

Dates — Date and time functions

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Purpose

Dates

| | | |
|---------------|-----------|---|
| date() | clock() | %tc of string |
| | mdyhms() | %tc of month, day, year, hour, minute, and second |
| | dhms() | %tc of %td, hour, minute, and second |
| | hms() | %tc of hour, minute, and second |
| | hh() | hour of %tc |
| | mm() | minute of %tc |
| | ss() | second of %tc |
| | dofc() | %td of %tc |
| | Cofc() | %tC of %tc |
| | Clock() | %tC of string |
| | Cmdyhms() | %tC of month, day, year, hour, minute, and second |
| | Cdhms() | %tC of %td, hour, minute, and second |
| | Chms() | %tC of hour, minute, and second |
| | hhC() | hour of %tC |
| | mmC() | minute of %tC |
| | ssC() | second of %tC |
| | dofC() | %td of %tC |
| | date() | %td of string |
| | mdy() | %td of month, day, and year |
| | dmy() | %td of day, month, and year |
| | yw() | %tw of year and week |
| | ym() | %tm of year and month |
| | yq() | %tq of year and quarter |
| | yh() | %th of year and half |
| | cofd() | %tc of %td |
| | Cofd() | %tC of %td |

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

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| date() , <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 |
| | <code>dayssinceweekday()</code> , | number of days since previous day of week |
| | <code>dayssincedor()</code> | |
| | <code>daysuntilweekday()</code> , | number of days until next day of week |
| | <code>daysuntildor()</code> | |
| | <code>firstweekdayofmonth()</code> , | <code>%td</code> of first day of week of month and year |
| | <code>firstdowofmonth()</code> | |
| | <code>lastweekdayofmonth()</code> , | <code>%td</code> of last day of week of month and year |
| | <code>lastdowofmonth()</code> | |
| | <code>previousweekday()</code> , | <code>%td</code> of last day of week before <code>%td</code> |
| | <code>previousdor()</code> | |
| | <code>nextweekday()</code> , | <code>%td</code> of next day of week after <code>%td</code> |
| | <code>nextdor()</code> | |

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

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