Subject: Re: Julian Day Numbers
Posted by James Kuyper on Wed, 15 Nov 2000 08:00:00 GMT
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Craig Markwardt wrote:
>
> Ben Tupper <pemaquidriver@tidewater.net> writes:
>
>>> Thanks, JD, David (I think) and Craig,
>>
>> Yes, I agree that the IDL code does calculate what it claims to. My question
>> was aimed (poorly) at which kind of Julian Day number IDL calculates.
>> It sounds like it comes in many flavors. I'll punt.
>
> No, there is only one flavor here, as long as we are talking about
> simple Julian Days. If you want January the *0th*, then you'd better
> enter it as such. Then you get the answer you'd expect:
>
> IDL> Print, JulDay(1,0,1900,12,0,0)
> 2415020.0
>
> The strange thing is that January the 0th is really December 31st.
> Everybody I know starts counting calendar days with the number 1, so
> the 0th day of the month is actually the last day of the previous
> month. So it's strange that your almanac quoted that day instead of
> January the 1st.

Not really. What the almanac referenced was not Jan 0, but Jan 0.5 1900,
which is the start of the julian day that contains half of Jan 1,1900.

1899-12-31T12Z: 2415020.0 (Jan 0.5 1900)
1900-01-01T00Z: 2415020.5
1900-01-01T12Z: 2415021.0

> There are other conventions, at least in astronomy. The Modified
> Julian Day (MJD) and Truncated Julian Day (TJD) are very similar time
> systems, the only difference being the zero-point. Thankfully these
> systems subtract the 0.5 day that makes standard Julian days so
> complicated and confusing. [A day changeover at *noon* ???]

It was developed by European astronomers in the days when only
ground-based optical telescopes were in use. The only European
astronomers actively collecting data at noon GMT were studying the Sun.