
Subject: Re: plot_3dbox : array has too many elements
Posted by [Paolo Grigis](#) on Wed, 16 Feb 2005 15:47:43 GMT
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Ralf Schaa wrote:

> Dear All,
>
> I like to use the plot_3dbox procedure to plot a satellite orbit. The
> cartesian positionvectors consists each of 27292 elements. I tried
> 27292L and 27292LL when initializing, but I keep getting the same error
> message : 'array has too many elements'.
>

Well, it looks like the program is trying to build an array (assuming of float type) of 27292 by 27292 elements, which you just can't do in idl on 32 bit systems:

```
IDL> a=fltarr(27292L,27292L)
% Array has too many elements.
```

To estimate the maximum size of an IDL array one can use the formula:

$$\text{maxsize} = (2L^{31}-1) / \text{typesize}$$

where typesize is the size of your datatype in byte (4 bytes for float, 2 bytes for integers, 8 bytes for doubles etc.).

This means that the maximum size in bytes of a single array should not be larger than 2GB.

Cheers,
Paolo

> What to do?
>
> Thanks already
>
> -Ralf