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MC68030: The Meaning of Internal Harvard Architecture

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MC68030: The Meaning of "Internal Harvard Architecture"

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Article Change History

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- For technical accuracy.

TOPIC -----

What does "Internal Harvard Architecture" mean?

DISCUSSION -----

The phrase "Internal Harvard Architecture" has been applied to the Macintosh IIcx. "Harvard Architecture" refers to section 1.8 of the MC68030 User's Manual, Pipelined Architecture. The manual states:

"The MC68030 uses a three-stage pipelined internal architecture to provide for optimum instruction throughput. The pipeline allows as many as three words of a single instruction or three consecutive instructions to be decoded concurrently."

This is a 68030 chip design element that allows faster throughput of the microprocessor's instructions. It is not specific to the Macintosh IIcx; it also is valid for the Macintosh IIX and the Macintosh SE/30.

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