Description

A range plot has two y variables, such as high and low daily stock price or upper and lower 95% confidence limits.

twoway rspike plots a range, using spikes to connect the high and low values.

Also see [G-2] **graph twoway spike** for another style of spike chart.

Quick start

Range plot with spikes

        twoway rspike y1 y2 x

Horizontal range plot with spikes

        twoway rspike y1 y2 x, horizontal

Specify maroon spikes

        twoway rspike y1 y2 x, lcolor(maroon)

With an overlaid line plot

        twoway rspike y1 y2 x || line y3 x, sort

Specify labels for the y axis

        twoway rspike y1 y2 x, ylabel(100 200 300 400)

Menu

Graphics > Two-way graph (scatter, line, etc.)

Syntax

> <u>two</u>way rspike *y1var y2var xvar* [*if*] [*in*] [, *options*]

options	Description
<u>vertical</u>	vertical spikes; the default
<u>hor</u>izontal	horizontal spikes
line_options	change look of spike lines
colorvar_options	change color of spike lines based on values of a variable
axis_choice_options	associate plot with alternative axis
twoway_options	titles, legends, axes, added lines and text, by, regions, name, aspect ratio, etc.

All explicit options are *rightmost*, except vertical and horizontal, which are *unique*; see [G-4] **Concept: repeated options**.

Options

vertical and horizontal specify whether the high and low y values are to be presented vertically (the default) or horizontally.

> In the default vertical case, *y1var* and *y2var* record the minimum and maximum (or maximum and minimum) y values to be graphed against each *xvar* value.

> If horizontal is specified, the values recorded in *y1var* and *y2var* are plotted in the x direction and *xvar* is treated as the y value.

line_options specify the look of the lines used to draw the spikes, including pattern, width, and color; see [G-3] *line_options*.

colorvar_options specify that the color of the lines used to draw the spikes be determined by the levels of the numeric variable *colorvar*; see [G-3] *colorvar_options*.

axis_choice_options associate the plot with a particular y or x axis on the graph; see [G-3] *axis_choice_options*.

twoway_options are a set of common options supported by all twoway graphs. These options allow you to title graphs, name graphs, control axes and legends, add lines and text, set aspect ratios, create graphs over by() groups, and change some advanced settings. See [G-3] *twoway_options*.

Remarks and examples

Remarks are presented under the following headings:
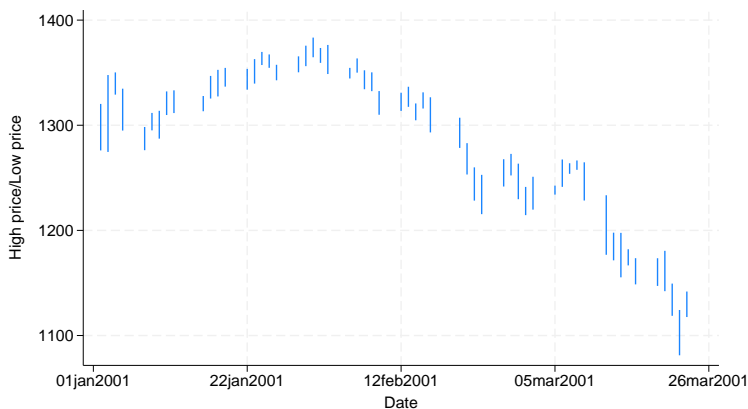
Typical use

We have daily data recording the values for the S&P 500 in 2001:

```
. use https://www.stata-press.com/data/r19/sp500
(S&P 500)
. list date high low close in 1/5
```

	date	high	low	close
1.	02jan2001	1320.28	1276.05	1283.27
2.	03jan2001	1347.76	1274.62	1347.56
3.	04jan2001	1350.24	1329.14	1333.34
4.	05jan2001	1334.77	1294.95	1298.35
5.	08jan2001	1298.35	1276.29	1295.86

We will use the first 57 observations from these data:

```
. twoway rspike high low date in 1/57
```

Advanced use

twoway rspike can be usefully combined with other twoway plottypes (see [G-2] **graph twoway**):

```
. twoway rspike high low date, lcolor(gs11) ||
         line close date || in 1/57
```


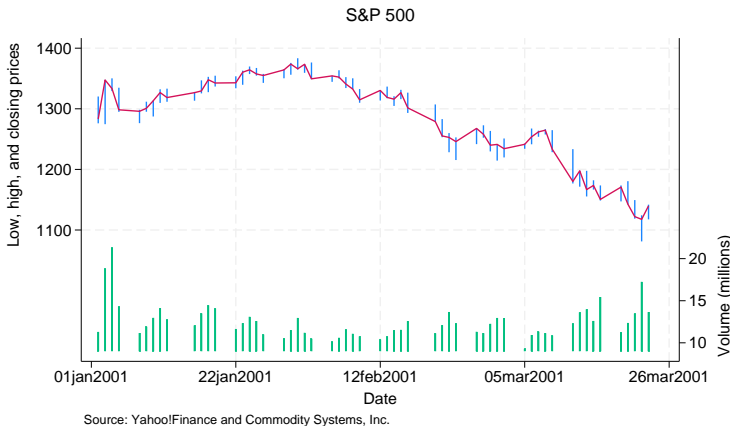We specified lcolor(gs11) to tone down the spikes and give the line plot more prominence.

Advanced use 2

A popular financial graph is

```
. use https://www.stata-press.com/data/r19/sp500, clear
(S&P 500)

. replace volume = volume/1000
(248 real changes made)

. twoway
        rspike hi low date ||
        line   close  date ||
        bar    volume date, barw(.25) yaxis(2) ||
  in 1/57
, ysca(axis(1) r(900 1400))
  ysca(axis(2) r(  9    45))
  ylabel(, axis(2) grid)
  ytitle("Low, high, and closing prices", placement(neast))
  ytitle(" Volume (millions)", axis(2) bexpand just(left))
  legend(off)
  subtitle("S&P 500", margin(b+2.5))
  note("Source: Yahoo!Finance and Commodity Systems, Inc.")
```


Also see

[G-2] **graph twoway rarea** — Range plot with area shading

[G-2] **graph twoway rbar** — Range plot with bars

[G-2] **graph twoway rcap** — Range plot with capped spikes

[G-2] **graph twoway rcapsym** — Range plot with spikes capped with marker symbols

[G-2] **graph twoway rconnected** — Range plot with connected lines

[G-2] **graph twoway rline** — Range plot with lines

[G-2] **graph twoway rscatter** — Range plot with markers

[G-2] **graph twoway spike** — Two-way spike plots

For suggested citations, see the FAQ on citing Stata documentation.