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System 7.5: Clean Install Procedure (10/96)

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TOPIC -----

Is there any shortcut for doing a clean system folder install under System 7.5?
I would like to do this without having to remove the Finder or System file and
renaming the system folder.

DISCUSSION -----

Purpose of a Clean Installation

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A normal system software installation modifies and updates the existing System Folder. A clean installation disables the existing System Folder, leaving all files in place, and forcing the Installer to create a new System Folder.

A clean system installation brings the system software back to the standard configuration. This is necessary when system software has been damaged or modified, preventing a normal installation. It is also useful in troubleshooting.

Follow these instructions in the order presented.

Restart with Disk Tools or Apple Macintosh CD

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If you have a Disk Tools Disk:

Shut down your Macintosh computer.

Insert Disk Tools in the floppy drive, and turn on the computer. At the desktop, the Disk Tools floppy disk's icon should be in the upper-right corner of your screen with your hard drive's icon below it.

If the computer ejects the Disk Tools disk, make sure you have an Apple SuperDrive (formerly FDHD) that will read high-density disks and that you are using the Disk Tools that came with System 7.5.

If you have an Apple Macintosh CD that came with your computer:

Step 1

Insert the Apple Macintosh CD in the CD-ROM drive.

Step 2

Restart your Macintosh.

Step 3

If you have a Power Macintosh or a Macintosh 630 series computer, hold down the letter 'C' on the keyboard and turn the computer on. If you have a Macintosh 570 series computer, turn on the computer and immediately hold down the Command-Option-Shift and the large Delete keys simultaneously. Keep these keys held down until you see the "Welcome to Macintosh" message.

At the desktop, the Apple Macintosh CD's icon should be in the upper-right corner of your screen with your hard drive's icon below it. If any other hard drives appear above the Apple Macintosh CD, shut down the computer, all attached devices and remove the large SCSI cable from the rear of the Macintosh and try again. If the internal hard drive still appears above the Apple Macintosh CD, go to the Control Panels under the Apple Menu, open the Startup Disk item, select the Apple Macintosh CD, close all open windows and restart. The Apple Macintosh CD should then appear above the hard drive.

Run Disk First Aid

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Disk First Aid can detect and repair problems with a hard disk.

Step 1

Open the Disk Tools disk or the Apple Macintosh CD. Apple Macintosh CD users should open the Utilities Folder.

Step 2

Double-click on the Disk First Aid icon. Select the main hard drive's icon at the top of the Disk First Aid window.

Step 3

Click on Verify. Disk First Aid will check your hard disk for any potential problems. If it finds a problem, click Repair. It will attempt to fix the problem.

Step 4

Repeat this procedure for each hard disk attached to the system.

Step 5

When you are finished verifying the hard disks, choose Quit from the File menu to return to the desktop.

If Disk First Aid cannot repair a hard disk, you should back up the hard disk and reinitialize it using the appropriate formatting utility for that drive. For Apple drives, use Apple HD SC Setup.

Update Hard Disk Drivers

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Apple HD SC Setup

If you do not an Apple hard drive, or you use third-party software to format your hard disk, do not use the Apple HD SC Setup utility. You should contact your hard drive vendor to verify that your formatting software is compatible with System 7.5.

If you have an IDE drive in your computer, refer to the Internal HD Format and Drive Setup sections below. Also see the Drive Setup section to see which computers with SCSI drives can use Drive Setup as well as Apple HD SC Setup.

Follow these steps to update the hard disk driver on your Apple SCSI hard drive using Apple HD SC Setup:

Step 1

- Disk Tools users: Double-click the Apple HD SC Setup icon on the Disk Tools disk.
- Apple Macintosh CD users: Double-click the Apple HD SC Setup icon in the Utilities folder.

Step 2

Click on the Update button.

Step 3

When you are finished, click Quit to return to the desktop.

Sometimes HD SC Setup cannot update the hard disk driver (indicated by a "dimmed" Update button). Here are some possible causes and solutions:

- If a third-party utility was used to format your hard disk, you should obtain the latest version of the utility to update your hard disk driver.

- If a version of Apple HD SC Setup more recent than the version on the Disk Tools disk was used to format your hard drive, do not update the hard disk drivers.
- Your Macintosh has an internal IDE drive. Refer to the Internal HD Format and Drive Setup sections below.
- If an earlier System 6 version of Apple HD SC Setup formatted the drive, it may not have left enough room for the updated driver. You do not have to update the hard disk drivers. However, if you intend to use file sharing or have a Macintosh that can use virtual memory, then you need to back up the disk and reinitialize it with the current version of HD SC Setup. This erases the disk, so be certain you back up the hard disk first.
- If the driver is corrupt, the Macintosh does not recognize the drive (that is, the drive does not show on the desktop when you start from a floppy disk). You may wish to reinitialize it with HD SC Setup. This erases the disk, so be certain you back up the hard disk first.
- If the driver has been modified with compression or security software you will not be able to update the driver. Contact the vendor of the compression or security software for additional help.

Drive Setup

Drive Setup can be used in all Power Macintosh computers as well as all computers (desktop and PowerBook) with IDE drives. The only exception is the PowerBook 150, which must use the Internal HD Format utility.

Follow these steps to update the hard disk driver on your Apple SCSI hard drive using Drive Setup:

Step 1

Double-click the Drive Setup icon.

Step 2

Select the drive you wish to update.

Step 3

From the Functions menu select Update Driver.

Step 4

When you are finished, click Quit to return to the desktop.

Drive Setup 1.0.4 is included with System 7.5 Update 2.0, which is available on online services.

Internal HD Format

The PowerBook 150 is the only computer which requires Internal HD Format. However, you cannot update the driver on the PowerBook 150 because it is loaded into ROM.

Check Available Hard Disk Space

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Open the hard disk's window and select "by Icon" in the View menu. The amount of available disk space appears in the upper right corner of any open window.

To install System 7.5 with PowerTalk and QuickDraw GX, you should have at least 21 MB available on the hard disk where you plan to install the system software. Installation of the base operating system requires approximately 14 MB of drive space.

If there is less than the required space available, you will need to delete some unnecessary files by moving them to the Trash. Choose Empty Trash from the Special menu, and you will have more disk space available. If you want to keep the files, copy them onto floppy disks or other media before moving them to the Trash.

Install System 7.5

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From Floppy Disk

Step 1

You have finished using the Disk Tools disk so, choose Shutdown from the Special menu. The Disk Tools will automatically eject.

Step 2

Insert the "Install Disk 1" disk into the Macintosh and turn the computer on. The computer will start up using the system file on the Install disk.

Step 3

Once the "Welcome to System 7.5" message appears, click Continue.

Step 4

When the installer window appears, press the Command-Shift-K keys simultaneously (the Command key is the key with the Apple and Cloverleaf). You will be presented with a small dialog box with two selections:

- Update Existing System Folder
- Install New System Folder

For a Clean install, select Install New System Folder and click "OK." Make sure the Destination Disk on the bottom left is the disk you want to install onto, then click Clean Install on the bottom right. This will install a new system folder and rename you current folder "Previous System Folder."

Step 5

Insert the other disks when the Installer instructs you to.

From the Personal Upgrade Kit CD-ROM

Step 1

Insert the "Macintosh System 7.5" CD-ROM into the Macintosh.

Step 2

Open the "Macintosh System 7.5" CD-ROM by double-clicking on its icon in the upper right corner of the screen.

Step 3

Open the "Installation" folder. Open the "System Install" folder

Step 4

Double-click the "Install" icon.

Step 5

When the "Welcome to System 7.5" message appears, click Continue.

Step 6

When the installer window appears, press the Command-Shift-K keys simultaneously (the Command key is the key with the Apple and Cloverleaf). You will be presented with a small dialog box with two selections:

- Update Existing System Folder
- Install New System Folder

For a clean install, select Install New System Folder and click "OK." Make sure the Destination Disk on the bottom left is the disk you want to install onto, then click Clean Install on the bottom right. This will install a new system folder and rename you current folder "Previous System Folder."

If your computer came with an an Apple Macintosh CD

Step 1

Open the "System Software Install" folder on the Apple Macintosh CD or click the Install Software button in the Launcher window.

Step 2

Double-click the "System 7.5 Installer" icon.

Step 3

When the "Welcome to System 7.5" message appears, click Continue.

Step 4

When the installer window appears, press the Command-Shift-K keys simultaneously (the Command key is the key with the Apple and Cloverleaf). You will be presented with a small dialog box with two selections:

- Update Existing System Folder
- Install New System Folder

For a clean install, select Install New System Folder and click "OK." Make sure the Destination Disk on the bottom left is the disk you want to install on, then click Clean Install on the bottom right. This will install a new system folder and rename you current folder "Previous System Folder."

Note: After performing a System 7.5 Clean Install, when About This Macintosh is selected under the Apple menu, it will no longer display the specific Macintosh name. Instead, it will display only "Macintosh", "Macintosh Powerbook", or "Power Macintosh" depending on which system it is running. If System 7.5 is installed over an existing system (pre 7.5), it retains the specific Macintosh name for the About This Macintosh window. This holds true for future Macintosh computers also.

A CLEAN INSTALL OF SYSTEM 7.5 IS NOW COMPLETE. THE FOLLOWING STEPS ARE FOR TROUBLESHOOTING

Verify Problem Resolution

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After performing a clean installation, verify that you resolved the problem before adding anything to the new System Folder. Adding items to the System Folder before resolving your problem defeats the purpose of performing a clean installation.

Install Non-Standard Items

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You can now reinstall the non-standard items from the old System Folder (now named "Previous System Folder") such as fonts, screen savers and device drivers. If possible, you should reinstall these items from their original disks.

If the original disks are not available, you may move the non-standard items

from the Previous System Folder to the new System Folder. Be careful not to replace anything that is already in the new System Folder. Only move items that are not already in the new System Folder.

Step 1

Open each corresponding folder within the System Folder and the Previous System Folder and then compare the contents.

Step 2

Move anything that is not already in the new System Folder and its sub folders from the Previous System Folder and its sub folders.

Step 3

Restart your Macintosh.

Troubleshooting Extension Conflicts

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Any system extensions or control panels installed appear as icons across the bottom of the screen when you restart. They load into memory at startup time and modify the standard behavior of the operating system.

Verify Conflict

If the Macintosh fails to restart or behaves erratically, you probably have an incompatible or conflicting INIT (also known as a system extension or control panel). To verify this problem, follow these steps:

Step 1

Restart, and after you see the picture of a computer with a smile, hold down the Shift key.

Step 2

Release the Shift key when the "Welcome to Macintosh, Extensions Off" message appears.

Step 3

When the Macintosh is ready, try to recreate the erratic behavior.

If the problem no longer occurs, then you have a conflicting extension or control panel. Continue with the steps in the next section.

Isolate Incompatible or Corrupted INITs in System Folder

Step 1

Open the Control Panels from the Apple Menu. Double click on the control panel called Extensions Manager.

Step 2

Go to the pop-up menu that says All On and pull it down to System 7.5 Only. This will disable all non-standard extensions and control panels. You will notice that the other items no longer have a check mark by them. Close the Extensions Manager.

Step 3

Go to the Special menu and choose Restart.

Step 4

Attempt to recreate the problem.

Step 5

If the problem does not occur, use the Extensions Manager to enable another extension or control panel and restart the Macintosh. Note: You can enable items in the Extension Manager by simply clicking on the name of the item so that a check mark appears.

Step 6

Attempt to recreate the original problem.

Repeat steps 5 and 6 for each item listed in the Extensions Manager until the problem recurs. The last item returned to the System Folder is probably the cause of the problem.

Final Steps

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Verify that your applications are performing normally. If not, refer to the application manual or contact the vendor.

When the Macintosh behaves as expected and you are sure that all needed items in the Previous System Folder are transferred, move the Previous System Folder to the Trash, and choose Empty Trash from the Special menu.

System Update

After performing a clean installation of System 7.5, you may want to consider installing System 7.5 Update 2.0 and then installing System 7.5.5 Update to ensure that you have the most current version of the system software.

NOTE: There is a sequence you must follow if you want to install System 7.5.5 Update software. Since you have just performed a clean System 7.5 installation, follow the sequence below:

- 1) Performed a clean installation of System 7.5
- 2) Install System 7.5 Update 2.0
- 3) Install System 7.5.5 Update

System 7.5 Update 2.0 and System 7.5.5 Update are available from the Apple Software Updates area of many online services. If you do not have access to any online services, please call 1-800-SOS-APPL for more information.

These articles can help you locate the software update mentioned here:

- "Where To Find Apple Software Updates" -- Lists online services for free Apple software updates.
- "Obtaining Apple Product Support in the USA" -- Lists 800 numbers and online services for software updates, Apple support information, and a subset of the Apple Tech Info Library.

This article is one of many available through the Apple Fax center. For a complete list of available fax documents, search the Tech Info Library for Apple Fax Document Index or call the Apple Fax line at 1-800-505-0171 and select document number 20000 (Apple Fax - Document Index - Product Support Literature). The Apple Fax center is available free of charge 24 hours a day, 7 days a week.

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