EtherShare/150 User's Guide

**for use with
the HP 150 Personal Computer**

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SECTION 1
Introduction

Overview

EtherShare lets you and other HP 150 Personal Computer users store information on a shared, fixed disc. EtherShare divides this disc into volumes which are similar to the diskettes you use with your HP 150 Personal Computer. Using EtherShare commands, you create these volumes and link them to a drive specifier on your own computer. From this point on, you can use these volumes with MS-DOS programs just as you normally would use diskettes or a fixed disc drive, MS-DOS, P.A.M., or an application.

EtherShare gives you the benefits of a fixed disc and more. By using the EtherShare disc rather than diskettes, you get faster loading of programs, quicker file access and improved reliability. In addition, storing files on a shared disc is more efficient. Programs and data can be designated as public so that one copy can be shared by many users thereby saving disc space. Private data bases can also be shared using passwords to control their use.
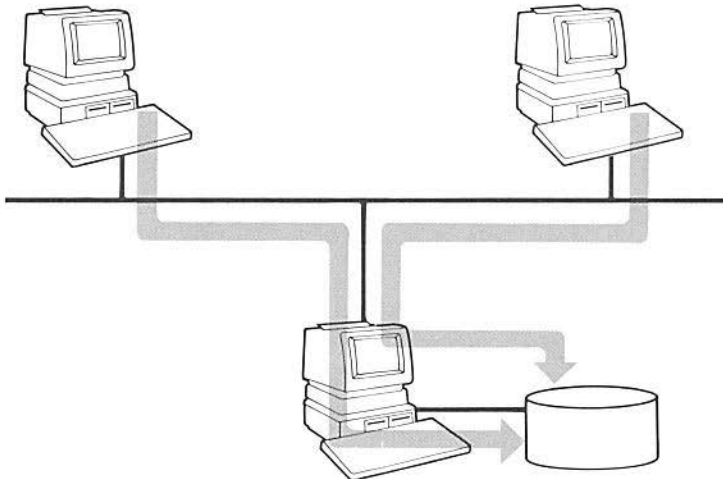
Figure 1-1 HP 150 Personal Computers Sharing the Disc on a Server

Introduction

EtherShare is a network service that allows HP 150 Personal Computers on an Ethernet network to share a fixed disc drive. The software controls the disc and responds to requests from HP 150s for access to volumes on the fixed disc. Additional software can be added to provide more services to the network. For example, EtherPrint allows all network users to share printers connected to the network server, and EtherMail provides electronic mail.

EtherShare commands which run on each HP 150 Personal Computer connected to the Ethernet network are used to access the EtherShare disc. The fixed disc may be the fixed disc on an HP 150 Personal Computer, or it may be a disc attached to a 3Com Network Server. These commands are described in this manual. See the EtherShare Administrator's Guide for a description of the server installation and all administrative functions.

Functions

EtherShare commands let you create and maintain EtherShare volumes and users from your HP 150 Personal Computer. Once your name has been added to EtherShare, you can use any of the commands. They let you:

- Log in and out of the EtherShare Server
- Create, modify, and delete EtherShare volumes
- Link to EtherShare volumes
- Create, modify and delete EtherShare users
- List a directory of users or volumes

The EtherShare commands are easy to use. You can select a command from a touch screen menu of command choices or enter your selection by typing the command name directly. EtherShare provides a HELP facility which describes each of the commands. This information is always available when you use EtherShare.

Using this Manual

This manual is arranged in four sections:

Section 2 describes concepts and terminology used by EtherShare. Read this section for a general understanding before you begin.

Section 3 is designed to show you how to use EtherShare. Specific examples for creating volumes, establishing links and using MS-DOS commands and application programs are described. Use the examples as models to adapt EtherShare to your current applications.

Section 4 summarizes EtherSeries/MS-DOS commands and their parameters. These commands correspond to touch screen commands but are typed at the keyboard from MS-DOS.

There are three appendices.

Appendix A is a glossary.

Appendix B explains the semaphore operations used with shared access EtherShare volumes.

Appendix C lists all error messages.

SECTION 2
Concepts and Terminology

Overview

EtherShare incorporates several concepts that you should understand
before you begin creating and linking volumes. These concepts include
logging in to a server, creating and using volumes on a shared disc and
controlling volume access.

Read this section for an introduction to the concepts and a definition of
the terms associated with them. You will see how to use them in the Using
EtherShare section of this manual.

Network Server

A computer on the network which manages resources such as discs and
printers. It can be expanded with the addition of software to provide other
network services such as electronic mail.

Logging In

In order to use EtherShare, you must log in. Use **[Login]** and the unique
user name created for you. You may assign a password to your user
name. This password is required each time you log in, thereby protecting
your programs and data files from being read or changed by other users.

EtherShare Volumes

EtherShare divides the server's disc drive into volumes that you can make
any size from 64KB to 32MB. These volumes function like the diskettes
you use with your HP 150 Personal Computer. After you have logged in to
EtherShare, you link an EtherShare volume to a drive specifier on your
computer. An HP 150 Personal Computer which has one or two diskette
drives uses drive specifiers A: and B: to refer to the diskette drives, so you
can use C:, D:, E:, and F: to link to EtherShare volumes. Drives C:, D:, E:,
and F: are the only drives you can use with EtherShare. Linking to a
volume simulates inserting a diskette into the drive.

A new EtherShare volume can be created by any user. When a new
volume is created, space is allocated from the unused portion of the disc
to the user requesting the volume. When you create a volume you name it,
and if you wish, assign a password. In this manual, the creator of a volume
is also called the owner. Volume size is limited by the available disc space
on your server.

Concepts and Terminology

Multiple Servers

There can be more than one server in an Ethernet network. For example, each department such as Sales, Marketing and Administration might have its own server. Each server has its own list of users who can log in. You can log in to any server from any HP 150 Personal Computer on the network; you are not limited to a particular HP 150. You can also access any volume on any server, provided you supply the password if one is assigned.

Network Administrator

Each network should have a network administrator to maintain the network. This person's duties include installing software and hardware, providing user support, diagnosing problems, and backing up server files.

Server Names

Each server has a unique name. This name is established when the server is registered on the network. You can display a list of all servers with **[Show Servers]**.

SYS.HPSYS2 Volume

When a network server is installed and registered on the network, a user is automatically created with the same name as the server. For example, if the server's name is FINANCE, there is a user named FINANCE on the server. This is the login name that you use to create new users on a new server.

On every server, the user name SYS is a specially defined pseudonym. It always refers to that user with the same name as the server. After logging in to the server in the above example, using SYS is the same as using FINANCE when identifying one of FINANCE's volumes. If FINANCE.DATA is the full name for a volume called DATA which belongs to user FINANCE, you could also use SYS.DATA to identify the same volume.

Each EtherShare server has been configured with a volume named HPSYS2. It is owned by that user who has the same name as the server so it can be referenced by other users on that server as SYS.HPSYS2. This volume is a public volume. It contains MS-DOS, the EtherSeries software including all batch files and any other program files which many network users need. For example, EtherMail is stored on this volume. You can log in and link to the SYS.HPSYS2 volume on your server in order to use EtherSeries/MS-DOS from the shared disk rather than your computer's diskette.

Cross Server Links

It is possible to link to a volume that is on another server. This is useful when a single volume is chosen to contain a master program or data file to be used by all HP 150s on the network. If you have multiple servers, one of them may be selected to keep any network-wide data volumes. For example, EtherMail distribution lists may be kept on one server in the volume FINANCE.DIST, yet accessed by all network users.

SECTION 3
Using EtherShare

Overview

EtherShare lets you create and use volumes which are stored on a shared, fixed disc on the server. EtherShare divides the disc into volumes which are similar to the diskettes you use with your HP 150 Personal Computer.

In order to use EtherShare volumes, you first create and format them. Once this has been done, you use EtherShare commands to link the volume(s) you want to use. You can link up to four volumes, each to a different drive specifier, C:, D:, E:, or F:.

Using EtherShare is like adding diskette drives to your HP 150. Linking a volume to a drive specifier has the same effect as inserting a diskette into one of the diskette drives on your HP 150 computer. Use the drive specifiers A: and B: to identify the actual diskette drives, and the drive specifiers C:, D:, E:, and F: to identify the additional diskette drives.

HP 150 touchscreen commands are your way of communicating with EtherShare. You can use EtherShare commands to:

- Log in and out of EtherShare

- Create, modify, and delete EtherShare volumes

- Link EtherShare volumes to your HP 150 Personal Computer

- Create, modify and delete EtherShare users

- List all EtherShare users and volumes

The EtherShare examples in this section are divided into three groups: Getting Started, Managing EtherShare Users and Volumes, and Using Application Software. The Getting Started examples describe the basic functions you must perform before you can use EtherShare and EtherShare volumes. This includes logging in to EtherShare, and linking and unlinking volumes. The second group shows how EtherShare commands manage EtherShare volumes and users. The EtherShare application examples explain how EtherShare volumes can be used with other application software such as the MemoMaker program.

The examples show how to perform specific operations. Touchscreen commands and prompts are given, along with the responses you might enter. You should adapt these examples for your particular applications. A summary at the end of each example explains the command in greater detail.

Selecting Commands

You use commands by selecting options from the EtherShare menus.

All EtherShare commands are contained in three menus: the Main Menu, the Volume Menu, and the User Menu.

Select **[ETHERSHARE]**, then **[Start Applic]** on the P.A.M. screen to display the Main Menu of EtherShare commands.

You can select a command by touching the screen or pressing the appropriate function key. You are then prompted for the command parameters one at a time.

Cancelling Commands

If you initiate a command, but do not want to complete it, hold down the **CTRL** key and type a **C**. This cancels the current command and lets you select another. You can cancel a command at any time before you enter the last response.

Getting Started

Before you can begin using EtherShare, you need:

- a user name
- the EtherShare application program copied onto your Work Diskette or your fixed disc.

See your Network Administrator if you do not have a user name. See Installing EtherSeries Application Software in the Installation section of this manual if you have not copied the EtherShare program onto your Work Diskette or fixed disc.

Turning on Your HP 150

Begin by turning on your HP 150. Omit Step 1 if you installed the EtherShare Application software on a fixed disc.

1. Insert your Work Diskette in drive A:, the one on the left.

2. Turn on your HP 150. Several lines of copyright information will be displayed followed by a prompt for your user name.

        EtherShare Login (c) Copyright 3Com Corp 1984
        Your name?

When you start your HP 150, several things happen automatically if you enter a valid login name. You are:

- logged in to EtherShare
- linked to a general purpose system volume
- linked to an EtherMail volume
- linked to a shared printer

At this point you can enter your user name in which case the automatic procedures will be performed and the P.A.M. screen will be displayed. Alternatively, you can stop the automatic procedure. If you choose to stop the procedure, you will not be logged in to EtherShare, and you will not be linked to either of the volumes or to a printer. In addition, you will have to display the P.A.M. screen directly from MS-DOS.

Displaying the P.A.M. Screen Automatically

1. Type your user name (in this and all other examples, substitute your
name for the name shown in the example.)

   EtherShare Login (c) Copyright 3Com Corp 1984
   Your name? **USER1** [Return]

Type the password assigned to your user name (if any).

The password is not displayed on the screen when you type it. A
password must be enclosed in parenthesis. The lefthand parenthesis is
provided, and you must type the right hand one to complete the
password.

You will see several lines of text that tell you that you are logged in to a
server, linked to a system volume, linked to the EtherMail volume, INBOX,
and linked to a printer.

After a few moments, the P.A.M. screen is displayed.

2. Select **[ETHERSHARE]** and **[Start Applic]**.

You are now ready to use any of the EtherShare functions such as
creating a volume.

Displaying the P.A.M. Screen From MS-DOS

If you want to stop the automatic procedure which logs you in to
EtherShare and links you to an EtherShare volume, an EtherMail volume,
and a shared printer, you must display the P.A.M. screen directly from
MS-DOS.

1. Type **CTRL-C** (hold down the **CTRL** key and type **C**) at the prompt for
   your user name.

   EtherShare Login (c) Copyright 3Com Corp 1984
   Your name? ^C

2. Type Y to stop the batch job which automatically logs you in to
   EtherShare, links the general purpose volumes and the shared printer,
   and automatically displays the P.A.M. screen.

   Terminate batch job (Y/N)? **Y**

3. Type PAM to display the P.A.M. screen.

   A>PAM

You are now ready to start EtherShare and log in to an EtherShare server.

Starting EtherShare From P.A.M. and Logging In [Login]

1. From the P.A.M. screen, select **[ETHERSHARE]**.

2. Select **[Start Applic]**. A message appears, telling you that the application is being loaded.

3. When the Main Menu appears, select **[Login]**.

4. Type your user name (in this and all other examples, substitute your name for the name shown in the example).

    Your name? **USER1** [Return]

5. Type the password assigned to your user name (if any).

    Password? (SECRET)

The password is not displayed on the screen when you type it. A password must be enclosed in parentheses. The left-hand parenthesis is provided, and you must type the right-hand one to complete the password.

    USER1 logged in to SHARE1.

    Your EtherShare drives are C: through F:

The message confirms that you have been logged in to the EtherShare server shown, and indicates the drive specifiers you can use to link to EtherShare volumes.

Once you have logged in, you can use any of the EtherShare commands.

Remarks

[Login] establishes a connection between your HP 150 Personal Computer and the server that has your user name in its directory of users. You may log in from any HP 150 Personal Computer in the network; you are not restricted to using a particular computer.

You must log in before you can use any other EtherShare commands except the **[Help]** command.

Passwords prevent other users from gaining access to your EtherShare volumes.

Logging in automatically logs out a previous user from the same computer. However, two persons using the same user name at different computers can be logged in at the same time.

If **[Login]** cannot establish a connection to a server, it asks if you would like to try again by displaying the following prompt:

        ***Server not ready... correct login name?
           Retry (Y/N)?

Type Y and press Return to retry logging in to the server with the same user name.

Creating an EtherShare Volume [Create Volume]

EtherShare divides the server's disc into volumes. Use **[Create Volume]**
to create and automatically format an EtherShare volume.

1. From the Main Menu, select **[Volume Menu]**.

2. From the Volume Menu, select **[Create Volume]**.

3. Type the name of the volume you are creating. The name can be up to
   eight characters long.

   Name? **VOLUME1** [Return]

Each volume you create must have its own unique name; however,
different users can have volumes with the same name.

4. Type a password if you want to assign one to the volume.

   Password? (SECRET) [Return]

The password is not displayed on the screen when you type it. If you don't
want to assign a password, press [Return] without typing any characters.
You must assign a password to private (/PRIV) and shared volumes
(/SHAR) if you want other users to be able to access them. (See
Modifying a Volume for information on /PRIV and /SHAR.)

5. Specify the volume size in a range of 64 kilobytes to 32 megabytes.

   Size? /**500KB** [Return]

   /numKB   Specifies the number of kilobytes in
                                 the volume, from 64 to 32000.

   /numMB   Specifies the number of megabytes
                                 in the volume, from 1 to 32.

If you press [Return] without indicating a size, a 160 KB volume is created.
The maximum volume size depends on the current amount of space
available on the server.

   VOLUME1 created.

The message confirms that the new volume has been created.

   Formatting. . .

Indicates that the new volume is being formatted.

> VOLUME1 formatted.

Confirms that the volume has been successfully formatted.

Remarks

[Create Volume] creates a new EtherShare volume. Each volume uses a portion of the server's disc.

All volumes are created with private access. Private access (/PRIV) is exclusive, read-write access. This means only one user can be linked to the volume at a time. The user can write information to the volume and can read information stored on it.

After you have formatted the volume and written information to it, you can change the access to public access (/PUB) or shared (/SHAR) with [Modify Volume]. Public access is shared, read only access for all users except the owner, who can write and read. Many users can read the volume at the same time; however, only the owner can change the information stored there. Public access is used mainly for program or data files that many network users need. Shared access allows multi-user read-write access. Many users can read from and write to a volume at the same time. This type of access is used for volumes that are changed by more than one user. Changes to data on shared volumes should always be coordinated with semaphores. More than one computer reading and writing the same volume at the same time can result in lost data or damaged disc directories. Programs that run concurrently and access the same volume should always set and check the semaphores to manage the simultaneous reads and writes.

On all volumes except those designated as /160KB, /180KB, /320KB, or /360KB the available disc space will be 16 kilobytes less than the requested number. This is to accommodate the disc directory which requires 16 kilobytes of space. These disc directories can contain up to 512 entries.

On volumes designated as /160KB, /320KB, or /360KB, the full 160, 180, 320, or 360 kilobytes are available. The number of directory entries is specified by MS-DOS: 64 for a 160 kilobyte volume 112 for a 320 kilobyte volume

If you initiate a command, but do not want to complete it, hold down the **CTRL** key and type a **C**. This cancels the current command and lets you select another. You can cancel a command at any time before you enter the last response.

Using EtherShare

Linking to a Volume [Link Volume]

To use the volume you have created, you must link it to one of your computer's drive specifiers. Linking an EtherShare volume to a drive specifier simulates inserting a diskette into a diskette drive.

In most cases you'll use drive A: for the EtherSeries Work Diskette and link EtherShare volumes to C:, D:, E:, and F:.

1. Select **[Main Menu]** to return to the Main Menu if you are not already there.

2. From the Main Menu, select **[Link Volume]**.

3. Type the drive specifier to which you want to link an EtherShare volume.

> Drive id? **E:** `Return`

You can link to any of four drive specifiers: C:, D:, E:, or F:.

4. Type the name of the EtherShare volume you want to link.

> Volume? **VOLUME1** `Return`

You can use any volume you have created or any volume defined as public (/PUB) by the **[Modify Volume]** command. If the volume does not belong to you, type the owner's name before the volume name and separate the two with a period (.). For example:

> Volume? **JEFF.VOLUME1** `Return`

You can access another user's private or shared volume only if the volume has a password and you are able to supply it. If the volume does not have a password, only its owner can link to it.

If the volume has a password, you are prompted for it.

> Password? (SECRET) `Return`

> VOLUME1 linked to E:.

EtherShare confirms that the link has been established.

Remarks

You must establish a link between an MS-DOS drive specifier on your computer and an EtherShare volume before you can use files stored on the volume.

You can link an EtherShare volume to any of four drive specifiers. With either a diskette-only system or a fixed disc system, you link to drives C:, D:, E:, or F:.

Only one volume can be linked to a drive specifier at a time. If you attempt to link a second volume before unlinking the first, you will be asked if it is OK to unlink the first volume. Type Y to complete the command; type N to abort the command.

You can link to any EtherShare volume on any server. If you did not create the volume, you must give the owner's name in addition to the volume name. You must also supply the password for any volumes you do not own, unless the volume has public access and does not have a password. A private or shared volume without a password can be accessed only by its owner.

A public volume provides read only access for all users except the owner; other users cannot write to the volume. If you own a public volume, you have write access, which means you can add, delete, or change files at any time even when other users are linked to the volume for reading. If you are logged in at two computers with the same user name and link to your public volume from both computers, only the first link has write access. The second has read only access. This ensures that no two users can simultaneously update the same file on a public volume and possibly destroy data on the disc.

Access to shared volumes is controlled within programs by setting and checking signals called semaphores. These signals coordinate the access to a volume so that data is changed in an orderly way without risk of loss. Shared volumes should only be used with programs that have been written or adapted for multi-user use.

If you reset your computer by pressing **CTRL-Shift-Reset**, you are automatically logged out and lose all links to EtherShare volumes.

Ending a Link [Unlink Volume]

Use **[Unlink Volume]** to end the link between an EtherShare volume and a drive specifier. Because you can link only one volume at a time to a drive specifier, you must unlink the volume before you can link another.

1. From the Main Menu, select **[Unlink Volume]**.

2. Type the drive specifier or volume name you want to unlink. Be sure to type the colon (:) with the drive name.

> Drive id or volume? **E:** ⌐Return⌐

Type the owner's name before the volume if the volume does not belong to you. Separate the user name and the volume name with a period (.). For example:

> Drive id or volume? **DAVES.VOLUME1** ⌐Return⌐
>
> VOLUME1 unlinked from E:

Confirms that the volume has been unlinked.

Remarks

Use **[Unlink Volume]** to end the link between the drive specifier and an EtherShare volume. This makes the drive available to link to another volume. It also releases private volumes for use by other EtherShare users.

You can unlink by identifying either the drive specifier to which an EtherShare volume is linked, or by supplying the linked volume name.

You can unlink all volumes by using an asterisk (*) in place of a drive specifier.

Listing Volume Names [Show Volumes]

You can show the EtherShare volumes you or other users own with [Show Volumes].

1. Select [Volume Menu] on the Main Menu.

2. From the Volume Menu, select [Show Volumes].

EtherShare lists the volumes and tells you if any are linked. If the volume list is long, EtherShare automatically pauses after a full screen has been displayed.

3. Type ⌷Return⌷ to list all the EtherShare volumes that you own.

```
Volume? Return
   VOLUME1      SHAR      450KB      in use
   REPORTS      PRIV      320KB
   MKTPLAN      PUB       320KB
   SALESRPT     PUB       320KB
```

Remarks

The list gives the following information:

- volume name

- access type, PRIV or PUB, for example

- volume size

- and access status, that is, whether the volume is linked or not linked.

Type Y or N at the Continue (Y/N?) prompt to display the entire list. The [Next] and [Prev] keys do not display the next and previous pages of the list.

Volumes are listed in alpha-numeric order, for example, volume 1 is listed above volume A10 which is above volume B.

Logging Out [Logout]

You end your connection to EtherShare with **[Logout]**. Logging out ends all your existing volume links and printer links.

1. From the Main Menu, touch **[Logout]**.

    USER1 logged out.

Confirms the log out.

Remarks

[Logout] ends your connection to EtherShare established with **[Login]**. It also ends all links to EtherShare volumes established with **[Link Volume]** and EtherPrint **[Link to Printer]**.

Rebooting your computer by pressing **CTRL-Shift-Reset** simultaneously or turning the power off and on again will also log you out and end your links. Simply turning your computer off will not log you out.

Managing EtherShare Users and Volumes

Modifying a Volume [Modify Volume]

You can use **[Modify Volume]** to change the name, access and password of any volume you have created. You cannot change the size of the volume nor can you modify a volume while it is linked to a drive specifier.

1. Select **[Volume Menu]** on the Main Menu.

2. From the Volume Menu, select **[Modify Volume]**.

3. Type the name of the volume you want to modify.

    Volume? **VOLUME1** [Return]

4. Type a new name if you want to change it, or press [Return] to keep the existing name.

    New Name? **VOLUME2** [Return]

5. To change the password, type a new password enclosed in parentheses. Just press [Return] to retain the existing password.

    New password?([Return]

An empty parentheses () followed by [Return] removes the existing password.

6. EtherShare allows you to change the volume access.

    New access? **/PUB** [Return]

Volumes are created with private access. Private volumes can be used by only one user at a time, and they have read-write access. When a volume has been created and files have been loaded, you may want to change the access to public or shared.

/PRIV	indicates private access
/PUB	indicates public access
/SHAR	indicates shared access

EtherShare confirms that the volume has been modified.

    VOLUME1 modified.

Using EtherShare

Remarks

Public access volumes can be linked by many users at once. They have read only access; the owner, however, can also write to the volume. Public volumes often contain program files that all network users need.

Shared volumes have read-write access and can be linked for use by many users at the same time. These volumes usually contain data that is changed by different users. Since several users can access the volume to change data at the same time, access must be synchronized by setting and checking "in use" status flags called semaphores. Programs must use these semaphores in order to prevent simultaneous access which could result in a loss of data or files.

A shared volume must have a password assigned if you want another user to access it. If a shared volume does not have a password, only the owner has access. Use [Modify Volume] to assign a password.

Volumes cannot be modified while they are linked to a drive specifier.

[Modify Volume] is used to change the access of volumes from private to public or shared after the volume has been created and files have been loaded.

After a volume has been changed to public, the owner can still write to the volume. In this way, one person can change the files on a volume while others are linked to and using it. The owner of a public volume should use caution when modifying files on such a volume.

If you initiate a command, but do not want to complete it, hold down the CTRL key and type a C. This cancels the current command and lets you select another. You can cancel a command at any time before you enter the last response.

Deleting a Volume [Delete Volume]

When you no longer need a volume, you should delete it. Once it is deleted, the volume and any files it contains are permanently removed from the EtherShare disc.

1. Select **[Volume Menu]** from the Main Menu.

2. From the Volume Menu, select **[Delete Volume]**.

3. Type the name of the volume you want to delete.

   Volume? **VOLUME1** Return

4. EtherShare checks to be sure you want to remove the volume.

   Are you sure (Y/N)? **Y** Return

Type Y if you want to delete the volume; type N if you have changed your mind.

   VOLUME1 deleted.

EtherShare confirms that the volume has been deleted.

Remarks

[Delete Volume] erases EtherShare volumes. When you delete a volume it is permanently erased from the EtherShare disc and you cannot recover the information. Therefore, several checks are provided to help protect you from errors.

- Only the owner of a volume can delete it.

- A volume cannot be erased while it is linked to a drive specifier.

- Only one volume can be deleted at a time.

- You are asked to confirm a deletion.

When a volume is deleted, the disc space becomes available for new volumes.

If you initiate a command, but do not want to complete it, hold down the **CTRL** key and type a **C**. This cancels the current command and lets you select another. You can cancel a command at any time before you enter the last response.

Creating a New User Name [Create User]

Anyone with a user name that allows them to log in to EtherShare can create other users on the same EtherShare server.

1. Select **[User Menu]** from the Main Menu.

2. From the User Menu, select **[Create User]**.

3. Type the new user name.

> Name? **NEWUSER** `Return`

The name will identify this person as an EtherShare user. The name can be up to eight characters in length. No two users on the network can have the same user name.

> Checking for NEWUSER on server SHARE1.....

EtherShare checks that there are no other users with the name NEWUSER on this or any other server on the network.

> NEWUSER added.

EtherShare confirms that the user name you entered is now an EtherShare user name. The user with this name can now log in.

Remarks

Any user can add a new user name to EtherShare.

If your Ethernet network has more than one EtherShare server, you must use a name that is unique on all the servers. No two users can have the same user name, even if they are using different servers. When a new name is created, all servers are checked to be sure the name does not duplicate one already on the network.

Once a new name has been added to the directory, the user can log in and use **[Modify User]** to assign a password if necessary.

If you initiate a command, but do not want to complete it, hold down the **CTRL** key and type a **C**. This cancels the current command and lets you select another. You can cancel a command at any time before you enter the last response.

Modifying a User Name [Modify User]

You can add a password to your user name or change that password with **[Modify User]**.

1. Login to the user name you want to modify.

2. Select **[User Menu]** from the Main Menu.

3. Select **[Modify User]** from the User Menu.

   New password?

4. Type the new password, enclosing it in parentheses.

   New password? **(TURNKEY)** [Return]

The new password is not displayed as it is typed. If you want to remove a password, type a right parenthesis with no password. For example:

   New password? ( ) [Return]

   USER1 modified

EtherShare confirms that the password has been changed.

If you initiate a command, but do not wnat to complete it, hold down the **CTRL** key and type a **C**. This redisplays the P.A.M. screen. You can cancel a command at any time before you enter the last response.

Listing EtherShare Servers [Show Servers]

You can list the names of all servers on the network with **[Show Servers]**.

1. Select **[User Menu]** on the Main Menu.

2. From the User Menu, select **[Show Servers]**.

This lists the names of all servers in the network. If the list is longer than the screen can hold, EtherShare automatically pauses and asks if you want to continue scrolling the screen.

Showing Linked Volumes [Show Links]

You can show EtherShare volumes and drives linked to your computer with [Show Links]

1. Select [Volume Menu] on the Main Menu.

2. From the Volume Menu, select [Show Links].

EtherShare displays the volumes and drives currently linked. For example:

```
C: not in use
D: HPSERVER.HPSYS2  PUB  720KB
E: SPHINX                PRIV 250KB
F: not in use
```

Remarks

[Show Links] lists the EtherShare volumes currently linked to your computer and the drive specifiers to which they are linked. The list also shows the access type and volume size.

Deleting User Names [Delete User]

You can delete a user name from EtherShare with [Delete User].

1. Select [User Menu] on the Main Menu.

2. From the User Menu, select [Delete User].

3. Type the user name you want to delete from EtherShare.

> User? **DAVIDR** [Return]

EtherShare checks to be sure you want to remove the user name.
If you type Y, the user name is deleted. If you type N, the command
is cancelled.

> Are you sure (Y/N)? **Y**

> DAVIDR deleted.

Remarks

[Delete User] removes a user name from the EtherShare directory. When
a name has been removed, the user cannot log in to EtherShare to create
or link volumes.

Several checks are provided to protect against unintentional deletions.

- A user name cannot be deleted if that user has volumes stored on the
  EtherShare disc. (The volumes must be deleted first.)

- Only one name can be deleted at a time.

- The message "Are you sure (Y/N)?" is displayed. You must respond "Y"
  before the deletion is performed.

If you initiate a command, but do not want to complete it, hold down the
CTRL key and type a **C**. This cancels the current command and lets you
select another. You can cancel a command at any time before you enter
the last response.

The HELP Command [Help]

You can get more information about EtherShare commands with [Help].
Each EtherShare menu offers [Help].

1. From any menu, select [Help].

EtherShare displays a list of commands and a brief description of
their use.

To see more information on EtherShare commands, select [Continue].
To leave the HELP list, select [Cancel].

Remarks

If you initiate a command, but do not want to complete it, hold down the
CTRL key and type a **C**. This cancels the current command and lets you
select another. You can cancel a command at any time before you enter
the last response.

Using Application Software

Using MemoMaker

You can store your MemoMaker documents in an EtherShare volume. Begin by logging in to EtherShare and linking to the volume. (Remember, you must first create the volume and link it before it can be used to store data.)

1. From the Main Menu, select **[Link Volume]**.

2. Type the drive specifier of the drive you want to link to the EtherShare volume.

   Drive id? **E:** [Return]

3. Type the name of the volume that currently holds or will hold your MemoMaker documents.

   Volume? **MEMOS** [Return]

   MEMOS linked to E:

EtherShare confirms the link.

4. Once the volume MEMOS has been linked, insert the MemoMaker diskette in drive A:.

5. From the Main Menu, select **[Exit ES]** to return to the P.A.M. screen.

6. Select **[Memomaker]** to select the application.

7. Select **[Start Applic]** to load and run the MemoMaker program.

8. The MemoMaker program is loaded and ready for use. After you have created a memo, you can save it on the EtherShare volume by giving the drive specifier when you save the file.

   Enter file name: **E:PRICEMEM** [Return]

Using Personal Card File

You can store your Personal Card File documents in an EtherShare volume. Begin by logging in to EtherShare and linking to the volume. (Remember, you must first create the volume and link it before it can be used to store data)

1. From the Main Menu, select **[Link Volume]**.

2. Type the drive specifier of the drive you want to link to the EtherShare volume.

    Drive id? **E:** [Return]

3. Type the name of the volume that will hold or presently holds your Personal Card File documents.

    Volume? **RECIPE** [Return]

    RECIPE linked to E:

EtherShare confirms the link.

4. Once the EtherShare volume has been linked, insert the Personal Card File diskette in drive A:

5. From the Main Menu, select **[Exit ES]** to return to P.A.M.

6. Select **[Personal Card File]** to select the application.

7. Select **[Start Applic]** to load and run the Personal Card File program.

The Personal Card File is loaded and ready for use. After you have created a card file, you can save it on the EtherShare volume by giving the drive specifier when you save the file. For example:

    Filename: **E:GOULASH** [Return]

SECTION 4
EtherShare/MS-DOS Command Summary

Overview

EtherShare/MS-DOS commands are another way of communicating with EtherShare. Each touchscreen command (as described in Section 3) has a corresponding command that can be typed at the keyboard.

This section describes these commands in general, then gives an alphabetical summary of each command and its parameters. The information given is a summary only. For detailed information and a complete discussion of the command, you should refer to the description of the touchscreen equivalent of the command in Section 3.

Selecting Commands

Before you can enter EtherShare/MS-DOS commands, the MS-DOS prompt must be displayed on your screen. Select **[MSDOS Commands]** on the P.A.M. screen, then touch **[Start Applic]** to display the MS-DOS prompt.

You enter commands by typing the command name and parameters on a single line. Command names are made up of two words: ES followed by the name of a specific function such as LOGIN. Use both words when you enter a command name. For example:

A> **ES LOGIN** Return

Command Format

All commands consist of the command itself and some parameters that provide additional information about the command. The parameter must be separated by at least one space.

Some parameters are required and some are optional. In the command descriptions that follow, optional parameters are shown in square brackets.

Some optional parameters have default values that are assigned if you don't supply one. The description of each command gives the default values for optional parameters.

Prompted and Unprompted Form

You can enter a command in either prompted or unprompted form.

Prompted Form

The prompted form allows you to enter the command name without any parameters. To use the prompted form, type the EtherShare command followed by a space and a question mark (?). You are then prompted for the first parameter. You enter this parameter and are prompted for the second parameter, and so forth. For example:

```
A> ES CREATE ? Return
Name? VOLUME1 Return
Password?( Return
Size? /360KB Return
```

Unprompted Form

The unprompted form allows you to enter the command and its parameters on one line. For example:

```
A> ES CREATE VOLUME1 (XYZZY) /500KB Return
```

Multiple Commands on One Line

You can give multiple EtherShare commands on one line by separating each command with a semicolon (;) followed by a space. For example:

    A> ES LOGIN **LYNNW; LINK D: SYS.HPSYS2**

The /NP Parameter

/NP is a special parameter which can be used with any EtherShare command. This parameter (short for No Prompt) suppresses EtherShare prompts such as "Strike any key when ready" or "Are you sure (Y/N)?" It is used only with the unprompted form of a command.

The parameter can be placed anywhere within the other command parameters and must be entered as /NP, including the slash (/) which is required.

Cancelling Commands

If you initiate a command but do not want to complete it, press the **CTRL** and **C** key simultaneously. This cancels the current command and displays a prompt to select the next command.

Format Notation

The following notation is used to indicate the format of commands.

CAPITAL LETTERS: denote a keyword. Keywords must be entered exactly as shown, although you can use lowercase if you prefer.

Italics: you must supply appropriate information for parameters shown in italics. For example, you would supply a specific volume name for the volname parameter.

[Square Brackets]: denote an optional parameter which you can omit. If you use the parameter, do not type square brackets around it.

Slash (/) and Parentheses ( ): must be included in a parameter where shown.

ES CREATE *volname* [(*password*)] [*size*]

Creates and formats a new EtherShare volume.

Parameters

volname	The name of the volume, up to eight characters in length. Each volume must must have its own unique name.
(password)	A word assigned to a volume to control its use.
size	The volume size, which can be any of the following:

/numKB	Number of kilobytes, 64-32000
/numMB	Number of megabytes, 1-32

The default size is 160 kilobytes.

Touchscreen Equivalent

[Create Volume]

ES DEL *volname*
ES ERASE *volname*

Permanently deletes an EtherShare volume.

Parameters

volname

The name of the Ethershare volume to be deleted.

Touchscreen Equivalent

[Delete Volume]

ES DIR

ES DIR [[*username.*]*volname*] [/*L*] [/*P*] [/*W*]

Lists EtherShare volumes.

Parameters

[*username.*]*volname*	The name of the volume. If you do not own the volume, you must also supply the user name of the owner.
	You can use the * and ? wild card characters to list specific groups of volumes.
/L	Displays the volumes currently linked to your computer and the drive specifiers to which they are linked.
/P	Pauses the listing after a full screen has been displayed.
/W	Produces a wide listing. Several volumes are listed on one line.

Touchscreen Equivalent

[Show Volumes]

[Show Links]

ES HELP [*commandname*]

Gives information about EtherShare commands.

Parameters

commandname The EtherShare command about which you want information. If you do not give a specific command name, a list of all EtherShare commands and a brief description of their functions is displayed.

Touchscreen Equivalent

[Help]

ES LINK *drive [username.]volname [(password)]*

Creates a link between a drive specifier and an EtherShare volume.

Parameters

drive	Specifies the drive to which you want to link. This is C:, D:, E:, or F:.
[username.]volname	The name of the EtherShare volume you want to link. The username parameter is required if the volume does not belong to you.
(password)	The password assigned to the volume. A public volume (*/PUB*) created without a password can be linked by anyone. The password must be given for any volume that has a password.

Touchscreen Equivalent

[Link Volume]

ES LOGIN *username* [*(password)*]

Creates a link between a drive specifier and an EtherShare volume.

username	The name that identifies you as an EtherShare user. This name is established with the ES UCREATE command.
(password)	A word that can be assigned to user names with the ES UMODIFY command. When used, passwords must be enclosed in parentheses.

Touchscreen Equivalent

[Login]

ES LOGOUT

Ends a connection to EtherShare.

Touchscreen Equivalent

[Logout]

ES MODIFY
ES RENAME *volname* [*newname*] [*(newpass)*] [*new access*]

Changes the name, password, and/or access of an EtherShare volume.

Parameters

volname	The name of the EtherShare volume you want to modify.
newname	The new name you want to give to the volume.
(newpass)	The new password you want to give the volume.
newaccess	Enter one of these parameters to change the current access.

/PUB indicates public access

/PRIV indicates private access.

/SHAR indicates shared access.

Touchscreen Equivalent

[Modify Volume]

ES SDIR [servername] [/W] [/P]

Lists the names of all servers in the network.

Parameters

servername	The name assigned to server when it was installed. You can use the MS-DOS * and ? wild card characters to list specific groups of servers.
	If you don't give a specific server name, the names of all servers are listed.
/W	Produces a wide listing. Several servers are listed on one line.
/P	Causes the listing to pause after a full screen has been displayed.

Touchscreen Equivalent

[Show Servers]

ES UCREATE *username*

Adds a new user to EtherShare.

Parameters

username   The name that will identify this person
                                    as an EtherShare user. The name can
                                    be up to eight characters in length.
                                    No two users on the network can
                                    have the same user name.

Touchscreen Equivalent

[Create User]

ES UERASE
ES UDEL *username*

Deletes a user from EtherShare.

Parameters

username	The name used to identify this person as an EtherShare user.

Touchscreen Equivalent

[Delete User]

ES UDIR [[*server.*]*username*] [/*P*] [/*W*]

Lists the names of EtherShare users.

Parameters

[*server.*]*username*	The name of the user(s) about whom you are requesting information. If you do not give a server name, all users on the network are listed.
/*P*	Causes a pause when the listing fills the screen.
/*W*	Produces a wide listing. Several names are listed on one line.

Touchscreen Equivalent

[Show Users]

ES UMODIFY *(newpass)*

Adds or changes the password assigned to your user name.

Parameter

(newpass)   The new password you want to assign
                                to your user name.

Touchscreen Equivalent

[Modify User]

ES UNLINK *drive*
ES UNLINK *[username.]volname*

Ends the link between a drive specifier and an EtherShare volume.

Parameters

drive	The drive specifier to which the EtherShare volume is linked.
[username.]volname	The name of the EtherShare volume to which you are currently linked. The owner's name is required if the volume does not belong to you.

Touchscreen Equivalent

[Unlink Volume]

Appendix A
Glossary

Glossary

Access

The right or capability to use software or hardware. For example, in order to access EtherShare, you must login with a user name. Without the user name, you cannot access EtherShare to use the commands (software) or store volumes on the EtherShare disc (hardware). Access is also used to describe the attributes of private, public, and shared EtherShare volumes.

Boot

Load software into the computer memory. When you boot, either by pressing **CTRL-Shift-Reset** or turning the power OFF/ON, you are automatically logged out from your server; therefore, you lose all existing communication links such as links to EtherShare volumes.

Drive Specifier

The MS-DOS name used to identify a diskette drive or a device with similar data storage capability. With EtherShare you can assign up to four drive specifiers. The drive specifiers must always use C:, D:, E:, and F:.

Link

Establish a connection across the network between a drive specifier or a printer name on your HP 150 Personal Computer and a volume or printer on a server.

Log in

A procedure performed by using the **[Login]** command that controls your ability to use (access) EtherShare. When you log in, you give your EtherShare user name. The EtherShare program will find your server (if several exist on the network) and connect you to it. Use the **[Create User]** command to add a new user name to the list of users.

Glossary

Password

A private word which can be assigned to both user names and EtherShare volume names. Assigning passwords limits access to EtherShare in general and to specific volumes. This makes the information you have stored on EtherShare volumes as secure as possible.

Private Volume

A type of access which you can assign to an EtherShare volume. Private access is assigned when you create a volume.Private volumes can be used by one user at a time and can be written to as well as read. If users other than the owner want to access a private volume, the volume must have a password which those users must supply when they link to the volume.

Public Volume

A type of access which you can assign to an EtherShare volume. Public volumes can be shared by many EtherShare users at the same time. Users other than the owner can only read files or programs from the volume. The owner can both read and write. A public volume without a password may be linked by any user. User's must supply the password if a public volume has one.

Semaphore

A semaphore is a flag that can be unlocked or locked by a program to indicate that a shared resource, for example a file, is currently available or not available for use by other programs. All programs that will access a shared file must cooperate by checking to see if the corresponding semaphore is locked or unlocked before accessing it.

Shared Volume

A type of access which you can assign to an EtherShare volume. Shared volumes can be linked by many users at the same time to be both written to and read from. Writing to shared volumes should be coordinated by using the semaphores to protect against the potential loss of data caused by many users writing to a file simultaneously. Users other than the owner must supply the volume password when they link to a shared volume.

User Name

The name you use to log in to EtherShare. This name gives you the ability to use all EtherShare functions. User names can be created by any user who is logged in.

Volume

Similar to a diskette you use with your HP 150 Personal Computer. EtherShare divides the fixed disc into various sized areas which you specify when you create a volume. These areas are assigned a name, access type, password and size with the **[Create Volume]** command. From this point, you can link it to a drive specifier on your HP 150 Personal Computer and use it like a diskette or fixed disc drive.

Appendix B
Semaphores

Overview

EtherShare allows you to share files among individual Personal
Computers on a network. You can share files on both a read-only and a
read-write basis. Allowing many users to read a common file causes no
problems; however, writing to a common file is potentially dangerous and
can result in a loss of data. For this reason, semaphores are provided.
They allow you to designate which files and records are being changed to
ensure that only one computer is updating a file at any given time.

Programs must cooperate with one another to ensure file system integrity
when you are updating shared files. Programs can control multiple
accesses to common files with semaphore operations. These operations
must programmatically bracket shared file accesses with lock and unlock
semaphore calls to ensure that only one user is updating a file at a time. If
the programs accessing a shared file are not cooperating, multiple writes
to the same record of a file can result in lost information since the last write
could overwrite previous ones. By locking a file or record during an
update operation, any other cooperating program which wants that file or
record will wait until it is unlocked. When the blocked program is able to
lock, it can then read the data to ensure it has a current copy of it, modify
it, write it back and then unlock it. *Existing programs will have to be
modified to use semaphores before they can be used with shared access
volumes.*

EtherShare Volume Access

EtherShare volumes can have three kinds of access: private, public or
shared. All EtherShare volumes are created with private access. After
files have been loaded, the access may be modified to public or shared.

Each of these volume types has different access restrictions associated
with it. Private volumes are read-write but may be accessed by only one
user at a time. Public volumes may be shared by many users at the same
time, but they have read-only access. Only shared volumes can be
accessed by many users at the same time with both read and write
capability. For this reason, semaphores are provided for use with shared
access volumes and provide a means to protect against the loss of data
that may occur when multiple programs update the same file.

Semaphore Operations

Three semaphore operations are provided by EtherShare servers: LOCK/
WAIT, LOCK/RETURN, and UNLOCK. These operations are used to
programmatically bracket shared file access operations. If a file or record
is locked before it is updated, any other cooperating program which
wants it has to wait until it is unlocked.

In order to properly access shared volumes using semaphores, your
programs should:

—lock the semaphore

—read the file and/or record

—write the new and/or changed data

—flush the buffer

—unlock the semaphore

Any existing programs must be modified to include semaphores if they
will update files in EtherShare volumes with shared access.

All three semaphore operations are implemented using software interrupt
60H with the appropriate command code in register AH. The status of the
operation is returned in register AL. All registers except AX are
preserved.

Semaphore Names

A semaphore name is any ASCII string up to 31 bytes long. The name
must be terminated with byte containing a zero regardless of its length.
The maximum string is 32 bytes, including the zero byte. There are no
predefined strings; however it is helpful if cooperating programs follow a
naming convention. For example, the name of the application might be the
first part of the string so that different applications using the same network
server would not have the same semaphore names. *It is up to the
cooperating programs to define and adhere to the convention.*

You can use an asterisk (*) as a match character in semaphore names to
match none or more occurrences of all characters. The asterisk (*)
cannot, however, occur in the first eight characters of the name in order to

prevent an application from inadvertently locking out all semaphores. Only one pattern match character can occur in a semaphore name and it must be the last character in the string. For example, "filename*" matches "filenamexxx". Therefore, an attempt to lock "filename*" when "filenamexxx" is locked will fail as would an attempt to lock "filenamexxx" if "filename*" is locked.

The pattern match capability allows record and file locking to be easily supported. If the convention to lock a record is to use a semaphore name made up of the filename and the record number, that is "filename123" locks record 123 of file "filename", then you can lock the entire file by issuing a lock on "filename*". The attempt to lock "filename*" will fail as long as any record is locked. When all records are unlocked and "filename*" locks, any attempt to lock an individual record will fail as long as the file lock "filename*" remains in effect.

Multiple Server Networks

There are three ways to identify the server which is managing the specified semaphore. First, you can use the drive id to which the volume is linked. Secondly, you can give an Ethernet address. Thirdly, if you do not specify either of the others, the server to which you are logged in is used. If the logged in server is used, a lock on the wrong server may occur if the link is to a volume on a different server.

    AL =   The drive id to which the EtherShare volume containing the data is linked. It must be an EtherShare drive and must not have been assigned by the MS-DOS ASSIGN command. (1 = A, 2 = B, etc.)

            AL = 0 if not used

  ES:SI = A pointer to the Ethernet address of the server which is managing the semaphore. (Used if AL = 0)

            SI = 0 if not used

If the explicit Ethernet address is passed in ES:SI, it should be declared in byte order, that is, if the address is 02608C010203, it should be declared as:

        eaddr   db   02H,60H,8CH,01H,02H,03H

If AL = 0 and SI = 0, the logged in server is used.

Semaphores

Use INT 60H with the function code in AH as follows:

LOCK/WAIT

Locks a semaphore. If the lock is successful, it returns a status code immediately. If it is unsuccessful, it keeps trying until the lock can be performed, or the timeout value supplied has expired.

Call:

AH = 11H

AL = Drive id or 0 if not used

DS:BX = Pointer to name (semaphore)

ES:SI = Pointer to Ethernet address or SI = 0 if not used

If AL and SI both equal 0, then use the address of the server to which you are logged in.

DX = Number of seconds to wait for lock

Return Status Code in AL:

0 = Operation successful

1 = Timeout

2 = Server not responding

3 = Invalid semaphore name (Name must have at least one character and no more than 31; there must not be an asterisk (*) in the first eight characters.)

4 = Semaphore list is full

5 = Invalid drive id (The drive is either not an EtherShare drive, or it has been assigned.)

6 = Invalid Ethernet address (It cannot be multicast or broadcast.)

7 = Not logged in (Attempt to use default logged in server when not logged in.)

8 = Write to network failed

9 = Semaphore already locked by this PC

LOCK/RETURN

Locks a semaphore. Returns a status code immediately whether the lock is or is not successful.

Call:

AH = 12H

AL = Drive id or 0 if not used

DS:BX = Pointer to name (semaphore)

ES:SI = Pointer to Ethernet address or SI = 0 if not used.

If AL and SI both equal 0, then use the address of the server to which you are logged in.

Return Status in AL:

0 = Operation successful

1 = Semaphore currently locked

2 = Server not responding

3 = Invalid semaphore name (Name must have at least one character and no more than 31; there must not be an asterisk (*) in the first eight characters.)

4 = Semaphore list is full

5 = Invalid drive id (The drive is either not an EtherShare drive, or it has been assigned.)

6 = Invalid Ethernet address (It cannot be multicast or broadcast.)

7 = Not logged in (Attempt to use default logged in server when not logged in.)

8 = Write to network failed

9 = Semaphore already locked by this PC

Semaphores

UNLOCK

Unlocks a currently locked semaphore.

Call:

AH = 13H

AL = Drive id or 0 if not used

DS:BX = Pointer to name (semaphore)

ES:SI = Pointer to Ethernet address or SI = 0 if not used

If AL and SI both equal 0, then use address of the server to which you are logged in.

Return status in AL

0 = Operation successful

1 = Semaphore not locked

2 = Server not responding

3 = Invalid semaphore name (Name must have at least one character and no more than 31; there must not be an asterisk (*) in the first eight characters.)

4 = Semaphore list is full

5 = Invalid drive id (The drive is either not an EtherShare drive, or it has been assigned.)

6 = Invalid Ethernet address (It cannot be multicast or broadcast.)

7 = Not logged in (Attempt to use default logged in server when not logged in.)

8 = Write to network failed

Remarks

If you plan to have several programs running concurrently and reading and writing to files on the same volume, you should be familiar with the way MS-DOS allocates file space, uses the File Allocation Table (FAT) and directories, and buffers sub-block reads and writes.

Shared files should be fixed length, and if they are to change size, you should preallocate the space. This is necessary to ensure that Personal Computers sharing the same files have a valid copy of the File Allocation Table (FAT). MS-DOS keeps a copy of the File Allocation Table in each Personal Computer. This table keeps track of all disc blocks, for example, which blocks currently belong to a file and which ones are free. The table is read from the disc when a file is opened and is rewritten when a file is closed. By preallocating space for shared files, you ensure that all computers sharing those files will have a valid copy of the FAT.

A request to lock a semaphore initiates a search of the list of those currently locked. If no match is found, the named semaphore is entered into the list of locked semaphores. The list in each server can contain up to 50 names. If a match is found, then the status "semaphore currently locked" is returned. Alternatively, the program can request to wait until the lock succeeds.

Programs using semaphore operations to lock records or files should do so for the shortest time possible so that other programs are not blocked.

Semaphores

When using the LOCK/RETURN function, care should be taken to ensure that the operation, if unsuccessful, is not immediately tried again. Your program should delay before retrying the operation. Otherwise, you will "flood" the network server with requests which must be processed. Rapid retransmission of lock requests may cause the server to be less available for processing other computer's requests for disc or printer access.

If a Personal Computer has a lock in effect and is turned off or goes down, the lock remains in effect and can block other programs. Locks that have been set can be cleared by:

—using the UNLOCK function

—logging out from the server

—logging in as a new user

—rebooting your HP 150 Personal Computer

—using the Administration functions from a server (See the EtherShare Administrator's Guide)

Each lock is associated with the Ethernet address of the Personal Computer that requested the lock. You must request the unlock from that same computer unless you use the Administration functions from a server.

Appendix C
The LOGIN Batch File

The LOGIN Batch File

One batch file, LOGIN, is provided with EtherShare. The contents of this file and its functions are described in this appendix.

LOGIN is part of your HP 150 EtherSeries Software User Diskette. It is copied onto your EtherSeries/MS-DOS diskette during software installation.

You can create your own batch files or modify LOGIN with the MS-DOS editor, EDLIN, or the EtherMail editor, MED.

Diskette Drives

Use the available drive specifiers as follows, depending on the configuration of your IBM PC.

Drive A: The EtherSeries/MS-DOS diskette

Drive B: Available for an actual diskette

Drive C: EtherShare volumes

Drive D: EtherShare SYS.HPSYS2 volume used for EtherSeries/
            MS-DOS, EtherShare software, EtherMail software and
            distribution lists.

Drive E: EtherShare volumes

Drive F: EtherShare volumes

Batch File Description

In the following, the /NP parameter (No Prompt) suppresses confirmation prompts while the batch file is running. If you want to cancel a batch file that has started, press the **CTRL** and **C** keys simultaneously.

The LOGIN Batch File

EtherShare Batch Files

Format

        LOGIN   *username*

Function

Logs you in to EtherShare, links you to the public EtherSeries/
MS-DOS system volume and establishes a link to a shared printer
connected to your EtherShare server.

Once you have logged in with the LOGIN batch file, D:, which is linked to
the shared system volume, SYS.HPSYS2, becomes your default drive,
and PRN: (or LPT1:) is linked to the printer connected to your server.
When you are finished, you should change the default drive back to A:,
and log out with the ES LOGOUT command. If your server does not have a
SYS.HPSYS2 volume, refer to the EtherShare/150 Administrator's Guide
for further information.

Listing

ECHO OFF	Turns off the display of batch commands as they are read from the batch file.
ES LOGIN %1; LINK D: SYS.HPSYS2 /NP	Initiates the EtherShare **[Login]** command. The name supplied for the username parameter is substituted for the %1 variable. Links the EtherShare volume SYS.SYS2 to drive specifier D:.
IF ERRORLEVEL 1 GOTO FAIL	Tests for errors. If there was an error, the GOTO is performed and the batch file stops. If there were none, the next batch file command is used.
D:	Changes the default drive to D:
EP LINK /NP	Establishes a link to printer /1 connected to the server.
:FAIL	In the case of errors, the batch file stops.

Error Messages

Error Messages

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

The words VOLUME, USER and SERVER represent any volume name,
user name or server name. The actual volume name, user name or server
name is substituted when the message is displayed.

Error Message	Meaning/Action
A value must be supplied.	A parameter value is required. No default is assigned.
Bad character.	An illegal character has been typed for this parameter.
Bad server.user name format.	A user name can be an optional server name and a period followed by a user name.
Bad user.volume name format.	A volume name can be an optional user name and period followed by a volume name.
Can't find user USER.	The specified user could not be found on any server on the network.
Can't link to an assigned drive.	You cannot link to any drive id which has been redefined using the MS-DOS ASSIGN command.
Caution: At least one server did not respond, so a duplicate user name may result. Add user anyway (Y/N)?	When adding a new user, all EtherShares are checked for that user name. If one of the EtherShares does not respond, it is possible the user already exists on that server. If you are sure the user is unique, go ahead. Otherwise, cancel the operation, and try again later.

Error Messages

Error Message	Meaning/Action
Cross server access failed.	There was a failure in a request to access a server other than the one to which you are logged in.
#CROSS is a reserved user name.	#CROSS is used by EtherShare internally and is not available for general use.
Drive X: in use...OK to unlink (Y/N)?	The requested drive has a volume linked to it. You are asked if the volume can be unlinked.
Enter only one value.	More than one value has been entered for a command parameter. Remember, use a space to separate parameter values.
Enter /P for pause.	In a directory listing, /P is used to request a pause.
Enter /PUB, /PRIV, or /SHAR.	These are the acceptable values for the access parameter.
Enter /W for a wide listing.	In a directory listing, /W is used to display several entries on one line.
Enter /64KB -/32000KB, or /1MB -/32MB.	Volume size options. You indicate the size in kilobytes (KB) or megabytes (MB).
Ethernet driver not loaded.	You must boot using the EtherSeries/MS-DOS diskette.
Failure formatting volume.	There was a write error while automatically formatting the volume being created. Delete and recreate the volume. If failure continues, you are possibly out of disc space on your server. Use the server ADMIN functions to remove unnecessary undelivered mail and files waiting to be printed, and restart the EtherSeries software.
Maximum users logged in.	No more users can log in to EtherShare. Someone needs to log out before you can log in.

Error Messages

Error Message	Meaning/Action
Max of 2 characters.	More than two characters have been given for a drive id value such as C: or D:.
Max of 8 characters.	A server, user or volume name can contain a maximum of eight characters.
No match.	No name matches the request.
Not enough disc space, numKB remain.	Not enough disc space to create the volume requested.
Nothing to modify.	You must include at least one of the parameters in the **[Modify Volume]** command.
No volumes linked.	You are requesting to list currently linked volumes with the **[Show Links]** command. There are none, or you are attempting to "unlink*" and there are no volumes linked.
No volume linked.	No volume is currently linked to the drive specifier given.
Password incorrect.	The password given is not correct. Try again. Be sure you have typed the correct password.
Passwords must be enclosed in parens.	Enter the password enclosed in parentheses ( ). The right parenthesis is not required.
Please log in first.	You must log in to use any EtherShare commands.
Semicolon (;) must be followed by a space.	There must be at least one space after each semicolon (;) to separate multiple EtherShare commands entered on one line.

Error Messages

Error Message	Meaning/Action
Server not ready.	The EtherShare server is not responding. It may be too busy or not operating. Try a few more times, then check the EtherShare.
Server not ready ... Correct login name?	No server is responding to your log in request. It may be an unknown user name, or the server may be too busy or not operating. If you are sure the log in name is correct, try again.
Server SERVER not ready.	The server named SERVER is either not operating or too busy.
Unknown command.	EtherShare commands are used in the form ES COMMAND.
Use /L or a volume name, not both.	You can list volumes or linked volumes, not both. Use either ES DIR /L or ES DIR volname.
USER already exists on server SERVER.	The user name you want to add to EtherShare already exists on the server named SERVER. User names must be unique on the entire network.
USER unknown.	The user name you want to delete does not exist on the EtherShare to which you are logged in.
Value must be X: through X:.	You can link EtherShare volumes to the drive specifiers shown only.
Values ignored from XXX.	Too many parameters have been given. The command has been executed, but all values including XXX have been ignored.
VOLUME already exists.	Each volume you create must have its own unique name.
VOLUME has no assigned password.	You cannot access another user's volume unless a password has been assigned and you give that password.

Error Message	Meaning/Action
VOLUME is a private volume and already in use	Private volumes have exclusive access. Once a private volume has been linked, no other user can link it.
VOLUME is linked.	You cannot modify or erase a linked volume. You must first unlink the volume using **[Unlink Volume]** and make sure no one else has it linked.
VOLUME is linked to X: ... OK to unlink (Y/N)?	The requested drive is currently linked to VOLUME. Confirm if it is all right to unlink VOLUME.
VOLUME not linked.	When requesting an **[Unlink Volume]** for VOLUME, it is not currently linked.
VOLUME space is full.	All EtherShare disc space has been used. An EtherShare volume must be deleted before space will be available.
VOLUME unknown.	There is no EtherShare volume with this name. Check the spelling. Make sure you include the owner's name if it is not your volume.
Write to network failed.	Your HP 150 Personal Computer cannot access the network probably because the network itself has a problem. Consult the EtherSeries User's Guide for help in finding the problem.

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