PMMU Adds Clock Cycle to Memory Access

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TOPIC -----------------------------------------------------------

Is there any reason that a Macintosh II with 8MB of RAM would slow down
with a PMMU installed?  My Macintosh II seems to be slower with the PMMU.

DISCUSSION ------------------------------------------------------

Installing a Paged Memory Management Unit (PMMU) in a Macintosh II should
not cause it to operate slower than a Macintosh II with the original
Address Management Unit* (AMU) installed.  Each device adds a clock cycle
to memory access and, therefore, requires a second wait state.

The 68030 processor used in other members of the Macintosh II family has
the equivalent of a PMMU built-in, and thus does not require the extra
clock cycle for memory access.  This allows a 68030-based Macintosh to run
approximately 8 to 10% faster than a Macintosh II.

* Also known as the Hochsprung Memory Management Unit (HMMU), named after
  its designer, Ron Hochsprung.
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