

EViews: Introductory User Guide

Date Functions

Basic Date Functions | Advanced Date Functions

Learning support material for the courses:

- ✓ NMST537 Time Series Analysis
- ✓ NEKN432 Econometrics

Based on official [EViews Tutorials](#) & [EViews Illustrated](#).

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BASIC DATE FUNCTIONS

Basic Date Functions (Part I)

- EViews has some very powerful built-in functions that allow you to easily work with dates in ***dated*** workfiles.

Function	Description
<i>@year</i>	Returns the year in which each observation begins.
<i>@quarter</i>	Returns the quarter of the year in which each observation begins.
<i>@month</i>	Returns the month of the year in which each observation begins.
<i>@day</i>	Returns the day of the month in which each observations begins.
<i>@weekday</i>	Returns the day of the week.
<i>@hour</i>	Returns the hour of each observation as an integer.
<i>@minute</i>	Returns the minute of each observation as an integer.
<i>@second</i>	Returns the second of each observation as an integer.
<i>@seas(x)</i>	Returns a seasonal dummy variable.

Basic Date Functions (Part II)

Function	Description
@daycount	Returns the number of days within each observation.
@before("date")	Returns a dummy variable with value equal to 1 prior to the specified date.
@after("date")	Returns a dummy variable with value equal to 1 after the specified date.
@during("date1 date2")	Returns a dummy variable with value equal to 1 for each observation between date1 and date2.
@holiday	Returns the proportion of an annual event (such as a holiday) that lies in each observation.

Date Functions and Dummy Variables

- Date functions can be very useful when creating date-related dummy variables.

Function	Description
<i>series y=@year>1979</i>	Series equals 1 post-1979 and 0 otherwise.
<i>series y=@after("1979")</i>	Series equals 1 post-1979 and 0 otherwise.
<i>series y=@before("1987")</i>	Series equals 1 pre-1987 and 0 otherwise.
<i>series y=@during("1987 1994")</i>	Series equals 1 between 1987 and 1994.
<i>series y=@month=1</i>	Series equals 1 if month=January, 0 otherwise.
<i>series y=@weekday=5</i>	Series equals 1 if day=Friday, 0 otherwise
<i>@seas(1) ... @seas(4)</i>	Creates 4 dummy variables for the four quarters of the year in a quarterly workfile.

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ADVANCED DATE FUNCTIONS

Date Arithmetic

- EViews provides several functions for manipulating dates more generally.
- EViews first converts a date string into a date number so that you can manipulate it.

Function	Description
@date	Returns the day number for the start of this observation
@dateadd	Shifts a date forward or backward by a unit of time
@datediff	Calculates the difference between two dates in a unit of time
@datefloor	Rounds down a date to the beginning of a unit of time
@dateval	Converts a text date into a numerical value

Date Arithmetic: Examples

Function	Description
<i>series z=@date<@dateval("1980 m03")</i>	Series equals 1 pre-March 1980, 0 otherwise.
<i>@datediff(d1, d2, u)</i>	Returns the difference between two date numbers (d1 is the start date, d2 is the end date, u is the time unit).
<i>series y=@daycount</i>	Series contains numbers of days in months.
<i>series y=@daycount("Friday")</i>	Series contains numbers of Fridays in months.
<i>@date-@datefloor(@date,"m")</i>	Finds the number of days since the beginning of the month.
<i>@datediff(@date, @datefloor(@date,"m"), "b")</i>	Finds the number of business days since the start of the month.
<i>@datediff(@date, @datefloor(@date,"m"), "w")+1</i>	Finds out the week of the month.

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