Tech Info Library

Serial Switch: Which Macintosh Models Need It (1/94)

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TOPIC ---

Why do the Macintosh Quadra 900 and 950 sometimes need Serial Switch
installed, which keeps the serial ports from working too fast?

Do the newer Quadra, Centris and AV Series models need the Serial
Switch as well? I cannot find a version written for these models.

DISCUSSION --

Only the Macintosh IIfx, the Quadra 900 and Quadra 950 need the Serial Switch.

The Macintosh Quadra 900 and 950 incorporated a design originally implemented
in the Macintosh IIfx: an intelligent I/O processor (IOP) for controlling
serial I/O. The IOP relieves the main processor of handling routine serial I/O
tasks which allows the system to perform faster. (Similar IOPs offload ADB and
floppy disk functions from the CPU.)

Unfortunately, some programs did not work when using the serial IOP, because
they were written to require direct access to the serial controller chip. In
order to obtain compatibility with these programs Serial Switch was developed.
It places the serial IOP in a special "IOP Bypass" mode which allows programs
to access the SCC directly, placing the burden of controlling serial I/O tasks
on the CPU.

Other Macintosh Quadra and Centris models do not use IOPs. The CPU handles
all serial I/O tasks, so no Serial Switch is required.

Article Change History:
19 January 1994 - specified which models might need the Serial Switch, and
                  excluded other Quadra, Centris and AV models.

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