Subject: Re: pixmaps and DEC OpenVMS
Posted by gurman on Tue, 23 Sep 1997 07:00:00 GMT
View Forum Message <> Reply to Message

In article <gurman-2209971359460001@smmac.gsfc.nasa.gov>,
gurman@gsfc.nasa.gov (Joseph B. Gurman) wrote:

> Hi -
>
> We're running a few AlphaStations in Digital OpenVMS V7.1 with 24-bit
> color cards and IDL 5.0.2 (though the problem was the same under 4.0.1x).
> Not too surprisingly, the size of a movie array which can be read into
> pixmaps --- i.e., the number of pixmaps of a certain size --- is smaller
> in 24-bit color than in 8-bit.
>
> The suprising thing is that on systems with large physical memories
> (>= 512 Mbyte), large WSMAX's, large NPAGEDYN and NPAGEVIR, even processes
> with quite large working set quotas and extents appear to be limited to a
> relatively small number of 1024 x 1024 pixmaps (i.e., ~ 16), while on a
> Power Macintosh (Mac OS 8, also IDL 5.0.2) with "only" ~ 270 Mbyte of
> memory, I can get up to over 100 1024 x 1024 pixmaps in 24-bit mode
> bvefore the application complains about running out of memory --- and I'm
> only running in a ~ 100 Mbyte partition. Even OpenVMS systems with 8-bit
> color cards and < 400 Mbyte of memory can access more than 3*16 = 48
> 1024^2 pixmaps, so I'm clearly missing something here.
>
> I don't understand why OpenVMS is having this problem, at least in
> part because I don't know how IDL is allocating memory for the pixmaps
> under OpenVMS. Anyone with insight into that and/or OpenVMS tuning
> parameters who'd like to volunteer a solution/explanation/educated guess?

Sorry to reply to my own post, but there are at least a couple of people
who appear to be interested in the solution.

Well, we're halfway there, if not to a real understaniding of the problem.
Ali Bahrani, who's one of those folks at RSI who monitor this group, reminded
me that the windowing transport processes all run under the system account
in OVMS,
so it was the system account that needed the large WSQUO and WSEXT values. On an
AlphaStation 500/433 with 512 Mbyte of memory, this worked like a charm: I was
able to get 72 x 1 Mbyte pixmap windows instead of 17.

On an AlphaStation 600 5/500 with 1 Gbyte of memory, however, we see
no change, even though system now has WSQUO and WSEXT values of ~ 1000000
(the OS limit) and ~ 2000000, respectively. (Yes, this is smaller than
WSMAX.)

And for the folks who suggested looking at VIRTUALPAGECNT, I apologize

for not mentioning that that was one of the first things I checked in SYSMAN HELP. It turns
out that VIRTUALPAGECNT is obsolete in OpenVMS for the Alpha after V7.0: the virtual
page limit is now the address space(!).

I'm frankly wondering if the problem on the AS 600 is due to a limited PAGEFILE size. Maybe it's time to bring in a larger system disk....

Thanks to all who responded, and especially to Ali for keeping an eye on the blather in this group.

Joe Gurman

--

Preferences folder.
