

Apple II Technical Notes



Developer Technical Support

ProDOS 8

#11: The ProDOS 8 MACHID Byte

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November 1988		
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November 1985		

This Technical Note describes the machine ID byte (MACHID) which ProDOS maintains to help identify different machine types.

ProDOS 8 maintains a machine ID byte, MACHID, at location \$BF98 in the ProDOS 8 global page.

Section 5.2.4 of the *ProDOS 8 Technical Reference Manual* correctly documents the definition of this byte.

MACHID has become less robust through the years. Although it can tell you if you are running on an Apple][,][+, IIe, IIc, or Apple /// in emulation mode, it cannot tell you which version of an Apple IIe or IIc you are using, nor can it identify an Apple IIgs (it thinks a IIgs is an Apple IIe). However, the byte still provides a quick test for two components of the system which you might wish to identify: an 80-column card and a clock card.

Bit 1 of MACHID identifies an 80-column card. ProDOS 8 Technical Note #15, *How ProDOS 8 Treats Slot 3* explains how this identification is determined. Note that on an Apple IIgs, this bit is always set, even if the

user selects Your Card in the Control Panel for slot 3. The bit is set since ProDOS 8 versions 1.7 and later switch out a card in slot 3 in favor of the built-in 80-column firmware, unless the card in slot 3 is an 80-column card. ProDOS 8 behaves in the same manner on an Apple IIe as well.

Bit 0 of MACHID identifies a clock card. Note that on an Apple IIgs, this bit is always set since the IIgs clock cannot be switched out of the system. Due to these unchangeable settings, the value of MACHID on the Apple IIgs is always \$B3, as it is on any Apple IIe with an 80-column card and a clock card.

Further Reference

- *ProDOS 8 Technical Reference Manual*
- *Apple IIgs Hardware Reference Manual*
- ProDOS 8 Technical Note #15, How ProDOS 8 Treats Slot 3
- Miscellaneous Technical Note #7, Apple II Family Identification