graph twoway rcapsym — Range plot with spikes capped with marker symbols

Description

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

twoway rcapsym plots a range, using spikes capped with marker symbols.

Quick start

Range plot with spikes capped by marker symbols

```
twoway rcapsym y1 y2 x
```

As above, but with horizontal spikes

```
twoway rcapsym y1 y2 x, horizontal
```

Label spikes using values of the variable `labvar`

```
twoway rcapsym y1 y2 x, mlabel(labvar)
```

Specify orange spikes

```
twoway rcapsym y1 y2 x, lcolor(orange)
```

As above, but specify hollow diamonds as the marker symbols

```
twoway rcapsym y1 y2 x, lcolor(orange) msymbol(diamond_hollow)
```

Menu

Graphics ➔ Twoway graph (scatter, line, etc.)
Syntax

```
twoway rcapsym y1var y2var xvar [if] [in] [ , options]
```

<table>
<thead>
<tr>
<th>Options</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>vertical</td>
<td>vertical spikes; the default</td>
</tr>
<tr>
<td>horizontal</td>
<td>horizontal spikes</td>
</tr>
<tr>
<td>line_options</td>
<td>change look of spike lines</td>
</tr>
<tr>
<td>marker_options</td>
<td>change look of markers (color, size, etc.)</td>
</tr>
<tr>
<td>marker_label_options</td>
<td>add marker labels; change look or position</td>
</tr>
<tr>
<td>axis_choice_options</td>
<td>associate plot with alternative axis</td>
</tr>
<tr>
<td>twoway_options</td>
<td>titles, legends, axes, added lines and text, by, regions, name, aspect ratio, etc.</td>
</tr>
</tbody>
</table>

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**.

`marker_options` specify how the markers look, including shape, size, color, and outline; see [G-3] **marker_options**. The same marker is used on both ends of the spikes.

`marker_label_options` specify if and how the markers are to be labeled. Because the same marker label would be used to label both ends of the spike, these options are of limited use here. See [G-3] **marker_label_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

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

```
. use https://www.stata-press.com/data/r16/sp500 (S&P 500)
. list date high low close in 1/5
```

<table>
<thead>
<tr>
<th>date</th>
<th>high</th>
<th>low</th>
<th>close</th>
</tr>
</thead>
<tbody>
<tr>
<td>02jan2001</td>
<td>1320.28</td>
<td>1276.05</td>
<td>1283.27</td>
</tr>
<tr>
<td>03jan2001</td>
<td>1347.76</td>
<td>1274.62</td>
<td>1347.56</td>
</tr>
<tr>
<td>04jan2001</td>
<td>1350.24</td>
<td>1329.14</td>
<td>1333.34</td>
</tr>
<tr>
<td>05jan2001</td>
<td>1334.77</td>
<td>1294.95</td>
<td>1298.35</td>
</tr>
<tr>
<td>08jan2001</td>
<td>1298.35</td>
<td>1276.29</td>
<td>1295.86</td>
</tr>
</tbody>
</table>

We will use the first 37 observations from these data:

```
. twoway rcapsym high low date in 1/37
```

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 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 rspike’ — Range plot with spikes