



# Tech Info Library

## AppleShare File Server: Allowing Apple II Network Startup

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TOPIC -----

This article tells how to set up your AppleShare File Server software so that Apple IIGS and Apple IIe systems can start up over the network.

An earlier version of this article appeared in the June 1990 "TechBeat" and in the "Apple II Tech Bulletin" for February-March 1990. Since then, new versions of the Apple IIGS and Macintosh operating systems have been released, requiring updated documentation.

DISCUSSION -----

Assuming the hardware is already set up, the installation process should take from one to two hours. This article assumes you are installing AppleShare on a newer Macintosh running System 6.0.7. Note: If you are installing on one of the older Macintosh computers, for example an SE/30, System 6.0.5 would be an acceptable replacement for System 6.0.7.

This article also applies to those with existing AppleShare File Servers. Where necessary, we will explain what material to skip over.

Besides Macintosh system software, you need the AppleShare File Server software (version 2.0.1), Apple part number M0548/B. Finally, you need Apple IIGS System Software Update Version 5.0, Apple part number A0013LL/A. (This version is now shipping with version 5.0.4 in the box.)

Note that IIGS System 5.0.4 is a three-disk set. The third disk, a Macintosh disk called "Apple II Setup", is essential. You will need to buy at least one IIGS System 5.0 Software Update, because this third disk does not ship with new IIGS systems. Table 1 lists the disks required. You also need one blank 800K disk.

Note: For future reference, if a new version of IIGS system software is released, use the complete three-disk set from that system instead of version 5.0.4.

Table 1: Required Disks

Disk Name	Format	Comment
System Startup 6.0.7	Mac 1.44MB	
System Additions 6.0.7	Mac 1.44MB	
Network Products Installer 6.0.7	Mac 1.44MB	
AppleShare File Server 2.0.1 Installer	Mac 800K	Part of A'Share 2.0.1.
AppleShare File Server 2.0.1 Admin	Mac 800K	Part of A'Share 2.0.1.
Apple II Setup 2.0.1	Mac 800K	Part of A'Share 2.0.1.
-->Obsolete disk!		
/System.Disk	ProDOS 800K	Part of IIGS System 5.0.4.
/System.Tools	ProDOS 800K	Part of IIGS System 5.0.4.
Apple II Setup 2.1.3	Mac 800K	Part of IIGS System 5.0.4.
-->New version.		

## 1. Setting up the AppleShare File Server

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Follow these steps to set up the AppleShare File Server:

- 1) If you have an existing server, start up from the Network Products Installer disk and install "Apple II Setup (v2.0.1)". (Others should skip to the next paragraph.)
- 2) When the Installer prompts you for the "Apple II Setup" disk, insert the Apple II Setup version 2.1.3 disk that came with IIGS System Software 5.0.4.

Do not insert the obsolete Apple II Setup disk that comes in the box with AppleShare 2.0.1. For those with an existing file server, proceed to Section 2, "Preparing AppleShare for Apple II Users".

If you haven't set up your server yet, here is how to do it:

- 1) Boot the Macintosh with the System Startup disk
- 2) Launch HDSC Setup and initialize the hard disk. When giving the hard disk a name, use a short name that fits ProDOS conventions. The name must begin with a letter (A to Z) and contain nothing but letters, numerals and periods. No spaces. Lower case is permitted. For this example, we will name the server volume "A2".
- 3) After the hard disk has been initialized, quit HDSC Setup and launch the Installer. Click "Easy Install".
- 4) When the installation is complete, quit the Installer.
- 5) Double-click on the hard disk icon and open the System Folder.
- 6) Drag "Easy Access," and any printer drivers you don't need, to the Trash. You can also delete MultiFinder. If you won't be doing any

printing from the file server, you can throw away Backgrounder and PrintMonitor.

- 7) When you are done, select "Empty Trash" from the Special menu and close all open windows. Then select "Shut Down" from the Special menu.

With the cleanup out of the way, it's time to install the software:

- 1) After the Macintosh ejects the System Startup disk, restart from the Network Products Installer disk.
- 2) Launch the Installer and select "AppleShare File Server (v2.0.1)" and holding down the Shift key, select "Apple II Setup (v2.0.1)".
- 3) Click Install. The Installer will prompt you for the "AppleShare File Server" disk (that's the AppleShare Installer disk), and shortly thereafter, the "AppleShare Administration" disk.
- 4) When it prompts you for the "Apple II Setup" disk, insert the Apple II Setup version 2.1.3 disk that came with IIGS System Software 5.0.4.

Important: Do not insert the obsolete Apple II Setup disk that comes in the box with AppleShare 2.0.1

- 5) When the Installer is finished, quit and restart the Macintosh, letting it start up from the hard drive.
- 6) The hard drive isn't an AppleShare File Server yet, so you must set it up. Open the System Folder on the hard drive and double-click "AppleShare Admin".
- 7) When asked if you want to "Prepare volume 'A2' for use with AppleShare?", click OK. You'll be asked to give the file server a name, for example, "Apple II Forever".
- 8) Next, the system will prompt you for a Users and Groups file. Open the Server Folder and click "New". Create users and groups according to your needs and preferences, starting with the Administrator.
- 9) When you are done, select "Save Users and Groups as..." from the File menu and save the Users and Groups in the Server folder.

## 2. Preparing AppleShare for Apple II Users

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Here's how to prepare AppleShare for Apple II Users:

- 1) If you haven't done so, get into the AppleShare Admin program. (There is no need to shut down your server to do this.)
- 2) Under the Server menu select "Server Info" and click on the check box marked "Apple II Features".

- 3) Click "Save". Quit the AppleShare Admin program.
- 4) If you were updating an existing file server, shut down the server and restart. Others can merely select "Restart" from the Special menu to restart the Macintosh. It will come up as an AppleShare File Server.

If you want the file server to support network startup only for Apple IIe users, the server is now ready to start them up over the network, once you set the access privileges on the volume. Users must be able to "See Files, See Folders" to start up.

To set the access privileges, follow these steps:

- 1) Get into AppleShare Admin and select "Volume List" from the Volume menu.
- 2) Double-click the server volume.
- 3) Set the access to "See Files, See Folders" and apply the changes to all enclosed folders -- unless you have an existing file server, in which case you will probably need to assign access by folder.

Apple IIe users need "See Files, See Folders" access to the top level of the server startup volume. Whether you set these changes for the Administrator only, all users, or just the particular groups, depends on how you have planned your server.

If you want IIGS users to be able to start up over the network, you should continue with the next section, which tells you how to install IIGS system software onto the server, over the network. This step is required only if the IIGS users will be starting up over the network. If the IIGS workstations have hard drives, you should set them up to start up GS/OS on their hard drives, and install AppleShare. This way, they can mount server volumes on the desktop, just like Macintosh users.

### 3. Installing IIGS System Software over the Network

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Make sure you have the AppleShare File Server and the Apple IIGS connected via LocalTalk or similar network cabling. The IIGS should have a minimum of 1MB of RAM and one Apple 3.5 Drive. (You'll save time if you equip the IIGS with two Apple 3.5 Drives.)

When you turn on the IIGS, hold down the Control Open-Apple Escape keys to get into the text Control Panel. If you have defined a RAM disk, make sure you leave the system with at least 1MB of memory. Under Slots, ensure that the Startup Slot is set to 5, and that Slot 5 is set to "SmartPort" and Slot 7 to "AppleTalk" or "Built-In AppleTalk". Slot 1 should be set to "Your Card", or on a ROM 03 IIGS to "Built-In AppleTalk". Exit from the Control Panel and turn off the computer.

Be sure you have the original (unmodified) System.Disk and System.Tools diskettes. Lock both diskettes to prevent accidental deleting of critical files. You will also need one blank 800K disk to use as an AppleShare

startup disk. Follow these steps:

- 1) Insert the System.Disk and power on the IIGS.
- 2) When the Finder desktop appears, insert the blank disk and initialize it. Call it "AppleShare".
- 3) Launch the Installer from System.Tools. If you have two drives, eject the System.Disk. If you have one drive, eject the System.Tools disk.
- 4) Insert the blank "AppleShare" disk you just initialized and click the "Disk" button until its name appears.
- 5) Select the installer script entitled "AppleShare on 3.5 Disk" and click Install. Before installing, the system will display an alert message explaining not to install this on your only copy of the system disk. Click "Perform This Update" to continue. Some disk swapping will be required.
- 6) When the installation is complete, make sure the AppleShare startup disk you just created is in drive 1, and restart. To save time, you can hold down the Control Open-Apple Reset keys rather than quitting to the Finder and doing a Shutdown.
- 7) When the Finder desktop is on the screen, use the mouse to select the graphic Control Panel under the Apple menu. If it isn't already highlighted, click on AppleShare.
- 8) Select the file server and connect using the Administrator name and password. Then select the AppleShare File Server volume and mount it. Close the graphic Control Panel.
- 9) Run the Installer on System.Tools. Click the "Disk" button until the file server name appears -- in our example, "A2".

Here is how to install some files over the network onto the file server volume:

- 1) Select the following scripts: Server Network Startup, Server Quick Logoff and optional scripts.

For optional scripts, select anything that IIGS systems starting over the network will require. For instance, if you need access to a network printer, like a LaserWriter or an AppleTalk ImageWriter, install those scripts.

- 2) Select the optional scripts you need by holding down the Open Apple key when you click on them.

Caution: do not try to install "Latest System Files" or "Latest System Files (No Finder)", or IIGS users will not be able to start up over the network. Note: There was an error in the original version of this article that indicated you should install the "Latest System Files (No

Finder)" script. It was corrected in a subsequent issue of "TechBeat."

When you click "Install", the system installs the IIGS system software over the network. To show network activities, double arrows at the top left of the screen will flash. The installation may take some time.

- 3) Before you run off to grab a coffee, wait for the alert message telling you to "install this update only on a file server's startup volume". Click "Perform This Update" to continue.
- 4) When the installation is complete, hold down the Control Open-Apple Escape keys to enter the text Control Panel.
- 5) Under Slots, set the startup slot to 7. The next time you start up the IIGS, it will be over the network. First, however, you have to set up the server for IIGS users. See section 4 below.

#### 4. Setting up the File Server for IIGS Users

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Follow these steps:

- 1) Leaving the file server running, get into the AppleShare Admin program.
- 2) Use the Shift-click method to highlight all the IIGS users you want to start up over the network.
- 3) Select "Set Startup" under the Apple II menu.
- 4) To have IIGS users start up into the Finder, select "Finder" under the System folder. You can also select a default network printer if one is available, and if you installed the drivers for them in section 3. Note that any printers to be selected must be powered up and visible over the network.

For Apple IIe users, you can set the startup application to be any ProDOS 8 application (file type SYS). Apple IIe systems that will start up over the network must be equipped with AppleShare Workstation cards and 128K of RAM. They must also be enhanced. (If you will be running Aristotle Admin, you'll need an Apple II Memory Expansion card with at least 256K of RAM. IIGS users who want to run Aristotle Admin need to define a RAM disk with 256K of RAM.) IIGS users can also start up to any ProDOS 8, ProDOS-16, or GS/OS application.

When you have finished setting up the startup information for your Apple II users, all that remains is setting the access privileges:

- 1) Under the "Volumes" menu, select "Volume List", double-click on the server volume, and a dialog box will be displayed.
- 2) Set the access privileges so that everyone can "See Files, See Folders", and apply changes to all enclosed folders, unless you have an existing server.

In such a case, you should not apply changes to enclosed folders, as there may be folders you do not want IIGS users to have access to. IIGS users need "See Files, See Folders" access to the top level of the server startup volume, the System Folder, and all folders within it. They will also need the same access to the Icons folder, which holds IIGS Finder icons. Users may experience errors if they don't have sufficient access for various operations. If you find some IIGS software that needs write access to a particular folder, you should lock that folder so that adventurous users can't throw it away.

- 3) When you are finished setting up access privileges, quit from the AppleShare Admin program.

## 5. Booting over the Network

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You should now be able to start up over the network with a IIGS or a IIe. A IIGS starting up over the network displays several different screens during the startup process. You can verify you installed the correct version of the Apple II Setup on your file server by watching the "Starting up over the network" screen. It should say "2.1.3 GS.OS" at the top right if you used version 2.1.3, which comes with IIGS System 5.0.4.

After a few moments, the system prompts the user for a user name or allow guest access, if it is enabled. Be sure to test server logon as a normal user, and not just as the Administrator. That way you can uncover any access privilege problems. If you ever see an error message, take note of any error codes and compare them to the list in the back of the "ProDOS Technical Reference Manual" or in the "Apple IIGS GS/OS Reference." Two of the most common errors are listed in the Appendix at the end of this article. You'll find that most errors are easily explainable unless you mixed up software versions during installation.

You have now completed the installation of software to allow IIGS and IIe users to start up over the network.

## Appendix: Common Errors

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Cannot load file Start.GS.OS

Error = \$0046

This is the message you get if you failed to follow Step 3 correctly. It is a ProDOS file system error \$46, which means "Path not found". The GS/OS files the system requires to start up could not be found on the file server. If you have multiple file-server volumes, verify you installed the IIGS System Software over the network onto the server startup volume.

Unable to load descriptors

Error was \$004E

This message denotes an access privileges problem. It is a ProDOS file system \$4E error. This means the user had insufficient access privileges to complete the required operation, or, possibly, the file was locked. Most

likely, you haven't given the user who experienced the error "See Files,  
See Folders" access to the top level of the server startup volume, the  
System folder, and all folders within it.  
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