
Subject: Re: Faster way to convert a string array of dates to julian dates
Posted by [Pedro.Rodriguez.Pascu](#) on Tue, 25 Sep 2007 14:09:23 GMT
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On 24 sep, 14:49, "Ryan." <rchug...@gmail.com> wrote:

> Hi All,
>
> I want to convert an string array of dates to julian numbers in the
> most efficient way in IDL. The only way I can come up with doing it
> is using a FOR loop but I'm hoping that some of you could help me to
> utilize IDL's super-duper array manipulation strengths. This is what
> I have:
>
> date format: YYYY-MM-DD HH:MM:SS.FFFF+TT
> F->fractions of a second
> T->time zone specification (e.g. -05 for Eastern Standard Time, etc.)
>
> I don't care much about the time zone because all the dates are given
> in UTC. It doesn't need to be included in the conversion.
>
> Given a string array like this:> dates = ['2007-09-21 12:15:00.0000+00', '2007-09-22
23:25:15.9999+00', ...]
>
> I can convert it using this code:
>
> juls = DBLARR(N_ELEMENTS(dates))
> FOR i=0, N_ELEMENTS(dates)-1 DO BEGIN
> splitdate = STRSPLIT(dates[i], ' :+-' , /EXTRACT)
> juls[i] = JULDAY(splitdate[1], splitdate[2], splitdate[0],
> splitdate[3], splitdate[4], splitdate[5])
> ENDFOR
>
> This works, but would like to know a more efficient way of converting
> it because I do this quite often.
>
> Thanks,
> Ryan.

Hello,

you may want to explore the possibilities of c() format.
Unfortunately, as far as I know, it cannot deal with time zones yet.

The following lines would do the job avoiding FOR loops:

```
fmt='(C(CYI4,1X,CMOI2,1X,CDI2,1X,CHI2,1X,CMI2,1X,CSF7.4))'  
juls=DBLARR(N_ELEMENTS(dates))  
READS,dates,juls,FORMAT=fmt
```

```
tz=LONG(STRMID(dates,24))  
juls=juls-tz/24.
```

Pedro
