Subject: Re: Julian Day Numbers
Posted by John-David T. Smith on Tue, 14 Nov 2000 08:00:00 GMT
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Ben Tupper wrote:
>
> 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.

IDL just cribbed the code from Numerical recipes, which itself cribbed the code from somewhere else. They state: "A convenient reference points is that Julian Day 2440000 began at noon of May 23, 1968". If you give that a try, you find IDL has correctly implemented the NR routine. This leaves the question of the Astronomical Almanac. Since virtually everyone agrees (there are hundreds of julian calculators on the net) on the julian scale but AA, we have to presume (horrors), that it is in error.

JD

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