

PP12 Unnoticed individual and mean line plot issue while using the SGPLOT procedure and the solution to avoid

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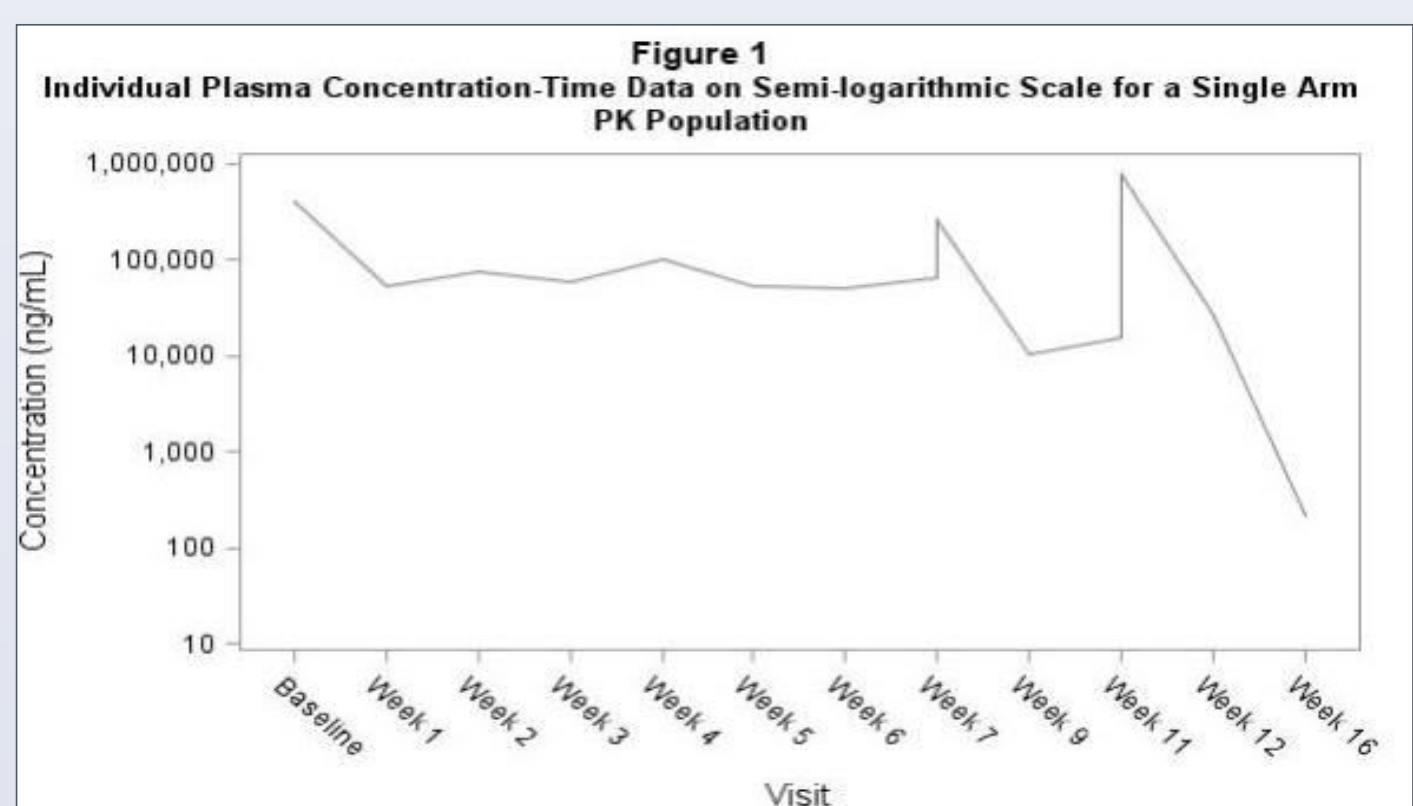
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INTRODUCTION

Generating simple graphs using SAS/GRAPH® can be a little challenging. When using the SGPLOT especially for line plot we miss to notice the error in the generated graph. If the graph is a simple single line plot or a mean line plot alone then there won't be any issue, however if you are using the SGPLOT for generating a multiple line plot with or without the mean then we need to pay close attention. Since the graph generated will not be in the expected format if we observe the lines plotted, we notice that the multiple lines appear as unending lines circling back which is incorrect.

SIMPLE LINE PLOT

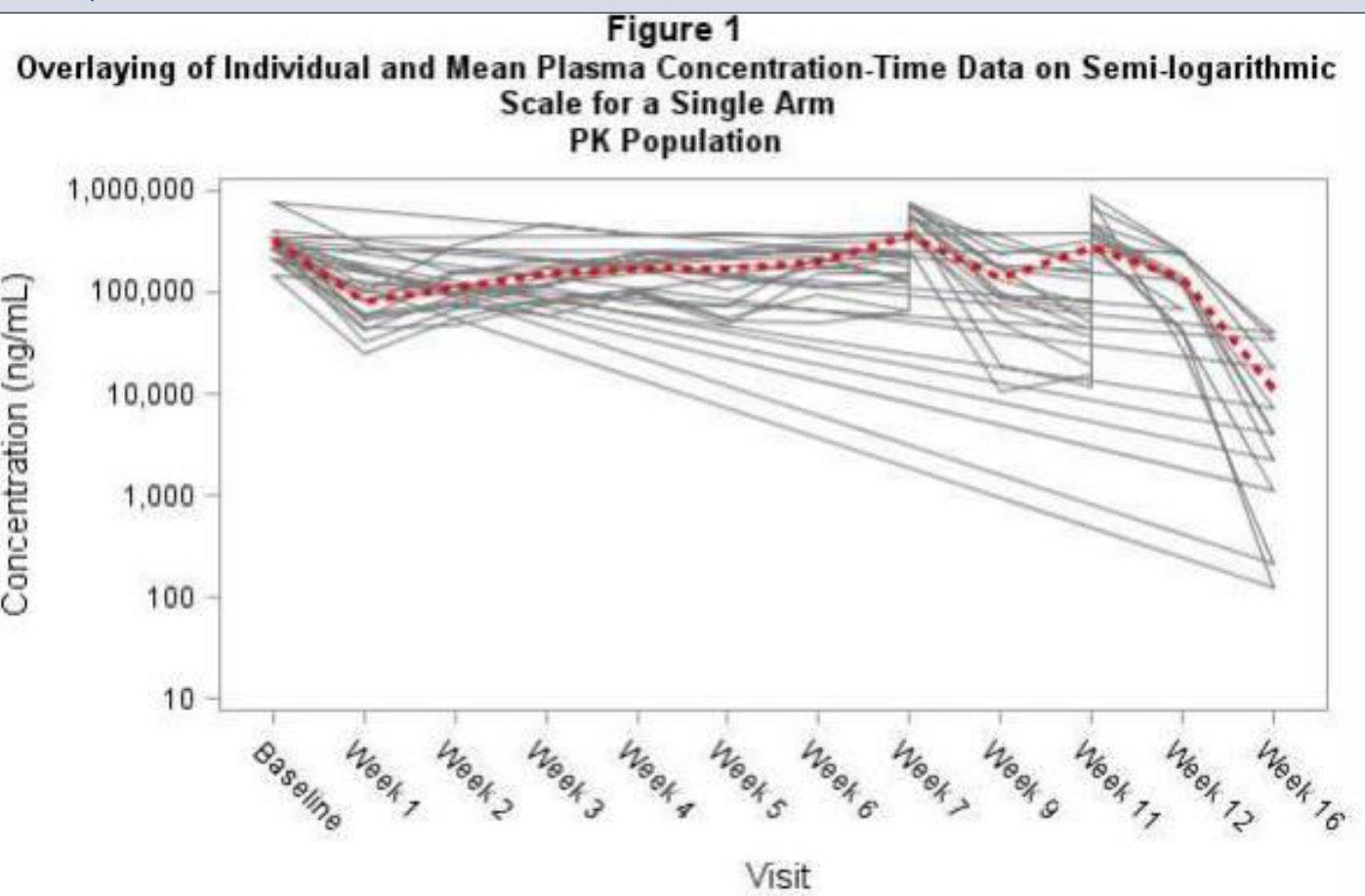
The example below creates a simple line plot using PROC SGPLOT based on PK data.



MULTIPLE LINE PLOT WITH UNENDING LINES

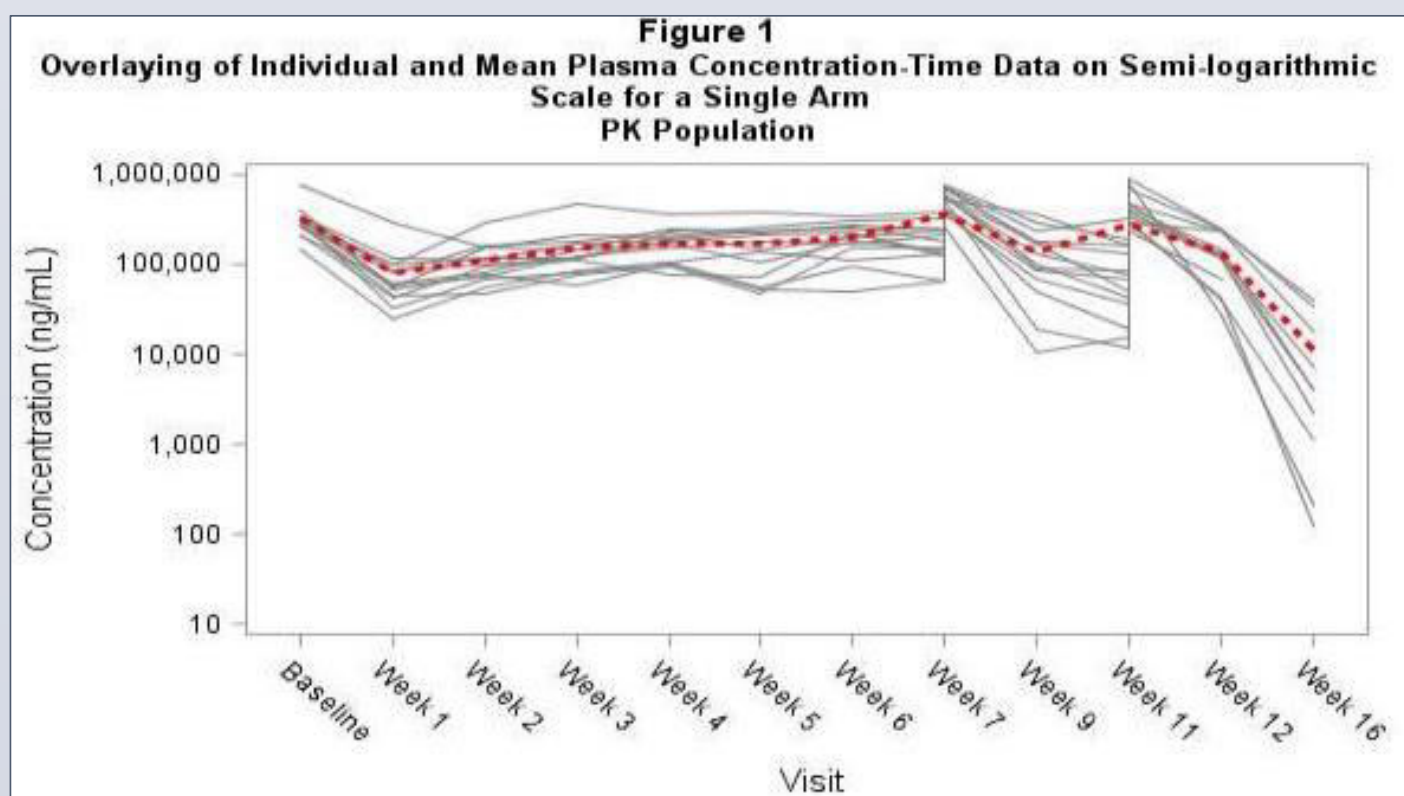
The example below creates a multiple line plot using PROC SGPLOT based on PK data.

```
PROC SGPLOT DATA = adpc;
SERIES X = visitnum Y = aval / name='aval' markers
markerattrs=(size=2pt symbol=squarefilled color=grey)
LINEATTRS = (pattern=1 THICKNESS =0.5 color=grey);
SERIES X = visitnum Y = mean / name='mean'
legendlabel='Average' LINEATTRS = (pattern=2 THICKNESS =
3 color=blue);
RUN;
```



MULTIPLE LINE PLOT WITHOUT UNENDING LINES

```
ods listing close;
title1 j=c color= black "Figure 1";
title2 j=c color= black "Overlaying of Individual and Mean
Plasma ConcentrationTime Data on Semi-logarithmic Scale
for a Single Arm";
title3 j=c color= black "PK Population";
ods graphics on / width=6.25in imagemap=on border=off;
PROC SGPLOT DATA = adpc;
yaxis label='Neihulizumab Concentration (ng/mL)'
labelattrs=(size=11pt) values=(10 100 1000 10000 100000
1000000) logbase=10 type=log logstyle=logexpand ;
xaxis label='Visit(Weeks)/Nominal Time'
labelattrs=(size=11pt) fitpolicy = rotate offsetmin=0.05
offsetmax= 0.05 TYPE = DISCRETE;
%do i = 1 %to &subj.;
SERIES X = visitnum Y = var&i. / name='aval' markers
markerattrs=(size=2pt symbol=squarefilled color=grey)
LINEATTRS = (pattern=1 THICKNESS =0.5 color=grey);
%end;
SERIES X = visitnum Y = mean / name='mean'
legendlabel='Average' LINEATTRS = (pattern=2 THICKNESS =
3 color=blue);
keylegend 'Mean' / location=outside position=bottom;;
format visitnum vis. var: comma10. mean comma10.;
RUN;
ods _all_ close;
ods listing;
```



CONCLUSION

The output for the PROC SGPLOT is shown above. Notice the overlaying of individual and mean plasma concentration is without the unending lines. Now the graph is interpretable

CONTACT

Your comments and questions are valued and encouraged. Contact the author at:
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