Subject: Re: IDL 5.4 label_date function
Posted by Mark Hadfield on Wed, 07 Nov 2001 20:45:44 GMT
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From: "Craig Markwardt" <craigmnet@cow.physics.wisc.edu>
>
> "Chad Bahrmann" <cbahrmann@ou.edu> writes:
>
>> Has anyone encountered problems in using the label_date function in IDL
5.4?
>> From the documentation for IDL 5.4. This plot gives you data from
>> 11/01/2001 at 1200 through 11/02/2001 at 1200 when I would expect data
from
>> 11/01/2001 at 0000 through 11/02/2001 at 0000. I have had success using
>> this function in older versions of IDL but this one appears not to work
>> properly? The actual code had revisions on
> ...
>> ;Generate the Date/Time data
>> time = TIMEGEN(START=JULDAY(11,1,2001), FINAL=JULDAY(11,2,2001))
>
> I agree with David. This has nothing to do with LABEL_DATE, and
> everything to do with the Julian dates you created in your array.
> Midnight comes at Julian day fraction 0.5.

To expand on Craig's answer, Chad has been bitten by one of the curious aspects of JULDAY. When it is given only three arguments (year, day, month) it returns an integral Julian Date, representing 12:00 on the day in question. When it is given another 3 (...hour,minute,second) it returns a double Julian date, eg:

IDL> print, JULDAY(11,1,2001), JULDAY(11,1,2001,0,0,0)
2452215 2452214.5

This would have made sense 2000 years ago when the date changed at midday, but these days it only makes sense to IDL developers.

And don't even start me on the perversity of the (year, day, month) order!

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