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System 7.5: Clean Installation from the Hard Drive (9/95)

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TOPIC ---

This article presents the steps necessary to perform a clean installation of
system software version 7.5 when the installer software has been pre-loaded on
the hard drive. Follow these instructions in the order presented.

DISCUSSION --

Purpose of a Clean Installation

A normal system software installation modifies and updates the existing System
Folder. A clean installation disables the existing System Folder, leaving most
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

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 disk's icon below
it.

If the computer ejects the Disk Tools disk, make sure you have the Disk Tools
specified for your model Macintosh.

Run Disk First Aid

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

1) Open the Disk Tools disk, and double-click on the Disk First Aid icon.
   In the window that appears, select the main hard drive.

2) Click once on Verify. Disk First Aid will check your hard disk for any
   potential problems. If it finds problems, you should let the software
   repair them.

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

4) When you're 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 SCSI drives, use Apple HD SC Setup. If you have an Apple IDE drive, use
Intrneal HD Formatter or Drive Setup 1.0.2.

Update Hard Disk Drivers

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

If you have an Apple SCSI hard drive, you should update the drivers with the
version of Apple HD SC Setup that is in the System 7.5 folder, following these
steps:

1) Double-click the Apple HD SC Setup icon on the Hard Drive to open it.

2) Click on the Update button.

3) When you're finished, click Quit to return to the desktop.

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

• If a third-party utility formatted your hard disk, you should obtain
  the latest version of the utility to update your hard drive.

• If a version of Apple HD SC Setup more recent than the version on the
  Disk Tools disk formatted your hard drive, do not update the hard disk
  drivers.

• 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 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 doesn't 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 was modified with disk compression or security software
  you may not be able to update the SCSI drive with Apple HD SC Setup.
  Contact the vendor for any special instructions.

- If your internal hard drive is not a SCSI hard drive, but an IDE drive, you
  should use Internal HD Formatter or Drive Setup 1.0.2. These utilities are
  available from online services and are able to test and update the drivers on
  IDE drives.

Check Available Hard Disk Space

Be sure you have at least 21MB available on the hard disk where you plan to
install the system software. Open the hard disk's window. Open the Views control
panel and select "Show disk info in header." The amount of available disk space
appears in the upper-right corner of any open window.

If there's less than 21MB available, you'll 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. Also you can copy files onto floppy
disks or other media before moving them to the Trash.

Performing a Clean Install
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1. Start up the computer while holding down the Shift key until you see the
   message "Welcome to Macintosh, Extensions Off."
2. Double-click the Installer located on the Hard Drive. Pass through the
   Welcome to System 7.5 dialog box.
3. Check the destination drive and make sure the Hard Drive is selected.
4. Press the Command-Shift-K keys simultaneously.

You are 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. This installs a new
system folder and renames your current folder to "Previous System Folder".

After performing a System 7.5 Clean Install, when About This Macintosh is
selected under the Apple menu, it no longer displays the specific Macintosh
name. Instead, it displays only "Macintosh", "Macintosh Powerbook", or "Power
Macintosh" depending on which system it is running on.

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.

Restart Your Computer

Choose Restart from the Special menu. The system automatically ejects the Disk
Tools disk, and it should boot on the Hard Drive normally.

Verify Problem Resolution

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 this procedure.

Install Non-Standard Items

You can now reinstall the non-standard items from the old System Folder (now
named "Previous System Folder") such as fonts, screen savers, device drivers,
and so on. 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.

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

2) Move anything that is not already in the new System Folder and its
   subfolders from the Previous System Folder and its subfolders.

3) Restart your Macintosh.

Troubleshooting Extension Conflicts

If you have installed any system extensions or control panels, you will probably
see their icons line up 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 INIT 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:

1) Be sure the Caps Lock key is off.

2) Restart, and after you see the picture of a computer with a smile,
   hold down the Space Bar key.

3) Release the Space Bar key when the "Extensions Manager" window appears.

4) Select "All Off" in the Sets pull down menu then close Extensions
   Manager.

5) 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.

Turn On and Turn Off INITs in System Folder
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1) Using the Extensions Manager turn on your Extensions and Controls
   Panels one at a time.

2) Close the Extensions Manager, and restart the Macintosh.

3) Attempt to recreate the original problem.

Repeat steps 1 through 3 for each item in the Extensions Manager until the
problem reoccurs. The last item activated in the Extensions Manager is probably
the cause of the problem.

Final Steps

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

When the Macintosh behaves as expected, move the Previous System Folder to the
Trash, and choose Empty Trash from the Special menu.

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