
Subject: Re: Computing Time

Posted by [Martin Schultz](#) on Mon, 20 Mar 2000 08:00:00 GMT

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loeh@my-deja.com wrote:

```
>
> Hi,
> I have a couple of measurements and like to calculate the time between
> them. But I am not sure which routine to use.
> I tried the following but the result is confusing
> IDL> diff=JULDAY(3,17,2000,17,30,22)-JULDAY(3,17,2000,15,22,17)
> IDL> print,diff
> 0.088946760
> IDL> CALDAT, diff, Month, Day, Year, Hour, Minute, Second
> IDL> PRINT, Month, Day, Year, Hour, Minute, Second
> 1 1 -4713 14 8
> 5.0000381
> Thanks for help
> Mirko
>
```

JULDAY will give you fractional days as an answer. To convert this back into

days, hours, minutes, etc., you can do:

```
days = fix(diff) ; or long() if you desire
```

```
hour = fix( (diff-days)*24. )
```

```
minute = fix( (diff-days-hour/24.)*1440. )
```

```
second = fix( (diff-days-hour/24.-minute/1440.)*86400. )
```

just that you may run into roundoff problems here or there. And this is why you should probably follow Liam's advice and use the JHU APL routines.

Cheers,
Martin

PS: and to save you from likely headaches: always use DOUBLE if you deal with time variables (except maybe for storing them in a file)

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```