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## System 7.5.2: Clean Install for PowerBook 5300, 2300, 190 7/96

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TOPIC -----

This article presents the steps necessary to perform a clean installation of System 7.5.2 on a PowerBook 5300, 2300, or 190 series computer.

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 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

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Shut down your computer, insert Disk Tools in the floppy drive, and turn on the computer. At the desktop, the Disk Tools floppy disk icon should be in the upper-right corner of your screen with your hard disk 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

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Disk First Aid can detect and repair problems with a hard disk. The Disk First Aid program can be found in the Utilities folder on the hard drive of the PowerBook.

Step 1

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

Step 2

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Click once on Repair. Disk First Aid will check your hard disk for any potential problems and repair them if necessary.

Step 3

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

Step 4

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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 the internal PowerBook hard drive, use Drive Setup, also located on the Disk Tools disk.

Update Hard Disk Drivers

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If you do not have an Apple hard drive, or you use third-party software to format your hard disk, do not use the Drive Setup utility. However, you should contact your hard drive vendor to verify that your formatting software is compatible with System 7.5.2.

Following these steps to update the hard disk drivers on the internal PowerBook hard drive:

Step 1

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Double-click the Drive Setup icon on the Disk Tools disk to open it.

Step 2

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Select the hard drive name under List of Drives.

Step 3

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Select Update Driver from the Functions menu.

Step 4

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When you're finished, select Quit from the File menu to return to the desktop.

Sometimes Drive Setup can not update the hard disk driver (indicated if the

Update Driver selection is dimmed). 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 the driver is corrupted, 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 Drive 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 hard drive with Drive Setup. Contact the vendor of the software for any special instructions.

#### Check Available Hard Disk Space =====

Be sure you have at least 30 MB available on the hard disk where you plan to install the system software. Open the hard disk's window. Select By Name from the View menu. The amount of available disk space appears in the upper-right corner of any open window.

If there is less than 30 MB available, you 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. You can also copy files onto floppy disks or other media before moving them to the Trash.

#### Performing a Clean Install =====

You should have made a set of system disks from the disk images on the hard drive when you first got the PowerBook using the Floppy Disk Maker program. The instructions for doing this appear on the screen every time the computer is turned on until the disks are made.

If you still have the disk images on your hard drive (you have not erased them), you will not need the floppy disks to do the clean install. To check if these images are still present, follow the folder path: (through your hard drive):

Utilities -> Floppy Disk Maker -> Disk Images -> System Software Images.

Open each of these folders on your hard drive. The System Software Images folder should contain at least 10 items, including the System Software Installer.

#### Method 1: If the System Software Images Are On the Hard Drive =====

Step 1  
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Start up the computer while holding down the Shift key until you see the message "Welcome to Macintosh, Extensions Off." If your computer will not start up from the hard drive, you can start it up from the Disk Tools disk that came with the computer.

Step 2

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Double-click the System Software Installer located in the System Software Images folder. Click OK at the Welcome to System 7.5.2 dialog box.

Step 3

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Check that the Destination Disk (located in the lower left hand corner) is set to the startup drive for your computer.

Step 4

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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

Step 5

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For a clean install, select Install New System Folder, then click OK.

Step 6

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Click the Clean Install button.

The Installer will begin to install the new System Folder. The current System Folder will be renamed Previous System Folder. The installation process will take about 11 minutes and should not be interrupted. When the installation is complete, restart the computer.

Method 2: If the System Software Images Have Been Erased

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Step 1

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Make sure you have the set of system software disks that you made with the Floppy Disk Maker program. There should be at least 10 disks.

Step 2

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Shut down the computer.

Step 3

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Insert the disk labeled Install Disk 1.

#### Step 4

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Start up the computer. Click OK when you see the Welcome to System 7.5.2 dialog.

#### Step 5

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Check that the Destination Disk (located in the lower left hand corner) is set to the startup drive for your computer.

#### Step 6

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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

#### Step 7

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For a clean install, select Install New System Folder, then click OK.

#### Step 8

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Click the Clean Install button.

The Installer will begin to install the new System Folder, asking you to insert each system disk as needed. The current System Folder will be renamed to Previous System Folder. The installation process will take about 25 minutes and should not be interrupted. When the installation is complete, restart the computer.

#### Move Bundled Items Over

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After the computer has restarted, move the following items from the Previous System Folder to the same location in the System Folder:

ATM Font Database  
Claris folder  
DataViz folder  
Launcher Items folder  
MacLinkPlus Setup (in the Control Panels folder)  
MacLinkPlus for Easy Open (in the Extensions folder)

#### 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 "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 to only move items that are not already in the new System Folder.

#### Step 1

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

#### Step 2

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

#### Step 3

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Restart your Macintosh.

#### Troubleshooting Extension Conflicts

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If you have installed any system extensions or control panels, you will 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

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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

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Be sure the Caps Lock key is off.

#### Step 2

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

Space Bar key.

Step 3

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

Step 4

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

Step 5

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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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Step 1

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Using the Extensions Manager turn on your Extensions and Controls Panels a few at a time.

Step 2

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Close the Extensions Manager, and restart the Macintosh.

Step 3

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Attempt to recreate the original problem.

Repeat steps 1 through 3 for each item in the Extensions Manager until the problem reoccurs. One of the last items activated in the Extensions Manager 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, move the Previous System Folder to the Trash, and choose Empty Trash from the Special menu.

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