Cheatography

SAS sgplot Cheat Sheet

by Thilo via cheatography.com/25640/cs/6789/

General Syntax

```
proc sgplot data=sashelp.class;
        scatter x=height
y=weight;
        ellipse x=height
y=weight / type=p red icted
run;
proc sgpanel data=s ash -
elp.heart noauto legend;
    title " Cho les terol
Distri but ion ";
    panelby sex;
    his togram choles terol;
    density choles terol;
run;
```

Basic Types

Basic	scatter, series, step, band, needle, vector
Fit and confidence	loess, regression, penalized B-Spline curves, ellipses
Distri-bution	box plots, histograms, normal and kernel density estimates
Categoriz-ation	dot plots, bar charts, line plots

Basic and Fit and confidence plots may be used together, otherwise different categories must not be mixed. Box plots cannot be combined.

Plot Axes

Axis Statements	XAXIS, X2AXIS, YAXIS, Y2AXIS
Axis Types	Discrete, Linear, Logari-thmic, Time

General Options

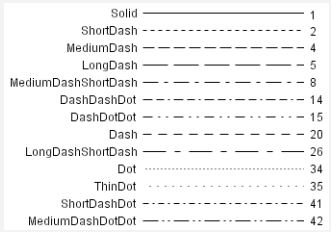
```
LEGENDLABEL=, NAME=,
TRANSPARENCY=
```

Marker Symbols

ArrowDown	HomeDown	Tilde	CircleFilled
Asterisk	Ibeam	Triangle	DiamondFilled
Circle	Plus	Union	HomeDownFilled
Diamond	Square	X	SquareFilled
GreaterThan	Star	Y	StarFilled
Hash	Tack	Z	TriangleFilled

Set via MARKERATTRS= option

Line Patterns



Set via LINEATTRS= option

PROC sgplot DATA=

```
[NO]CYCLEATTRS, DESCRIPTION=,
NOAUTOLEGEND, TMPLOUT=, UNIFORM=
[GROUP | SCALE | ALL]
```

SCATTER X= Y=

```
DATALABEL=, ERRORBARATTRS=,
FREQ=, MARKERATTRS=,
MARKERCHAR=, MARKERCHARATTRS=,
NOMISSINGGROUP, , XERRORLOWER=,
XERRORUPPER=, YERRORLOWER=,
YERRORUPPER=, GROUP=
```

Creates a scatter plot.

SERIES X= Y=

```
BREAK, CURVELABEL[=],
CURVELABELPOS=[MIN | MAX | START
| END], DATALABEL[=],
LINEATTRS=, MARKERATTRS=,
MARKERS, NOMISSINGGROUP, GROUP=
```

Creates a series plot.

STEP X= Y=

```
BREAK, CURVELABEL[=],
CURVELABELPOS= [MIN | MAX |
START | END], DATALABEL[=],
ERRORBARATTRS=, JUSTIFY= [LEFT |
CENTER | RIGHT], LINEATTRS=,
MARKERATTRS=, MARKERS,
NOMISSINGGROUP, YERRORLOWER=,
YERRORUPPER=, GROUP=
```

Creates a step plot.

BAND [X|Y]= UPPER= LOWER=

```
FILL | NOFILL, FILLATTRS=,
LINEATTRS=, MODELNAME=,
NOEXTEND, NOMISSINGGROUP,
OUTLINE | NOOUTLINE, GROUP=
```

Creates a band that highlights part of the plot.

NEEDLE Statement

```
BASELINE=, DATALABEL[=],
LINEATTRS=, MARKERATTRS=,
MARKERS, NOMISSINGGROUP, URL=,
GROUP=
```

Creates a plot with needles connecting each point to the baseline.

VECTOR X= Y=

```
ARROWDIRECTION= [OUT | IN |
BOTH], ARROWHEADSHAPE=,
DATALABEL[=], LINEATTRS=,
NOARROWHEADS, NOMISSINGGROUP,
XORIGIN=, YORIGIN=, GROUP=
```

Creates a vector plot that draws arrows from a point of origin to each data point.

By **Thilo**

cheatography.com/thilo/

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LOESS X= Y=

```
ALPHA=, CLM[=], CLMATTRS=,
CLMTRANSPARENCY=, CURVELABEL[=],
CURVELABELLOC= [OUTSIDE |
INSIDE], CURVELABELPOS= [MIN |
MAX | START | END],
DATALABEL[=], DEGREE= [1 | 2],
INTERPOLATION= [CUBIC | LINEAR],
LINEATTRS=, MARKERATTRS=,
MAXPOINTS=, NOLEGCLM, NOLEGFIT,
NOMARKERS, REWEIGHT=, SMOOTH=,
WEIGHT=, GROUP=
```

Creates a fitted loess curve.

REG X= Y=

```
ALPHA=, CLI[=], CLIATTRS=,
CLM[=], CLMATTRS=,
CLMTRANSPARENCY=, CURVELABEL[=],
CURVELABELLOC=[OUTSIDE |
INSIDE], CURVELABELPOS=[MIN |
MAX | START | END],
DATALABEL[=], DEGREE=, FREQ=,
LINEATTRS=, MARKERATTRS=,
MAXPOINTS=, NOLEGCLI, NOLEGCLM,
NOLEGFIT, NOMARKERS, WEIGHT=,
GROUP=
```

Creates a fitted regression line or curve.

PBSPLINE X= Y=

```
ALPHA=, CLI[=], CLIATTRS=,
CLM[=], CLMATTRS=,
CLMTRANSPARENCY=, CURVELABEL[=],
CURVELABELLOC=[OUTSIDE |
INSIDE], CURVELABELPOS=[MIN |
MAX | START | END],
DATALABEL[=], DEGREE=, FREQ=,
LINEATTRS=, MARKERATTRS=,
MAXPOINTS=, NKNOTS=, NOLEGCLI,
NOLEGCLM, NOLEGFIT, NOMARKERS,
SMOOTH=, WEIGHT=, GROUP=
```

Creates a fitted penalized B-spline curve.

ELLIPSE X= Y=

```
ALPHA=, CLIP, FILL | NOFILL,
FILLATTRS=, FREQ=, LINEATTRS=,
OUTLINE | NOOUTLINE, TYPE = MEAN
| PREDICTED
```

Adds a confidence or prediction ellipse to another plot.

[H|V]BOX response variable

```
BOXWIDTH=, CATEGORY=,
DATALABEL[=], EXTREME, FREQ=,
LABELFAR, MISSING, PERCENTILE=,
SPREAD
```

Creates a horizontal / vertical box plot that shows the distribution of your data.

DENSITY response variable

```
FREQ=, LINEATTRS=, SCALE=, TYPE=
[NORMAL | KERNEL]
```

Creates a density curve that shows the distribution of values in your data.

HISTOGRAM response variable

```
BOUNDARY= LOWER | UPPER, FILL |
NOFILL, FILLATTRS=, FREQ=,
OUTLINE | NOOUTLINE, SCALE=
[COUNT | PERCENT | PROPORTION],
SHOWBINS
```

Creates a histogram that displays the frequency distribution of a numeric value.

DOT category variable

```
ALPHA=, DATALABEL[=], FREQ=,
LIMITATTRS=, LIMITS= [BOTH |
LOWER | UPPER], LIMITSTAT= [CLM
| STDDEV | STDERR],
MARKERATTRS=, MISSING,
NOSTATLABEL, NUMSTD=, RESPONSE=,
STAT= [FREQ | MEAN | SUM],
WEIGHT=
```

Creates a dot plot that summarizes the values of a category variable.

[H|V]BAR category variable

```
ALPHA=, BARWIDTH=, DATALABEL,
FILL | NOFILL, FILLATTRS=,
FREQ=, LIMITATTRS=, LIMITS=
[BOTH | LOWER | UPPER],
LIMITSTAT= CLM | STDDEV |
STDERR, MISSING, NOSTATLABEL,
NUMSTD=, OUTLINE | NOOUTLINE,
RESPONSE=, STAT= [FREQ | MEAN |
SUM], WEIGHT, GROUP=
```

Creates a bar chart that summarizes the values of a category variable.

[H|V]LINE category variable

```
ALPHA=, BREAK, CURVELABEL,
CURVELABELPOS= [MIN | MAX |START
| END], DATALABEL[=], FREQ=,
LIMITATTRS=, LIMITS= [BOTH |
LOWER | UPPER], LIMITSTAT= [CLM
| STDDEV | STDERR], LINEATTRS=,
MARKERATTRS=, MARKERS, MISSING,
NOSTATLABEL, NUMSTD=, RESPONSE=,
STAT= [FREQ | MEAN | SUM], URL=,
WEIGHT=, GROUP=
```

Creates a horizontal / vertical line plot (the line is vertical / horizontal). You can use the [H|V]LINE statement with the [H|V]BAR statement to create a bar-line chart.

PANELBY variable(s)

```
BORDER | NOBORDER, COLHEADERPOS=
[TOP | BOTTOM | BOTH], COLUMNS=,
LAYOUT= [LATTICE | PANEL |
ROWLATTICE | COLUMNLATTICE],
MISSING, NOVARNAME, ONEPANEL,
ROWHEADERPOS=[RIGHT | LEFT |
BOTH], ROWS=, SPACING=, SPARSE,
START= TOPLEFT | BOTTOMLEFT,
UNISCALE= ROW | ALL
```

May only be used with proc sgpanel.

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