Subject: Re: about time conversion
Posted by thompson on Fri, 07 Mar 1997 08:00:00 GMT
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Paolo alberoni <paolo@metgraxp.arpamet.regione.emilia-romagna.it> writes:

> I work on unix machine and my data are stored with the UNIX-time (seconds from
> 1/1/70) and I wan't convert it to a more readble format (like dd-mm-yy hh:mm:ss)
> there is an IDL routine for this ?

There are a number of IDL routines related to time at URL

http://sohowww.nascom.nasa.gov/solarsoft/gen/idl/time/
ftp://sohoftp.nascom.nasa.gov/solarsoft/gen/idl/time/

There's a description of the software at

http://orpheus.nascom.nasa.gov/cds/swnote/cds_swnote_14.ps

Actually, these routines address the harder problem of converting between TAI and UTC, with the corrections for leap seconds applied. There is no software specifically for working with Unix time. However, it's a quite simple matter to convert from Unix time to a format that it can understand. In fact, the routine GET_UTC does exactly this to determine the current time. The following few lines do the trick.

```
SECONDS = SYSTIME(1)
DAYSECONDS = 24.D0 * 60.D0^2
MJD = LONG(SECONDS/DAYSECONDS)
UTC = {CDS_INT_TIME,  $
 MJD: 40587L + MJD, $
 TIME: ROUND(1000*(SECONDS-MJD*DAYSECONDS))}
```

This structure can then be passed to UTC2STR to output a string time in a variety of formats.

Bill Thompson