System 7.1: Clean Installation from Macintosh LC 520 CD (2/95)

Article Created: 9 December 1993
Article Reviewed/Updated: 8 February 1995

TOPIC ---

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's also useful in
troubleshooting.

DISCUSSION ---

Follow these instructions in the order presented.

Restart with Install Me First CD
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1) Shut down your Macintosh computer.

2) Restart the computer while holding down the
   Command-Option-Shift-Delete keys.

3) When you see the blinking question mark, continue holding down the
   four keys, and insert the CD into the drive.

The computer should start from the CD. Then you should see the At Ease menu.
If you don't see this menu, repeat the preceding steps.

Run Disk First Aid

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

1) Click on the Disk First Aid button.

2) In the window that appears, be sure the startup hard drive is
   selected. If it isn't, click the Drive button to select the startup
   hard drive.

3) Click on Open and then on Start. Disk First Aid checks your hard

disk for any potential problems. If it finds problems, you should
   let the software repair them.

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

5) When you're finished verifying the hard disks, choose Quit from the
   File menu to return to the desktop.

If Disk First Aid can't 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

If you don't have an Apple hard drive or use third-party software to format your
disk, don't 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 7.1.

If you have an Apple hard drive, you should update the drivers with the version
of Apple HD SC Setup that's on the Disk Tools disk, following these steps:

1) Double-click the HD SC Setup icon to launch it.

2) Click on the Update button.

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

If HD SC Setup can't update the hard disk driver (indicated by a "dimmed" Update
button), consider these possibilities:

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

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

• If an earlier version of Apple HD SC Setup formatted the drive, it
  may not have left enough room for the updated driver. You don't 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 doesn't recognize the disk
  (that is, the disk doesn't show on the desktop). 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 for
  additional help.

Check Available Hard Disk Space

Click on the Go To Finder button to exit At Ease. Be sure you have at least 5MB
available on the disk where you plan to install the system software. To check
hard disk space, follow these steps:

1) Choose Control Panels from the Apple menu.

2) Double-click the Views control panel to open it.

3) In the Views control panel, check "Show disk info in header."

4) Open your hard disk's window.

The amount of available disk space appears in the upper-right corner of any open
window.

If there's less than 5MB available, you'll need to delete some unnecessary files
by moving them to the Trash. Choose Empty Trash from the Special menu, and
you'll have more disk space available. Or you can copy files onto floppy disks
or other media before moving them to the Trash.

Disable the System Folder

You disable the System Folder by moving the System and renaming the System
Folder.

1) Open your hard disk's icon and locate the System Folder.

2) Open the System Folder and locate the System file.

3) Move the System file into the Preferences folder.

4) Close the System Folder's window and rename the System Folder
   "Storage."

5) Close all windows that are open on your desktop.

Restart Your Computer

Choose Restart from the Special menu. The system automatically ejects the CD,
and after a few seconds you should see a picture of a disk with a flashing
question mark.

If your Macintosh starts up from the hard drive, you have an extra System Folder
on the hard disk. You need to delete it (or disable it as described in the
previous section), then restart.

When you get the disk with the flashing question mark on your screen, you can
continue. If you still don't see this on your screen, turn off your Macintosh
and all attached peripherals and disconnect the SCSI cable from the back of the
Macintosh. Start your Macintosh again.

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Install System 7.1
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Install system software version 7.1, following these steps:

1) When you see the flashing question mark, insert the Install Me First
   CD.

2) When the At Ease menu appears, click on the button labeled Install
   System.

3) When the "Welcome to the Apple Installer" message appears, click on
   OK.

4) When another screen appears, click on Install.

The Installer determines the required software and reads it from the
CD.

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 this procedure.

Install Non-Standard Items
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You can now reinstall the non-standard items from the old System Folder (now
named "Storage") 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 aren't available, you may move the non-standard items from
the Storage folder to the new System Folder.  Be aware that reinstalling items
from the old Storage folder into the new System Folder may reintroduce damaged
or corrupted files.  Be careful not to replace anything that's already in the
new System Folder.  Only move items that aren't already in the new System
Folder.

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

2) Move anything that isn't already in the new System Folder and its
   subfolders from the Storage folder and its subfolders to the new
   System Folder.

3) Restart your Macintosh.

Troubleshooting Extension Conflicts
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If you've installed any system extensions or control panels, you'll 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.
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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 smiling Macintosh, hold
   down the Shift key.

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

4) 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 next section.

Remove and Replace INITs in System Folder
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1) Create a new folder on the desktop and name it "INITs."

2) Open the System Folder, Extensions folder, and Control Panels
   folder, and choose by Kind from the View menu. Find all items of
   Kind "system extension" or "control panel" under the Kind heading in
   the windows of the open folders, and move them to the INITs folder.

3) Close the System Folder, and restart the Macintosh.

4) Attempt to recreate the problem.

5) Move one item from the INITs folder to the closed System Folder and
   restart the Macintosh.

6) Attempt to recreate the original problem.

Repeat steps 5 and 6 for each item in the INITs folder on the desktop until the
problem recurs. The last item returned to the System Folder is probably the
cause of the problem. Remove it from the System Folder (restart, holding down
the Shift key again, if necessary), and contact the developer of the INIT for
more information.

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, drag the Storage folder to the Trash,
and choose Empty Trash from the Special menu.

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week.

Article Change History:
08 Feb 1995 - Added information on compressed drivers.
01 Nov 1994 - Modified process for disabling old system folder.
29 Aug 1994 - Updated for FAX/TIL/QRG maintenance.

Support Information Services

Keywords: supt,sys7

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This information is from the Apple Technical Information Library.

19960927 07:25:58.00
Tech Info Library Article Number: 14205