
Subject: Re: Double precision data into caldat
Posted by [laura.hike](#) on Tue, 08 Sep 2015 20:43:28 GMT
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On Tuesday, September 8, 2015 at 1:01:09 PM UTC-7, David Fanning wrote:

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> Larry H. writes:
>
>> I'm trying to convert some Julian dates back into standard dates using
> caldat. (In fact, I am testing what I got out of julday in the first
> place.) There should be hours and minutes in the results. If I take
> the output of julday as a variable, say TEST, and put it into caldat as
>>
>> caldat, test, m, d, y, h, mm, s
>>
>> I get the right answer. However, if I just use the actual value of test, I get odd results. So, for
the Julian day 2456658.56250000, I should get
>>
>>      2014      1      1      1      30      0
>>
>> in year, month, day, hour, min, sec form. If I use
>>
>> caldat, 2456658.56250000D, m, d, y, h, mm, s
>>
>> the results are correct, but if I do the type conversion using double(), it doesn't. So I have
>>
>> caldat, double(2456658.56250000), m, d, y, h, mm, s
>>
>> and
>>
>> p = double(2456658.56250000)
>> caldat, p, m, d, y, h, mm, s
>>
>> both giving the result
>>
>>      2014      1      1      0      0      0
>>
>> Does anyone know why this is? As far as I know, all of those input values are the same.
>
> Some required reading for all those who work with IDL:
>
> http://www.idlcoyote.com/math\_tips/sky\_is\_falling.html
>
> Cheers,
>
> David
> --
> David Fanning, Ph.D.
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- > Fanning Software Consulting, Inc.
- > Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>
- > Sepore ma de ni thue. ("Perhaps thou speakest truth.")

PS I looked at the web page you mentioned, but it doesn't seem to help. It doesn't take 15 significant digits to express hours as fractional days, which can be seen from the original value I'm working with. What I'm trying to find out is why putting a D after a number is different than applying the double function. As far as I can tell, caldat isn't recognizing the value as a double and just returning the date using integers.
