Subject: TIME2JD
Posted by Sapna Mishra on Mon, 08 Feb 2016 10:03:51 GMT
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Hello everyone,
I have a time t='18:57:06.65' how can I use it to calculate JD.
i don't have any information about date. i used anytim2jd.pro but it is saying wrong format of time.
Kindly anyone suggest me with format or with another .pro file.

Subject: Re: TIME2JD
Posted by greg.addr on Mon, 08 Feb 2016 10:44:59 GMT
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You can't get a JD without knowing which date you are referring to. This must be the problem.

cheers,
Greg

Subject: Re: TIME2JD
Posted by Sapna Mishra on Mon, 08 Feb 2016 11:00:25 GMT
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Even if I know UT('18:57:06.65'), I can't get JD or MJD using some routines?

Subject: Re: TIME2JD
Posted by greg.addr on Mon, 08 Feb 2016 11:46:27 GMT
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If you don't care about the day (e.g. if all your times come from the same day), then pick an arbitrary month, day, year, and use this:

Result = JULDAY(Month, Day, Year, Hour, Minute, Second)

Subject: Re: TIME2JD
Posted by Michael Galloy on Mon, 08 Feb 2016 17:41:56 GMT
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On 2/8/16 4:46 AM, greg.addr@googlemail.com wrote:
>
> If you don't care about the day (e.g. if all your times come from the
> same day), then pick an arbitrary month, day, year, and use this:
>

> Result = JULDAY(Month, Day, Year, Hour, Minute, Second)
>

Just to be clear about this, you could calculate a Julian day given an arbitrary date, but then only the fractional part of that Julian day would be useful (and you would probably want to subtract 0.5 as well).

I'm not sure why any of that would be useful though. The Julian day is a number of days from a specific time in the past. Are you just trying to calculate the fractional day for a given time?

In any case, for a basic explanation, check the IDL documentation for JULDAY and Wikipedia:

https://en.wikipedia.org/wiki/Julian_day

Mike
--
Michael Galloy
www.michaelgalloy.com
Modern IDL: A Guide to IDL Programming (http://modernidl.idldev.com)

Subject: Re: TIME2JD
Posted by Sapna Mishra on Tue, 09 Feb 2016 05:19:54 GMT
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Yeah Mike,
I am actually interested in the fractional part. I am dealing with fits file of the same date having different UT, actually I want to extract UT of each file and calculate JD, which I was expecting to be different for each files(talking about fractional part). But all the routines in IDL (including julday.pro) are giving me JD upto one decimal place which is almost similar for each file.
Can any one suggest me any routine which can provide me JD upto high precision (like upto 4-5 decimal place)
Also I want to ask can anyone tell how to deal with float variables in unix shell scripts???

Subject: Re: TIME2JD
Posted by Jim Pendleton on Tue, 09 Feb 2016 05:31:09 GMT
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On Monday, February 8, 2016 at 10:19:56 PM UTC-7, Sapna Mishra wrote:
> Yeah Mike,
> I am actually interested in the fractional part. I am dealing with fits file of the same date having different UT, actually I want to extract UT of each file and calculate JD, which I was expecting to be different for each files(talking about fractional part). But all the routines in IDL (including julday.pro) are giving me JD upto one decimal place which is almost similar for each file.

> Can any one suggest me any routine which can provide me JD upto high precision (like upto 4-5 decimal place)
> Also I want to ask can anyone tell how to deal with float variables in unix shell scripts???

Are you confusing the printed output format with the actual precision of the data? The JULDAY() function returns a double-precision number. If you're simply looking at the output from PRINT, that's only going to display 8 digits. But if you use a better FORMAT statement with PRINT, or you use implied print, you'll see many more digits.

```
IDL> print, julday()
      2457427.4
IDL> help, julday()
<Expression>    DOUBLE    =       2457427.4
IDL> julday()
      2457427.4363425933
```

And a little later in elapsed time...

```
IDL> print, julday(), format = '(d)'
 2457427.4374884265000000
```

Jim P.

Subject: Re: TIME2JD
Posted by Sapna Mishra on Tue, 09 Feb 2016 10:26:23 GMT
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It worked with format='(d)'....Thanks Jim.
