

Macintosh Quadra: Selecting NTSC Convolution

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Macintosh Quadra: Selecting NTSC Convolution

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TOPIC -----

I'm doing video out on the Macintosh Quadra 700 using a RasterOps Video Expander. I've installed a VRAM upgrade (two SIMMs) bringing the total VRAM to 1MB.

According to Apple documentation, this VRAM configuration should support convolution. RasterOps indicates that it does, and that you should be able to choose convolution from the Monitors control panel. Nowhere do the words "Convolution" or "Interlaced" appear in the main Monitors control panel window or the Options... dialog.

I see "flicker" on the NTSC monitor, when there should be none.

DISCUSSION -----

The Quadra Built-in Video Options... dialog of the Monitors control panel is not offering the four "Select monitor type:" options that it should:

- 512 x 384 NTSC
- $-640 \times 480 \text{ NTSC}$
- 512 \times 384 NTSC Convolved
- 640 x 384 NTSC Convolved

This indicates that the built-in video doesn't understand that the NTSC mode is being requested. The configuration of the sense pin connections indicates the request for this mode.

For the built-in video to understand a request for NTSC mode, "sense0" (pin 4) and "sense1" (pin 7) need to be grounded to pin 11, the composite and vertical sync ground.

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```
4 MON.ID1 (sense0) --|
7 MON.ID2 (sense1) --|
11 C&VSYNC.GND ------|
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With these pins grounded, all of the tests we did put the Quadras into the NTSC mode, defaulting to " 512×384 Convolved." However, by opening the Options... dialog in the Monitors control panel, we could select any of the other three monitor types.

After changing the monitor type, you need to restart the Quadra for the change to take effect.

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