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Macintosh: Shortcut Does Not Prevent Hard Disk Mounting (2/95)

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Security: Everyone

Macintosh: Shortcut Does Not Prevent Hard Disk Mounting (2/95)

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TOPIC -----

Sometimes when I try to bypass the mounting of the hard disk using the Command-Shift-Option-Delete keyboard combination it still mounts. Why?

For support troubleshooting, sometimes it is necessary to disable the mounting of the internal hard drive. In most cases, you can bypass the mounting of the hard disk using the Command-Shift-Option-Delete keyboard combination.

DISCUSSION -----

(Command)-Shift-Option-Delete (CSOD) actually prevents the default boot drive, the drive selected in the Startup Disk control panel, from loading its driver. This should prevent the drive from mounting, but there is a patch that can affect this process.

The CSOD key sequence was originally implemented so corrupt drivers could be replaced on the drive. It is possible for the driver to become corrupt, so even if the drive is not the boot drive, mounting it may cause the Macintosh to crash. Without being able to prevent the driver from loading and the drive from mounting, the only way to replace the driver is to remove the power cord from the drive before booting and reconnect it once the Macintosh has booted. This is difficult to do with internal drives.

When Apple started producing faster computers with bigger hard drives, some of the larger hard drives took longer to spin up. This caused the drives not to mount during the boot process. A patch was placed in System 7.0.1 and later that corrected this problem.

This patch maintains a list of which SCSI IDs have drives connected in Parameter RAM (PRAM). The patch is utilized later in the boot process. First it checks to see which SCSI IDs have drives attached. If it finds an ID that has a drive, but the driver is not installed, the patch loads the driver and mounts the drive.

So, the CSOD shortcut prevents the driver from loading and the drive from mounting, but the patch loads the driver and the drive mounts anyway.

If you really do not want the drive to mount, you can reset PRAM (Command-Option-p-r) and use the CSOD in the same boot. (Release the Command-Option-p-r key sequence after you hear the chime and immediately hold down the CSOD key sequence).

This process works because the list of drives is cleared when PRAM is reset. The hard disk only mounts when the computer is restarted and the CSOD shortcut is not used.

NOTE: This process does not work with the Quadra 700.

Article Change History:

10 Feb 1995 - Added keyword; made several technical updates.

Support Information Services

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