Subject: Help! Slow object graphics.
Posted by Ted Cary on Tue, 19 Feb 2002 23:29:35 GMT

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Partly as a learning exercise, and partly based on advice from the newsgroup, I went ahead and wrote a 2D object graphics program based on XROI. The graphics tree branches out from the XROI graphics tree, which is to say the graphics hierarchy in my program shares its basic structure with XROI. The drawing functions are essentially borrowed from XROI as well.

The problem is that drawing in my program is ridiculously slow, much slower than in XROI. During freehand drawing the pixels activated on screen lag noticeably behind the cursor position. Simple animations where I erase and redraw sequences of filled ~20-vertex polygons are also very slow, and take three times as long as in an earlier direct graphics version of the same program.

The big difference is that my program is written as an object widget, since I envisioned subclassing it into several specialized ROI analysis programs. So everything might be buried a little deeper in the heap (pointers to pointers), although I notice that the info structure of XROI is in a pointer as well...   Anyway, can this really account for the marked reduction in speed? If not, then I can't figure it out, since as far as I can tell my program is using almost exactly the same draw functions and graphics hierarchy as the faster XROI.   There are no PRINT or HELP statements slowing things down by writing to the output log. The computer I'm using is not great, but is fairly new--733MHz Mac G4, 32Mb NVidia GeForce 2Mx, 256Mb + 895Mb(Virtual) RAM.

I convinced my employer that converting my DG program to OG was worth the week it's taken, but I'm not sure he'll be so pleased to see that everything is slower than it was before... I thought object graphics weren't supposed to be so slow these days, so it must be the way I'm programming, although I really just copied XROI for the drawing part of the program. I hope it's not the heap thing, because I depend on the object widget functionality... Any ideas? Thanks.