

This chapter describes the installation of programs from floppy disks to the Q Drive. We've included a set of generic instructions that work with most programs.

AppleWorks and AppleWorks GS are two of the most popular Apple II programs available, so it's no surprise that lots of people want to install one or the other on their Q Drive. Judging by the number of calls our technical support department receives, though, installing these two programs is not quite as simple as it might seem. The plethora of AppleWorks add-ons available (*TimeOut*, etc.) complicates installation. AppleWorks GS isn't any better—the instructions in its manual for hard drive installation aren't quite correct. So here's some help.

GENERIC INSTALLATION INSTRUCTIONS

Most unprotected ProDOS and GS/OS software can be installed on the Q Drive, including most current business, productivity, and utility programs. Many games and educational programs are copy-protected, or run under older operating systems such as DOS 3.3. These programs usually can't be installed on the Q Drive. (DOS 3.3 programs can sometimes be installed by using Glen Bredon's *DOS Master*, but it's usually not worth the bother.)

CHAPTER NINE

INSTALLING PROGRAMS

Start with the program's manual. Some manuals specifically state that the program is hard-drive installable. A few manuals even have specific instructions for installing the program. A very few programs include special software which will do the installation for you. If a program's manual has installation instructions, *follow them*. If a program comes with hard drive installation software or a script, *use it*.

Otherwise, try the following two tests to determine whether a program will run on your Q Drive or not. (These tests aren't conclusive—it's possible that a program could pass both tests but still not work on the Q Drive—but such programs are rare.)

MAKE A COPY FIRST

Make a copy of the original program disk using a utility program like the Apple System Utilities, *Copy II Plus*, *FastCopy*, or the IIGs Finder. (Don't use a program which can copy protected disks, just use a regular disk copy program. If you use *Copy II Plus*, don't use the Bit Copy option.) If you get an error message during the copy operation, the program may be copy-protected and not hard-drive installable. (It may also indicate that you have a bad disk, but that's another topic.)

If you get no errors during the copy operation, but the copy of the disk doesn't boot or otherwise fails to work correctly, this may also be a sign that the disk is copy-protected.

If the copy works, but asks you to insert the original program disk at some point, you may have encountered a program with what's known as *key-disk protection*. The original program disk contains an electronic "signature" which is not duplicated when the disk is copied by normal means. The duplicate disk notices that this "signature" is missing and asks for the original disk to verify that you actually own the program. In most cases, key-disk protected programs can be installed on the Q Drive, but you'll need to keep the original disk handy to run it.

DOES IT RUN WITH THE Q DRIVE?

For this test, boot the Q Drive as if you were going to use it normally. Now put the program you're testing into any disk drive. Use the Mini Selector, *TreeSurgeon*, or the Finder to look at the drive. If you can't read the disk, it's probably a DOS 3.3 or Pascal disk and can't be installed on the Q Drive.

If you have a IIGs, try launching the program from its original disk. Don't boot the disk, but boot the Q Drive first and run the startup program, usually a program whose name ends in ".SYSTEM" or ".SYS16". This test makes sure that the program is compatible with the version of GS/OS installed on the Q Drive. (A few older IIGs programs, such as *PaintWorks Gold* and *Deluxe Paint II*, were written before the days of GS/OS and may not work with the latest versions.)

Assuming that the program has passed these two tests, you can try installing it on your Q Drive. (Remember, it still might not work, but we've now know it's at least worth a try.)

1 CREATE A FOLDER

Create a subdirectory to put the program into, keeping in mind the general organization of your Q Drive. For example, if you've got a subdirectory for games, and you're installing a game, create a new folder inside the games folder for the new game.

2 COPY THE PROGRAM

Copy the program files into their subdirectory. *Do* copy program files, especially files ending in ".SYSTEM" or ".SYS16". *Don't* copy the System folder, the Appletalk folder, the ProDOS file, the BASIC.System file, or any other system files which already exist on your Q Drive. Since your Q Drive already contains system software, duplicate system software only wastes space. You may or may not want to copy the program's sample data files, if any are included, onto your Q Drive.

3 COPY THE ICONS

If you have a IIGs and use the Finder, look for an Icons folder on the disk. Copy any icon files from this folder into the Icons folder on your Q Drive if you want the program's unique icons to appear in the Finder.

MULTIPLE DISK PROGRAMS

If the program you're installing comes on more than one disk, copy the files from the second and subsequent disks into the same folder. Again, don't bother copying ProDOS and other system files.

IF IT STILL DOESN'T WORK...

Some programmers (especially programmers of games) take the easy way out by "hard-coding" pathnames. This means that the program expects to find its files on a disk of a certain name and won't run otherwise. They don't do this because they want to keep you from putting the program on your Q Drive; they're just lazy. Other programs can be installed on the hard drive but may require you to keep your data on a floppy disk—or can store data on the hard drive but must be run from floppy disks.

ALL HOPE IS NOT LOST

If you can't install a program on your Q Drive for whatever reason, whether copy-protection, or a system incompatibility, or a lazy programmer, here are a few other things you can try.

- *Copy II Plus*. This popular utility program can make backup copies of many copy-protected programs. These copies are usually as protected as the original. But *Copy II Plus* does know how to remove the copy protection from certain programs. You make a copy of your original using one of these parameters, and the duplicate is then hard-drive installable. Follow the generic installation instructions after making an unprotected duplicate.
- Patches. A *patch* is a modification you apply to a program to change the way it operates. Applying patches is a fairly technical process, so we won't go into it here. But there are patches available to allow *PaintWorks Gold* to run under newer versions of GS/OS, to remove the "color wheel" copy-protection from *Tunnels of Armageddon*, and more. Your local user group may have more information on these patches and how to apply them. If you have a modem, online services such as CompuServe, GENie, and America Online also have collections of patches.

INSTALLING APPLEWORKS 3.0

STEP 1—COPY APPLEWORKS TO THE Q DRIVE

Create a new folder on Q1 and call it **APPLEWORKS**. Now copy the AppleWorks program files from the original program disk into the new APPLEWORKS folder. Copy APLWORKS.SYSTEM, all the files whose names begin with SEG, and the two dictionary files. Don't copy PRODOS, FASTCOPY, or the tutorial files—you don't need them. If your AppleWorks is on 5.25" disks, be sure to copy files from all four disk sides. (SEG.AW appears on three of the four 5.25" disk sides to reduce the need to swap disks. You only need to copy it once.)

STEP 2—INSTALL TIMEOUT

If you are using any of Beagle Bros' *TimeOut* programs (or their *Outliner*), install them on the copy of AppleWorks you just put on your Q Drive. See the manual that came with your *TimeOut* applications for more information. Put your *TimeOut* applications in the same directory as your AppleWorks program files, and tell *TimeOut* to look on the AppleWorks startup disk for *TimeOut* applications.

STEP 3—INSTALL SUPERPATCH

If you have *SuperPatch* from Q Labs and want to install any of its patches into AppleWorks, do that now. *SuperPatch* will need to know where your AppleWorks program is. Tell it **/Q1/APPLEWORKS** and install the patches you like.

STEP 4—INSTALL APPLEWORKS COMPANION

If you have Beagle Bros' *AppleWorks 3.0 Companion* or *Companion Plus* and want to install any of its patches, do that last, following the instructions in the *Companion* manual.

STEP 5—CONFIGURE APPLEWORKS

All you need to do now is configure AppleWorks to look on your Q Drive for its data files. Launch the file APLWORKS.SYSTEM to get to the AppleWorks menu. Choose "Other Activities", then "Select Standard Settings for AppleWorks", then "Select Standard Location of Data Disk". Choose your Q Drive from the list of disk devices shown (usually it will be "Drive 1 (Slot 7)") The "Select Standard Settings" menu will reappear. Choose "Select Standard Location of Data Disk" again, then choose "ProDOS Directory" to see a list of subdirectories on the Q Drive. Choose "APPLEWORKS" and press Return. Now you should see the folders you created for your data files. Press ⌘-Return, then press Escape repeatedly to get back to the main menu.

LAUNCHING APPLEWORKS

If you have a hard drive management system, add AppleWorks to its menu for easy access. If you use *EasyDrive*, use the "EasyAdd" feature. If you use *Salvation—Supreme*, click on a blank button, answer "Yes" to check the button's programming, and point to the AppleWorks startup file in the AppleWorks directory. If you use *ProSel*, use the screen editor to select an empty entry and use the automatic mode to find AppleWorks on Q1. If you're using *TimeOut UltraMacros*, choose ULTRA.SYSTEM as the file to be started. If you're not using *UltraMacros*, choose APLWORKS.SYSTEM.

If you don't use a hard drive manager, use the Mini Launcher or the Finder to run ULTRA.SYSTEM or APLWORKS.SYSTEM as appropriate.

INSTALLING APPLEWORKS GS

To make installing AppleWorks GS easier, we've included an installation script on the Q Drive specifically for this task. If you have just started up the Q Drive, you will probably see the Install.AWGS icon on your desktop. If not, double-click the Install.Soft folder in the Q1 window, then double-click the Install.AWGS application icon. Click "AppleWorks GS" on the left side of the screen, then click the Install button. The Installer will ask you to insert your AppleWorks GS (version 1.1) disks and will copy the necessary files to the Q Drive. What could be easier?

*Note: The AppleWorks GS Installation Script assumes that you are using Switch Hitter and have both System 5 and System 6 installed on the Q Drive, and furthermore that you are booting into System 5. If you're booting into System 6, use Switch Hitter to change to System 5 and restart before installing. (See **Appendix C**.) If you don't have both System 5 and System 6 (and Switch Hitter) on your drive, refresh the System Software before attempting installation. (See **Chapter 11**.)*

LAUNCHING APPLEWORKS GS

If you use the Finder, open the Q Drive's icon and double-click the AppleWorks.GS file to launch it. (You may find it more convenient to drag the AppleWorks.GS file out of the Q Drive's window onto the desktop and leave it there. That way you won't have to open your Q Drive icon every time you want to run AppleWorks GS.)

You can also launch AppleWorks GS by double-clicking any AppleWorks GS document. AppleWorks GS will run and the file will be opened automatically. You can even open a group of files this way by selecting the desired files in the Finder (with shift-click or by dragging a rectangle around them) then double-clicking one.

If you have a hard drive management system, add AppleWorks GS to its menu for easy access. If you use *EasyDrive*, use the "EasyAdd" feature. If you use *Salvation—Supreme*, click on a blank button, answer "Yes" to check the button's programming, and point to the AWGS.SYS16 file on Q1. If you use *ProSel 16*, use the screen editor's automatic mode to find AppleWorks GS on Q1.

LOCATING THE DICTIONARIES

The first time you spell-check a word-processing document after installing AppleWorks GS on your Q Drive, you may need to tell it where your dictionary files are. After you point to the dictionary files, AppleWorks GS will remember where they are and shouldn't ask you to locate them again.

ADDING MORE STORAGE

We hope the Q Drive satisfies your storage needs for years to come, but we realize that you may need even more storage in the future. Adding another Q Drive (or another type of SCSI storage device) to the SCSI chain is the easiest way to add more disk space to your system. You won't need another interface card or use up another slot. Just plug the new drive into the back of the Q Drive.

You can't have two drives with the same SCSI ID in the same chain. Most drives, including the Q Drive, come configured for SCSI ID 6, although, on the Q Drive, this can be changed with an external switch. Some drives cannot easily have their SCSI ID changed except by a qualified technician. The SCSI ID, by the way, is *independent* of the order the drives are connected together in the SCSI chain.

The computer will boot the drive with the highest SCSI ID, usually 6. You will probably want to keep your original drive at the highest ID and set the new drive to a lower ID, so that you can continue booting as you always have use the new drive only for data and program storage.

By the way—the computer itself is usually SCSI ID 7, unless you've changed it. You should never need to change the computer's SCSI ID. See the Apple II High Speed SCSI Card manual for more details.

CHAPTER TEN

MOVING INTO THE FUTURE

The last drive in the SCSI chain *must* be terminated. All other drives must *not* be terminated. Some models of Q Drive are terminated by external "resistor packs" that connect to the unused connector on the back of the drive. Others have the resistors inside the drive itself. (You can tell which sort you have by looking at your Q Drive's serial number. If it ends in the letter "T", your drive is internally terminated.)

If your drive is internally terminated, you should make sure it's at the end of the chain, or remove the terminators from the hard drive mechanism. To make this simpler, internally-terminated Q Drives have an easily removable "window" on the bottom of the case. Open the window and pull the terminator resistors (usually slim black or yellow parts about an inch long) with tweezers or needle-nose pliers.

Don't forget that the computer can't handle multiple disks with the same name, so you'll need to rename the new Q Drive's partitions. On a IIGS, the Finder will alert you to this situation and allow you to change the name the first time you boot after adding a second Q Drive.

MOVING TO ANOTHER COMPUTER?

Moving the Q Drive to another machine (whether a future Apple II or a totally different system like the Macintosh or the IBM PC) is simple. Some computers will need a SCSI interface; others, like most Macintosh models, have a built-in SCSI port. All you need to do is reformat the drive on the new computer, install an operating system and your programs, and begin using it. The exact details for doing this will vary, depending on which computer system you move to.

If you're moving your Q Drive to a Macintosh, call us and ask for a Q Drive Macintosh Accessory Pack, which includes the software you need to reformat the Q Drive for use on the Macintosh, along with a new manual. It's free, except for a nominal shipping & handling charge.

Or, for a \$25 service fee, plus applicable shipping charges, we'll reformat the drive for you and install the same Macintosh software you'd get if you'd bought a Macintosh drive from us in the first place, including the latest System Software and 30 MB of freeware and shareware. The same offer is available to users moving IIe drives to the IIcs.

The Q Drive is shipped ready to use. At some point in the future, however, you may encounter the need to reformat or repartition the drive. (See the Apple II High Speed SCSI Card manual for detailed, step-by-step instructions for performing this procedure.) If you want to be able to boot the drive afterward, you will need to install appropriate system software.

This chapter also contains instructions for restoring your System Software to a "pristine" condition, in case it becomes corrupted or is overwritten by an improperly-written installer. (This can occasionally happen when using old installers with System 6.)

WARNING

Reformatting or repartitioning your Q Drive will erase everything on the drive, including the free software we've included on the /Q2 partition. Copy important information to floppies or use the Backup II utility. (We can sell you a set of disks containing a backup of the free software if you forgot to back it up and erase something you wanted to keep.)

Once you have the drive partitioned the way you like it, boot up the Apple System Utilities, *Copy II Plus*, or the Q Drive IIgs System Disk. All of these provide ways to rename your partitions. (The default names are likely to be rather generic.) Name the partitions /Q1, /Q2, etc. Now you're ready to reinstall the system software.

CHAPTER ELEVEN

INSTALLING SYSTEM SOFTWARE

INSTALLING IIe SYSTEM SOFTWARE

Boot the Q Drive IIe System Disk. The Sneeze screen will appear. Use the arrow keys to select COPY.SYSTEM, then press Return. The IIe system files will be copied to /Q1 automatically. (Your first Q Drive partition *must* be named /Q1 for this procedure to work.) After this procedure is complete, the Q Drive contains ProDOS, BASIC.SYSTEM, and Sneeze.

INSTALLING IIgs SYSTEM 5

1 BOOT THE SYSTEM DISK

Hold down the Option key while turning on the computer. Press 1 to enter the Control Panel, select Slots, and change the Startup Slot to 5. Press Return to save your changes on the Slots screen. Put the Q Drive IIgs System Disk in your first 3.5" drive. Press Escape, then Return, to exit the Control Panel. The System Disk will begin booting. Await the Finder.

2 LAUNCH THE INSTALLER

If you have two 3.5" disk drives, insert the System Tools disk in your second drive; otherwise, eject the System Disk and put the System Tools disk in that drive. Double-click the System Tools icon to open its window, then double-click the Installer icon. If you have one 3.5" drive, you'll need to switch disks a few times before the Installer appears.

3 INSTALL SYSTEM SOFTWARE

Click the "Disk" button (in the lower right region of the Installer screen) repeatedly until the "Disk To Update" (upper left region of the Installer screen) reads "Q1". Scroll through the list of system updates in the left-hand window until you find "Latest System Files". Click this item once, then click the "Install" button. Installation will begin. If you have only one 3.5" drive, you'll need to switch disks a few times.

4 ADDITIONAL INSTALLATION

After installing the Latest System Files, you will want to install other system software tools—a driver for your SCSI Hard Drive, for example, and drivers for your printer, 5.25" drives, and so on. "Additional Fonts" is also a good idea. Install the MIDI drivers if you plan to use the *SoundSmith* program included in the free software. The ACE tools are used by some sound programs. (Other than these items, if you don't know what it's for, you probably don't need it.) You can install any of these updates by clicking them once, then clicking "Install".

5 QUIT THE INSTALLER

Press ⌘-Q to quit the Installer. You'll return to the familiar Finder.

6 REBOOT THE IIGS

Enter the Desk Accessory menu with Control-⌘-Escape and select Control Panel. Select Slots and change the Startup Slot back to the slot which contains your SCSI card. Press Return to save your changes, then restart the IIGS with Control-⌘-Reset. If all went as planned, you'll be greeted by the GS/OS thermometer screen and the Finder. If you want to install *Salvation—Supreme* or *ProSel 16*, now's the time to do it.

INSTALLING IIGS SYSTEM 6

Remember, System 6 disks are not included with the Q Drive. If you followed our advice, though, you unpacked them from the Disks archive immediately after connecting your Q Drive for the first time.

1 BOOT THE INSTALL DISK

Hold down the Option key while turning on the computer. Press 1 to enter the Control Panel, select Slots, and change the Startup Slot to 5. Press Return to save your changes on the Slots screen. Put the System 6 Install Disk in your first 3.5" drive. Press Escape, then Return, to exit the Control Panel. The Install disk will begin booting. In a moment, the IIGS Installer screen will appear.

2 INSTALL SYSTEM SOFTWARE

Click the "Disk" button repeatedly until the "Disk To Update" reads "Q1". Then click the "Easy Update" button. Installation will begin. You'll need to switch disks several times.

3 ADDITIONAL INSTALLATION

After installing the Latest System Files, you might want to install other system software tools. To do this, click the "Customize" button and select the updates you want to install. You can select multiple updates by holding down the ⌘ key while clicking the second and subsequent items. We suggest considering the Archiver, Teach, and SynthLab applications; the Sound control panel; the Find File and Calculator desk accessories; drivers for any attached disk drives and printers; all FSTs; and all fonts.

Do *not* use the "System 6: Hard Drive" option on the customized installation screen. This option installs the Universal Access suite, a set of tools for physically handicapped users, along with the rest of System 6. These tools have been found to conflict with several popular programs, so we do not recommend them.

4 REBOOT THE IIGS

Enter the Desk Accessory menu with Control-⌘-Escape and select Control Panel. Select Slots and change the Startup Slot back to the slot which contains your SCSI card. Press Return to save your changes, then restart the IIGs with Control-⌘-Reset. If all went as planned, you'll be greeted by the GS/OS thermometer screen and the Finder. If you want to install *Salvation—Supreme* or *ProSel 16*, now's the time to do it.

INSTALLING BOTH SYSTEM 5 & SYSTEM 6

The Switch Hitter utility allows you to install both System 5 and System 6 on your hard drive. A copy of the Switch Hitter disk is in the Disks archive, which we suggested that you unpack immediately.

First, install System 5 using the above procedure. Then boot the Switch Hitter disk and allow it to move the System 5 files "out of the way" so that installing System 6 doesn't erase System 5. Then install System 6. Finally, boot the Switch Hitter disk once more. This time, it will notice that both System 5 and System 6 are on the drive and offer to install Switch Hitter. Allow it to do so, and you're set.

See **Appendix C** for more information on Switch Hitter's options.