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Quadra 660AV: Poor Quality Output From Video-Out (8/94)

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TOPIC -----

A Quadra 660AV customer gets very low quality output from the video-out port. Using composite or S-Video gives the same low quality.

Since we are in Europe he is using PAL TV-standard, he has tried the different settings in the Monitors Control Panel, but can't get good quality.

Do you have any suggestions?

DISCUSSION -----

While they appear similar, in fact, computer graphics and television video are extraordinarily incompatible. It is a significant achievement for Apple to have bridged these two worlds with a cost effective design. The output that the customer is getting is probably as good as they are going to get with the existing Macintosh video output hardware in the 660AV.

What the hardware has to do is convert a very high quality, 30MHz 640 by 480 pixel 66.7 Hz non-interlaced RGB Macintosh signal into a lower quality 15MHz 768 by 576 line PAL signal interlaced at 50Hz (25 frames per second). There are differences between the total number of active lines the Macintosh produces and the number produced by PAL video. We will produce 576 active lines while PAL video uses about 590. Some lines are blanked and rendered as black. This is necessary to maintain the 3:4 screen aspect ratio with a square pixel graphics model. Unfortunately, the circuitry that we supply on the Macintosh 660AV cannot perform that task at a very high quality and there is no workaround.

The only solution to get high quality video output from the Macintosh 660AV to videotape is to use a third party scan converter. Scan converters will convert an RGB signal to a PAL signal with convolution to eliminate single line flicker.

Information about scan converters can be found on AppleLink in the Technical Information Library.

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