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Power Macintosh: Memory Interleaving Performance Gain (6/96)

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TOPIC ---

Is there any information available on the performance gains or losses when using
interleaved instead of non-interleaved memory on PCI-based Power Macintosh
computers?

Specifically how much of a speed advantage would be lost if you use one 16 MB
DIMM rather than two 8 MB DIMMs in an interleaved arrangement?

DISCUSSION --

For increased performance it is better to configure a PCI-based Power Macintosh
computer for memory interleaving rather than installing memory in a
non-interleaved configuration. This means that you will get better performance
if you configure your system with two 16 MB DIMMs rather than one 32 MB DIMM.
This applies to all other combinations of same-sized DIMMs.

The actual performance will vary from computer to computer. In general, a Power
Macintosh with a PowerPC 604 microprocessor, such as the Power Macintosh 8500 or
9500 series computer, gets anywhere from a 5% to 15% boost in performance. The
average is about an 8% increase in performance speed. On a Power Macintosh with
a PowerPC 601 microprocessor, such as the Power Macintosh 7500 series, you may
get only a slightly better performance gain by using memory interleaving rather
than non-interleaved DIMMs. Some third-party benchmarking applications may
report exaggerated performance differences between interleaved and
non-interleaved computers.

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Article Change History:
27 Jun 1996 - Added keyword.
26 Jun 1996 - Made minor correction.
10 May 1996 - Added information about exaggerated benchmarking results.

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