

marker_options — Options for specifying markers

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Description

Markers are the ink used to mark where points are on a plot. The important options are

`msymbol`(*symbolstyle*) (choice of symbol)
`mcolor`(*colorstyle*) (choice of color and opacity)
`msize`(*markersizestyle*) (choice of size)

Syntax

<i>marker_options</i>	Description
<code>msymbol</code> (<i>symbolstyle</i>)	shape of marker
<code>mcolor</code> (<i>colorstyle</i>)	color and opacity of marker, inside and out
<code>msize</code> (<i>markersizestyle</i>)	size of marker
<code>msangle</code> (<i>anglestyle</i>)	angle of marker symbol
<code>mfcolor</code> (<i>colorstyle</i>)	inside or “fill” color and opacity
<code>mlcolor</code> (<i>colorstyle</i>)	outline color and opacity
<code>mlwidth</code> (<i>linewidthstyle</i>)	outline thickness
<code>mlalign</code> (<i>linealignmentstyle</i>)	outline alignment (inside, outside, center)
<code>mlstyle</code> (<i>linestyle</i>)	thickness and color, overall style of outline
<code>mstyle</code> (<i>markerstyle</i>)	overall style of marker; all settings above
<code>pstyle</code> (<i>pstyle</i>)	overall plot style, including markerstyle
<code>recast</code> (<i>newplottype</i>)	advanced; treat plot as <i>newplottype</i>

All options are *rightmost*; see [G-4] **Concept: repeated options**.

One example of each of the above is

```
msymbol(0)      mfcolor(red)   mlcolor(olive)  mstyle(p1)
mcolor(green)  mlwidth(thick) mlstyle(p1)
msize(medium)  mlalign(inside)
msangle(0)
```

Sometimes you may specify a list of elements, with the first element applying to the first variable, the second to the second, and so on. See, for instance, [G-2] [graph twoway scatter](#). One example would be

```
msymbol(0 o p)
mcolor(green blue black)
msize(medium medium small)
msangle(0 15 30)

mfcolor(red red none)

mlcolor(olive olive green)
mlwidth(thick thin thick)
mlalign(inside outside center)

mstyle(p1 p2 p3)
mlstyle(p1 p2 p3)
```

For information about specifying lists, see [G-4] [stylelists](#).

Options

`msymbol(symbolstyle)` specifies the shape of the marker and is one of the more commonly specified options. See [G-4] [symbolstyle](#) for more information on this important option.

`mcolor(colorstyle)` specifies the color and opacity of the marker. This option sets both the color of the line used to outline the marker's shape and the color of the inside of the marker. Also see options `mfcolor()` and `mlcolor()` below. See [G-4] [colorstyle](#) for a list of color choices.

`msize(markersizestyle)` specifies the size of the marker. See [G-4] [markersizestyle](#) for a list of size choices.

`msangle(anglestyle)` specifies the angle of the marker symbol. See [G-4] [anglestyle](#) for a list of angle choices.

`mfcolor(colorstyle)` specifies the color and opacity of the inside of the marker. See [G-4] [colorstyle](#) for a list of color choices.

`mlcolor(colorstyle)`, `mlwidth(linewidthstyle)`, `mlalign(linealignmentstyle)`, and `mlstyle(linestyle)` specify the look of the line used to outline the shape of the marker. See [G-4] [Concept: lines](#), but you cannot change the line pattern of a marker.

`mstyle(markerstyle)` specifies the overall look of markers, such as their shape and their color. The other options allow you to change each attribute of the marker, but `mstyle()` is a starting point.

You need not specify `mstyle()` just because there is something you want to change about the look of the marker and, in fact, most people seldom specify the `mstyle()` option. You specify `mstyle()` when another style exists that is exactly what you desire or when another style would allow you to specify fewer changes to obtain what you want.

See [G-4] [markerstyle](#) for a list of available marker styles.

`pstyle(pstyle)` specifies the overall style of the plot, including not only the [markerstyle](#), but also the [markerlabelstyle](#) and all other settings for the look of the plot. Only the [markerstyle](#) and [markerlabelstyle](#) affect the look of markers. See [G-4] [pstyle](#) for a list of available plot styles.

`recast(newplottype)` is an advanced option allowing the plot to be recast from one type to another, for example, from a [scatterplot](#) to a [line plot](#); see [G-3] [advanced_options](#). Most, but not all, plots allow `recast()`.

Remarks and examples

You will never need to specify all nine marker options, and seldom will you even need to specify more than one or two of them. Many people think that there is just one important marker option,

```
msymbol(symbolstyle)
```

`msymbol()` specifies the shape of the symbol; see [G-4] [symbolstyle](#) for choice of symbol. A few people would add to the important list a second option,

```
mcolor(colorstyle)
```

`mcolor()` specifies the marker's color and opacity; see [G-4] [colorstyle](#) for choice of color. Finally, a few would add

```
msize(markersizestyle)
```

`msize()` specifies the marker's size; see [G-4] [markersizestyle](#) for choice of sizes.

After that, we are really into the details. One of the remaining options, however, is of interest:

```
mstyle(markerstyle)
```

A marker has a set of characteristics:

```
{shape, color, size, inside details, outside details}
```

Each of the options other than `mstyle()` modifies something in that set. `mstyle()` sets the values of the entire set. It is from there that the changes you specify are made. See [G-4] [markerstyle](#).

Also see

[G-4] [anglestyle](#) — Choices for the angle at which text is displayed

[G-4] [colorstyle](#) — Choices for color

[G-4] [linealignmentstyle](#) — Choices for whether outlines are inside, outside, or centered

[G-4] [linestyle](#) — Choices for overall look of lines

[G-4] [linewidthstyle](#) — Choices for thickness of lines

[G-4] [markersizestyle](#) — Choices for the size of markers

[G-4] [markerstyle](#) — Choices for overall look of markers

[G-4] [symbolstyle](#) — Choices for the shape of markers