Subject: Re: memory allocation on Macs
Posted by Keflavich on Thu, 26 Jun 2008 23:43:36 GMT
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On Jun 26, 2:54 pm, wlandsman <wlands...@gmail.com> wrote:
>> 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
> pxiel.
>
> 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

Sorry, I wasn't clear: my ra/dec arrays are timestream arrays that are
used to map each data point to an image pixel. My code is crashing
WITHIN the astron routines, so converting to float before/after
doesn't help any. I think a big part of the problem is that the
astron routines copy a lot of the arrays. Euler is one place it
crashes, one of the WCS rotation programs is another.

also, isn't euler's syntax 'euler,ra,dec,glon,glat,1' ?

Thanks,
Adam