

xtline — Panel-data line plots

Syntax

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Description

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Syntax

Graph by panel

```
xtline varlist [if] [in] [, panel_options]
```

Overlaid panels

```
xtline varname [if] [in], overlay [overlaid_options]
```

panel_options

Description

Main

i(*varname_i*)

use *varname_i* as the panel ID variable

t(*varname_t*)

use *varname_t* as the time variable

Plot

cline_options

affect rendition of the plotted points connected by lines

Add plots

addplot(*plot*)

add other plots to the generated graph

Y axis, Time axis, Titles, Legend, Overall

twoway_options

any options other than `by()` documented in [G-3] [twoway_options](#)

byopts(*byopts*)

affect appearance of the combined graph

overlaid_options

Description

Main

overlay

overlay each panel on the same graph

i(*varname_i*)

use *varname_i* as the panel ID variable

t(*varname_t*)

use *varname_t* as the time variable

Plots

plot#opts(*cline_options*)

affect rendition of the # panel line

Add plots

addplot(*plot*)

add other plots to the generated graph

Y axis, Time axis, Titles, Legend, Overall

twoway_options

any options other than `by()` documented in [G-3] [twoway_options](#)

A panel variable and a time variable must be specified. Use `xtset` (see [XT] [xtset](#)) or specify the `i()` and `t()` options. The `t()` option allows noninteger values for the time variable, whereas `xtset` does not.

Menu

Statistics > Longitudinal/panel data > Line plots

Description

`xtline` draws line plots for panel data.

Options for graph by panel

Main

`i(varnamei)` and `t(varnamet)` override the panel settings from `xtset`; see [XT] `xtset`. `varnamei` is allowed to be a string variable. `varnamet` can take on noninteger values and have repeated values within panel. That is to say, it can be any numeric variable that you would like to specify for the x -dimension of the graph. It is an error to specify `i()` without `t()` and vice versa.

Plot

`cline_options` affect the rendition of the plotted points connected by lines; see [G-3] `cline_options`.

Add plots

`addplot(plot)` provides a way to add other plots to the generated graph; see [G-3] `addplot_option`.

Y axis, Time axis, Titles, Legend, Overall

`tway_options` are any of the options documented in [G-3] `tway_options`, excluding `by()`. These include options for titling the graph (see [G-3] `title_options`) and for saving the graph to disk (see [G-3] `saving_option`).

`byopts(byopts)` allows all the options documented in [G-3] `by_option`. These options affect the appearance of the by-graph. `byopts()` may not be combined with `overlay`.

Options for overlaid panels

Main

`overlay` causes the plot from each panel to be overlaid on the same graph. The default is to generate plots by panel. This option may not be combined with `byopts()` or be specified when there are multiple variables in `varlist`.

`i(varnamei)` and `t(varnamet)` override the panel settings from `xtset`; see [XT] `xtset`. `varnamei` is allowed to be a string variable. `varnamet` can take on noninteger values and have repeated values within panel. That is to say, it can be any numeric variable that you would like to specify for the x -dimension of the graph. It is an error to specify `i()` without `t()` and vice versa.

Plots

`plot#opts(cline_options)` affect the rendition of the $\#$ th panel (in sorted order). The `cline_options` can affect whether and how the points are connected; see [G-3] `cline_options`.

Add plots

`addplot(plot)` provides a way to add other plots to the generated graph; see [G-3] `addplot_option`.

Y axis, Time axis, Titles, Legend, Overall

twoway_options are any of the options documented in [G-3] *twoway_options*, excluding `by()`. These include options for titling the graph (see [G-3] *title_options*) and for saving the graph to disk (see [G-3] *saving_option*).

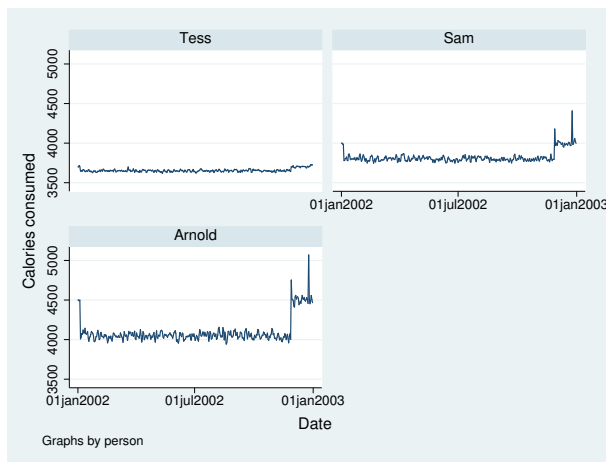
Remarks and examples

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

▶ Example 1

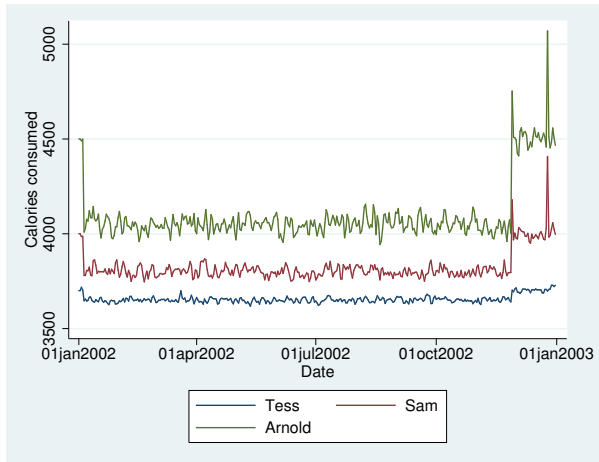
Suppose that Tess, Sam, and Arnold kept a calorie log for an entire calendar year. At the end of the year, if they pooled their data together, they would have a dataset (for example, `xtline1.dta`) that contains the number of calories each of them consumed for 365 days. They could then use `xtset` to identify the date variable and treat each person as a panel and use `xtline` to plot the calories versus time for each person separately.

```
. use http://www.stata-press.com/data/r13/xtline1
. xtset person day
    panel variable:  person (strongly balanced)
    time variable:  day, 01jan2002 to 31dec2002
                   delta: 1 day
. xtline calories, tlabel(#3)
```



Specify the `overlay` option so that the values are plotted on the same graph to provide a better comparison among Tess, Sam, and Arnold.

```
. xtline calories, overlay
```



Also see

[XT] `xtset` — Declare data to be panel data

[G-2] `graph twoway` — Twoway graphs

[TS] `tsline` — Plot time-series data