

Apple II Technical Notes



Developer Technical Support

Apple IIGS

#29: Monochrome High-Resolution Mode

Revised by:	Rilla	Reynolds
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Written by:	Rilla	Reynolds
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This Technical Note discusses a 280 x 192 monochrome high-resolution mode available on the Apple IIGS and useful for clarifying some graphics.

You can select a 280 x 192 monochrome high-resolution mode on the Apple IIGS with the following steps:

1. Select Monochrome and 40-column from the Control Panel (which sets the 40-column soft switch and bit 5 in \$C029).
2. Select Hi-Res graphics mode (which sets GR and HIRES soft switches).
3. Read from to write to \$C05E (AN3).

To deselect the mode, read from or write to \$C05F.

A monochrome double high-resolution mode also exists on the IIGS, and you follow the same procedure outlined above to access it.

You can use the monochrome mode to display sharper graphics-mode text and fine lines for applications which do not require color. Note that Applesoft BASIC also supports the monochrome video mode.

The soft switches you must access in software to enable the monochrome high-resolution mode are as follows:

GR	\$C050	
HIRES	\$C057	
40COL	\$C00C	(for monochrome double hi-res, use 80COL at \$C00D)
AN3 OFF	\$C05E	

In addition, you must set bit 5 of the register at \$C029, and you must use a read-modify-write sequence since \$C029 is a multi-function register.

You can manipulate all of the soft switches listed above from the IIGS Monitor, except 40COL.