

EtherPrint User's Guide

for use with DOS 2.0, 2.1 and 3.0

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1365 Shorebird Way
P.O. Box 7390
Mountain View, California 94039
USA

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SECTION 1

Introduction

Overview

EtherPrint lets any IBM Personal Computer in the network send files or program output to a printer connected to a Network Server. These files are automatically stored at the server until they can be printed. This means many computers can send information to be printed at the same time; even though only one request can actually be printed at a time. Sharing a single printer eliminates the need to have a printer connected to each personal computer.

Up to three printers can be connected to a server to give you additional printing options. Through the use of EtherPrint commands, you can select the printer best suited for each printing job. Letter quality printers can be used for letters and final reports; higher speed printers can be used for program listings and draft documents. In addition, printers can be placed in different locations to serve separate departments.

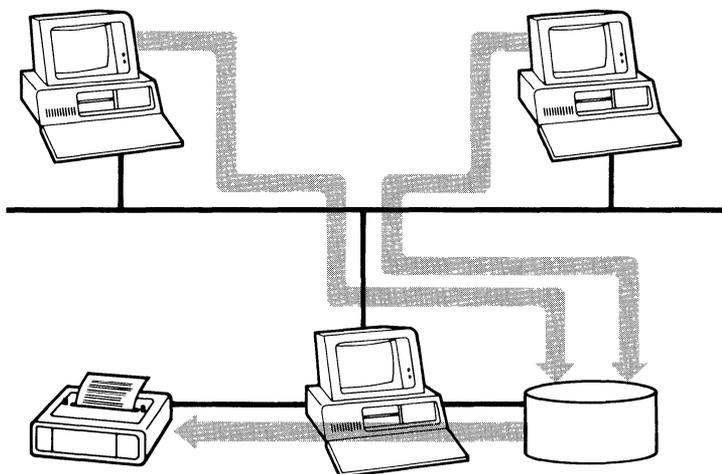


Figure 1-1 IBM PC's Connected to a Server with a Printer

In order to use EtherPrint, you establish a link between your IBM Personal Computer and a printer connected to an EtherPrint server. From this point on, you use the printer as if it was connected directly to your computer. Use standard DOS commands to copy a file to the printer, or use the **PrtSc** key to print the screen display. Additionally, programs can send output directly to the printer.

Introduction

Features

Shared Resources

- Expensive letter quality and high speed printers can be shared by all IBM Personal Computers in an Ethernet network

Automatic Queued Printing

- Files are stored on a server and printed on a first come first served basis

Compatible with Other Software

- Once a link is established, you can print files just as if the printer was connected directly to your IBM Personal Computer

EtherPrint Commands

The EtherPrint commands are found in the program EP which is supplied with your EtherLink card. It is contained in the file EP.COM on your EtherSeries/DOS Software Diskette or on your fixed disk.

Using this Manual

This manual is divided into three sections.

Section 2 gives examples which show you how to use the EtherPrint commands to establish a print link to an EtherPrint Server. Read this section first. It is designed to get you started with EtherPrint.

Section 3 describes each EtherPrint command in detail. Each command parameter is described followed by a remarks section which provides information on using the command. In addition, examples of both the prompted and unprompted forms of the command are given. A command summary is also included.

There are two appendices:

- Appendix A is a glossary
- Appendix B lists all EtherPrint error messages

SECTION 2

Using EtherPrint

Overview

EtherPrint can be used with either a 3Com Network Server or an IBM Personal Computer which is acting as an EtherPrint Server. In either case, the printing capabilities are the same when viewed from the IBM PCs on the network. EtherPrint provides these functions:

- Multiple users can print at once. Printing requests can be sent from many IBM Personal Computers to an EtherPrint server at the same time, even though only one request can actually be printed at a time.
- Up to three printers can be attached to a server. Only one of those can be a serial printer. You choose the one you want to do your printing.
- Programs run faster. Any time you print with EtherPrint, the data is sent to the server at the speed of the network, not the speed of the printer.

To use a printer connected to a server, you need to:

- establish a link between your computer and a printer connected to a server,
- then use DOS commands, application programs or the **PrtSc** key to print files just as if you had a printer connected to your own personal computer.

When you establish a link, files that would normally be printed on a printer connected to your IBM Personal Computer are stored in temporary files or "spooled" on the server. When the printer you've selected is available, your work is automatically printed.

This section gives you examples for using EtherPrint. They show how to establish and end a print link, use DOS commands to print a file, and print a report generated by a popular application program, VisiCalc. The examples are designed to serve as models for ways to use EtherPrint with your own applications to expand your printing options.

The examples used in this section A: as the default drive; therefore the prompt A> is shown. If you have an IBM Personal Computer with a fixed disk, you will use C:; therefore, the prompt you will use is C>.

Using EtherPrint

Linking to a Printer

Insert your EtherSeries/DOS Software Diskette into diskette drive A: on your IBM Personal Computer. This diskette contains the EtherPrint program. If you have a fixed disk, set your default drive to C:. Remember to boot your computer with this diskette or from your fixed disk, otherwise the software you need to use EtherPrint is not available.

Establishing a Print Link

In order to use EtherPrint, you need to establish a link between a printer device name on your IBM Personal Computer and a printer connected to a server. Use the EP LINK command to do this.

A> **EP LINK ?** ←

Establishes a link between your IBM Personal Computer and a printer connected to a server. Entering a question mark after the command specifies that you want to be prompted for all responses.

Your printer id? ←

The printer device name you want to link to the server's printer. Your choices are PRN:, LPT1:, LPT2:, and LPT3:. If you do not give a printer device name, PRN: is automatically used.

To whom? **SHARE1** ←

The name of the server whose printer you want to use. This name can be any server in the network. You must supply a server name if you are not logged in.

Your name? **CAROLR** ←

Your EtherShare user name. This name identifies anything you print. The name is printed on a blank page which separates your printed output from that of other users.

SHARE1 linked to PRN: ←

Confirms that a print link has been established.

If you are already logged in to EtherShare, EtherPrint assumes certain predefined or default values. For example, you do not need to supply the server name in response to the “To whom?” prompt; the link is automatically made to your current server. In addition, you are not prompted for your name. Your login user name identifies your printed output.

Printing a File

When you link to an EtherPrint printer, you can print anything you would normally print such as files, your screen display, program listings, text files or reports. Files can be copied to the printer from diskettes or from EtherShare volumes. (If you want to print from an EtherShare volume, be sure you have logged in and linked to that volume with the ES LOGIN and ES LINK commands.)

A> COPY REPORT PRN: ←

Copies the file REPORT to a server for printing.

A> COPY E:MEMO PRN: ←

Sends the file MEMO, which is on an EtherShare volume linked to drive E:, to the server for printing.

Shift (⇧) PrtSc

Pressing ⇧ and **PrtSc** prints your current screen display on the printer connected to an EtherShare server.

Ctrl PrtSc

Hold down **Ctrl** and press **PrtSc** to print everything that displays on your screen to the printer connected to the server. Pressing the keys again stops printing the screen display.

The information to be printed is now stored in a special, temporary file on the server. It automatically begins printing, or is queued for printing, 30 seconds after your last print request.

Using EtherPrint

You can print formatted text files with the BASIC PRINT program which is supplied on your EtherSeries/DOS Diskette. This program adds basic formatting features to text files you create with the DOS editor, EDLIN, or the EtherMail editor, MED. Text files printed with the BASIC PRINT program have these features:

- 1 inch top and bottom margins
- 8 character left margin
- centered page numbers except on page 1

In addition, the program formats pages so that first lines of paragraphs are not placed at the end of a page, just as last lines of paragraphs are not placed at the beginning of a page.

A> **BASIC PRINT** Runs the BASIC PRINT program and displays the message:

NOTE: To abort printing, press Ctrl-Break; then type "system"

Enter file name to be printed: **B:MEMO.TXT** ←
Prints the file MEMO.TXT which is on a diskette in drive B:.

Printing page 1 Indicates the page which is currently printing.

Done Confirms that printing is complete.

Selecting an Alternate Printer

EtherPrint allows two printers to be connected to each server. You can select the printer which best suits your printing job when you establish the EtherPrint link. Printer alternatives are identified with the /1 and /2 parameters of the EP LINK command. If you don't know which printer is designated by /1 and /2, you can use the EP DIR command. You must supply an EtherShare server name to use the EP DIR command if you are not logged in.

If you are already logged in to EtherShare, you can omit the server name; EP supplies it for you. If you want to list the printers on another server in the network, you must supply the name of that server.

A> **EP DIR SHARE1** ← Lists the printers connected to the server named SHARE1.

Printer(s) supported by the server:

1—DRAFT QUALITY The printers connected to the server.
2—LETTER QUALITY

You select alternate printers with the EP LINK command. From that point on, everything you print goes to the printer you've selected until you end the link with the EP UNLINK command, or until you use the EP LINK command a second time.

A> **EP LINK /2** ← Selects the printer identified as 2. This printer is connected to the server to which you are logged in.

A> **EP LINK SHARE2** ← Selects the default printer name (PRN:) and printer (1) connected to the server named SHARE2. Even if you are logged into one server, you can link to any other server in the network.

Using EtherPrint

Using Purchased Software

Most software which runs on the IBM Personal Computer using DOS can also be used with EtherPrint, for example, the VisiCalc program. You can run the VisiCalc program at your computer and use data files stored in EtherShare volumes. You can also print on a printer connected to any server in the network.

In order to print reports created with the VisiCalc program on an EtherPrint printer, you must first establish all EtherPrint and EtherShare volume links before running the VisiCalc program.

Establishing Links

Log in to EtherShare and use the ES LINK and EP LINK commands to establish your print and volume links.

A> **ES LOGIN CAROLR** ←

Logs in a user called CAROLR.

A> **ES LINK E: VISIDATA** ←

Links the user's EtherShare volume containing the VisiCalc report to be printed to drive specifier E:.

A> **EP LINK** ←

Establishes a print link with the server to which you are logged in. Since no printer device name is given, PRN: is used.

Running the VisiCalc Program

Once you have established your print and volume links, you can run VisiCalc or any other software application programs by entering the program name. First, insert the VisiCalc diskette in drive A: of your computer.

A> VC80 ←↵ Runs the VisiCalc program.

Although the VisiCalc program is self-loading, you cannot run it by booting (inserting the diskette and pressing **CTRL-ALT-DEL**) since this cancels any existing links. (See Appendix C, Using Purchased Software, in the EtherShare User's Guide for information on running other programs with EtherPrint.)

Printing a VisiCalc Report

Printing a VisiCalc report on a printer connected to a server is the same as using a printer connected to your own computer. First, load the report from the EtherShare volume.

/S L Selects the LOAD option of the VisiCalc STORAGE command.

Storage: File to Load
E:SALES ←↵ Loads the report SALES which is stored on the EtherShare volume VISIDATA linked to drive specifier E:.

Once the report you want to print has been loaded, position the cursor to the upper left cell or the portion of the worksheet you want to print.

/P P Selects the PRINTER option of the VisiCalc PRINT command.

At this point you can use any setup sequences you normally would, for example, compressed mode. However, you must be sure the printer to which you are linked supports them.

Move the cursor to the lower right cell of the worksheet or area of the worksheet you want to print and press **←↵** to print the report on the EtherPrint printer to which you are linked.

Using EtherPrint

Printing Multiple Pages

You can print several reports or one very large report by using the SETUP option of the VisiCalc program's PRINT command to force each report or section of a report to be printed on a new page.

Be sure the cursor is positioned in the top left cell of the worksheet or the portion of the worksheet that you want to print.

- | | |
|---------------|---|
| /P P | Selects the PRINTER option of the VisiCalc PRINT command. |
| ” | Selects the SETUP option. |
| ^CL ←↵ | Sends a form feed to the printer before this worksheet is printed. You can follow this with any other setup sequences you normally use. |

Move the cursor to the lower right corner of the worksheet or worksheet area you wish to print and press ←↵. Repeat these steps for subsequent pages or other reports.

Ending the Print Link

After you have finished using VisiCalc, you can end the print link with the EP UNLINK command.

- | | |
|----------------------------------|--|
| A> EP UNLINK ←↵ | Initiates the EP UNLINK command. |
| SHARE1 unlinked from PRN: | Confirms that the print link has been ended. |

Hold Printing

Normally, EtherPrint prints anything you have sent to it whenever there is a break of 30 seconds or longer between print requests. If you want to save everything you have sent for printing so that it is all printed at one time, use the /HOLD parameter of the EP LINK command. This is useful when printing a series of small reports which you want to link together to be printed at one time.

The /HOLD parameter can be used only with the unprompted form of the EP LINK command. To use the unprompted form of the command, enter the command name and all parameters on the same line.

A> **EP LINK SHARE1 /HOLD** ←

Establishes a print link between PRN: (the default printer name) and the printer identified as 1 connected to server, SHARE1. The /HOLD parameter delays printing until you request it.

Now you can print as you normally would using DOS commands, the **PrtSc** key or from a program; however, nothing is printed until you end the print link.

A> **EP UNLINK** ←

Ends the link between the printer device name on your computer and the printer connected to a server.

Any files you have held for printing begin printing or are placed in a queue until the printer you have selected is available. This happens automatically; you don't have to do anything.

Direct Printing

You can link your IBM PC directly to the printer connected to the Network Server with the /DIRECT parameter of EP LINK command. This reserves the printer for your use to print directly; you bypass normal spooling and queuing of printing requests. When you request a direct link, only those files print while the link is established. Printing requests from all other IBM PCs on the network will be held in a temporary file (spooled) as usual until you end the direct link. These files will not be printed even if the printer appears to be idle.

Using EtherPrint

A> **EP LINK SHARE1 /DIRECT** ←

Establishes a direct link between PRN: (the default printer name) and the printer identified as 1 connected to server, SHARE1. The */DIRECT* parameter lets you control all printing done on that printer.

Once you have established a direct link, you can print files as you normally would. Your files will print immediately in the order they are sent. No files from any other IBM PC on the network can print until you end the direct link. If you do not send files to be printed for 10 minutes the server will assume you no longer want the link and will automatically end it.

If you need to control the printer for a period of longer than 10 minutes without sending a file to be printed, to change forms for example, you can associate a specific amount of time with the */DIRECT* parameter.

A> **EP LINK SHARE1 /DIRECT = 30** ←

Establishes a direct link between PRN: (the default printer name) and the printer identified as 1 connected to server, SHARE1. The */DIRECT = 30* parameter lets you control the printer for up to 30 minutes without sending any files to be printed.

When you attach a specific amount of time to the */DIRECT* parameter, the link will not be broken during that period unless you specifically request it.

A> **EP UNLINK** ←

Ends the direct link between the printer device name on your computer and the printer connected to the server.

Once the direct link is ended, other direct links can be established, or files that are queued will be printed.

SECTION 3

EtherPrint Commands

Overview

The EtherPrint commands let you use a printer connected to a 3COM Network Server or an IBM Personal Computer acting as an EtherPrint server. These commands give you the ability to:

- establish a link between your IBM Personal Computer and a printer connected to a server.
- end a link between your computer and a server
- list the printers connected to a server
- get information about the EtherPrint commands at any time

This section describes each command in detail. The format of the command is given, followed by a description of each parameter, additional remarks and examples. Further examples of some typical uses of EtherPrint are given in the Using EtherPrint section.

The EtherPrint commands are found on the EtherSeries/DOS Software Diskette or your fixed disk.

Selecting Commands

You can select an EtherPrint command from a menu of command possibilities. Type EP to display the EtherPrint Command menu.

```
A> EP ←
```

```
EtherPrint N.N (c) Copyright 3Com Corp 1982
```

```
EtherPrint Commands:
```

- 1 - Link to a print server (LINK).
- 2 - Unlink from a print server (UNLINK).
- 3 - List printers supported by the server (DIR).
- 4 - Receive help (HELP).

```
Selection?
```

To select a command, type the number next to the command at the Selection? prompt and press ←. You are then prompted for all parameters necessary to complete the command.

EtherPrint Commands

You can also select a command by simply typing the command name next to the DOS prompt, A>. For example:

```
A> EP LINK ←
```

EtherPrint commands follow the same format as EtherShare commands. Use the general description of the command format and format notation in the EtherShare Commands section of the EtherShare User's Guide for information about how to use the EtherPrint commands. This includes using the prompted and unprompted forms, default values, the /NP parameter and cancelling a command.

EP DIR Command

Lists the printer(s) connected to a server.

Format

```
EP DIR [servername]
```

Parameters

servername The name of the server whose printers you wish to list. If you do not give a server name, the name of the server to which you are logged in is used as the default value.

Remarks

The EP DIR command lists the printers connected to a server. Two printers can be connected to each server. You can select printer 1 with the /1 parameter of the EP LINK command; /2 selects printer 2.

If you do not give a specific server name, the server to which you are logged in is used as the default value.

You can list the names of all servers on the network with the ES SDIR command.

EP DIR Command

Examples

Prompted

```
A> EP DIR ? ←  
Server name?  
Printer(s) supported by the server:  
1 - DRAFT QUALITY
```

Lists the printer connected to the server to which you are logged in. This server has only one printer described by the name DRAFT QUALITY. This description is established when a printer which is connected to a server is installed and configured. DRAFT QUALITY is only one possibility. Printers that are placed in different geographical locations might be described in terms of the departments they serve, for example SALES or ADMINISTRATION.

```
A> EP DIR ? ←  
Server name? SHARE2  
Printer(s) supported by the server:  
1 - EPSON MX-100  
2 - DIABLO
```

Lists the printers connected to the server named SHARE2. You can specify printer 1 with the /1 parameter and printer 2 with the /2 parameter of the EP LINK command.

Unprompted

```
A> EP DIR ←  
Printer(s) supported by the server:  
1 - DRAFT QUALITY
```

Lists the printer connected to the server to which you are logged in.

```
A> EP DIR SHARE3 ←  
Printer(s) supported by the server:  
1 - SALES  
2 - FINANCE
```

Lists the printers connected to the server named SHARE3.

EP HELP Command

Provides information about the EtherPrint commands: EP LINK, EP UNLINK, EP DIR and EP HELP.

Format

```
EP HELP [commandname]
```

Parameters

commandname The EP command about which you want information.

Remarks

The HELP information is displayed in levels. The first level lists the EtherPrint command choices and the second level gives the format and describes the parameters for each EP command. You can go directly to the second level by using the *commandname* parameter.

Examples

```
A> EP HELP ←
```

Displays a list of the EtherPrint commands.

```
A> EP HELP LINK ←
```

Displays the command format and describes the parameters for the EP LINK command.

EP LINK Command

EP LINK Command

Establishes a link between your computer and a printer connected to a Network Server.

Format

```
EP LINK [printer] [servername] /1  
/2 [/HOLD] [/PLOT] [/DIRECT=#]  
/3
```

Parameters

printer

The printer device name you use to link to a server's printer. This name can be any device name DOS uses to identify printers: PRN: (also called LPT1:), LPT2: and LPT3:. If you do not give a printer name, the name PRN: is used as the default value.

servername

The name used to identify the server to which the printer is connected. (Use the ES SDIR command to list the names of all servers in the network.) If you are already logged in to EtherShare, the server to which you are logged in is used as the default *servername*.

/1

Identifies the printer you want to use.

/2

It can be any of three printers

/3

connected to a server.

/1 selects the printer identified as one;

/2 selects the printer identified as two;

/3 selects the printer identified as three.

If you do not specify a printer, /1 is used as the default value.

<i>/HOLD</i>	Delays printing until the EtherPrint link is ended by using the EP UNLINK command, or a new EP LINK command is issued for this printer.
<i>/PLOT</i>	Same as <i>/HOLD</i> except that no banner or trailing form feed is printed between print requests. Printing is delayed until another EP LINK or EP UNLINK occurs.
<i>/DIRECT=#</i>	Lets one IBM PC on the network control all printing. All other print requests are spooled and will not print until you end the direct link or unless no print request is received for # minutes. If you don't set a specific number of minutes, the direct link is automatically set to 10 minutes. Be sure you enter the parameter exactly as it is shown; do not put a blank space on either side of the equal (=) sign.

Remarks

This command links your IBM Personal Computer to a printer connected to a Network Server. Once you have linked a printer device name to a remote printer, you can perform any normal printing function by referring to the printer name, for example, PRN:.

The EP LINK command can be used with the EtherPrint Server Software running on a 3Com Network Server or an IBM Personal Computer. In both cases, the printing capabilities are the same functions: print spooling and the choice between two printers.

If you are not logged in to an EtherShare Server, you are prompted for a user name. This does not log you in; rather it establishes the name which appears on the blank page which separates anything you print from the other users' printing.

Each server can have up to three printers connected to it. Only one of these can be a serial printer. You identify which printer you want to use with the /1, /2, or /3 parameter. (Use the EP DIR command to list the printers connected to each server.)

EP LINK Command

EtherPrint allows many PC users to be linked to the same EtherPrint printer at once. Each user's data is stored in a separate temporary file on the server's disk. When complete, the file is released for printing. Since only one file can actually be printed at a time, others are placed in a queue until the printer is free.

Normally printing begins approximately 30 seconds after the last print request has been completed. However, if the */HOLD* or */PLOT* option is specified, the print requests are appended to the temporary file until an *EP UNLINK* or another *EP LINK* command is issued. At this point, the temporary file is printed or queued for printing.

You can initiate printing in any of the following ways:

- use the *EP LINK* command again; this automatically closes the first link and reopens it a second time
- use the *EP UNLINK* command
- pause for 30 seconds between print requests except when */HOLD* or */PLOT* has been used
- log out from EtherShare
- Issue an *INT 17H* with *AH = 9* and the printer number (0,1,2) in *DX*.

If you send multiple PC files to be printed without ending the link or pausing for 30 seconds between each file, they are printed all at once without any page ejects or space between them. You can start new files at the top of a page by sending a *CTRL-L* (displayed as *^L* on your screen) to the printer between each file.

You can cause a temporary file to be queued for printing immediately by issuing on *INT 17H* after the file. This is not easily done using DOS commands; however, any program sending output to a printer can be instructed to issue on *INT 17H* through an assembly language subroutine. Set *AH = 9* and *DX = 0, 1, or 2*, depending on the printer that is linked. This does not apply if you are using the */PLOT* parameter.

EtherPrint provides one-way communication from your computer across the network to a shared device. For this reason, you cannot sense device status from a share printer or plotter. Programs that must sense device status have to be used with plotters or printers connected directly to your computer.

You can request a direct link to the printer so that only the files you want to print are printed. Print requests from other IBM PCs on the network are held in a temporary file as always until the direct link is ended. You can establish a direct link only if the printer is not currently printing a file. If the printer is in use when you request a direct link, you see the message, "Can't direct link—printer busy", and you must try again when the printer isn't busy.

You can associate a specific number of minutes with the */DIRECT* parameter to indicate that you want the direct link maintained even if no printing requests are made during that time. This lets you do things such as change the forms you are printing on. If you do not specify any time, the direct link is automatically ended after 10 minutes. You can end a direct link at any time with the EP UNLINK command or by logging out of EtherShare.

Examples

Prompted

```
A> EP LINK ? ←  
Your printer id? LPT2: ←  
To whom? SHARE2 ←  
Your name? CAROLR ←  
SHARE2 linked to LPT2:
```

Links to a printer connected to the server named SHARE2. In this example you are prompted for a user name because you are not logged in to a server.

If you are already logged in to a server, you are not prompted for your name. Your user name is automatically used.

EP LINK Command

Unprompted

```
A> EP LINK /HOLD ←↵  
SHARE1 linked to PRN:
```

Links to the printer connected to the server, SHARE1. Any further reference to PRN: prints to the printer attached to this server. PRN: is the default printer name; SHARE1 is the default server name because it is the server to which you are logged in. The /HOLD parameter causes printing to be delayed until the EP UNLINK command is used.

```
A> EP LINK /2 ←↵  
SHARE1 linked to PRN:
```

Links to printer 2 which is connected to the server, SHARE1. PRN: is the default printer name.

```
A> EP LINK SHARE2 /DIRECT ←↵
```

Links to a printer connected to a server named Share2. Since no printer name or number is given, PRN: and 1 are used as default values. The /DIRECT parameter gives you direct access to the printer. Only the files you request to be printed will print. Print requests from other IBM PCs on the network will be spooled as usual; however, they will not be printed until you end the direct link. Since no time is associated with the /DIRECT parameter, the link is automatically ended after 10 minutes if you do send any files to be printed.

```
A> EP LINK LPT1: SHARE2 /2 /PLOT  
SHARE2 linked to LPT1:
```

Links to a plotter or graphics printer designated as printer 2 connected to a server named SHARE2. The /PLOT parameter suppresses the banner and causes printing to be held until the EP UNLINK command is used.

EP UNLINK Command

Ends the link between your IBM Personal Computer and a printer connected to a server. Printing requests stored in a temporary file on the server are released to be printed.

Format

```
EP UNLINK [printer]
```

Parameters

printer

The printer device name you linked to with the EP LINK command. The printer name can be any device name that DOS uses to identify printers: PRN:, LPT1:, LPT2:, or LPT3:. If you do not give a printer device name, PRN: is used.

Remarks

This command ends a link between your personal computer and a printer connected to a server. (You can also unlink by logging out from EtherShare.)

If you use the */HOLD* or */PLOT* parameter when you establish a print link, you must unlink before your files are printed.

Files on a 3Com Network Server that are waiting to be printed, can be deleted or assigned a priority status. Files that are waiting to be printed on an IBM PC acting as an EtherPrint server can be deleted. (See the EtherPrint Administrator's Guide for further instructions.)

Remember that rebooting your system breaks all links to all servers.

EP UNLINK Command

Examples

Prompted

```
A> EP UNLINK ? ←  
Printer id? LPT1: ←  
SHARE1 unlinked from LPT1:
```

Ends the link between your IBM Personal Computer and a printer connected to the server, SHARE1.

Unprompted

```
A> EP UNLINK ←  
SHARE1 unlinked from PRN:
```

Ends the link to the printer to which you are currently linked.

```
A> EP UNLINK LPT2: ←  
SHARE2 unlinked from LPT2:
```

Ends the link to the printer LPT2:

Command Summary

EP DIR [*servername*]

Lists the printer(s) connected to a server.

EP HELP [*commandname*]

Gives summary information about the EtherPrint commands.

EP LINK [*printer*] [*servername*] /1 [*/HOLD*] [*/PLOT*] [*/DIRECT=#*]
 /2
 /3

Establishes a link between your IBM personal computer and a printer connected to a server.

EP UNLINK [*printer*]

Ends the link between your IBM Personal Computer and a printer connected to a server.

Appendix A

Glossary

Glossary

Boot

Resets your computer, loading new software from the diskette in drive A: or the fixed disk. Turning the power off and on is a hard boot; pressing **Ctrl-Alt-Del** is a soft boot. The ES BOOT command also causes a soft boot without ending existing links to EtherShare volumes or printers.

Drive Specifier

A single letter identifier followed by a colon to refer to your computer's diskette drive(s). On a two-drive system, the left drive is A: and the right drive is B:. With EtherShare, you can also use C: or D: to link to the EtherShare Network Server.

Ethernet

The DEC-INTEL-XEROX (DIX) standard network communications system, Version 1.0, September 30, 1980.

EtherPrint Server

An IBM Personal Computer or a 3Com Network Server which is attached to the network and is running the EtherPrint Server software. An EtherPrint Server can have one or two printers attached to it. You can send data to the printers connected to the server by linking to the server with the EP LINK command.

EtherSeries/DOS Software Diskette

A diskette containing a special version of the DOS operating system, and the EtherSeries software, used for booting your computer.

Log in

A procedure performed by using the ES LOGIN command that controls your ability to use (access) EtherShare. When you log in you give your EtherShare user name.

Glossary

Network

A collection of computers connected by a common coaxial cable, allowing communication and shared resources.

Network Server

A computer in the network which manages all resources such as printers, and stores all EtherShare volumes thereby allowing you to share information and applications with other EtherShare users.

Remote Printer

A printer which you can access through the EtherPrint server software. The printer is connected to the network through a Network Server or an IBM Personal Computer. The printer is not physically connected to your computer, but it is used as though it were.

Spool File

A temporary file stored on the server which holds files that have been sent to the server to be printed. This temporary spool file holds the information until the printer to which it has been directed is available.

User Name

The name you use to log in to EtherShare.

Appendix B

Error Messages

Error Messages

EtherPrint error messages are displayed in the form of *****Error message**. This appendix lists these messages alphabetically, explains the message and recommends recovery action.

Error Message	Meaning/Action
A value must be supplied.	A required parameter was omitted when requested. When you are prompted again, supply a value or use Ctrl-Break to cancel the command.
Address must be 12 hex digits.	An Ethernet address (using #123456789ABC notation) was supplied instead of a server name, but was not exactly 12 digits long. You must pad with zeros if necessary, and use exactly 12 hexadecimal digits.
Bad /HOLD option.	A /HOLD option was expected, but something else was supplied.
Bad character.	A user name or server name was expected and a character which is not legal in name was encountered. Names can be up to eight characters long (letters, digits and some special characters).
Bad printer number; value must be 1 or 2.	An attempt was made to select a remote printer other than /1 or /2.
Cannot use a printer name.	An attempt was made to use a printer name (PRN:, LPT1:, LPT2:, LPT3:) where a user or server name was expected. Supply your user name or the name of the PC server you want to use.
Enter only one value.	When prompted for a value, more than one word was entered, that is, a separator appeared in the middle of the value. Enter only one word in response to this prompt.

Error Message

Error Message	Meaning/Action
Ethernet driver not loaded.	The system was booted from a diskette that did not contain the EtherPrint software. You must reboot from the EtherSeries/DOS diskette before using any EtherPrint commands.
Hexadecimal value required.	An attempt was made to specify an Ethernet address (using #123456789ABC notation) in place of a server name. This address contained a non-hexadecimal digit. Use only digits 0-9 and letters A-F.
Link unexpectedly broken.	A print server received an EP UNLINK command when there was no printer linked. This could happen by interrupting and restarting a PC server using Ctrl- Break , or restarting an EtherShare printer server by reinstalling or reconfiguring.
Max of 4 characters.	The printer name is too long. Enter PRN, LPT1, LPT2 or LPT3, optionally followed by a colon.
Max of 8 characters.	A user or server name longer than eight characters was used. Enter a name up to eight characters long.
Maximum users using EtherPrint.	Too many users attempted to print on an EtherShare at once. Try again later.
Must supply server name when not logged in to EtherShare.	The EP LINK command (without a servername parameter) was used while not logged in to EtherShare. If you are not logged in, you must supply a server name.
No parameters for this command.	Parameters were supplied for a command that has none.
Not ready error writing device PRN Abort, Retry, Ignore?	The file cannot print. Select Retry then unlink with the EP UNLINK command and link again with the EP LINK command.

Error Message

Error Message	Meaning/Action
Out of paper.	When connected to an EtherShare printer, this message has three possible meanings: something is wrong with the spool file, the EtherShare hard disk is full, or EtherPrint has been reconfigured while you are linked.
Printer access failed.	Indicates that the spool file could not be created on an Ether Share. This may be caused by running out of disk space on the EtherShare.
Printer not available.	An attempt was made to link to a server with insufficient printing resources. Try again later.
Printer not linked.	An attempt was made to unlink a printer that was not linked.
Printer not supported.	An attempt was made to link to printer /2 on a server that supports only one printer.
Selection must be 1-N.	An attempt was made to select a menu item outside the range of menu items displayed.
Unknown command.	The command name following EP is not a recognized keyword. Type EP HELP to display available commands.
Unlinked anyway.	When EP UNLINK was entered, there was a problem with the server. The message indicates that the link was ended in spite of this problem.
Value must be /1 or /2.	A printer selection was expected. Enter /1 or /2.
Value must be PRN, LPT1, LPT2 or LPT3.	A printer name was expected. Enter PRN, LPT1, LPT2 or LPT3 optionally followed by a colon.
Values ignored from XXX.	Too many parameters were supplied for this command. XXX and any following values were ignored.

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