

Installing System 7.0

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If you obtained System 7 in a package provided by Apple, you already have installation instructions. If you obtained System 7 through AMUG and took advantage of the package deal which included "The Macintosh Bible Guide to System 7", that also has complete installation instructions. One of the purposes of this article is to provide guidance for those attempting to go it without written guidance. There are one or two little hooks about System 7 you should know before installing it.

Another reason for the article is guidance for those that are going to take advantage of the AMUG Laboratory on October 26 to have System 7 installed. To make sure you get through the process on time, there are some things you should do ahead of time.

Getting Ready

Before you install System 7.0, you will need to prepare your system:

1. Back up all of the files on your current hard disk before you go any further.
2. Start MultiFinder and familiarize yourself with calculating memory requirements.
3. Update all your Apple hard disks with the new driver on the Disk Tools disk.

NOTE 1: If you did not update your Apple hard disk driver before you installed System 7, do it afterward. Updating the drivers doesn't bother the files on the disk. Just make sure you do not choose "Initialize" by mistake!

NOTE: 2 Do NOT use the Apple hard disk driver if you do not have an Apple hard disk drive; In this case you need to contact your dealer or the hard drive manufacturer to make sure they have a system 7 compatible version of their drivers. You can use a utility such as SCSI Probe to find out the manufacturer of your hard drive. If you do cannot locate your hard drive manufacturer for any reason, you should consider getting a third party SCSI software. "Silencing" published by Lieke is a package highly recommended

by many, and which works with almost all hard disk drives. These packages are somewhat expensive, so call the company to make sure the software works on your drive, or that you can return it if it doesn't.

WARNING: There are some "hacks" floating around that will allow you to use the Apple HD SC Setup to format non-Apple drives which the software doesn't recognize. These "hacks" involve the use of ResEdit to modify the driver software. It is strongly recommended you do not do this. Apple hard disks have a number of parameters established in the firmware, so these options might not be established on the drive when it is formatted. Further, many hard drives have drive specific parameters, some of which are not the same as those Apple uses. If you need to or wish to use software other than that which came with your hard drive, you are better off paying the (admittedly seemingly high) price for third party driver software that is known to work with a variety of different hard drives.

4 Restore the name of any INITs you have previously renamed. INITs must have their original names for the following step to work.

5 Run the Compatibility Checker from the "Before You Install stack". This HyperCard stack examines your set of applications and reports possible incompatibilities. Incidentally, to use the Install stack you must move it to your hard disk drive. Don't overlook the fact that there are two stacks to move from the floppy.

NOTE: A new version of the compatibility checker (version 1.1) is available on the "System 7.0 Goodies III" disk available as part of the Best of... series of disks.

6 Perform the actions recommended by the Compatibility Checker. The program can move potentially incompatible third-party INITs from your System Folder. The compatibility checker tells you of known and possible incompatibilities. Only specified INITs need be moved. After you have installed System 7.0 you can reinstall the INITs.

7 Remove any disk protection from your hard disks. Programs that provide virus or password protection could interfere with the installation process. Most disk protection packages will need upgrading to be compatible with System 7.0.

Step 2, above, is optional of course. It is intended to help those that have not used MultiFinder get prepared for the *MultiFinder-like* state that is "on" all the time in System 7.0.

The Installation:

Quick & Dirty, Safe & Sure, or Suffer & Surer; Take Your Choice

There are several approaches to installing System 7. In his excellent book "The System 7 Book", Craig Donilloff calls them 1) the Quick and Dirty method, 2) the Safe and Sure method, and 3) the Suffer and Surer method. We'll describe all three. By the way, I'm told this book is available at the Scottsdale Price Club, but I haven't confirmed this.

1) The Quick and Dirty method: This is the most common method used, and in fact is the method setup to be performed automatically by Apple's Installer program on the "Install 1" disk of the System 7 set of disks. After performing those steps listed above under "Getting Ready," you are set to start. Incidentally, you should always make a backup copy of your System disks. Make sure the backup disks have the same names as the originals. You start by inserting the "Install 1" disk and running the Installer application. If you have more than one hard disk drive on line, just make sure the one you want to install System 7 on is the one noted on the dialog box. Then just press the "Install" box, and follow directions as to when to insert the other disks.

TIP: If you have a hard drive in addition to the one you are installing on, you can even avoid the disk insertion routine. Just drag the icons of all the System Disks onto the hard drive. This will copy their contents to the hard drive, and put them in folders with the same names as the floppies. If the folders don't have the same names, this method won't work. Then just run the Installer from the folder on the hard disk drive. When the dialog box comes up, you will have to switch to the hard drive you want to install System 7 on. Then when you start the installation process you can just go get a cup of coffee. This method is probably not worth the trouble unless you have several systems to backup. But if you do, it can be a time-saver.

This "Quick and Dirty" method installs the new System "on top of" the old one. All fonts, sounds, and fkeys which were installed in the old system will be automatically re-installed in the new System 7. All third party INITs and Cde's in your old System Folder will be placed in the appropriate folder of the new System 7. Installed desk accessories will be installed in the new Apple Menu Items folder. All other kinds of files you might have loose in the old system folder will remain there undisturbed. So, that's it. The only thing

remaining is to drag the Code → s and INITs that the Compatibility Checker said were unidentified onto the system folder one at a time to check them to see if they work or not. Note I said "onto the System Folder, not into it (see further comments on this matter later).

2) The Safe and Sure Method The problem with the "Quick and Dirty" method is that there is a risk that your old System/Finder had some minor damage that had not yet become apparent. By copying over an existing System Folder you risk that the damage will be carried into the new System. The "Safe and Sure Method" avoids this problem, but takes a little more work, especially, if you have installed a number of non standard fonts, DAs, INITs, etc. In this method instead of installing over the old system folder, you are going to delete the old folder before installation. This allows the installer to create a fresh, new System Folder. The problem is when you throw away the old System FINDER, you throw away all the installed desk accessories, fkeys, sound, and fonts. If all you have are the standard, Apple provided resources you can just forget it and go ahead. Otherwise you will need to use the Font/DA Mover to move the fonts into a suitcase file and the DAs into another suitcase file. You will also have to store in separate files any special sounds and Fkeys you have installed using whatever utility you used to install them originally. Make sure these suitcases and other files we've just described are stored outside the old System file (and you might want to make a backup of them onto floppies).

Also remove all other non-system files from your System Folder to another folder on the hard drive. You might also wish to place the "May Not be Compatible...." file created by the Compatibility Checker into this file, and back them up also if you desire extra safety.

Now you can delete the System Folder. To do this you have to startup from another disk, either another hard drive or a startup floppy (you can use the "Disk Tools" disk from the System 7.0 set of disks if you like; It is a System 6.0.7 Startup Disk. Then drag the System Folder into the trashcan and empty it. **NOTE:** For maximum safety, before doing this, you should have backed up your entire hard drive and all your fonts, DAs, etc. as described above. You can now restart, using your System 7 "Install 1" as a startup disk to run the Installer program.

NOTE: An attractive alternative to trashing your entire old System Folder is to trash only the System and Finder files from it, then give the folder a new name such as "Old System." Of course this is an alternative only if you have plenty of hard disk space. Then you can run the Installer which will again create a new System Folder. You can then drag the Code → and INIT files from your Old Folder into the new folder one at a time.

TIP: In connection with the above Note, another possibility is to make a copy of your System File on a floppy if it will fit, or another hard drive. This way you don't have to worry about copying the fonts and DAs from the old System; You can do that later. In fact, it may not be intuitive (at least it wasn't to me; it surprised me when I stumbled onto it) but if System 7 is running, you can double-click on an earlier System file, and it will open up like a folder just as the System 7 file does. The old fonts, sounds, and DAs will be there and you can drag them out to a folder or even drag them onto the new System 7 folder to install them!! A further advantage to this method is that you do have a full backup position. You have your old System file on the floppy, and you have your old System Folder with a new name. It will be fully intact if you haven't moved anything out of it (you could copy things from it to the new System 7 folder to make sure you have a good fallback situation. All you need is a copy of the old Finder (which you could have saved on a floppy if you desired).

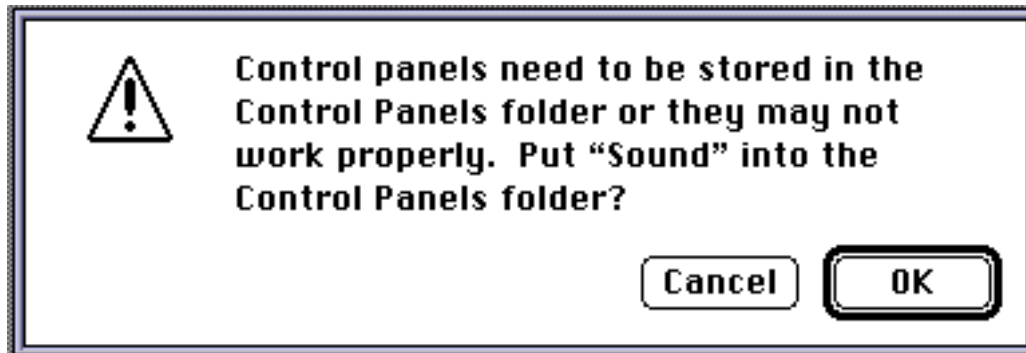
3) The Saver and Surer Method: This method combines method 2) with a prior set of steps: those of completely formatting and testing your hard drive. To quote from Craig D'Amico again, "This step is not required, but it's a good idea, especially if your hard drive has not been reformatted in some time (or since it was brand new). It can increase the overall safety of your data and improve your hard drive performance."

Use the formatting software that came with your hard drive. Again, use the new Apple HD SC Setup file from the Disk Tools disk of the set of System 7 disks if your drive is an Apple provided drive. If your drive is not an Apple drive, contact the manufacturer as noted above for the System 7 compatible version. Again, many recommend Silencing as an alternative even to Apple's HD SC Setup software to maintain hard disk drives in a safe condition, to improve performance and to offer other utilities such as partitioning. Whatever software you use to reformat your drive, take the time to run the hard drive tests to make sure any bad or questionable blocks are not mapped-out to prevent their use.

Tips on Installing INITs, Code, etc. In System 7.0

One nice aspect of System 7 is Apple's attempt at helping us reduce the clutter that used to exist in System folders. It does this by creating sub-folders within the System Folder. These are named "Extensions," "Preferences," "Startup Items," "Control Panels," and "Apple Menu Items." "Extensions" is the new name for both Code, INITs, and other such resources.

The System 7 "correct way" of installing Fonts, Desk Accessories is to drag them **onto** (Not **into**) the System Folder icon. When you do, System 7 will analyze the file type, decide where it should go, and politely ask if putting it there is OK with you. Here is an example dialog box:



This is still very new and in the future, when all the Extensions (Cdevs, INITs, etc) and Control Panels have been updated, this will be all you need to know. In the meantime, although this will work most of the time, sometimes some experimenting is required. Sometime these resources, or the utilities that use them do not yet know about all the new sub-folders. So, you may need to put the particular resource loose in the System folder (just open the System Folder and drag the item into it). For example, To install the CD ROM software, place the Apple CD ROM INIT in the Extensions Folder. The CD Remote INIT and Foreign File Access files (ISO, High Sierra, etc) must be in the System folder itself (not in the extensions folder). Another factor, if you are using an INIT control Control Panel device, you should place it in the Extensions folder rather than the Control Panel where System 7 will place it if you don't intervene. The reason is that the Extensions folder is executed first on startup, and you want your INIT control utility to be able to stop any INITs that might be in folders being executed earlier in the startup process. In some cases you may try putting say Cdev in one of the sub-folders, and an Alias in another. In short, you should be prepared to experiment a bit, or ask around to find the secret. So, don't give up easily on getting a font or Cdev to work.

if you drag a suitcase containing fonts or desk accessory onto the System Folder icon, the fonts are removed from the suitcase and stored in the System file, and the DAs are removed from the suitcase and stored in the Apple Menu Items Folder. In each case the now empty suitcase files just disappear, forever. I mention this because it might be somewhat disconcerting if you are not expecting it. And, you may wish to back up, putting putting some fonts or DAs into a suitcase file, and you may not have any readily available method of creating a suitcase file. You may have noted that no Font/DA mover utility was provided with System 7. There is a new

Font/DA Mo→er utility, →ersion 4.1. It is →il→ble on our System 7 Goodies II disk. But to →oid h→ing to use the Font/DA Mo→er you might w→nt to cre→te an empty suitc→se →nd keep it →round somewhere. When needed you c→n duplic→te it, thus →lw→ys keeping a suitc→se file →round for "emergencies.

Fin→lly, a tip of highly question→ble utility. If you dr→g suitc→se A onto suitc→se B, the contents of suitc→se A →re copied into suitc→se B, →nd Suitc→se A disappears. In effect, a merger. Mail me a qu→rter e→ery time you use this. I'll soon be rich.