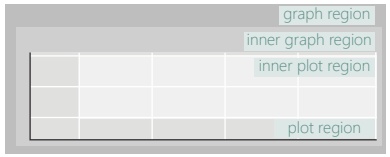
Plotting in Stata 15

Customizing Appearance

For more info see Stata's reference manual (stata.com)

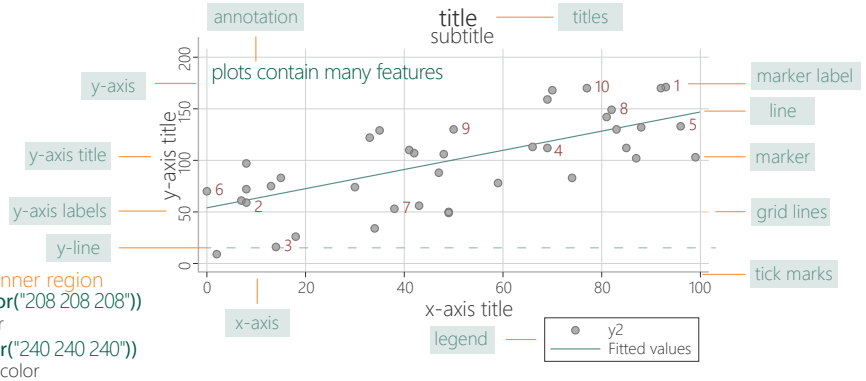


outer region inner region

scatter price mpg, **graphregion(fcolor("192 192 192") ifcolor("208 208 208"))**
specify the fill of the background in RGB or with a Stata color

scatter price mpg, **plotregion(fcolor("224 224 224") ifcolor("240 240 240"))**
specify the fill of the plot background in RGB or with a Stata color

Anatomy of a Plot



Symbols

Syntax

marker <marker options>

arguments for the plot objects (in green) go in the options portion of these commands (in orange)

for example:
scatter price mpg, **xline**(20, **lwidth**(vthick))

line <line options> → xline(...) yline(...)

marker <marker options>

legend legend(**region**(...))

axes xscale(...) yscale(...)

tick marks / grid lines xlabel(...) ylabel(...)

marker label <marker options>

annotation text(...)

titles title(...) subtitle(...) xtitle(...) ytitle(...)

axis labels xlabel(...) ylabel(...)

legend legend(...)

Lines / Borders

Text

Color

mcolor("145 168 208") **mcolor**(none)
specify the fill and stroke of the marker in RGB or with a Stata color

mfcolor("145 168 208") **mfcolor**(none)
specify the fill of the marker

lcolor("145 168 208") **lcolor**(none)
specify the stroke color of the line or border

marker **mlcolor**("145 168 208")
tick marks **tlcolor**("145 168 208")
grid lines **glcolor**("145 168 208")

color("145 168 208") **color**(none)
specify the color of the text

marker label **mlabcolor**("145 168 208")
axis labels **labcolor**("145 168 208")

adjust transparency by adding %#
mcolor("145 168 208 %20")

Size / Thickness

msize(medium) specify the marker size:

ehuge, vhuge, huge, vlarge, large
medlarge, medium, medsmall, small, vsmall, tiny, vtiny

lwidth(medthick) specify the thickness (stroke) of a line:

marker **mlwidth**(thin)
tick marks **tlwidth**(thin)
grid lines **glwidth**(thin)

vvvthick, vvthick, vthick, thick, medthick, medium
medthin, thin, vthin, vvthin, vvvthin, none

size(medsmall) specify the size of the text:

marker label **mlabsize**(medsmall)
axis labels **labsize**(medsmall)

Text (vhuge, huge, vlarge, large, medlarge, medium)
Text (medsmall, small, vsmall, tiny, half_tiny, third_tiny, quarter_tiny, minuscule)

Appearance

msymbol(Dh) specify the marker symbol:

O, D, T, S
o, d, t, s
Oh, Dh, Th, Sh
oh, dh, th, sh
+, X, p, none, i

line / grid lines **lpattern**(dash) **glpattern**(dash) specify the line pattern

solid, longdash, longdash_dot
dash, shortdash, shortdash_dot
dot, dash_dot, blank

axes **noline**
tick marks **noticks**
grid lines **nogrid** **nogmin** **nogmax**

axes **off** no axis/labels
tick marks **tlength**(2)

marker label **mlabel**(foreign)
label the points with the values of the foreign variable

axis labels **nolabels**
no axis labels

axis labels **format**(%12.2f)
change the format of the axis labels

legend **off**
turn off legend

legend **label**(# "label")
change legend label text

Position

jitter(#)
randomly displace the markers

jitterseed(#)
set seed

tick marks **xlabel**(#10, **tposition**(crossing))
number of tick marks, position (outside | crossing | inside)

marker label **mlabposition**(5)
label location relative to marker (clock position: 0 – 12)

Apply Themes

Schemes are sets of graphical parameters, so you don't have to specify the look of the graphs every time.

Using a Saved Theme

twoway scatter mpg price, **scheme**(customTheme)

help scheme entries
see all options for setting scheme properties

Create custom themes by saving options in a .scheme file

adopath ++ "~/<location>/StataThemes"
set path of the folder (StataThemes) where custom .scheme files are saved

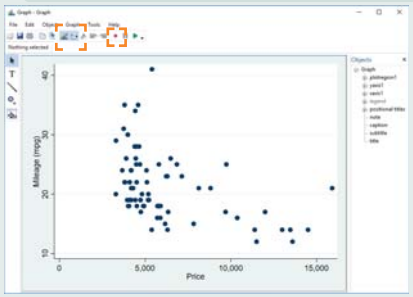
set as default scheme

set scheme customTheme, permanently
change the theme

net inst brewscheme, from("https://wbuchanan.github.io/brewscheme/") replace
install William Buchanan's package to generate custom schemes and color palettes (including ColorBrewer)

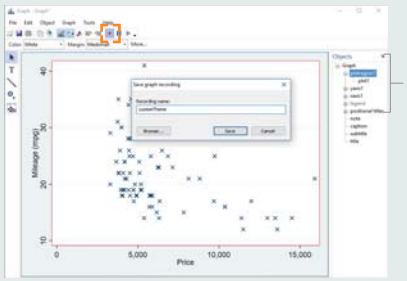
Using the Graph Editor

twoway scatter mpg price, **play**(graphEditorTheme)



Select the Graph Editor

Click Record



Double click on symbols and areas on plot, or regions on sidebar to customize

Unclick Record

Save theme as a .grec file

Save Plots

graph twoway scatter y x, saving("myPlot.gph") replace
save the graph when drawing

graph save "myPlot.gph", **replace**
save current graph to disk

graph combine plot1.gph plot2.gph...
combine 2+ saved graphs into a single plot

graph export "myPlot.pdf", **as(.pdf)**
export the current graph as an image file

see options to set size and resolution

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follow us @flaneuseks and @StataRGIS

inspired by RStudio's awesome Cheat Sheets (rstudio.com/resources/cheatsheets)

geocenter.github.io/StataTraining

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