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Apple IIGS System Disk 5.0: Overview

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Apple IIGS System Disk 5.0 is the new release of system software for the Apple IIGS computer. The main features include:

- Support for AppleShare File Server
- Speed, speed, and more speed
- A Control Panel and Control Panel devices (CDEVs)
- Multiple simultaneous installations with the Installer
- 5.25-inch Disk Driver is installed
- Increased ToolBox support

Packaging

The AppleTalk Network User's Guide and AppleShare Apple II Setup Disk are included only in the System Software 5.0 update box. It will not ship with the Apple IIGS hardware system.

The Apple IIGS manual is being rewritten to include the information in the AppleTalk Network User's Guide.

System Requirements

Apple IIGS System Disk 5.0 requires an Apple IIGS with a least 768K of memory when operating on a network. As a stand-alone system the 5.0 System Disk requires only 512K.

AppleShare and Network Support

One of the main new features of Apple IIGS System Software 5.0 is GS/OS support for AppleShare File Server volumes. To use the Apple IIGS with an AppleShare File Server, you need to use version 2.0 or later of the AppleShare File Server

software.

There are a number of additions to GS/OS to support AppleShare. These include:

- Booting GS/OS over the network
- Creation of a 3.5-inch Server Startup Disk
- An AppleShare FST (File System Translator) for GS/OS
- A Control Panel File Server Chooser
- Ability to auto-logon to a server
- Server Logoff
- Finder support of AppleShare

Network Booting

To use the Apple IIGS with an AppleShare File Server, you need to use version 2.0 or later of the AppleShare File Server software. If you have an existing AppleShare File Server you need to order:

Apple IIGS System Software version 5.0

This package includes a new "Apple II Setup Disk". This disk is a Macintosh disk that uses the Macintosh Installer to update the AppleShare File Server 2.0.1 server boot blocks to GS/OS. The boot blocks are sent to the workstation when the user requests network booting from the Apple IIGS. The disk is found in the back of the AppleTalk Network User's Guide that ships inside the stand-alone package. After the Macintosh has been updated, you can use the Apple IIGS Installer (located on the SYSTEM.TOOLS disk) to update the SYSTEM folder on the server hard drive.

All servers on the network should be updated to the new boot blocks at the same time. You should not have boot blocks from Apple IIGS Workstation Software and System Disk 5.0 on the same network. AppleShare File Server will start shipping with the new Apple II Setup Disk mid-summer 1989.

Local Booting

Using a 3.5-inch disk can speed up server boot times. There are two methods of gaining access to an AppleShare File Server from a 3.5-inch disk:

- Local Network Startup
- AppleShare on 3.5-inch Disk

The first method performs the same function as network booting, and the second boots into the Finder.

Local Network Startup saves time and network traffic when booting an entire class of computers at the same time. The Installer update to allow faster network booting is called "Local Network Startup".

The Installer update that lets you boot into the Finder is called "AppleShare on 3.5 Disk". This type of disk is called a "workstation startup disk".

ExpressLoad

ExpressLoad is new with Apple IIGS System Software 5.0 and causes GS/OS to load the system and applications faster. ExpressLoad enhances the standard Apple IIGS System Loader and lets large applications load in a shorter time.

Developers can turn applications into ExpressLoad format using the APW tool called Express or the MPW IIGS tool called ExpressIIGS. A load file must contain resources and code segments in a specific order to be compatible with ExpressLoad. ExpressLoad checks files first to see if they are in the proper format. If the file is not in ExpressLoad format, the application is launched by the normal Apple IIGS system loader.

To save memory, ExpressLoad is loaded only on systems with more than 512K of memory. Before loading ExpressLoad, the system checks to see if there is more than 512K of memory. It will not ExpressLoad into a 512K system.

ToolBox

A number of the toolbox routines have been modified to increase speed. They include "special case" code that causes QuickDraw and other routines to operate faster, based on the parameters that were passed to QuickDraw. Programmers do not have to modify their code to support any of these "special case" routines.

Control Panel and CDEVs

The Apple IIGS System Disk 5.0 includes the Graphics Control Panel, which is similar to the Macintosh Control Panel and Chooser. The Graphics Control Panel is implemented as an NDA (New Desk Accessory). This type of DA is available only to Apple IIGS desktop applications.

The Graphics Control Panel is an expanded facility for controlling any number of system parameters. This functionality lets Apple and third-party developers add Control Panel "devices" (CDEVs). The Graphics Control Panel sets the same information as the existing Apple IIGS Control Panel (now called the Text Control Panel) which is accessed by using the Command-Control-Escape keys. Icons for all CDEVs look the same, letting you identify a CDEV quickly and easily.

CDEVs are located inside the SYSTEM folder, just as fonts and desk accessories:

```
/disk/SYSTEM/CDEV
```

Desk Accessories

Like the current Apple IIGS System Disk, Apple IIGS System Software 5.0 supports New Desk Accessories (NDAs). The system can now support 128 NDAs, thanks to scrolling menus. Desk Accessories are in the following folder:

```
/disk/SYSTEM/DESK.ACCS
```

SCSI Manager

The SCSI manager has been modified to provide a four-fold speed increase and provide additional SCSI support. The new driver is faster because it is loaded into memory and does not use the firmware on the card. When the driver was written, a number of new features were added:

- Full SCSI Device Support
- 7 Physical Devices
- 32 Volumes per Drive
- Full SCSI Command Support
- Access to Non-ProDOS Partitions
- Support for Magneto-Optic Drives (with a driver)

Related Articles

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- Apple IIGS System Disk 5.0: ToolBox Changes
 - Apple IIGS System Disk 5.0: Changes to BASIC.SYSTEM
 - Apple IIGS System Disk 5.0: Disk II/Apple 5.25-inch Driver
 - Apple IIGS System Disk 5.0: Advanced Disk Utility and SCSI Manager

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