Subject: Julian Day Numbers

Posted by Ben Tupper on Tue, 14 Nov 2000 08:00:00 GMT

Hello,

You may have heard the proverb, 'A person with two watches doesn't know what time it is.'   It seems to be true for me.

I have been tinkering with making tidal predictions which, of course, are dependent upon time. A number of benchmark dates
are used to establish the phase difference for each harmonic component calculated. One of the benchmark dates is Noon, Jan 1, 1900.

```
IDL> Print, JulDay(1,1,1900,12,0,0)
     2415021.0
```

However, this is just in from a reliable source...

* From the "Explanatory Supplement to the Astronomical Ephemeris" 1992, p.699
* 1900 JAN 0.5 = JD 2415020.0.

Note the one (1) Julian Day difference. Ugh!

There are a couple of things I could do I guess:

(1) Assume that RSI is ahead of its time, and just charge ahead.
(2) Reduce the Julian Day number by one (I hate to do that since I don't know why I need to.)
(3) Pass different arguments to JULDAY ...
```
     IDL> Print, JulDay(1,0.5,1900)
      2415020
```
    This item is really just like (2) since JULDAY converts the input arguments to long integers before processing.
(4) Use the paper tide table published by the local fishermen's cooperative.
(5) Post a timely (sorry) question to the newsgroup regarding what to make of the 1 day difference.

Thanks,

Ben

P.S.
The IDL JULDAY code cites the following reference, but I
don't have it handy to check into.
; Translated from "Numerical Recipies in C", by William H.
Press,
; Brian P. Flannery, Saul A. Teukolsky, and William T.
Vetterling.
; Cambridge University Press, 1988 (second printing).

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