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## EtherShare 2.5: Release notes II (October 28, 1997)

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These release notes serve as provisional documentation for our new EtherShare software version 2.5. They are to be used together with the “EtherShare 2.2 Technical and Installation Manual”. Both, the release notes and the EtherShare 2.2 documentation will soon be replaced by a new, completely revised manual.

In the following, we briefly describe the new features of EtherShare 2.5 as well as changes to the behaviour of the software – if there are any. The release notes are structured as follows:

- 1 Changes to the software installation
- 2 The EtherShare file server
- 3 AppleTalk enhancements – the “netconf” and “vpoll” UNIX programs
  - 3.1 The “netconf” UNIX program
  - 3.2 The “vpoll” UNIX program
- 4 The EtherShare Admin program
  - 4.1 User interface
  - 4.2 Setting preferences
  - 4.3 Volume settings
  - 4.4 Printer queue settings
  - 4.5 Log files
  - 4.6 Listing versions
  - 4.7 IP Access
- 5 IP configuration – Reference part
- 6 Helios Mail and Helios Terminal
- 7 Other new features

# 1 Changes to the software installation

**Activation key** You need an activation key (kind of password) to start your EtherShare 2.5 software. The key has to be requested from HELIOS Software GmbH by fax (+49 5131 709325) or by mail (HELIOS Software GmbH, Steinriede 3, D—30827 Garbsen, Germany) using the “Activation Key Request” form that is included in the software package.

Please note that:

- Your old EtherShare 2.2 activation key – if you have one – will not activate the new EtherShare version 2.5.
- You have to enter your machine ID (MachID) in the “Activation Key Request” form. This MachID is now a 8-2 digit string with the last two digits representing the make and model of your host computer. The machine ID will be displayed in the “Networking Products Installer CD-ROM” menu that appears on your monitor when you mount our CD-ROM and enter the install command. It will be repeated in the “EtherShare Installation Menu” as shown in figure 1 below.

```
EtherShare Installation Menu
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The machine ID of this computer is "80024a74-8b"

1) Install programs and configuration files
2) Install and configure AppleTalk kernel modules
3) Enter activation key to license HELIOS programs
4) Create a demo user
5) Configure AppleTalk network numbers
6) Display README file
7) Quit
```

Fig. 1: The “EtherShare Installation Menu”

**Co-operation with EtherShare OPI and PCShare**

Our new EtherShare OPI 2.0 software requires EtherShare version 2.5 and vice versa. So, if you want to use EtherShare OPI with EtherShare 2.5, you have to purchase the new EtherShare OPI software version 2.0, then install EtherShare 2.5, verify the installation, and finally install EtherShare OPI 2.0. For perfect co-operation with PCShare DOS/Windows clients you have to install PCShare version 2.5.

**About upgrade installations**

If you are upgrading from EtherShare 2.2 to EtherShare 2.5 you have to make sure that all EtherShare users are logged out on the server and that there are no active print jobs. The installation program will stop EtherShare automatically before copying the new software to your EtherShare directory. The moment you quit the installation program (compare step 7 in figure 1) EtherShare will be re-started automatically. You should not delete any files in your existing EtherShare directory because this could damage your existing EtherShare configuration.

**Installing EtherShare client programs**

After installing EtherShare on the UNIX server, the EtherShare Macintosh programs for client computers can easily be installed using the “EtherShare Client Installer”. This installer will be added to the “EtherShare Applications” volume during the installation procedure and must be opened with a double-click (compare figure 2). You should save your work before using the installer because you will have to restart your Macintosh after successful installation.

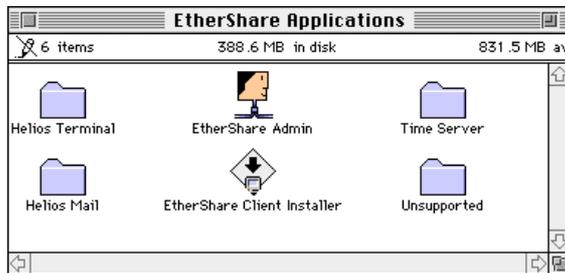


Fig. 2: Opening the “EtherShare Client Installer”

The “EtherShare Client Installer” copies the EtherShare Admin program, the terminal emulation (Helios Terminal), and the mail program (Helios Mail) to the Apple menu of your client computer as shown in figure 3. The Helios Time Server will be added to the Chooser. Details about the Time Server are given in chapter 7 below.

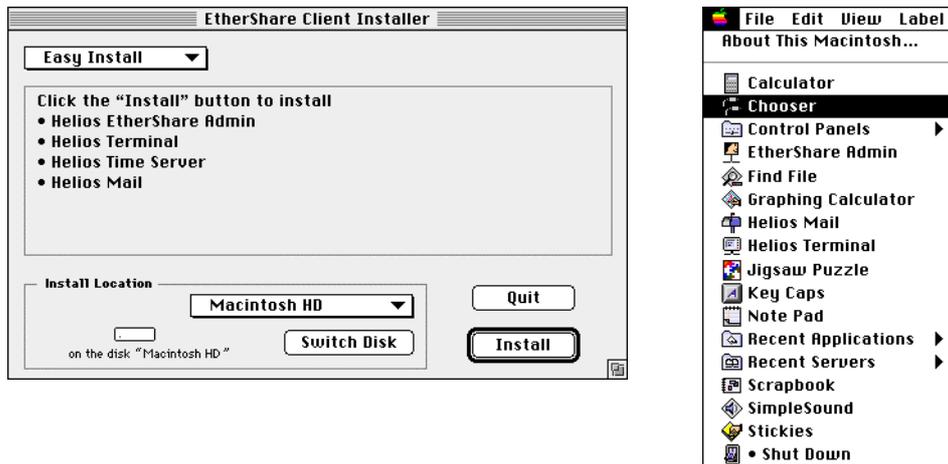


Fig. 3: Installing the EtherShare client software

If you use **Custom Install** (instead of **Easy Install** as shown in figure 3) you can install two additional items, namely the OPI Tools “touch” and “Tagger”. Both programs are only meant for EtherShare OPI 2.0 users and are described in the EtherShare OPI documentation.

## 2 The EtherShare file server

### Built-in NetDoubler server

The EtherShare file server now contains a built-in Asanté NetDoubler server acceleration. This allows transfer rates of up to 6 MB to Macintosh clients via FastEthernet. The NetDoubler client software is provided by Asanté. Information about Asanté can be found on our CD-ROM in folder 3RDPARTY, subfolder ASANTE.

### “Fast” Finder copy

EtherShare 2.5 contains a “Fast” Finder copy as available in AppleShare Workstation 3.6. This Finder is able to create and handle large data packages and thus is much faster than previous Finder copies.

### Improved “Find File by Name”

You may now search files by name on the server within a reasonable period of time, namely within a few seconds. With former software versions “Find File by Name” sometimes took a few minutes or even longer.

### File locking

File locking has been improved for AFP volumes. If you define volumes that are to be used by Macintosh and DOS/Windows clients you may activate the **UNIX Sharing** option. For details, please refer to the explanations about volume settings in chapter 4.3 below.

### APIs

We deliver APIs for upcoming UNIX utilities that may be used to copy, move, and rename Macintosh files correctly on a UNIX computer.

### Client messages

With EtherShare 2.5 you can send short “AFP” messages to any connected client provided that EtherShare is running. These messages can be sent from the UNIX server using the UNIX “afpmsg” program, or from a Macintosh client using the EtherShare Admin program.

If you want to send a message from your UNIX server you have to proceed as follows: Change to your EtherShare directory and call the “afpmsg” program. General usage of the program is: `afpmsg [-f messagefile] [-p process id] [-u user] message`  
Example:

```
cd /usr/local/es/etc
./afpmsg -u paul "Color printer is not available today."
```

Please note that the right of using the “afpmsg” program may depend on your privileges.

Sending a message from a Macintosh client requires the following steps:

Open the EtherShare Admin program (as described in chapter 4 below), then select **Lists** and **Active Users...** from the menu, highlight the users you want to address, select **Message** and **Send Message...** from the menu and enter your individual message in the dialog as shown in figure 4. “AFP” messages are displayed automatically in a message window. They are not saved in a file; the addressees delete them on closing the respective message windows.

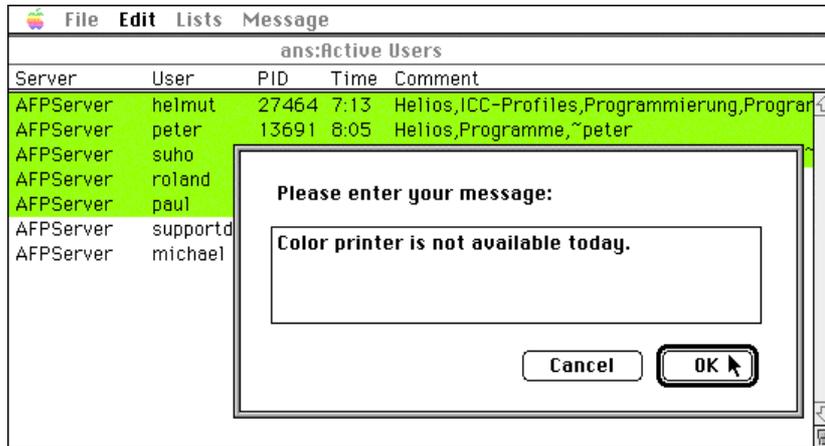


Fig. 4: Sending a message to several Macintosh users

### 3 AppleTalk enhancements – the “netconf” and “vpoll” UNIX programs

#### 3.1 The “netconf” UNIX program

The “netconf” UNIX program is used to configure your AppleTalk network. For details about the configuration of AppleTalk please read the EtherShare 2.2 documentation. The new “netconf” program has been improved considerably as far as the automation of processes is concerned. The new user interface is shown in figures 5 to 7. Navigation instructions are given in the bottom lines of the dialogs and you can prompt a help window at any time using the “?” (compare figures below).

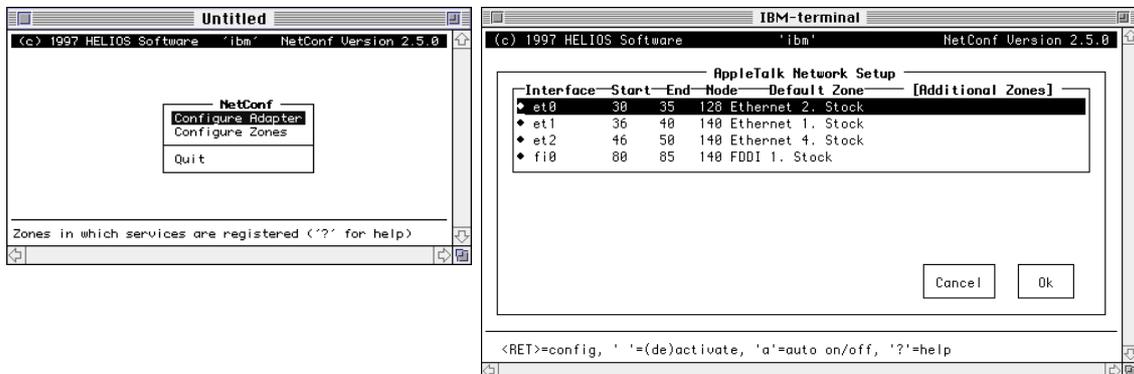


Fig. 5: User interface of the “netconf” program

### Configure adapter

EtherShare 2.5 does now allow to use the autoconfiguration option (compare figure 5) for more than one network interface, provided that on each segment another AppleTalk router is active. In addition, during startup, EtherShare will now verify any specified routing information for consistency with any external AppleTalk router. In case of AppleTalk configuration conflicts, EtherShare will fall back to the configuration provided by the external AppleTalk router and will issue an appropriate error message.

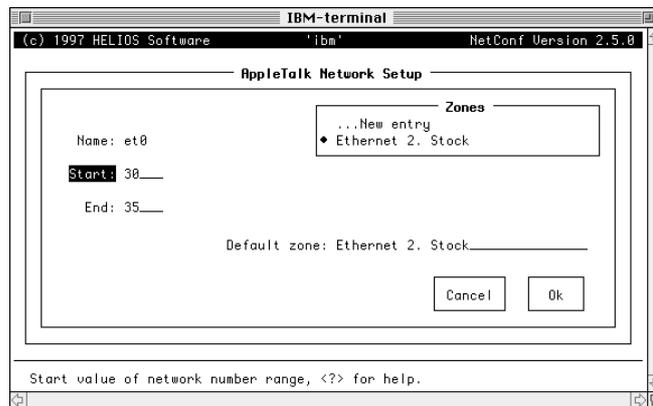


Fig. 6: Setup dialog of the “netconf” program

### Configure zones

As shown in figure 7, “Available Zones” lists all zones to which the EtherShare server is connected. “Zones providing EtherShare Services” lists all zones in which EtherShare Services will show up in the Macintosh Chooser. Select one of the lists using the TAB key and register/remove the desired zones using CTRL-L (to move a zone from “Available Zones” to “Zones providing EtherShare Services”) or CTRL-H (to remove a zone from “Zones providing EtherShare Services” to “Available Zones”).

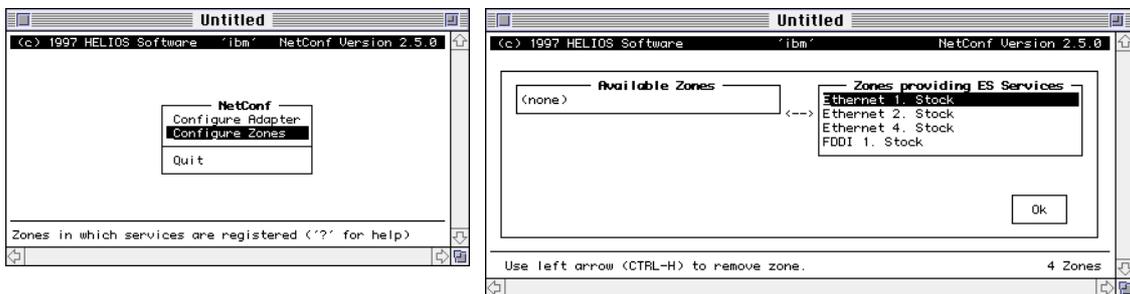


Fig. 7: Configuring zones with the new “netconf” program

### 3.2 The “vpoll” UNIX program

Our new “vpoll” UNIX program follows the former “poll” program that is described in chapter 2 of the EtherShare 2.2 documentation. The program serves to list and check network devices and entities. “vpoll” is an interactive program (see figures 8 and 9). It behaves similar to the Apple program “InterPoll”. You can navigate in the dialogs using the TAB key and (un)select items using Space/+,-. Further navigation instructions are given in the bottom lines of the dialogs (compare figures below).

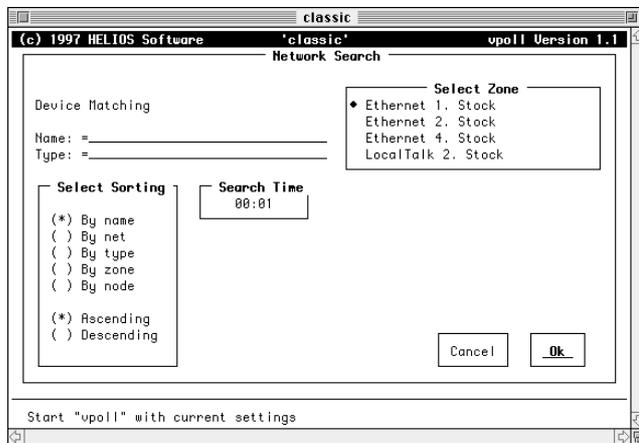


Fig. 8: User interface of the “vpoll” program

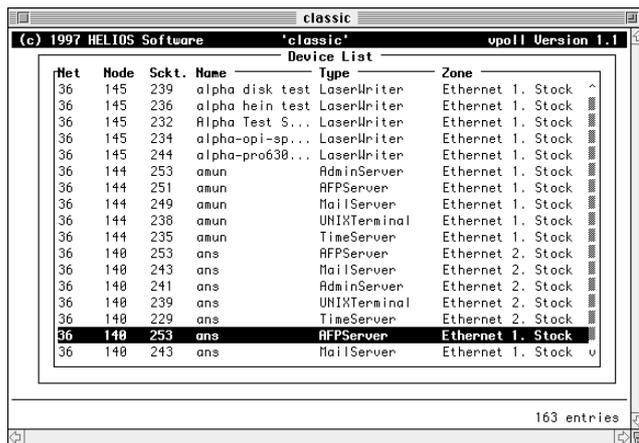


Fig. 9: Dialog window of the “vpoll” program

Please note that the “vpoll” program only provides information online. The data cannot be redirected into a file.

## 4 The EtherShare Admin program

The EtherShare Admin program serves to configure EtherShare on the server and lets you set up users, groups, volumes and printers from a Macintosh client. The program will automatically be added to the “EtherShare Applications” volume during installation and can be started by a double-click. It can also be started directly from the  menu provided that you have installed it on your Macintosh using the “EtherShare Client Installer” (see chapter 1 above).

### 4.1 User interface

The appearance of the Admin user interface has changed. We have built icons that characterize the different items in the **Lists** windows. An example is shown in figure 10 below.

The menus already contain EtherShare OPI menu items. If you did not purchase and install EtherShare OPI, these items will be displayed gray. There will be no functionality behind (compare figure 10).

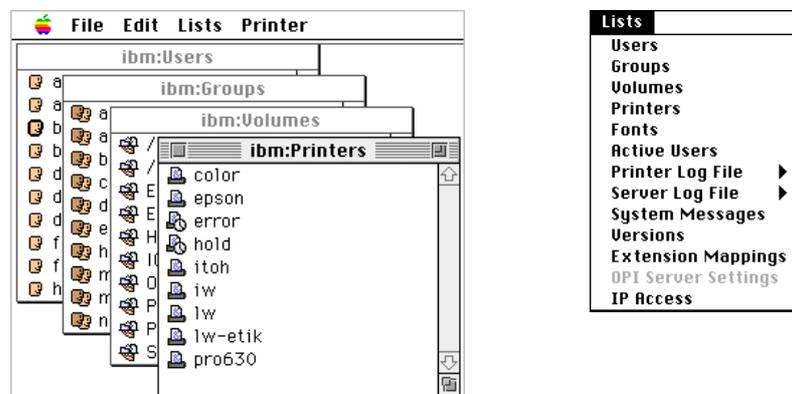


Fig. 10: The EtherShare Admin user interface

### 4.2 Setting preferences

The **Preferences** dialog is described in chapter 3.12 of the EtherShare 2.2 documentation. With program version 2.5 there are two additional items in this dialog, namely **Minimum User ID** and **Minimum Group ID**. Up to now, these parameters had to be defined on the UNIX server. They are described in chapter 7.3 (“Parameters of the “afpsrv” program”) of the EtherShare 2.2 documentation.

### 4.3 Volume settings

The EtherShare volume settings are explained in chapter 3.7 of the EtherShare 2.2 documentation. We have added two check boxes to the respective dialog that let you set the **Invisible** and/or the **UNIX Sharing** option (compare figure 11).

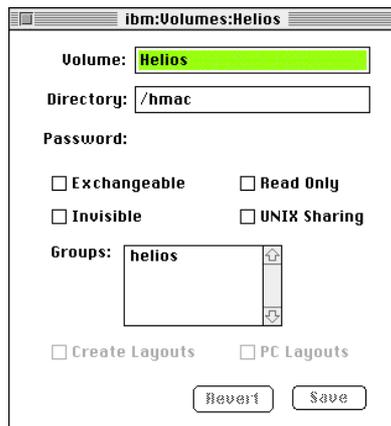


Fig. 11: Defining an EtherShare volume  
(**Create Layouts** and **PC Layouts** are meant for EtherShare OPI users only)

**Invisible** is used to create, on a specific server, a volume that will not be displayed by the Chooser and thus cannot be mounted. This may be useful e.g. if you are working with EtherShare OPI, separate your file server from your print server, and want to prevent users from working on the print server. The specific volume (e.g. /hmac) must be available on both servers but users have to work on the file server only in order to avoid too much traffic on the network. In that case, you have to activate **Invisible** for the specific volume on the print server (compare the illustration in figure 12).

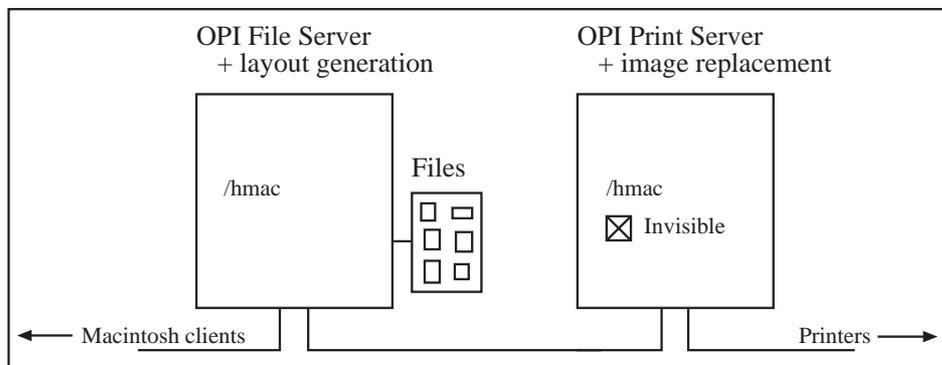


Fig. 12: Applying the **Invisible** option to a specific volume

The **UNIX Sharing** option has to be switched on if you want to share an EtherShare volume with DOS/Windows clients in order to ensure proper file locking. If Helios PCShare is installed on your server and running on your DOS/Windows clients you may check chapter 6.2 in the PCShare 2.5 documentation for further details about file sharing and file locking. Please note that the **UNIX Sharing** option requires PCShare 2.5 and specific settings in the PCShare Admin.

## 4.4 Printer queue settings

The EtherShare Admin **Printer** menu and possible printer queue settings for program version 2.2 are described in chapters 3.9 and 3.10 of the EtherShare 2.2 manual. With program version 2.5 there are some significant changes to the menus, behaviour and dialogs:

### Opening the printer jobs window

The **Show Printer Jobs** menu item has been removed from the **Printer** menu. You can open the printer jobs window by a double-click on the respective printer queue in the **Printers** list (compare figure 13).

### Assigning a PPD file

You can highlight any printer queue in the **Printers** list and then select the correct PPD file for the particular output device behind (see item **Select PPD...** in figure 13).

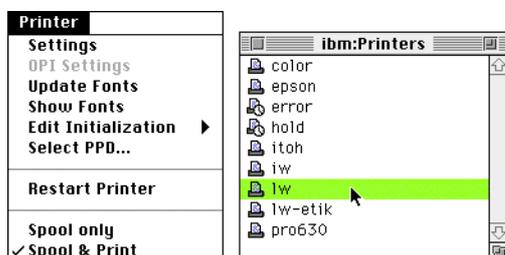


Fig. 13: The EtherShare Admin **Printer** menu and the **Printers** window (**OPI Settings** are meant for EtherShare OPI users only)

### Setting up a printer queue and using the new hold and error queue features

If you want to set up an existing printer queue you have to highlight the queue in the **Printers** window and then select **Settings** from the **Printer** menu. The printer settings dialog is shown in figure 14 below.

In this dialog you can define a hold and/or error queue for your current printer queue. This is a new feature and may be helpful because all print jobs that have been sent to this specific printer queue are stored for a given period of time and can be restarted even if the application that has initially launched the job has already been closed.

All “correct” print jobs are printed and at the same time stored on the hold queue. Whenever a mistake has occurred during printing, the print job will be shifted to the error queue. This holds true for technical mistakes (e.g. if the connection to the printer has been interrupted) and for errors that are due to a specific configuration (e.g. if you have defined “Check Images” for an OPI printer queue and the print server cannot find a particular image file that has been placed in the document by reference).

The screenshot shows a dialog box titled 'ibm:Printers:color'. It contains the following fields and options:

- Printer Name: color
- Chooser Name: ibm-color-spooler
- Spool Directory: /usr/spool/color
- Hold Queue: hold
- Error Queue: error
- Banner Page
- Accounting File
- Hide Queue
- Connection: AppleTalk
- Type: LaserWriter
- Zone: Ethernet 2, Stock
- Name: (empty)
- Hide Printer

Buttons at the bottom: Revert, Save.

Fig. 14: Setting up an existing (or new) EtherShare printer queue

To restart a print job from a hold or error queue you have to double-click the queue in the **Printers** window and drag and drop the desired print job from the hold/error queue printer jobs window to the printer jobs window of an active printer.

Hold and error queues can be defined using the connection **Hold Queue** as shown in figure 15. The **Hide Queue** option will be set automatically for this type of queues, because – usually – users should not be allowed to print directly to a hold or error queue. The dialog lets you specify an individual hold time.

The screenshot shows a dialog box titled 'ibm:Printers:error'. It contains the following fields and options:

- Printer Name: error
- Chooser Name: error
- Spool Directory: /usr/spool/error
- Hold Queue: None
- Error Queue: None
- Banner Page
- Accounting File
- Hide Queue
- Connection: Hold Queue
- Hold Time: 7 Days, 0 Hours

Buttons at the bottom: Revert, Save.

Fig. 15: Setting up an error (or hold) queue

**Load balancing**

With EtherShare 2.5 you can set up a group of printers for load balancing that is for shifting print jobs to a second or third printer in a group whenever the first printer is busy with a huge job. For that purpose you have to select the connection **Balance Group** in the **Settings** dialog as shown in figure 16 below. To specify a group of printers you just have to drag and drop the desired printers from the **Printers** window to the respective field in the **Settings** dialog.

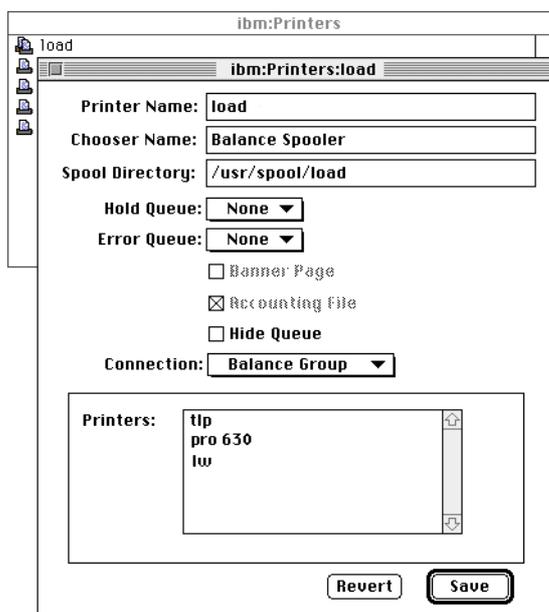


Fig. 16: Setting up a balance printer queue

**Print To Disk**

**Print To Disk** is another new EtherShare feature (see figure 17).

With the **Print To Disk** connection you induce the print server to print to a file. You have to specify a destination for that file (**UNIX Directory**) and you can enter a **Name Prefix** and a **Notify Program**, if desired. The prefix serves to identify the files that are coming from this specific printer queue (in case you have several **Print To Disk** queues that print to the same destination). The **Notify Program** option lets you enter a path that leads to a specific UNIX program. This program will be started automatically after printing has been finished successfully. Furthermore, you can select a mode of compression for the destination file and you can decide whether or not your print job has to be resolved the same way it would be resolved when printing to an output device. If the **Resolve** option is switched off the job will be written to the file "as is"; things that are usually accomplished during printing, as e.g. font including or image replacement (for OPI only), will be skipped.

The **Print To Disk** option may e.g. be used for automatic generation of PDF files. You can print to files in a specific UNIX directory and induce the Acrobat Distiller software to scan this directory regularly and convert incoming files into PDF.

ibm:Printers: for\_pdf

Printer Name: for\_pdf

Chooser Name: PDF

Spool Directory: /usr/spool/for\_pdf

Hold Queue: None ▼

Error Queue: None ▼

Banner Page

Accounting File

Hide Queue

Connection: Print To Disk ▼

UNIX Directory: /hmac/Dokumentation/PDF/broch

Resolve

Name Prefix:

Notify Program:

Compression: None ▼

Revert Save

Fig. 17: Setting up a **Print To Disk** printer queue

## 4.5 Log files

Printer and server log files are described in chapter 3.11 of the EtherShare 2.2 documentation.

With EtherShare 2.5 we provide better reporting, i.e. that the log files contain extended information, e.g. a printer log file gives you the total number of bytes printed and indicates whether you have printed composite or separations. If you are working with EtherShare OPI 2.0 the printer log files also provide information about image replacement. These extended information are especially useful for print jobs in an error queue because you will get details about the mistakes that have occurred.

Furthermore, we have changed the organization of the log files. They are now arranged by date. Every night at midnight the “cron” program starts automatically in the background and collects the log file information of the previous day. You can then select e.g. the printer log file of three days ago (compare figure 18). The **Printer Log File** and **Server Log File** menus always contain 8 items; log files which are older than seven days are deleted automatically.

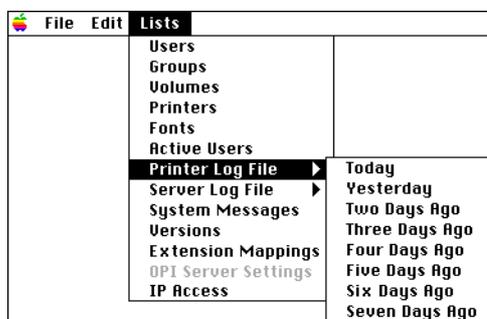


Fig. 18: Automatic log file administration

## 4.6 Listing versions

The **Versions** item from the **Lists** menu opens a window that provides several information about the program versions of the different Macintosh and UNIX programs that are installed on your system. With EtherShare 2.5 this window additionally contains information about your EtherShare, interface, and syslog configuration. Please note that the “Versions” window will be updated on call. Therefore, it may take a few seconds to open the window.

## 4.7 IP Access

### Availability

The “IP Access” functionality has been added to our EtherShare 2.5 program by update u0107. It is – for the first time – available on CD 011-2 that contains the update and a new version of the Admin program. So, customers who installed EtherShare 2.5 when it was first released (from HELIOS CD 011) have to install the update u0107 using the `Install Updates` option from the “Networking Products Installer CD-ROM” menu. The installation program will also install the new Admin, i.e. copy it to the (existing) “EtherShare Applications” volume. From this volume, you can then copy it to any Macintosh.

### The purpose of IP access functionality

AFP servers were traditionally only available in local area networks. The new AFP over IP transport allows connections to the AFP server from anywhere in the Internet. To protect your site, you might want to create an IP access list to restrict access to your server. You can create such a list on your UNIX server (see chapter 5 “IP configuration – Reference part”), but it is much easier to use the Admin program instead. It offers all options that are required for a standard access control configuration. Some additional parameters are available under UNIX only.

### System requirements

To make use of the new feature, you have to install and run:

- Open Transport 1.1.2 or later
- System Software 7.5.3 or later for Macintosh clients

- New AppleShare client for Macintosh clients. This new client is available from Apple (the URL is all in one line):  
<http://horton.austin.apple.com/cgi-bin/lister.pl?Apple.Support.Area/Apple.Software.Updates/Worldwide/Macintosh/Networking-Communications/AppleShare>

Look for the file AppleShare\_Client\_ZM-3.7.2.img.hqx.

(Note that System Software 8 includes the AppleShare IP client software.)

- EtherShare 2.5 and update u0107 (including the new EtherShare Admin)

#### About defaults

If no access list is available, any AppleShare client in the Internet will be able to access your UNIX server. If you install update u0107 for EtherShare 2.5 and use our update installer program, this program will automatically create an access list on your server. This list will allow access to all computers that are locally connected to the server (clients on the same network segment) and deny access to any other computer. Existing access lists are not replaced (this is – at present – only important for beta testers who have already created an access list). If you install the update manually (without using the update installer program), no access list will be created – meaning that access is allowed to anybody.

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Important: Please keep in mind that our update installer program will automatically stop (and restart) EtherShare for the installation procedure.

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#### Description of the access list

Figure 19 shows an example of an IP access list. The list is sorted. At first, it contains all addresses of computers/networks to which access is explicitly denied. Then, it lists those to which access is allowed. At the end, it contains a “Deny any other” entry that denies access to all computers/networks that do not appear in the list before. The representation of “any other” is 0.0.0.0 (for **Address**) and 0.0.0.0 (for **Mask**). If the “Deny any other” entry were missing, access would – by default – be granted to anybody in the Internet whose address had not been entered in the “Deny” section. Please note that the “Deny any other” entry cannot be deleted.

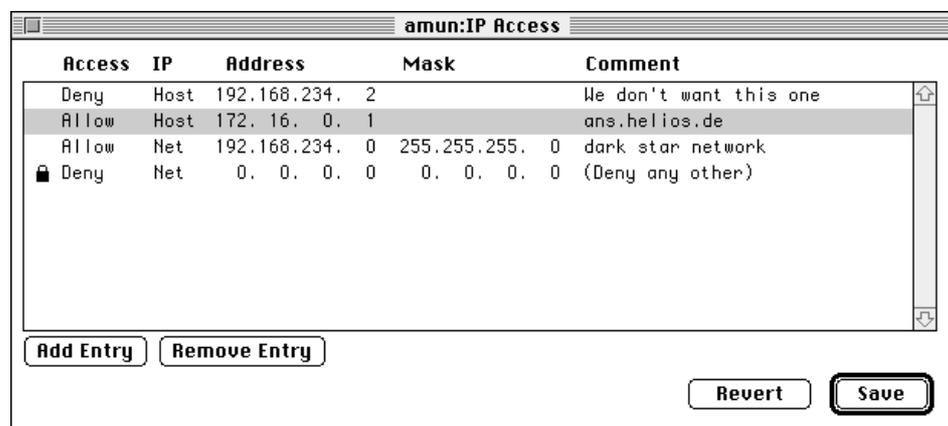


Fig. 19: Example of an IP access list

The access list will always be sorted that way automatically. This allows the program to go through the list from top to bottom and react very quickly. E.g. if an IP address is denied, the program can send the respective message after going through the “Deny” section only – it does not have to check the whole list. The checking mechanism is illustrated in figure 20 below.

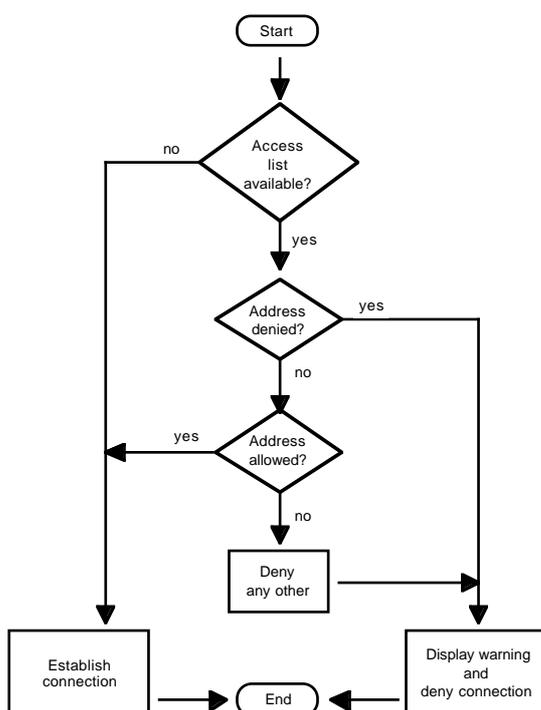


Fig. 20: How the program deals with access requests

The columns in the access list contain the following information (see figure 19 again):

**Access** specifies whether access is denied or allowed.

**IP** specifies whether the entry is meant for a single computer (**Host**) or a network (**Net**).

**Address** contains the IP address of the host/network. An IP address consists of 32 bits (4 groups of 8 bits). This number of bits allows well over 2 billion unique numbers to be used to identify a node on a network. When specifying an IP address, it is common to use a dotted decimal representation of four numbers between 0 and 255 divided by a period (e.g. 192.168.234.2).

**Mask** is only meaningful for network entries. The mask is structured like an IP address and specifies the number of bits that are relevant to the network identification. It filters out the logical network address. The mask 255.255.255.0 for example specifies that 24

bits are to be compared with the IP number. The remaining 8 bits (that identify the individual computers of a given network, as shown e.g. in figure 19) are not relevant.

**Comment** contains a description or name that may help you remember to whom the respective computer or network belongs.

**Defining access rights**

In order to set up or change the access list for your individual server, you have to select **Lists** and **IP Access** from the Admin menu and then click the **Add Entry** button in the access list to open the dialog that lets you set up new definitions (compare figure 21):

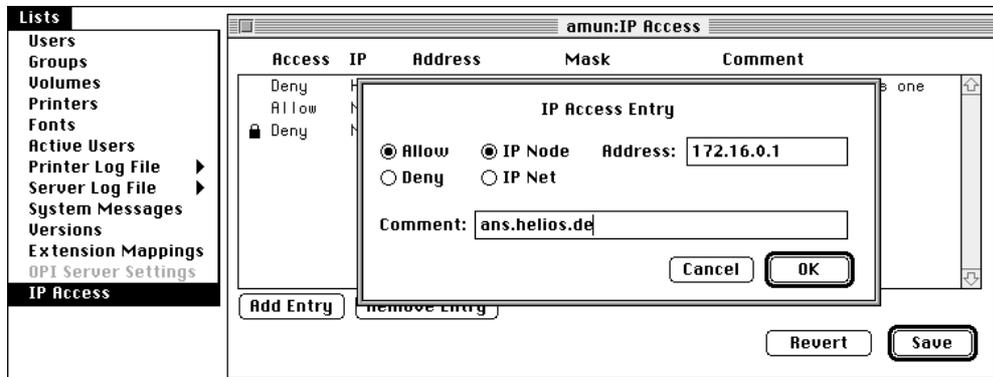


Fig. 21: Setting up the IP access list

First of all, you just have to click the respective radio button to specify whether you want to **Allow** or **Deny** either a host (**IP Node**) or a network (**IP Net**). For **IP Node** entries you only have to enter the correct **IP Address**. For **IP Net** entries you have to enter both, an **Address** and a **Mask** (see figure 22). The **Comment** field is restricted to 32 characters. The access list will automatically be re-sorted after adding a new entry.

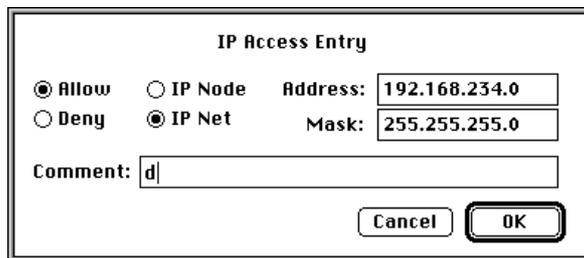


Fig. 22: Setting up an entry for a network

You can edit an existing entry directly if you want to change it. Just double-click the entry in the access list.

The “Deny any other” entry cannot be removed. For security reasons, it is always kept at the end of the list.

Please note that under UNIX there is at least one additional parameter available (allow-domain, denydomain). If someone edited the access list under UNIX and used this parameter, you would get a warning on opening the list with the Admin program again, because the Admin cannot display the “domain” entry. Editing the list with the Admin will replace all settings that have been defined under UNIX.

## 5 IP configuration – Reference part

### General remarks

AppleShare IP and our EtherShare 2.5 update offer some new features that are quite useful for your EtherShare UNIX–Macintosh network. In the following, we give you a rather short summary of configurations we recommend when using TCP/IP.

For advice on the software requirements, please refer to paragraphs “Availability” and “System requirements” in chapter 4.7 “IP Access” above!

### Access control via addresses and domains (under UNIX)

IP access configuration can be performed on a Macintosh using the EtherShare Admin program or under UNIX using an editor such as vi. The “Macintosh solution” is much easier and more convenient – it is described in chapter 4.7 above. Before proceeding with this paragraph, please read “The purpose of IP access functionality” and “About defaults” in chapter 4.7 “IP Access”.

If you configure IP access under UNIX, you have to change the “afpipaccess” configuration file. This does not require stop/start-atalk. EtherShare will read the configuration file on every login.

The script \$ESDIR/etc/mkipaccess will create an initial configuration file in \$ESDIR/conf/afpipaccess, allowing access to clients on the same network segment only. This file may contain the following statements:

```
allow ipaddr/mask
deny ipaddr/mask
allowdomain do.main
denydomain do.main
```

If the file is empty – or not present at all – access is allowed (this corresponds to allow 0.0.0.0/0.0.0.0). The IP Address 0.0.0.0 with the mask 0.0.0.0 matches any address, it is thus a good idea to use the statement:

```
deny 0.0.0.0/0.0.0.0
```

as the last line in the access file and only explicitly allow access to selected networks or IP numbers. You can grant access to the class C net 192.9.200 only using the following statements:

```
allow 192.9.200.0/255.255.255.0
deny 0.0.0.0/0.0.0.0
```

The mask (255.255.255.0 in the example) specifies the significant bits that are to be compared against the IP number. If the mask is not specified, it is assumed to be 255.255.255.255, meaning that it will match the number exactly. The example:

```
allow 192.9.200.1
deny 0.0.0.0/0.0.0.0
```

will thus allow access to a single machine only, namely to 192.9.200.1.

The IP address can also be specified as a normal host name, it must then be resolvable through the configured name service, e.g. DNS or NIS. If DNS or NIS is properly configured to resolve host names, you can also use domain-based access controls. The statement:

```
denydomain hacker.com
```

will deny access to any IP number that resolves to a host name that ends with the domain hacker.com. The allowdomain statement works the other way round:

```
allowdomain company.com
deny 0.0.0.0/0.0.0.0
```

would allow access to any machine that uses an IP address that resolves to a host name ending in company.com.

The domain-based access controls do cause a reverse lookup for the host name of every IP address that is used to connect to the server. If you use any IP addresses that do not have reverse mapping, timeouts might occur that slow down establishing a connection to the server. Please note that anybody who owns the reverse mapping of a set of IP addresses can specify arbitrary domains in his reverse DNS mapping, not only his own domains.

**Access  
control via  
port number  
(Firewalls)**

AFP over TCP uses connections to port 548. The port can be changed by specifying the afpport parameter in atalk.conf:

```
afpsrv: afpport=1024
```

would use port 1024 instead. For successful connections, the port number on the client side must be changed accordingly. This can be done by either specifying hostname:port in the dialog that lets you enter an IP number or by using the “AppleShare Client Setup” tool from <http://appleshareip.apple.com>. Figure 23 shows the user interface of this setup tool – the **Default TCP Port** is set to 1024.

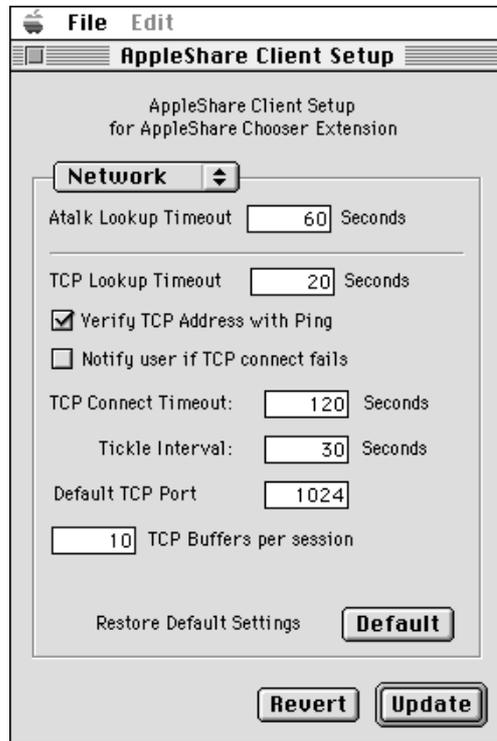


Fig. 23: Setting up a default TCP port on a Macintosh

### Configuring message delivery

The above-mentioned “AppleShare Client Setup” tool is also very useful for defining timeouts for server messages. You can induce your Macintosh to close specific message dialogs automatically after a given period of time. This can be sensible, because otherwise all processes that are running on your computer will be stopped until *you* close the message window. Figure 24 shows an example configuration. The settings are always valid for one client only.

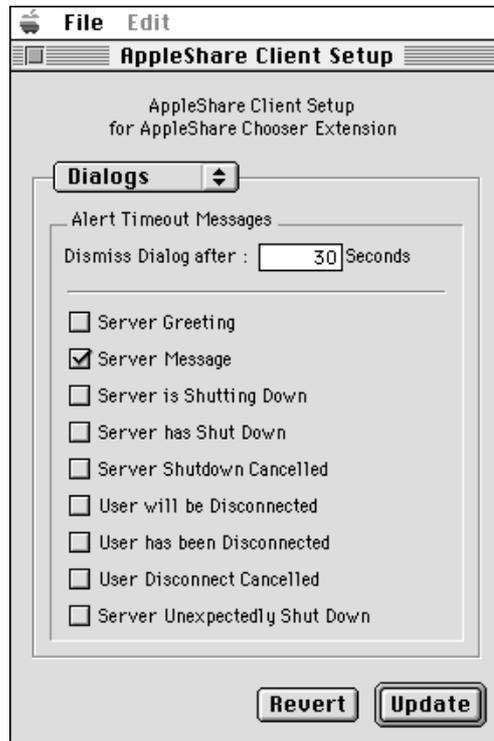


Fig. 24: AppleShare settings for incoming server messages

**Learn more  
about the  
AppleShare  
Client Setup**

As far as the other dialogs of the “AppleShare Client Setup” tool are concerned, we recommend to keep the default settings. For specific questions you may refer to Apple’s on-line documentation. Please note, that for some configurations, you have to specify the respective parameter on both platforms, the Macintosh and the UNIX server.

**New Ether-  
Share  
parameter for  
volume  
modification  
checking**

AFP 2.2 specifies the use of server notifications that avoid the client polling for changes on volumes. By default, the server checks for volume changes every ten seconds and notifies clients accordingly. This is similar to previous AFP versions where the client did poll every 10 seconds. If you have very busy volumes that change all the time, however, you may wish to specify another interval. With EtherShare 2.5 you can configure the respective parameter on the server in `atalk.conf`. For example:

```
afpsrv: volcheckinterval=60
```

The above command will induce the server to check every minute for volume changes, which reduces the volume status traffic to one sixth compared to previous AFP versions. Please note that clients using workstation software older than 3.7 will continue to poll every 10 seconds.

Changes to `afpsrv` require `stop/start-atalk`.

**Additional  
information  
about  
AppleShare IP**

IP access to the server can also be switched off completely – if necessary. You can use the following command to deny the mounting of volumes via TCP/IP:

```
afpsrv: noip
```

Note that changes to `afpsrv` require stop/start-atalk.

The number of AppleTalk sockets is still limited to 250. If you now use AppleShare IP connections for mounting EtherShare volumes, you have the 250 sockets available for pap (printers) and adsp (terminal, mail) connections.

## 6

## Helios Mail and Helios Terminal

The Helios Mail program and Helios Terminal are described in chapters 4 and 5 of the EtherShare 2.2 manual. With EtherShare version 2.5 we have replaced the power PC emulation. Both, Helios Mail and Helios Terminal are now designed for power PC native and 68k Macintosh computers.

Helios Mail and Helios Terminal also contain new features which contribute to facilitate the usage of the program. Some of these features are listed below:

- Helios Mail
  - New user interface with icons that characterize the specific items (e.g. large mail or unread mail)
  - More preferences available, new user interface of the “Preferences” dialog
  - Different reply options (e.g. **Reply including Letter**)
  - **Wrap** and **Find** options in the **Edit** menu
  - Possibility of sorting incoming mails by type, date, name of sender, or subject (you just have to click on the respective headline, e.g. From or Date)
  - Possibility of creating templates (using **File**, **New**, and **New Template**)
  - **Signature** option
 

You can create a new mail that only contains your signature and then select from the **File** menu **Save As Signature**. Your signature will be stored on the server and automatically added to any mail you send – provided that the **Signature** check box is activated in the “Preferences” - “Insert” window.
  - **Vacation** option
 

You can create a new mail that contains information about the time you will be on vacation. If you select **Save As Vacation Message** from the **File** menu your note will be stored on the server and automatically sent as a reply mail to all the people who send mails to you. You can activate or de-activate the option using the **Vacation** item from the **Edit** menu.
  
- Helios Terminal
  - **Open on Key Press** option
  - **Close Window on Connection Close** option

## 7 Other new features

### Time server

With the “EtherShare Client Installer” that is described in chapter 1 above you can add the **Time Server** option to your Chooser as shown in figure 25 below. You can then select a specific server, press the **Set Time** button in the Chooser dialog and thus make sure that the time on your Macintosh client is always synchronized to the time on the server you have chosen. If the time of your Macintosh goes wrong by one hour, you have to open the “Date & Time” control panel and check whether **Daylight Savings Time** has been set up correctly.

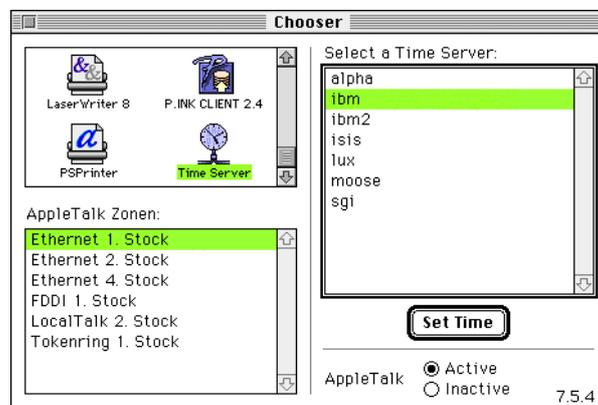


Fig. 25: Selecting a time server for time adjustment

### Helios LanTest version 2

The EtherShare 2.5 software package contains the Helios Lan Test version 2.0. This Lan Test software is able to measure transfer rates during printing and lets you switch between two different file sizes, namely 3 MB (recommended for testing standard Ethernet networks) and 30 MB (recommended for testing FastEthernet or FDDI networks).

