Subject: Re: JULDAY 5.4 not same as 5.3?
Posted by Chris Torrence on Fri, 02 Mar 2001 16:52:00 GMT
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Hi Don,

The problem is with using an unsigned long integer. Inside JULDAY.PRO, it subtracts 12 off of the hours before dividing by 24. This will cause wrap-around for unsigned longs and unsigned long64s.

So you should be able to fix (no pun!) your problem by:

```
in_jday = julday( umm, udd, uyear, FIX(uhr), umin, usec )
```

This bug has been logged with RSI, and will be fixed in the next IDL version.

Cheers,
Chris Torrence
Research Systems, Inc.

Don Woodraska wrote:
>
> Has anyone else noticed a bug in JULDAY that appeared in 5.4?
>
> I tried this in IDL 5.3:
>
> IDL> help,umm,udd,uyear,uhr,umin,usec
> UMM LONG = 2
> UDD LONG = 16
> UYEAR LONG = 2001
> UHR ULONG = 0
> UMIN ULONG = 0
> USEC ULONG = 0
> IDL> in_jday = julday(umm, udd, uyear, uhr, umin, usec)
> IDL> gps0_jday = julday(1,6,1980,0,0,0)
>
...
> IDL> in_jday = julday(umm, udd, uyear, uhr, umin, usec)
> IDL> gps0_jday = julday(1,6,1980,0,0,0)
> IDL> help,in_jday,gps0_jday
> IN_JDAY DOUBLE = 1.8140893e+08
> GPS0_JDAY DOUBLE = 2444244.5
>