Subject: Re: old problem--the limitation on largest array in IDL, new
Posted by Mark Rivers on Mon, 19 Nov 2001 04:23:24 GMT

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renjie <renjie.he@uth.tmc.edu> wrote in message
news:9srjlk$3a6$1@oac2.hsc.uth.tmc.edu...
> I tried PCs with RAM from 256MB to 1,5GB, it seems
> the largest array you can get is less than 779MB, usually
> it's less than 720MB, 710MB can be built in any cases,
> all tests were carried out in win2000 pro, what's the idea?

As I understand it, a single Windows process is limited to 1 GB of
addressable memory, no matter how much or how little RAM you have. I am
able to allocate very close to 1GB arrays if it is the first thing I do in a
new IDL session. This is not an IDL problem, a C program you write will
have the same limitation.

Basically technology has caught up with 32-bit processors (e.g. Pentium) and
operating systems. We can now almost all afford systems with 1GB of RAM,
which is the most a single Windows process (e.g. IDL) can use.

The new Itanium processors are 64 bit machines, and there is a beta version
of Windows XP which is 64 bits. However, there are very few applications
which are 64 bits yet. Hopefully IDL will be one of the first 64 bit
Windows applications, since my tomography datasets are all close to 1 GB,
and will soon exceed it.

Mark Rivers