

Datetime display formats — Display formats for dates and times[Description](#)[Quick start](#)[Syntax](#)[Remarks and examples](#)[Also see](#)

Description

Stata stores dates and times numerically in one of eight units. The value of a Stata date might be 18,282 or even 1,579,619,730,000. Place the appropriate format on it, and the 18,282 is displayed as 20jan2010 (%td). The 1,579,619,730,000 is displayed as 20jan2010 15:15:30 (%tc).

If you specify additional format characters, you can change how the result is displayed. Rather than 20jan2010, you could change it to 2010.01.20; January 20, 2010; or 1/20/10. Rather than 20jan2010 15:15:30, you could change it to 2010.01.20 15:15; January 20, 2010 3:15 pm; or Wed Jan 20 15:15:30 2010.

See [\[D\] Datetime](#) for an introduction to Stata's dates and times.

Quick start

Format daily dates stored in `datevar` to display as 15mar2005

```
format datevar %td
```

Format daily dates stored in `datevar` to display as 3/15/05

```
format datevar %tdnn/DD/YY
```

Format daily dates stored in `datevar` to display as Tue Mar. 15

```
format datevar %tdDay_Mon._DD
```

Format dates and times stored in `timevar` to display as 15mar2005 14:30:00

```
format timevar %tc
```

Format dates and times stored in `timevar` to display as 14:30

```
format timevar %tcHH:MM
```

Format dates and times stored in `timevar` to display as 2:30 PM

```
format timevar %tchh:mm_AM
```

Syntax

The formats for displaying Stata dates and times are

Stata date type	Display format
datetime/c	%tc [<i>details</i>]
datetime/C	%tC [<i>details</i>]
date	%td [<i>details</i>]
weekly date	%tw [<i>details</i>]
monthly date	%tm [<i>details</i>]
quarterly date	%tq [<i>details</i>]
half-yearly date	%th [<i>details</i>]
yearly date	%ty [<i>details</i>]

The optional *details* allows you to control how results appear and is composed of a sequence of the following codes:

Code	Meaning	Output
CC	century-1	01–99
cc	century-1	1–99
YY	2-digit year	00–99
yy	2-digit year	0–99
JJJ	day within year	001–366
jjj	day within year	1–366
Mon	month	Jan, Feb, . . . , Dec
Month	month	January, February, . . . , December
mon	month	jan, feb, . . . , dec
month	month	january, february, . . . , december
NN	month	01–12
nn	month	1–12
DD	day within month	01–31
dd	day within month	1–31
DAYNAME	day of week	Sunday, Monday, . . . (aligned)
Dayname	day of week	Sunday, Monday, . . . (unaligned)
Day	day of week	Sun, Mon, . . .
Da	day of week	Su, Mo, . . .
day	day of week	sun, mon, . . .
da	day of week	su, mo, . . .

<code>h</code>	half	1–2
<code>q</code>	quarter	1–4
<code>WW</code>	week	01–52
<code>ww</code>	week	1–52
<code>HH</code>	hour	00–23
<code>Hh</code>	hour	00–12
<code>hH</code>	hour	0–23
<code>hh</code>	hour	0–12
<code>MM</code>	minute	00–59
<code>mm</code>	minute	0–59
<code>SS</code>	second	00–60 (sic, due to leap seconds)
<code>ss</code>	second	0–60 (sic, due to leap seconds)
<code>.s</code>	tenths	.0–.9
<code>.ss</code>	hundredths	.00–.99
<code>.sss</code>	thousandths	.000–.999
<code>am</code>	show am or pm	am or pm
<code>a.m.</code>	show a.m. or p.m.	a.m. or p.m.
<code>AM</code>	show AM or PM	AM or PM
<code>A.M.</code>	show A.M. or P.M.	A.M. or P.M.
<code>.</code>	display period	.
<code>,</code>	display comma	,
<code>:</code>	display colon	:
<code>-</code>	display hyphen	-
<code> </code>	display space	
<code>/</code>	display slash	/
<code>\</code>	display backslash	\
<code>!c</code>	display character	<i>c</i>
<code>+</code>	separator (see note)	

Note: `+` displays nothing; it may be used to separate one code from the next to make the format more readable. `+` is never necessary. For instance, `%tchh:MM+am` and `%tchh:MMam` have the same meaning, as does `%tc+hh+:+MM+am`.

When *details* is not specified, it is equivalent to specifying

Format	Implied (fully specified) format
%tC	%tCDDmonCCYY_HH:MM:SS
%tc	%tcDDmonCCYY_HH:MM:SS
%td	%tdDDmonCCYY
%tw	%twCCYY!www
%tm	%tmCCYY!mnn
%tq	%tqCCYY!qq
%th	%thCCYY!hh
%ty	%tyCCYY

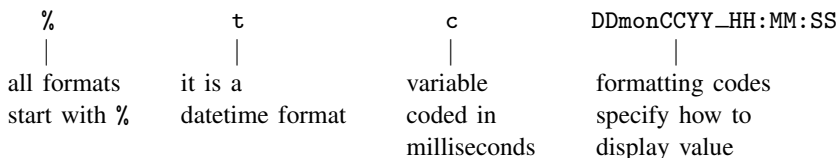
That is, typing

```
. format mytimevar %tc
```

has the same effect as typing

```
. format mytimevar %tcDDmonCCYY_HH:MM:SS
```

Format %tcDDmonCCYY_HH:MM:SS is interpreted as



Remarks and examples

[stata.com](http://www.stata.com)

Remarks are presented under the following headings:

- Specifying display formats*
- Times are truncated, not rounded, when displayed*

Specifying display formats

Rather than using the default format 20jan2010, you could display the daily date in one of these formats:

```
2010.01.20
January 20, 2010
1/20/10
```

Likewise, rather than displaying the datetime/c variable in the default format 20jan2010 15:15:30, you could display it in one of these formats:

```
2010.01.20 15:15
January 20, 2010 3:15 pm
Wed Jan 20 15:15:30 2010
```

Here is how to do it:

1. 2010.01.20
format *mytdvar* %tdCCYY.NN.DD
2. January 20, 2010
format *mytdvar* %tdMonth_dd,_CCYY
3. 1/20/10
format *mytdvar* %tdnn/dd/YY
4. 2010.01.20 15:15
format *mytcvar* %tcCCYY.NN.DD_HH:MM
5. January 20, 2010 3:15 pm
format *mytcvar* %tcMonth_dd,_CCYY_hh:MM_am
Code am at the end indicates that am or pm should be displayed, as appropriate.
6. Wed Jan 20 15:15:30 2010
format *mytcvar* %tcDay_Mon_DD_HH:MM:SS_CCYY

In examples 1 to 3, the formats each begin with %td, and in examples 4 to 6, the formats begin with %tc. It is important that you specify the opening correctly—namely, as % + t + *third_character*. The third character indicates the particular encoding type, which is to say, how the numeric value is to be interpreted. You specify %tc... for datetime/c variables, %tC... for datetime/C, %td... for date, and so on.

The default format for datetime/c and datetime/C variables omits the fraction of seconds; 15:15:30.000 is displayed as 15:15:30. If you wish to see the fractional seconds, specify the format

```
%tCDDmonCCYY_HH:MM:SS.sss
```

or

```
%tCDDmonCCYY_HH:MM:SS.sss
```

as appropriate.

Times are truncated, not rounded, when displayed

Consider the time 11:32:59.999. Other, less precise, ways of writing that time are

```
11:32:59.99
11:32:59.9
11:32:59
11:32
```

That is, when you suppress the display of more-detailed components of the time, the parts that are displayed are not rounded. Stata displays time just as a digital clock would; the time is 11:32 right up until the instant that it becomes 11:33.

Also see

- [D] [Datetime](#) — Date and time values and variables
- [D] [Datetime business calendars](#) — Business calendars
- [D] [Datetime conversion](#) — Converting strings to Stata dates
- [D] [Datetime durations](#) — Obtaining and working with durations
- [D] [Datetime relative dates](#) — Obtaining dates and date information from other dates
- [D] [Datetime values from other software](#) — Date and time conversion from other software

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