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Subject: Re: CalDat

Posted by [R.G.S.](#) on Wed, 16 May 2001 16:59:42 GMT

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Ben Tupper <pemaquidriver@tidewater.net> wrote in message  
news:3B017E66.BD5C9F6D@tidewater.net...

> Hello,

>

>

> 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 determining 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)

I don't think it is a bug. Single precision numbers only give you  
0.25 in terms of julian days

Check out the following code

```
print,'Singl prec #:'  
print,float(2529161.36d),format='(f50.25)'
```

```
CALDAT,2529161.36d, Month, Day, Year, Hour, Minute,Second  
PRINT, 'Doubl:      ',Month, Day, Year, Hour, Minute, Second
```

```
CALDAT, 2529161.36, Month, Day, Year, Hour, Minute,Second  
PRINT, 'Float:      ',Month, Day, Year, Hour, Minute, Second
```

```
CALDAT, 2529161.25d, Month, Day, Year, Hour, Minute,Second  
PRINT, 'Round Doubl:',Month, Day, Year, Hour, Minute, Second
```

```
print,'Next Singl prec #:'  
print,float(2529161.45d),format='(f50.25)'
```

```
CALDAT,2529161.45d, Month, Day, Year, Hour, Minute,Second  
PRINT, 'Doubl:      ',Month, Day, Year, Hour, Minute, Second
```

```
CALDAT, 2529161.45, Month, Day, Year, Hour, Minute,Second  
PRINT, 'Float:      ',Month, Day, Year, Hour, Minute, Second
```

```
CALDAT, 2529161.5d, Month, Day, Year, Hour, Minute,Second
```

```
PRINT, 'Round Doub:',Month, Day, Year, Hour, Minute, Second
```

```
***** Results Below *****
```

Singl prec #:

2529161.25000000000000000000000000

Doubl:               7          4          2212          20

|    |           |
|----|-----------|
| 38 | 23.999989 |
|----|-----------|

Float:               7          4          2212          18

|   |             |
|---|-------------|
| 0 | 0.000000000 |
|---|-------------|

Round Doub:        7        4        2212        18        0

0.00000000

Next Singl prec #:

2529161.50000000000000000000000000

Doubl:                    7            4            2212            22

48 1.6093257e-005

Float:                    7            5            2212            0

|   |             |
|---|-------------|
| 0 | 0.000000000 |
|---|-------------|

Round Doub:        7        5        2212        0        0

0.00000000

Cheers,  
bob stockwell