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## Macintosh: Converting Vector Data to QuickDraw Data

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TOPIC -----

How many vectors is the Display Card 8/24 GC capable of handling?

I am interested in high-performance CAD. I assume that this number depends on whether or not the expansion kit is installed. Will you give me the data for both versions?

DISCUSSION -----

The Macintosh, like most desktop computer systems today, is a raster-based image system -- not a vector-based system. Vector data can be entered, but needs to be converted to a line drawing system based on cartesian coordinates for displaying on the screen. Specifically, for the Macintosh, this means that the vector data needs to be converted into QuickDraw data and then drawn with QuickDraw routines.

If you want to create your own CAD program, you need to understand both the vector system and the QuickDraw system, as well as do the conversion between the two methods. Your implementation of your vector system will determine the number of vectors handled.

On the other hand, if you want to use a commercial application, the vector limits are a specification of that commercial application. The application also converts the vector information into QuickDraw information for screen display. However, some commercial developers have bypassed QuickDraw and written directly to the Macintosh hardware. In these instances, the applications do not benefit from the accelerated QuickDraw of the new Display Card 8/24 GC. These applications also have a higher probability of breaking on newer models of the Macintosh.

The speed at which vectors are handled (as vectors) depends on the application's implementation and the speed of the CPU on which that application is run. The faster the CPU, the faster the application. The speed of the conversion from vectors to QuickDraw is also application- and CPU speed-dependent. The speed with which QuickDraw is handled is a function of the Display Card 8/24 GC and the CPU speed.

Expanding the memory of the Display Card 8/24 GC allows a larger off-screen

bitmapped image to be stored directly on the video card. This speeds up the movement of images larger than the screen as they move on to and off of the screen. The expanded memory acts a holding space for the off-screen bitmapped image.

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