

Cross-over to High Quality Graphics:

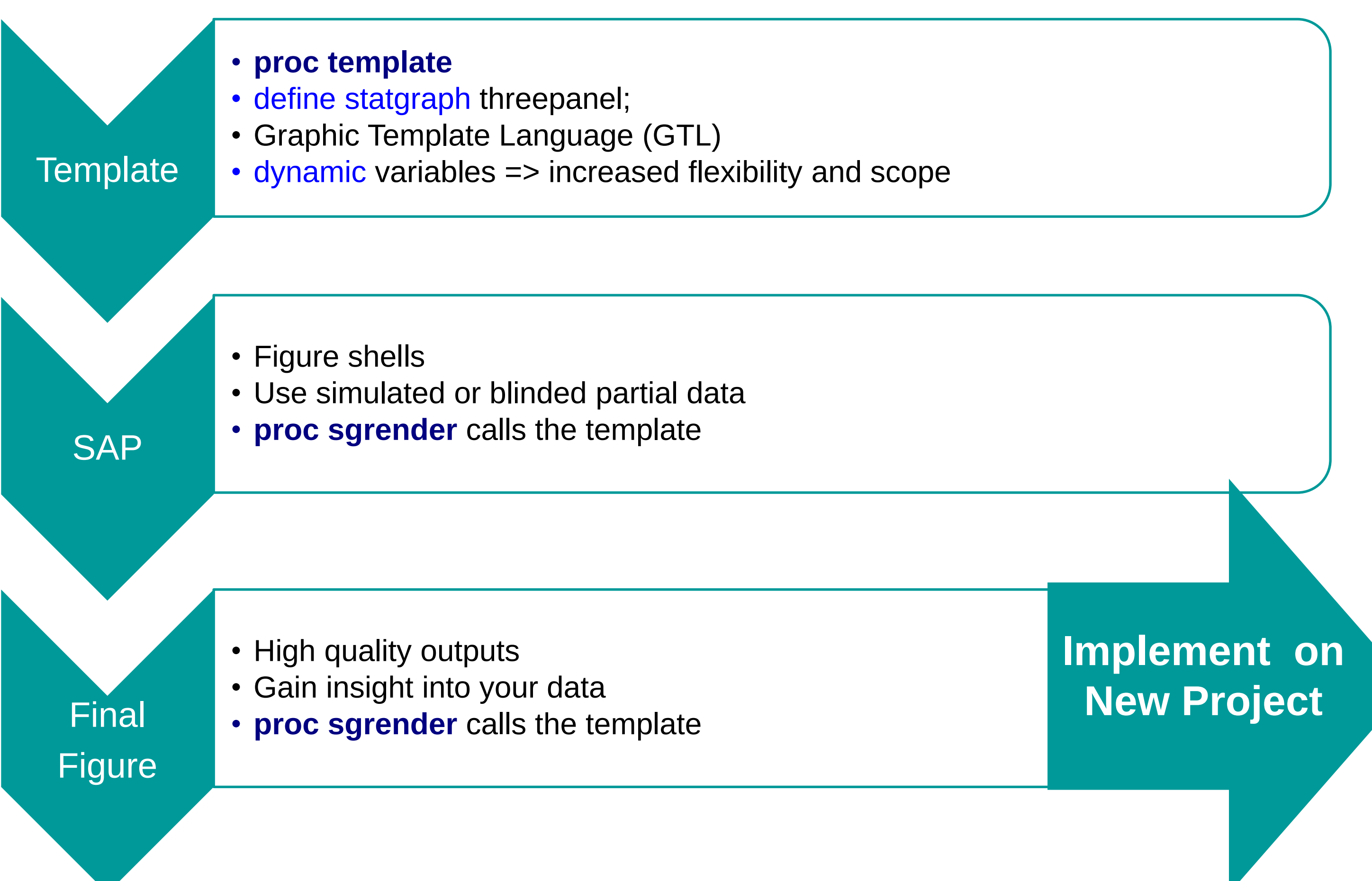
Using SGRENDER to Enhance Graphics in a Cross-Over Study

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Introduction

We take a typical pharmacokinetics cross-over study as an example to show how **proc template** (SAS Version 9.3) can be utilised to build a template infrastructure for graphical outputs study-wide. The **sgrender** procedure references the required **template** to produce shells and final report quality graphics from study to study.

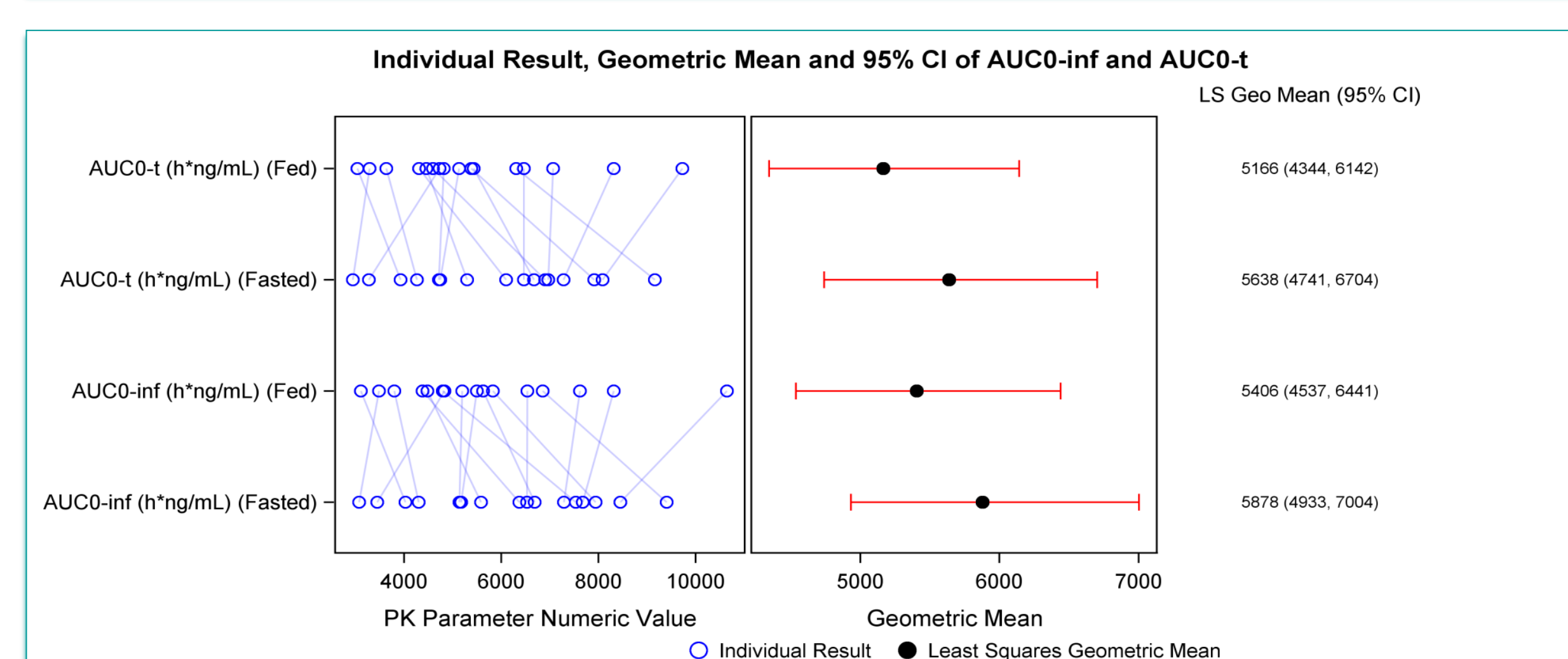
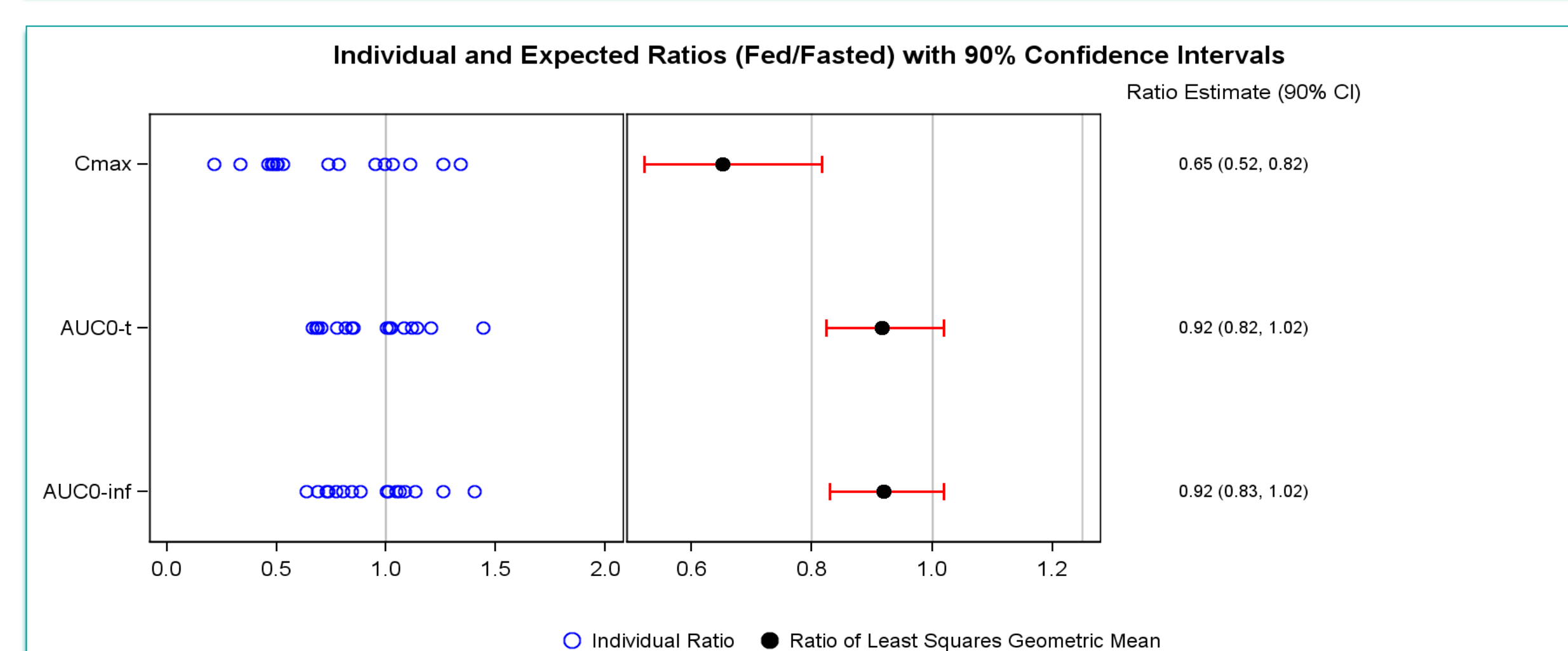
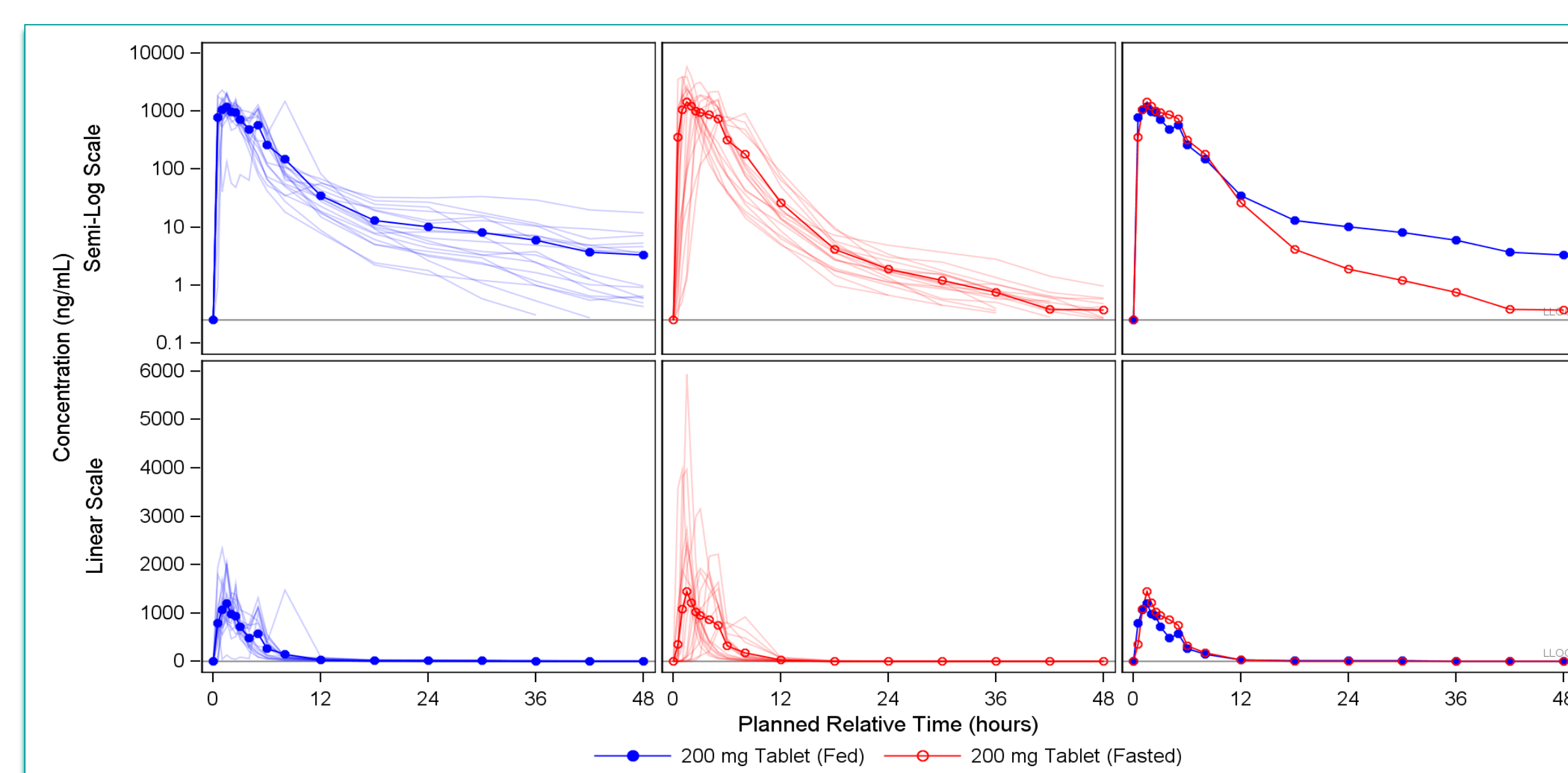
Graphical Process



Features

- Achieve a customised layout;
- Statistical results can be included in the graphic;
- Better control over titles and labels;
- Can use company standard fonts;
- Can combine log and linear scales in different panels
- Can combine different types of graphic (scatter plot and CI);
- **sgrender** easy code.

Graphical Template Library



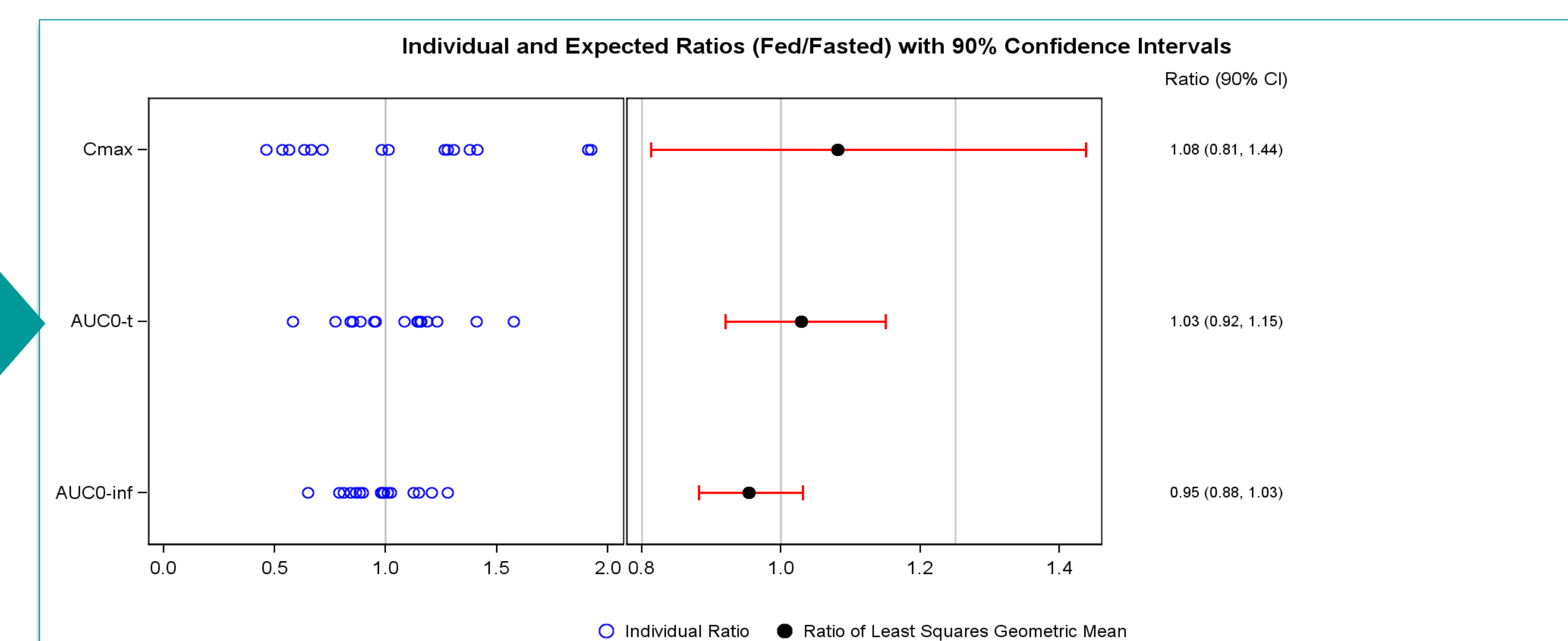
Dynamic Variables

Using **sgrender**, we apply the appropriate **template** to apply to our current **data**.

```
proc sgrender data=din3 template=threepanel;
```

```
dynamic
  MAINTITLE = 'Summary of PK Parameters'
  XVAR1_1   = 'PPSTRESN' /*X-axis var, 1st panel */
  YVAR1     = 'ppcd1'    /*Y-axis var, 1st panel */
  XVAR2     = 'geomean'  /*X-axis var, 2nd panel */
  TABVALS   = 'CI95result' /* Numeric CIs on right */
  <dynamic > = 'Name specific to your data' ;
run;
```

- **Dynamic** variables are similar to the arguments of a macro call.
- Increasing the number of dynamic variables increases the template's utility across different data types and study types.



Discussion

- The use of SAS **sgrender** with **dynamic** variables increases the template's utility across different data types and study types. For example, the PK concentration profile template could be used across Phase I studies but also might be used for PD markers or liver function plotted over time.
- The graphical templates language takes time to master (see hand out for example code) to create a template.
- For quick exploratory graphics, we recommend **sgpanel**.

References

Matange, Sanjay. 2014. *Up Your Game with Graph Template Language Layouts*. Cary, NC: SAS Institute Inc.

SAS Knowledge Base, Introduction to the Graph Template Language [documentation/cdl/en/odsproc/67922/HTML/default/n0t3hg40qj76o0n1sh5ehunqu048.htm](https://documentation.sas.com/en/odsproc/67922/HTML/default/n0t3hg40qj76o0n1sh5ehunqu048.htm), Accessed 11MAY2016