
Subject: Re: dates transformation

Posted by [Chris Lee](#) on Tue, 15 Jun 2004 07:44:44 GMT

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In article <40ce8f97\$1@news.uni-rostock.de>, "Thomas Ohde"
<thomas.ohde@io-warnemuende.de> wrote:

> Hi,
> I have given dates like 38141.497920 and I can transform this with
> Excel into: 03.06.2004 11:57. I found in the help that this is the 1900
> date format.
> How can I transform these dates in both direction with IDL? Is there any
> function in IDL?
> Thanks a lot,
> Thomas
>

`str = SYSTIME(0, TIME_IN_SECONDS, /utc)`

will return a string of the time, where TIME_IN_SECONDS is the number of
seconds from 1970 Jan 1 UTC.

How you convert to 1970/1/1 0:0:0 utc is another thing. The excel format
is, I think. The number of days since 1900..eg

38141.497920 = 104 years + 181 days etc...

If you (naively) subtract 70*365 days and then multiply by 86400. .
seconds(per day), then you get

Tue Jun 22 11:57:00 2004

Which is almost right, it's out by 18 days, which is the number
of leap days in the 1900-1974 range.

so...

`excel=38141.497920D`

`str=systime(0,(excel-(365*70+18.))*86400.,/utc)`

Converting the other way is more...tedious, `bin_date`, `caldate`, `julday` are
your friends, and a bit of `strpos/stregex`

Chris

Subject: Re: dates transformation

Posted by [tam](#) on Tue, 15 Jun 2004 10:12:00 GMT

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"Thomas Ohde" <thomas.ohde@io-warnemuende.de> wrote in message
news:<40ce8f97\$1@news.uni-rostock.de>...

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> Thanks a lot,
> Thomas

Take a look at the JULDATE, JDCNV and DAYCNV routines in the idlastro library
at idlastro.gsfc.nasa.gov. These do pretty much what you want except
that they have a different zero point. You'll have to add or subtract
a constant offset to get 0 to be 1900.000.

Regards,
Tom McGlynn

Subject: Re: dates transformation

Posted by [Thomas Ohde](#) on Tue, 15 Jun 2004 11:43:26 GMT

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"Thomas Ohde" <thomas.ohde@io-warnemuende.de> schrieb im Newsbeitrag
news:40ce8f97\$1@news.uni-rostock.de...

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> function in IDL?
>
>
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> Thomas
>
>

I have found a further solution.
How about this:

```
IDL> excel = 38141.49792d
IDL> caldat, 2415018.5 + excel, month, day, year, hour, min, sec
IDL> print, month, day, year, hour, min, sec
6 3 2004 11 57 0.28799951
```

Thomas
