

**Dates** — Date and time functions

[Contents](#)    [Description](#)    [Also see](#)

## Contents

[M-5] Manual entry	Function	Purpose
<div style="border: 1px solid black; display: inline-block; padding: 2px 10px;">Dates</div>		
<b>date()</b>	clock() mdyhms() dhms() hms() hh() mm() ss() dofC()	%tc of string %tc of month, day, year, hour, minute, and second %tc of %td, hour, minute, and second %tc of hour, minute, and second hour of %tc minute of %tc second of %tc %td of %tc
	CofC() Clock() Cmdyhms() Cdhms() Chms() hhC() mmC() ssC() dofC()	%tC of %tc %tC of string %tC of month, day, year, hour, minute, and second %tC of %td, hour, minute, and second %tC of hour, minute, and second hour of %tC minute of %tC second of %tC %td of %tC
	date() mdy() yw() ym() yq() yh() cofd() Cofd()	%td of string %td of month, day, and year %tw of year and week %tm of year and month %tq of year and quarter %th of year and half %tc of %td %tC of %td

<b>date()</b> , <i>continued</i>	dofb()	%td of %tb
	bofd()	%tb of %td
	month()	month of %td
	day()	day-of-month of %td
	year()	year of %td
	dow()	day-of-week of %td
	week()	week of %td
	quarter()	quarter of %td
	halfyear()	half-of-year of %td
	doy()	day-of-year of %td
	yearly()	%ty of string
	yofd()	%ty of %td
	dofy()	%td of %ty
	halfyearly()	%th of string
	hofd()	%th of %td
	dofh()	%td of %th
	quarterly()	%tq of string
	qofd()	%tq of %td
	dofq()	%td of %tq
	monthly()	%tm of string
	mofd()	%tm of %td
	dofm()	%td of %tm
	weekly()	%tw of string
	wofd()	%tw of %td
	dofw()	%td of %tw
	hours()	hours of milliseconds
	minutes()	minutes of milliseconds
	seconds()	seconds of milliseconds
	msofhours()	milliseconds of hours
	msofminutes()	milliseconds of minutes
	msofseconds()	milliseconds of seconds
	age()	integer age on %td
	age_frac()	age on %td with fractional part
	Clockdiff()	integer %tC difference
	clockdiff()	integer %tc difference
	Clockdiff_frac()	%tC difference with fractional part
	clockdiff_frac()	%tc difference with fractional part
	datediff()	integer %td difference
	datediff_frac()	%td difference with fractional part

---

<b>date()</b> , <i>continued</i>	<code>birthday()</code>	<code>%td</code> birthday in year
	<code>previousbirthday()</code>	<code>%td</code> birthday immediately before <code>%td</code>
	<code>nextbirthday()</code>	<code>%td</code> first birthday after <code>%td</code>
	<code>isleapyear()</code>	1 if leap year; 0 otherwise
	<code>previousleapyear()</code>	leap year immediately before year
	<code>nextleapyear()</code>	first leap year after year
	<code>daysinmonth()</code>	number of days in month of <code>%td</code>
	<code>firstdayofmonth()</code>	<code>%td</code> first day of month of <code>%td</code>
	<code>lastdayofmonth()</code>	<code>%td</code> last day of month of <code>%td</code>
	<code>datepart()</code>	part of <code>%td</code> corresponding to time unit
	<code>clockpart()</code>	part of <code>%tc</code> corresponding to time unit
	<code>Clockpart()</code>	part of <code>%tC</code> corresponding to time unit
	<code>isleapsecond()</code>	1 if <code>%tC</code> is leap second; 0 otherwise
	<code>today()</code>	<code>%td</code> today's date
	<code>now()</code>	<code>%tc</code> current datetime

---

## Description

The above functions allow you to work with dates and times in Mata. They are what most people would consider scalar functions, although in fact they will work with matrices, in an element-by-element fashion.

## Also see

[M-4] [Intro](#) — Categorical guide to Mata functions