Summary of ODS Graphics Functionality in SAS® 9.3

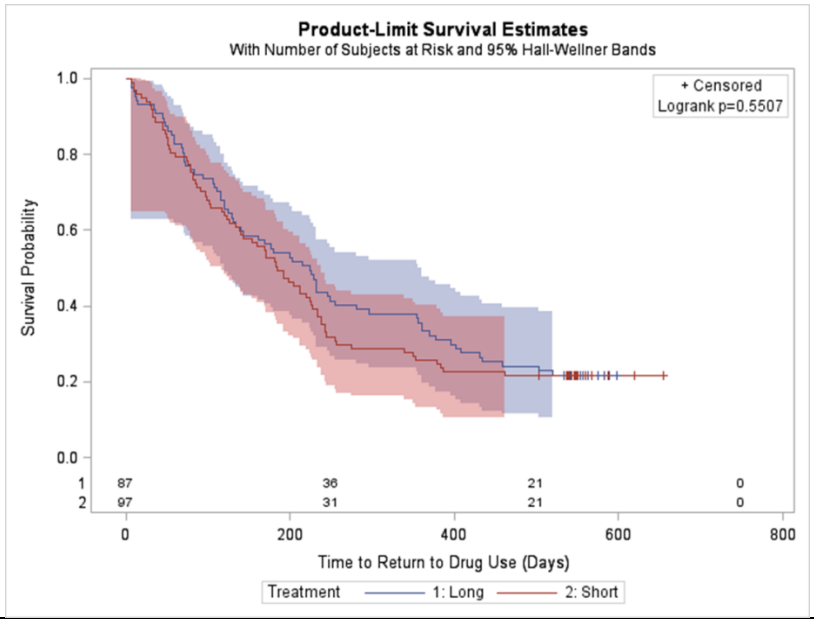
Graphical Task	Audience	What do you use?	What should you learn?	
Create graphs in the context of statistical analyses	Statistical users	Statistical procedures in SAS/STAT®, SAS/ETS®, SAS/QC®, and Base SAS that support ODS Graphics	Graphs are created by default or with procedure options which are documented in the procedure chapters. Specify the ODS GRAPHICS ON statement for batch jobs.	Minimal graph syntax
Enhance specific graphs for a paper or presentation	Statistical and general SAS users	ODS Graphics Editor	How to request editable graphs, invoke the Editor, use point-and-click features; see the *SAS ODS Graphics Editor: User's Guide*	
Create stand alone graphs for data exploration or for customized displays	Statistical and general SAS users	SGPLOT, SGPANEL, SGSCATTER procedures	SG procedure syntax; see the *SAS ODS Graphics: Procedures Guide*	Some syntax
Change the overall consistent appearance of graphs and tables	Statistical and general SAS users	ODS styles	STYLE= option in ODS destination statement	
Save and manage graphs for papers and presentations	Statistical and general SAS users	ODS GRAPHICS statement options, ODS destination options	How to specify size and resolution; how to name and access image files	
Make persistent changes in graphs produced by statistical procedures (apply whenever you run your program)	Advanced SAS programmers	User-modifications of graph templates provided by SAS	Basic features of the Graph Template Language and PROC TEMPLATE; see the *SAS Graph Template Language: Reference*	
Create a highly customized stand alone graph	Advanced SAS programmers	ODS Graphics Designer	GUI for creating graph templates	Graphics programming
Create a highly customized stand alone graph	Advanced SAS programmers	User-written graph templates	Graph Template Language, PROC TEMPLATE, and PROC SGRENDER; see the *SAS Graph Template Language: Reference* and the *SAS Graph Template Language: User's Guide*	

For an introduction to ODS Graphics, see "**An Overview of ODS Statistical Graphics in SAS® 9.3"** at http://support.sas.com/rnd/app/ODSGraphics/papers/index.html

Example: Survival Plot Created by PROC LIFETEST

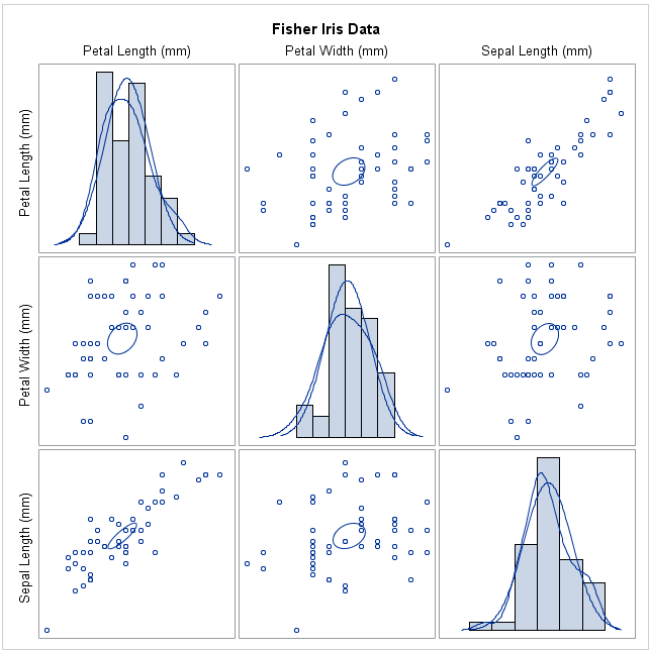
```
ods html style=htmlblue;
ods graphics on;

proc lifetest data=grouped
              plots=survival(cb=hw test
                             atrisk=0 to 1500 by 250);
                             time Time*Cens(0);
  strata Treatment;
  by Site;
run;
```



Example: Scatter Plot Matrix Created by PROC SGCATTER

```
proc sgscatter data=IrisVirginica;
  title 'Fisher Iris Data';
  matrix petallength petalwidth sepallength /
       ellipse=(type=mean)
      diagonal=(histogram normal kernel);
run;
```



Example: Customized Fit Plot Created with Graph Template Language

```
proc template;
  define statgraph block;
    begingraph;
      entrytitle 'El Ni(*ESC*){Unicode "00F1"x}o '
                 'Cycle of Pressure Differences';
      layout overlay / xaxisopts=(offsetmin=0
                                  offsetmax=0);
        blockplot x=month block=elnino /
          datatransparency=0.75 display=(fill outline);
        scatterplot y=pressure x=month;
        pbsplineplot y=pressure x=month;
      endlayout;
    endgraph;
  end;
run;

proc sgrender data=enso template=block; run;
```