



# Tech Info Library

## Apple RAID: Hardware and Software Setup (11/94)

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TOPIC -----

This article describes how to install Apple RAID (Redundant Array of Independent Disks) onto your PowerPC-based Workgroup Server server. You need to install Apple RAID onto your system so that Apple RAID can do its job.

DISCUSSION -----

### System Requirements

To use Apple RAID software, you must have:

- A PowerPC-based Apple Workgroup Server.
- Macintosh System Software Version 7.1.2.
- Disk drives with a minimum of 200 MB of storage.
- Disk drives attached through the built-in SCSI ports (Apple RAID doesn't support third-party SCSI bus channels).

The Apple RAID drivers use approximately 400K of RAM. Be sure your system has adequate RAM to serve this additional demand.

### About Disk Drives

It's important to check on the compatibility of your hard disks before storing valuable data on them with Apple RAID. If a disk you which to use follows the Macintosh SCSI interface standards, and is made by a reliable vendor, it should work properly with Apple RAID. However, if you are unsure if a disk is compatible, contact the manufacturer of the disk and ask if the product has any known problems using the Apple RAID format.

**IMPORTANT:** Disk drives with under 200 MB of data storage are not supported by Apple RAID.

### Installing Apple Raid Software

You must install the Apple RAID software program on your startup disk. The Apple RAID Installer places these files on your startup disk:

- Apple RAID Software program in the Apple menu folder on the System folder.

- System extension file, called Apple RAID Monitor, in the Extensions folder.
- Apple RAID folder in the topmost directory of your startup disk, which contains the Apple RAID Read Me and the SimpleText text processing program.

If you will be creating Apple RAID volumes on your startup disk, you'll need to initialize your startup disk with Apple RAID by following the instructions in "Initializing Your Startup Disk" before you install the Apple RAID program.

#### Initializing Your Startup Disk (optional)

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Follow this procedure if you want to initialize your startup disk with Apple RAID. You will then be ready to create mirrored, striped, and standard Macintosh volumes on the startup disk.

- 1) Use the Apple RAID Planning Sheet to decide how you will apply Apple RAID to your system. Good planning speeds up the task of adding Apple RAID to a server.
- 2) BACK UP YOUR FILES.  
The Apple RAID disk initialization erases all data on the disk. Make sure that you have backed up all your files on another disk or other media.
- 3) Start up the server from the Apple RAID CD-ROM disc.  
Insert the CD-ROM disc and hold down the C key while restarting the server. This assures that the system software starts up from the CD-ROM.
- 4) Double click Apple RAID on the Apple RAID CD to start the program.
- 5) Select your server's startup disk and initialize it.

**WARNING:** Be sure you have backed up your data as initialization will erase all data on the disk.

Click OK when asked if you want to erase all the data on the disk. When initialization is complete, you'll notice that the volume has disappeared from the Volume column. The Initialize command removes the volume that was there.

- 6) Select your startup disk in the Disks column and choose New from the Volume menu.  
The Create New Volume dialog box appears, with your selection highlighted.

**Shortcut:** Click a disk in the Disk column and drag it to an unoccupied area in the Volumes column. When you release the mouse button, the Create New Volume dialog box appears.

7) Select the Volume type Standard Macintosh HFS.

8) Set the size of your startup volume by entering a number in the Volume Size box.

This box is preset with the maximum available space on the disk. For your startup volume, it's a good idea to take the current size of your system folder and double it to allow space for future additions of fonts, system extensions, and so on.

9) Click OK to create a standard Macintosh volume.

The process typically takes less than a minute. When the process is complete, an icon for the volume displays on the desktop and an entry for the new volume appears in the Volume column in the Setup window.

10) Re-install your system software into the Apple RAID volume you just created.

Use the appropriate System Software Installer on your Apple RAID CD-ROM, or re-install your system files from your backup copy in order to preserve any customizations you've made to your system files.

Your new Apple RAID volume is now the startup volume.

11) Restore other files into your new RAID volume that you want to reside there.

You are ready to install the Apple RAID Software program.

NOTE: You have created an Apple RAID initialized standard Macintosh volume for your startup volume. This is the simplest means to installing Apple RAID on a RAID initialized disk. However, you may want to apply the protection of a mirrored volume to your startup volume. You can do this at any time, without shutting down or restarting your server, by using the Create Mirrored Volume command. For instructions, see "Mirroring a Standard Volume" in "Apple RAID Software User's Guide". A mirrored volume requires two disks initialized with Apple RAID.

#### Installing The Apple RAID Program

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1) Insert the Apple RAID Software CD-ROM disc into the CD-ROM drive.

2) Start the Apple RAID Installer.

3) Select your startup disk and click install.

4) Click Restart to restart the server.

After restarting your server, the Apple RAID program can be found in the Apple menu.

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