is not case sensitive.

Ping command

Use the **ping** command to verify the connection between the Ethernet card or RapidPrint server and the Windows 95 system.

Note: Be sure that you entered the correct internet address before using the ping command! If you made an error, enter the arp command again. If you ping to the wrong internet address, you will have to reset the Ethernet card or RapidPrint server.

The command is in the form

ping [printer's internet name or internet address]. For example:

```
C:> ping myprinter
```

The system echoes a reply similar to this:

```
Pinging MYPRINTER 00-40-AF-15-FC-48
MYPRINTER replied to 0 of 4 pings
```

For a printer using a DEClaser 3500/5100 Series Ethernet card:

Power cycle the DEClaser printer. After the printer warms up, it will print out a new Status

and Configuration Report. See [Sample Revised Status and Configuration Report](#) for a sample of a revised report with TCP/IP connection information.

The DEClaser printer is now configured to operate on a network in the same subnet as the host Windows 95 system. If you want to change the printer's address to place it on a different subnet, go to [Changing the IP Address of the Ethernet Card](#).

For a printer using the RapidPrint Network Server:

Power cycle RapidPrint (unplug it). After RapidPrint warms up, the printer attached to it will print out a new Status and Configuration Report. See [Sample Revised Status and Configuration Report](#) for a sample of a revised report with TCP/IP connection information.

RapidPrint is now configured to operate on a network in the same subnet as the host Windows 95 system. The printer that is attached to it can now be reached over the network. If you want to change the address of the RapidPrint server to place it on a different subnet, go to [Changing the IP Address of the RapidPrint Server](#).

Configuring the Printer



Installation/Maint. Tasks

You configure the PrintServer printer to:

- ▶ Specify network settings and choose a front panel language default for the PrintServer printer.
 - ▶ Load the PrintServer software onto your system and onto the PrintServer printer.
1. Choose Start from the taskbar. Choose "Settings, printers" to get to the Printers Folder.
 2. Select the icon representing the printer.
 3. From the File menu, select Properties.
 4. Click on the Details tab.
 5. At the Print To field, select the port name to be configured.
 6. Click on the Port Settings... button.
 7. In the Configure Port -- Digital Network Port Dialog, enter the network information for the printer. (NOTE: Be sure that the Port Type selected matches your PrintServer printer.) Click on the Options... button.
 8. In the Printer Options dialog box, enter the banner page, tray, and data type selections. Click on the Configure... button.
 9. In the Configure PrintServer dialog box, select the Enable Soft-Loading and Configuration checkbox to load the PrintServer internal software and other supporting files from your Windows 95 system onto the PrintServer printer.

Modify the remaining fields to reflect the options you want. If you have questions about a field in the dialog box, choose the Help button.

- 10 Click on the Install PrintServer Files button to load the PrintServer internal software onto your Windows 95 system.

To soft-load a PrintServer printer from the Windows 95 system, use the soft-load files distributed on the Network Printing Software for Windows NT 3.5 CD-ROM:

- a. Insert the Network Printing Software for Windows NT 3.5 product CD into your CD drive.
- b. In the dialog, enter the location of the PRNTRSRV.DAT file, which contains the PrintServer printer soft-loading files. Type:
[drive]:\drvlib\print\decmon

where [drive] = the drive letter assigned to the CD-ROM player.

Note: If you get an error message, simply follow this procedure again. The Network Printing Software creates a directory for the PrintServer printer soft-load files if the default directory does not exist on your Windows 95 system. The PrintServer printer soft-load files are copied into \WIN32APP\DECPSMON on your system drive.

Existing printer configurations will not be deleted or ignored.

See Things to Remember About Loading the PrintServer software onto the Printer for cautions about performing this task.

See Also:

[Configure PrintServer dialog](#)

Installing a Network Interface Card



Installation/Maint. Tasks

To install the network interface card (NIC) you need a Phillips screwdriver. The installation takes approximately 15 -- 30 minutes.

Preparing the Printer

1. Turn off the printer and remove the power cord from the printer.
2. Position the printer so that you can see its back. Remove the power cord.
3. Press the tabs at the left and right of the panel and drop the panel down.

Click here  for picture.

4. Touch the metal assembly chassis to discharge static electricity.

Click here  for picture.

5. Unscrew the captive screws at the left and right of the assembly.

Click here  for picture.

6. Pull the handle to slide the assembly from the printer. Place the assembly on a flat surface.

Click here  for picture.

7. The NIC must be installed in the option port on the right side. Use the Phillips screwdriver to remove the plate from the option port.

Click here  for picture.

The default operation of the Network Interface Card is to operate EtherTalk, TCP/IP, and NetWare protocols.

Installing the NIC Into the Printer

1. Remove the NIC and its screws from its shipping bag, if you have not already done so.

Click here  for picture.

2. Insert the face plate of the NIC through the option port so that the face plate is on the inside of the port.

Click here  for picture.

3. Line up the connector on the NIC with its mate on the assembly's circuit board.

Click here  for picture.

4. Press down on the NIC to insert the connector.

Click here  for picture.

5. Use the supplied screws to attach the face plate of the NIC to the option port of the assembly.

Click here  for picture.

6. Slide the assembly back into the printer. Press firmly and evenly on each side of the

assembly to seat it.

Click here  for picture.

7. Screw in the captive screws and close the back panel.

Click here  for picture.

8. Plug in the power cord.
9. Turn on the power and wait for the printer to warm up. It prints the power-up status report (if you did not disable this option), and then prints the network status report.
10. Check the network status report. Record the serial number and Ethernet address or save the status report. You need this information when you configure the printer for your network.
11. Plug in the network cable.

Getting the Printer's Ethernet Address



Installation/Maint. Tasks

To get the printer's Ethernet address, take the following steps.

1. Power on the PrintServer printer. The PrintServer's front panel displays the first warm-up cycle -- the countdown hardware test.

NOTE: Test 5 is a memory test, and might take several minutes, depending upon the amount of memory in your printer.

2. The Ethernet hardware address is displayed next. It will look something like this:
08-00-2B-xx-xx-xx

If the PrintServer software is loaded on your printer, the following printer actions will occur:

3. The copyright notice is displayed after all images are loaded.
4. Next, the PostScript start up page prints.
5. The word "Processing" displays while the PrintServer printer readies itself to accept print jobs.
6. When the PrintServer is finished with its warm-up, "Ready" displays on the front panel.

If steps 3 through 6 do not occur, one of the following conditions is present:

- ▶ The PrintServer software is not loaded onto the Windows 95 system.
Go to [Configuring the Printer](#).
- ▶ You typed in the wrong hardware address.
Get the correct address and enter it in the Configure PrintServer dialog box. Go to [Changing the Address of a PrintServer Printer](#).
- ▶ The PrintServer software is not loaded onto the PrintServer printer.
Go to [Configuring the Printer](#).
- ▶ The network router between the Windows 95 system and the PrintServer printer is not passing TCP/IP broadcast messages between them.
See your network administrator to correct this condition.

Scenario 2: Printing to an "established" printer that is on another network with an IP address



1. Add a port

Scenario 1

Scenario 3

Scenario 4

Scenario 2: Printing to an "established" printer that is on another network with an IP address



1. Add a port

Scenario 1

Scenario 3

Scenario 4

Scenario 3: Changing the desktop printer's address



Use this procedure to change the desktop printer's internet address.

1. Use the ping command to ping the address you intend to use for the network interface card to ensure that the address is not already being used.
2. Change the printer's address:
DEClaser 3500/5100 Series Ethernet Card
RapidPrint Network Server

Scenario 1

Scenario 2

Scenario 4

Scenario 3: Changing the PrintServer printer's address



Use this procedure to change the PrintServer printer's network address, subnet mask, or default gateway router.

1. Get the printer's Ethernet address

2. Find out if the PrintServer software is being loaded from a system other than your Windows 95 system.

▶ If the PrintServer software is being loaded **only** from another system, change the printer's address from that system.

▶ If the PrintServer software is being loaded from **both** another system and your Windows 95 system:

-- Change the printer's address on the other system.

-- Change the printer's address on your Windows 95 system.

▶ If the PrintServer software is being loaded **only** from another system, but you want to load the software from your Windows 95 system as well:

-- Change the printer's address on the other system.

-- Configure the printer from your Windows 95 system.

Scenario 1

Scenario 2

Scenario 4

Scenario 4: Setting up additional ports for desktop printers



Use this procedure to create new printer ports or to set up a printer port with different printing parameters than the default port.

1. Add a port

Scenario 1

Scenario 2

Scenario 3

Scenario 4: Setting up additional ports for PrintServer printers



Use this procedure to create new printer ports or to set up a printer port with different printing parameters than the default port.

1. Add a port

Scenario 1

Scenario 2

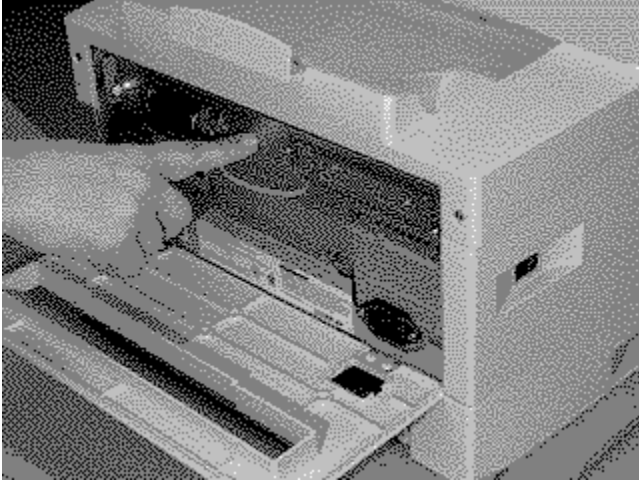
Scenario 3

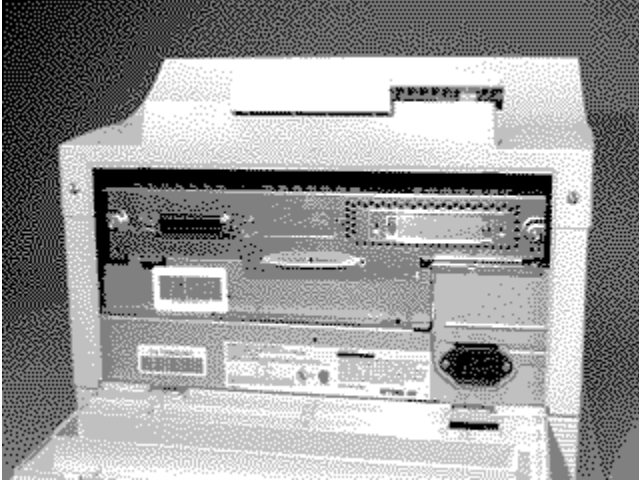
Things to Remember About Loading the PrintServer Software onto the Printer

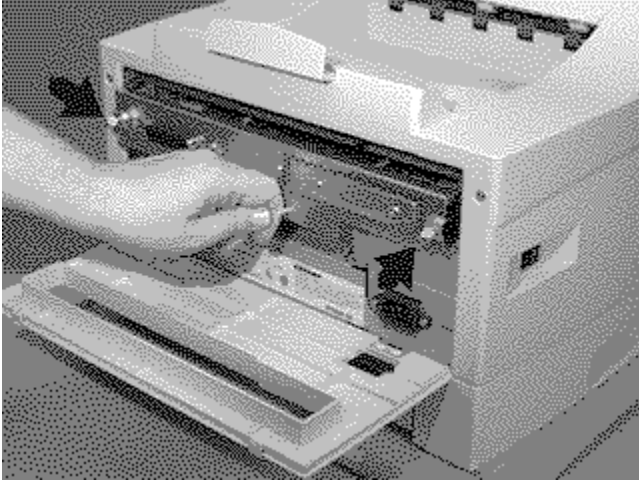
- ▶ At least one system must load the PrintServer software onto the PrintServer printer.
- ▶ If the printer is printing, the PrintServer software has already been loaded from another system. You **do not** have to load the PrintServer software from your Windows 95 system. If you do choose to load the PrintServer software from your Windows 95 system, that system will probably become the **primary** PrintServer-software-loading system. (A Windows 95 system will respond faster than other systems to a request to load the PrintServer software. For example, if a Windows 95 system and a system running OSF/1 are in competition to load the PrintServer software, the Windows 95 system will usually win.)
- ▶ If the PrintServer software is loaded from more than one system:

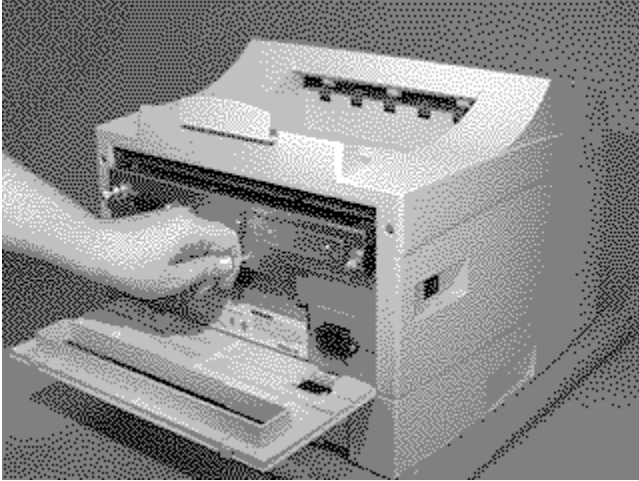
-- Keep a list of the systems that load the PrintServer software onto that printer. If you move the printer and need to change its hardware address, you must change the address on every system that loads the PrintServer software onto the printer.

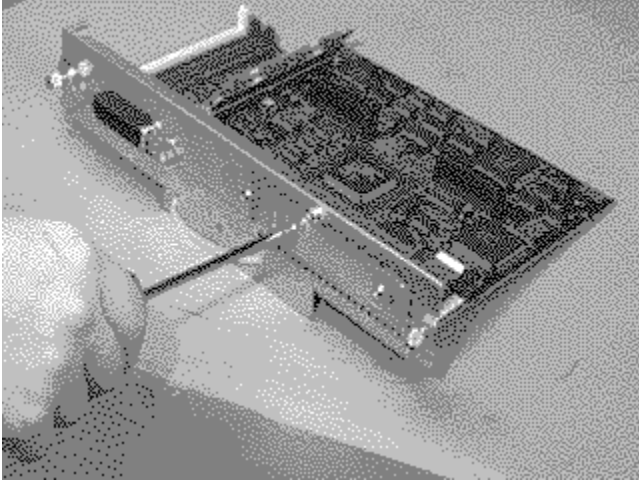
-- Be sure that you customize the PrintServer software loading options to be identical on all the systems that load the PrintServer software onto the printer. Then the printer will behave consistently, regardless of which system loads the PrintServer software.

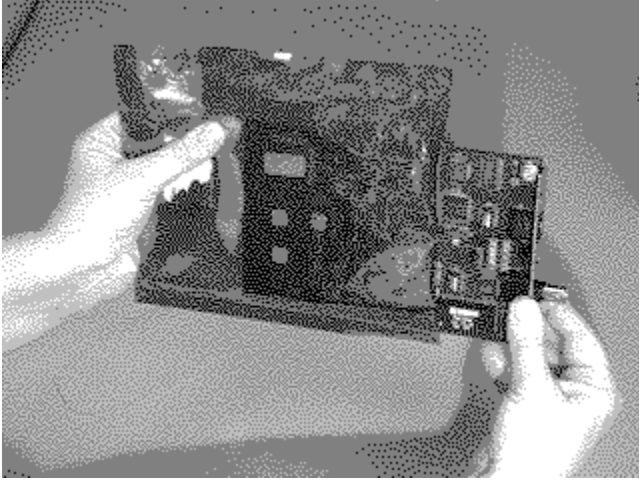


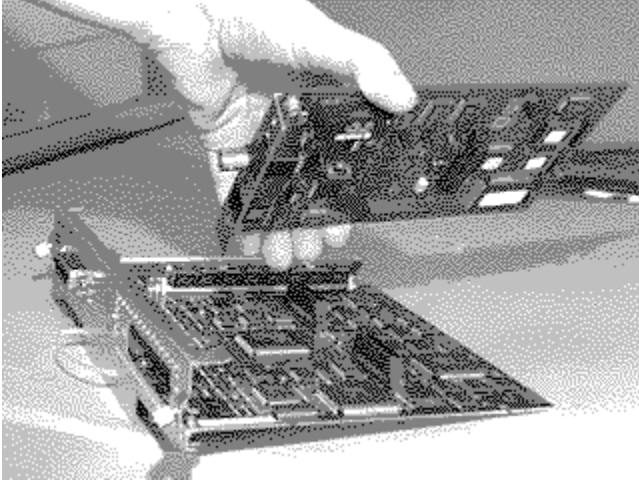


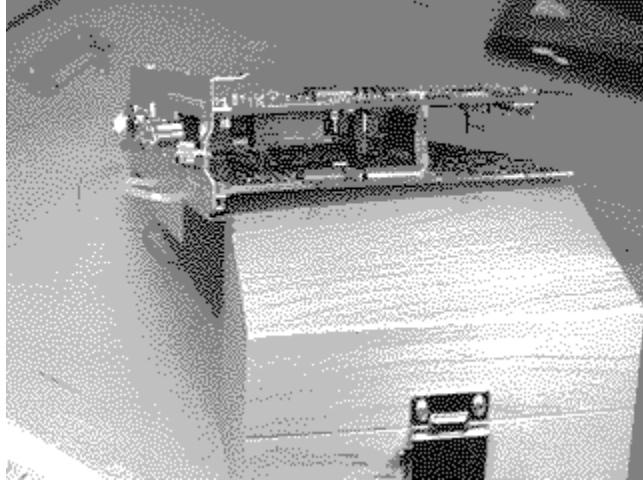


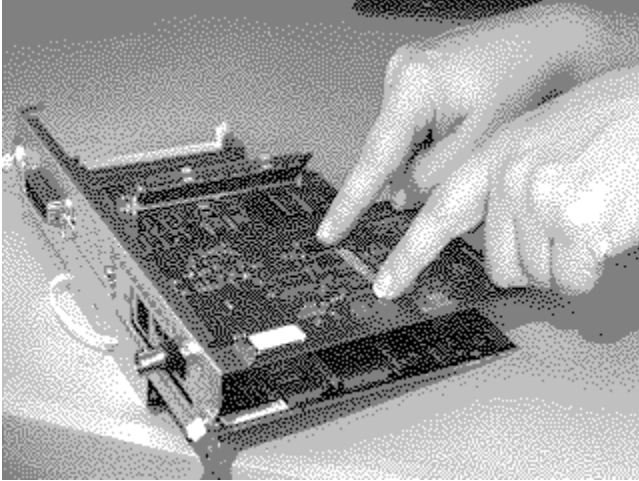


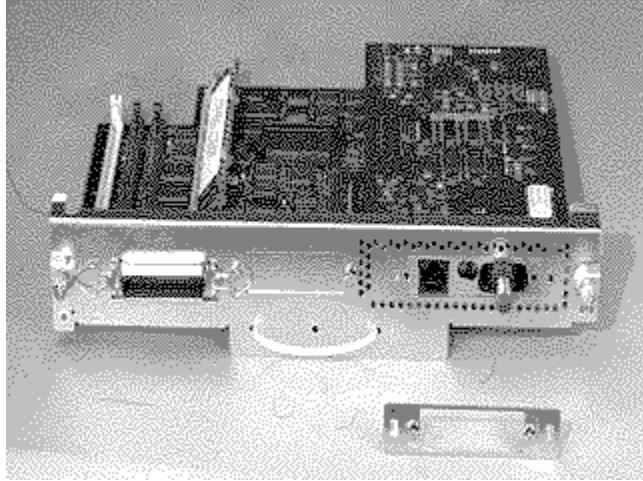












Creating a Network Port for a DECcolorwriter 1000 Printer

Use the following procedure to create a network port for a DECcolorwriter 1000 printer:

1. Follow the steps in [Adding Ports](#), with the following exceptions:
In the Printer field (step 4), select any printer with "/Net" appended to its name.
In the Add Port dialog box (step 7), select "Digital RapidPrint Server (via TCP/IP)" as the Port Type.
2. After the port is created, highlight the DECcolorwriter 1000 printer icon in the Printers folder.
3. From the File menu, select the Properties... page, then click on the Details tab.
4. In the Driver: field, select the DECcolorwriter 1000 printer.

