Title

> **pstyle —** Choices for overall look of plot

Description

A *pstyle*—always specified in option pstyle(*pstyle*)—specifies the overall style of a plot and is a composite of *markerstyle*; *markerlabelstyle*; *areastyle*; connected lines, *linestyle*, *connectstyle*; and the *connect_option* cmissing(). See [G-4] *markerstyle*, [G-4] *markerlabelstyle*, [G-4] *areastyle*, [G-4] *linestyle*, [G-4] *connectstyle*, and [G-3] *connect_options*.

Syntax

pstyle	Description
ci	first plot used as confidence interval
ci2	second plot used as confidence interval
p1–p15	used by first to fifteenth "other" plot
p1line–p15line	used by first to fifteenth "line" plot
p1bar–p15bar	used by first to fifteenth "bar" plot
p1box–p15box	used by first to fifteenth "box" plot
p1dot–p15dot	used by first to fifteenth "dot" plot
p1pie–p15pie	used by first to fifteenth "pie" plot
p1area–p15area	used by first to fifteenth "area" plot
p1arrow–p15arrow	used by first to fifteenth "arrow" plot

Other *pstyles* may be available; type

```
. graph query pstyle
```

to obtain the complete list of *pstyles* installed on your computer.

Remarks and examples

Remarks are presented under the following headings:

> What is a plot?
> What is a pstyle?
> The pstyle( ) option
> Specifying a pstyle
> What are numbered styles?

What is a plot?

When you type

```
. scatter y x
```

y versus x is called a plot. When you type

```
. scatter y1 x || scatter y2 x
```

or

```
. scatter y1 y2 x
```

y1 versus x is the first plot, and y2 versus x is the second.

A plot is one presentation of a data on a graph.

What is a pstyle?

The overall look of a plot—the *pstyle*—is defined by the following attributes:

1. The look of markers, including their shape, color, size, etc.; see [G-4] *markerstyle*

2. The look of marker labels, including the position, angle, size, color, etc.; see [G-4] *markerlabelstyle*

3. The look of lines that are used to connect points, including their color, width, and style (solid, dashed, etc.); see [G-4] *linestyle*

4. The way points are connected by lines (straight lines, stair step, etc.) if they are connected; see [G-4] *connectstyle*

5. Whether missing values are ignored or cause lines to be broken when the points are connected

6. The way areas such as bars or beneath or between curves are filled, colored, or shaded, including whether and how they are outlined; see [G-4] *areastyle*

7. The look of the "dots" in dot plots

8. The look of arrowheads

The pstyle( ) option

The *pstyle* is specified by the option

pstyle(*pstyle*)

Correspondingly, other options are available to control each of the attributes; see, for instance, [G-2] **graph twoway scatter**.

You specify the *pstyle* when a style exists that is exactly what you want or when another style would allow you to specify fewer changes to obtain what you want.

Specifying a pstyle

Consider the command

```
. scatter y1 y2 x, ...
```

and further, assume that many options are specified. Now imagine that you want to make the plot of y1 versus x look just like the plot of y2 versus x: you want the same marker symbols used, the same colors, the same style of connecting lines (if they are connecting), etc. Whatever attributes there are, you want them treated the same.

One solution would be to track down every little detail of how the things that are displayed appear and specify options to make sure that they are specified the same. It would be easier, however, to type

        . scatter y1 y2 x, ... pstyle(p1 p1)

When you do not specify the pstyle() option, results are the same as if you specified

    pstyle(p1 p2 p3 p4 p5 p6 p7 p8 p9 p10 p11 p12 p13 p14 p15)

where the extra elements are ignored. In any case, p1 is one set of plot-appearance values, p2 is another set, and so on. So when you type

        . scatter y1 y2 x, ... pstyle(p1 p1)

all the appearance values used for y2 versus x are the same as those used for y1 versus x.

Say that you wanted y2 versus x to look like y1 versus x, except that you wanted the markers to be green; you could type

        . scatter y1 y2 x, ... pstyle(p1 p1) mcolor(. green)

There is nothing special about the *pstyles* p1, p2, . . . ; they merely specify sets of plot-appearance values just like any other *pstyles*. Type

        . graph query pstyle

to find out what other plot styles are available.

Also see *Appendix: Styles and composite styles* in [G-2] **graph twoway scatter** for more information.

What are numbered styles?

p1–p15 are the default styles for all twoway graphs except twoway line charts, twoway bar charts, and twoway area charts. p1 is used for the first plot, p2 for the second, and so on.

p1line–p15line are the default styles used for line charts, including twoway line charts and twoway rline. p1line is used for the first line, p2line for the second, and so on.

p1bar–p15bar are the default styles used for bar charts, including twoway bar charts and bar charts. p1bar is used for the first set of bars, p2bar for the second, and so on.

p1box–p15box are the default styles used for box charts. p1box is used for the first set of boxes, p2box for the second, and so on.

p1dot–p15dot are the default styles used for dot charts. p1dot is used for the first set of dots, p2dot for the second, and so on.

p1pie–p15pie are the default styles used for pie charts. p1pie is used for the first pie slice, p2pie for the second, and so on.

p1area–p15area are the default styles used for area charts, including twoway area charts and twoway rarea. p1area is used for the first filled area, p2area for the second, and so on.

p1arrow–p15arrow are the default styles used for arrow plots, including twoway pcarrow plots and twoway pcbarrow. p1arrow is used for the first arrow plot, p2arrow for the second, and so on.

The "look" defined by a numbered style, such as p1bar, p3, or p2area, is determined by the scheme (see [G-4] **Schemes intro**) selected. By "look" we mean such things as color, width of lines, or patterns used.

Numbered styles provide default looks that can be controlled by a scheme. They can also be useful when you wish to make, say, the second element on a graph look like the first. You can, for example, specify that markers for the second scatter on a scatterplot be drawn with the style of the first scatter by using the option pstyle(p1 p1). See *Specifying a pstyle* above for a more detailed example.

Also see

[G-2] **graph twoway scatter** — Twoway scatterplots

[G-3] *connect_options* — Options for connecting points with lines

[G-4] *areastyle* — Choices for look of regions

[G-4] *connectstyle* — Choices for how points are connected

[G-4] *linestyle* — Choices for overall look of lines

[G-4] *markerlabelstyle* — Choices for overall look of marker labels

[G-4] *markerstyle* — Choices for overall look of markers