

Q: What is the programming environment for NeXTdimension?? Can a user program the i860 directly or does he/she have to use Display PostScript/NEXTSTEP?

Q: Can I program the NeXTdimension board directly?

A: No, it is not possible to write code (in C or Assembly language) that will run on the i860 processor on NeXTdimension.

The purpose of the processors on the NeXTdimension is to manage the 32-bit MegaPixel display. This consists of assisting in the rendering and manipulation of tremendous amounts of data on the screen, managing the backing store, virtual memory, and video data, and all the rest. In order to do this in an efficient and timely manner, we felt that providing a lower level API (like programming the board directly in Assembler) would sacrifice these goals.

In providing an Assembly/C language interface, we would have to also do some sort of timesharing, in order to insure that the the display system would have control of the NeXTdimension when it needed it. This is not a simple task.

In addition to this, providing the Assembly/C language interface leaves third party developers vulnerable to future changes in the display system. By using the AppKit and Display PostScript, applications are cushioned from future changes. Rather than having large numbers of graphics customers with gross incompatibilities whenever we revise our display architecture, instead we have customers whose applications run across our entire line, albeit faster on some machines than others.

What you do get in the NeXTdimension system is very fast image manipulations. When you use NXImage, or do image operations in PostScript, these operations are speeded up, without any changes in your code. In addition, the processors on NeXTdimension makes it possible to manipulate 32-bit color images and video with excellent performance.

Valid for 2.0, 3.0, 3.1

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