Subject: CalDat
Posted by Ben Tupper on Tue, 15 May 2001 19:07:18 GMT
View Forum Message <> Reply to Message

Hello,

I think I have found bugs in the the CalDat procedure. I thought it best to run it by here before contacting RSI.

This is from the online help:

> ... use something like:
> CALDAT, 2529161.36, Month, Day, Year, Hour, Minute, Second
> PRINT, Month, Day, Year, Hour, Minute, Second
>

Here are my observations:

1) Unless the Julian Day Number is double precision, the minute and hour are always zero.
2) I don't believe the hour is correctly determing when the Julian Day number is provided as single precision.
If the Julian Day begins at 1200 on a given day, then 0.36 * 24 + 12 = 20.6 (fraction of day * hours per day + offset = hour number of day)

As single precision:

```
IDL> CALDAT, 2529161.36, Month, Day, Year, Hour, Minute,
Second
IDL> PRINT, Month, Day, Year, Hour, Minute, Second
         7         4       2212         18
0      0.00000000
```

As double precision:

```
IDL> CALDAT, 2529161.36d, Month, Day, Year, Hour, Minute,
Second
IDL> PRINT, Month, Day, Year, Hour, Minute, Second
         7         4       2212         20
38       23.999989
```

As long integer:

```
IDL> CALDAT, 2529161L, Month, Day, Year, Hour, Minute,
Second
IDL> PRINT, Month, Day, Year, Hour, Minute, Second
```

```
           7           4        2212          12
0       0.00000000
```

I hope some folks will confirm this result on other machines
before I send along a bug report to RSI; perhaps this has
been noted before.

```
IDL> print, !version
{ x86 Win32 Windows 5.4 Sep 25 2000      32      64}
```

Thanks,

Ben

--
Ben Tupper
248 Lower Round Pond Road
POB 106
Bristol, ME 04539

Tel: (207) 563-1048
Email: PemaquidRiver@tidewater.net