Subject: two issues with julian dates
Posted by Josh on Wed, 11 Jul 2007 21:51:17 GMT
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I've got date and time strings that I've parsed into their respective hour/minute/etc and month/day/etc form and I'm using the julday() function to turn them into julian dates. I've come across two problems that hopefully somebody can help me with.

First off, according to NASA (http://ssd.jpl.nasa.gov/tc.cgi#top), the returned value of julday() is incorrect. When I use 11/18/2003 at 16:14:43, I get 2452955.2 from IDL and 2452962.1768866 from NASA. Thoughts?

Second, the fact that julday() only returns a value with ONE digit after the decimal is not cool. If it returns a double floating point value, shouldn't I be able to get 14 sig figs? The time scales in my data set are such that I need that resolution. Thoughts?

Thanks for any advice,
-Josh

Subject: Re: two issues with julian dates
Posted by David Fanning on Tue, 17 Jul 2007 14:13:01 GMT
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Josh writes:

> Having given up Julian dates, in lieu of a simpler route, I am now
> simply taking the date/time and storing it as a double with respect to
> the year (e.g. 3/21/2004 @ 12:17:44.767 = 2004.2903452730). All the
> variables used to create the value were born doubles, and stayed
> doubles all along.
>
> Alas, the same problem persists. I can see the following:
> IDL> print, ROItimeArr[85], format='(F20.10)'
> 2004.2903452730
>
> But on the plot, I get 2004.2903 which is the above, sans the 'format'
> at the end. So, everything within +-0.0001 (which happens to be about
> 20% of the data set) gets put on that x value.
>
> I also tried subtracting 2004 from all the data, thinking that might
> help, but I simply get the same x values without the 2004 (e.g.
> 0.2903).

Josh reports "problem solved." Here is the take-home

message of the day: Be sure to check ALL your assumptions! :-)

Cheers,

David

--
David Fanning, Ph.D.
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Coyote's Guide to IDL Programming: http://www.dfanning.com/
Sepore ma de ni thui. ("Perhaps thou speakest truth.")
