Subject: Re: problems plotting LARGE amounts of 2D data?
Posted by thompson on Tue, 22 Feb 1994 17:22:48 GMT
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mcheng@dunlop.cs.wisc.edu (Michael Cheng) writes:

> Hi

> I am trying to find ways to plot LARGE amounts of 2D data,
> and I like to know what is currently the state of the art. For the
> sake of this posting, let's say "large" means much more data than
> fits in real memory. From my own experience, using the virtual memory
> of the workstation to store large amounts of data impedes performance
> due to excessive paging. Here is what I have been able to gather so far:

> 1) AVS: has 25,000 point limit. Everything is loaded into virtual memory.

> 2) Khoros 1: loads everything into virtual memory.
> Any updates from Khoros 2.0?

> 3)idl/pvwave: As far as I can tell from the short demo,
> loads everything into virtual memory?

> I'm posting this to the various Comp.graphics.*
> groups, hoping that I can get feedback from users of various software
> packages. I would appreciate comments on the current/future capabilities of
> the above packages. I would also like comments about other
> packages, such as SGI Explorer, IBM Data Explore, apE, or any other
> package. Thanks in advance.

> Mike

I think the way you're looking at this is all wrong. It's not AVS/Khoros/IDL which decide whether or not data are in real or virtual memory--it's the operating system. Operating systems such as Unix or VMS shield the program from knowing how much of the memory they're using is real or virtual. Generally speaking, you'll get as much of the real memory as possible and only the overflow will be stored in virtual memory. Any programs which are designed to run on a virtual memory operating system should behave the same way.

If a program such as IDL (or any of the others you mention) is putting things into virtual memory, it can only be because you don't have enough real memory available to you. The only thing you can do is buy more memory, or if your operating system supports memory usage quotas (such as VMS) then you need to increase your quotas.

Bill Thompson