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Subject: Re: memory allocation on Macs

Posted by [wlandsman](#) on Thu, 26 Jun 2008 20:54:22 GMT

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> Then... second... any tips on getting around gigantic memory issues?  
> I'm running into them using the Goddard astron library for coordinate  
> transformations. The big problem is (at least partly) that my very  
> large float arrays get converted into doubles because all of the  
> astron packages use doubles. There's no way to force the arrays to  
> stay in the smaller version, right?

It's somewhat odd to be carrying all your coordinates in a big array. Usually one has a world coordinate system (e.g. in a FITS header) from which one can compute the coordinate of every pixel. One can then precess, rotate, or otherwise transform the coordinate system without applying the transformation to each individual pixel.

But presuming you need to work with arrays of coordinates, you can always transform the result back to float. For example, if you have big celestial coordinates arrays, ra and dec, that you need to transform to Galactic then use euler.pro

```
IDL> euler,1,ra,dec,glong,glat ;Glong and glat are always output  
double precision
```

```
IDL> glong=float(glong) & glat = float(glat) ;so convert back to  
float
```

Also think about whether you need to keep old variables. For example,

```
IDL> euler,1,ra,dec ;Convert ra,dec to Galactic
```

```
IDL> glong = float(temporary(ra) ) & glat = float(temporary(dec))
```

--Wayne

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