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Macintosh: Compatibility with SCSI-2 Devices (6/96)

Revised: 6/26/96
Security: Everyone

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Article Created: 19 October 1992
Article Reviewed/Updated: 26 June 1996

TOPIC -----

Does any Macintosh computer support SCSI-2 either fully or partially? If not, are there any methods to add that functionality?

DISCUSSION -----

Power Macintosh 7500, 7600, 8500, and 9500 computers

The Power Macintosh 7500, 7600 8500, and 9500 series computers partially support SCSI-2; they support Fast but not Wide SCSI. These computers have two SCSI buses: an external and internal SCSI bus. The external SCSI channel is SCSI-2 compliant but does not support Fast SCSI-2. The internal SCSI channel supports the Fast SCSI-2 standard at 10 MB per second for a hard disk array. Both internal and external buses are 8-bit only, not wide. For more detailed information about the SCSI-2 implementation in these computers, see Tech Info Library article, "Power Macintosh 7500, 8500, 9500 Series: SCSI-2 Compliance."

Other Macintosh computers

SCSI-2 commands are very similar to SCSI, but SCSI-2 is not a superset of SCSI. There is a chance a SCSI-2 drive will work on any of the Macintosh computers as long as the drive does not implement specific SCSI-2 functions (such as Fast SCSI or Wide SCSI). Since Apple does not make a SCSI-2 drive, any SCSI-2 drive would also need a device driver.

But there are other caveats too, so we highly recommend that if you want to purchase a SCSI-2 device check with the distributor for Macintosh compatibility information. The best solution for using SCSI-2 devices is to use a third-party SCSI-2 NuBus or PDS interface card. Compatibility and performance of any SCSI-2 device depends on the device itself, the interface card, and how these devices implement SCSI-2 protocols. You can get Information on compatibility from the third-party companies that supply these products.

SCSI Manager 4.3

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SCSI Manager 4.3 helps provide additional SCSI-2 support on Macintosh computers, but it does not provide full SCSI-2 support. The Macintosh Quadra 660AV/840AV and Power Macintosh computers contain SCSI Manager v4.3 in their ROMs. Other Macintosh computers can take advantage of SCSI Manager 4.3 through the SCSI Manager 4.3 extension. This software is part of System 7.5 and is also available from online services Apple provides software updates to.

The additional SCSI-2 support provided though SCSI Manager 4.3 is still a limited implementation of SCSI-2. SCSI Manager 4.3 among other things, provides support for SCSI-2 messages and protocol actions.

What SCSI Manager 4.3 Provides

The SCSI Manager v4.3 is fully asynchronous, allowing each of several devices to have multiple requests outstanding. By queuing requests in this manner, it improves overall throughput. Other features such as DMA (Direct Memory Access) support, further enhance overall performance. It improves functionality through support for multiple buses and hardware configurations, and as mentioned above, support for SCSI-2 messages and protocol actions.

Article Change History:

26 Jun 1996 - Added additional computer model.

04 Jan 1995 - Added information about new Power Macintosh computers.

26 May 1995 - Added additional information on SCSI Manager 4.3.

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Tech Info Library Article Number:10378