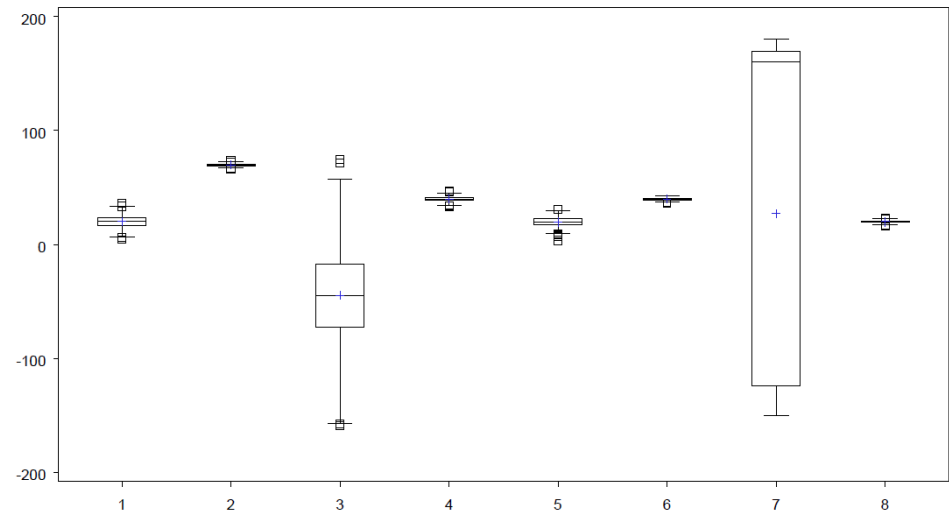
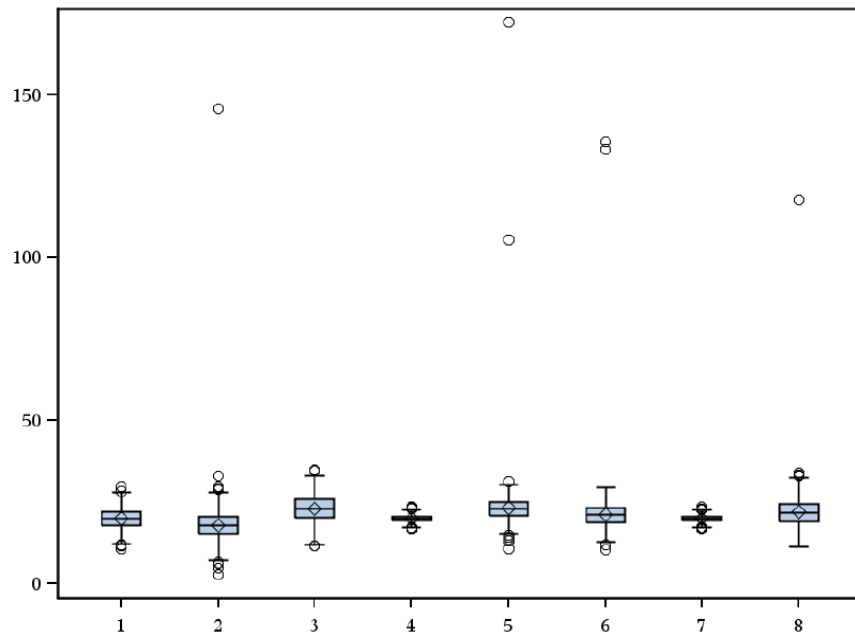


Zooming in on graphics

Armin Gemperli, BIOP AG, Basel, Switzerland

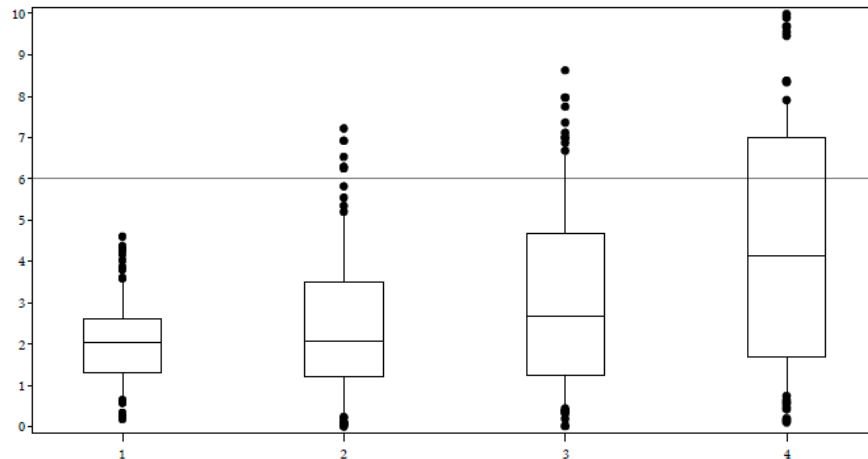
Problem Description

- How to choose the axis range for multiple plots on same data

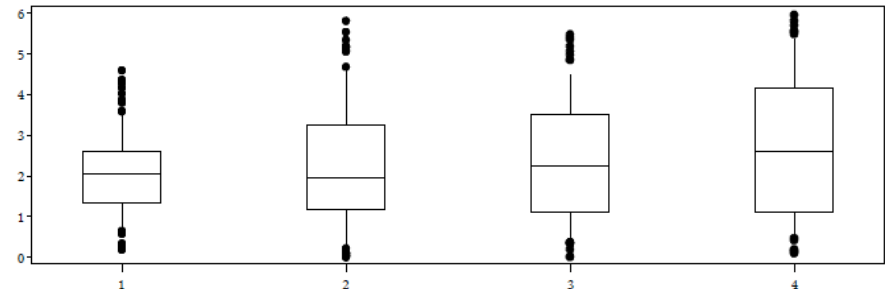


Restricting vertical axis

Proc GPLOT with axis statement Interpol=box



order=(0 to 6 by 1)



NOTE: 56 observation(s) outside the axis range for the y * x request.

WARNING: Values exist outside the axis range, but only values within the displayed range took part in interpolation calculations for the PLOT statement.

Restricting vertical axis

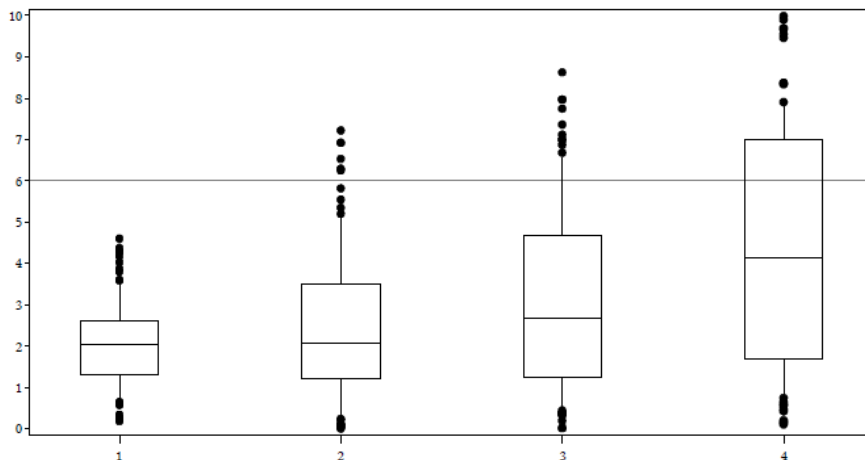
Proc GPLOT with axis statement Interpol=box

mode=exclude (Default)

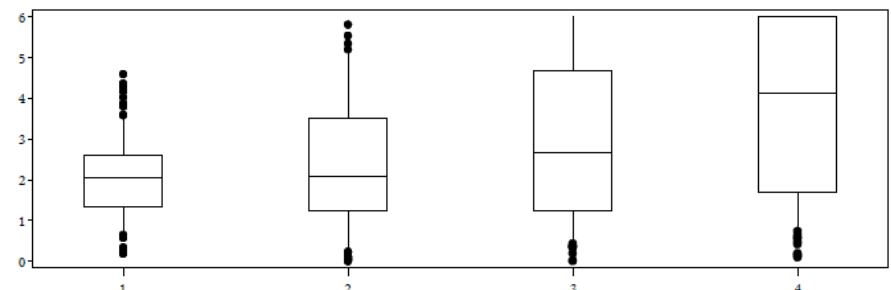
Data not seen does not contribute to the calculation

mode=include

All data contributes



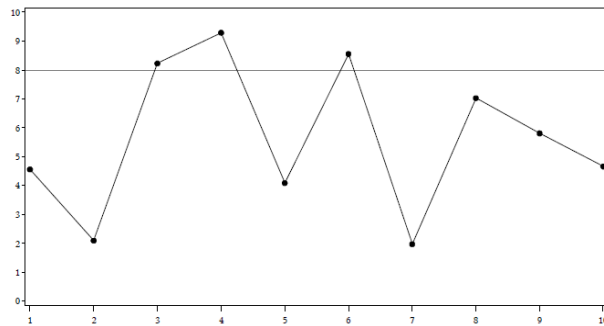
order=(0 to 6 by 1)
mode=include



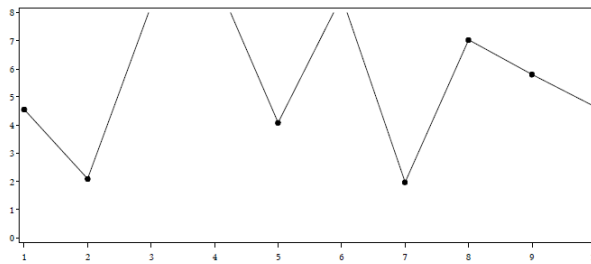
NOTE: 56 observation(s) outside the axis range for the y * x request.

Proc Gplot & Interpol option

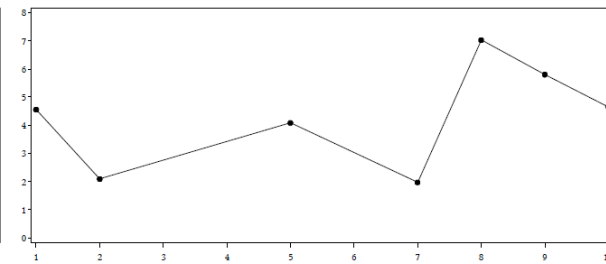
Interpol=join



mode=include



mode=exclude

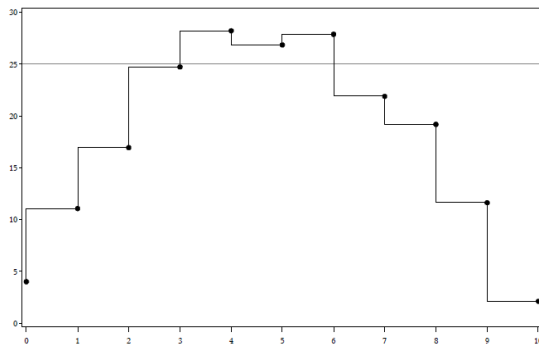


No warning
Note

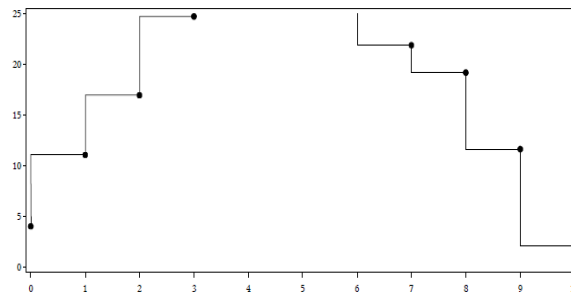
No warning
Note

Proc Gplot & Interpol option

Interpol=step

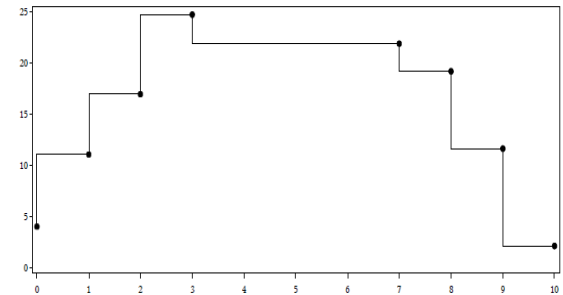


mode=include



No warning
Note

mode=exclude

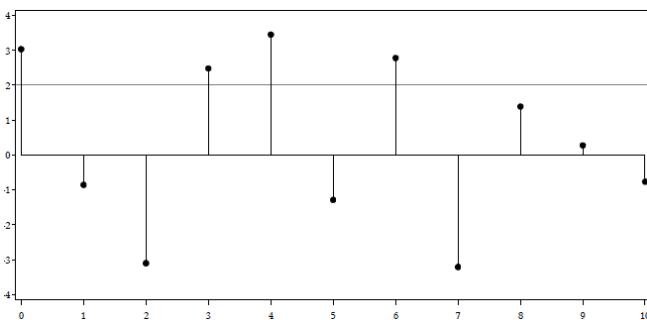


Warning
Note

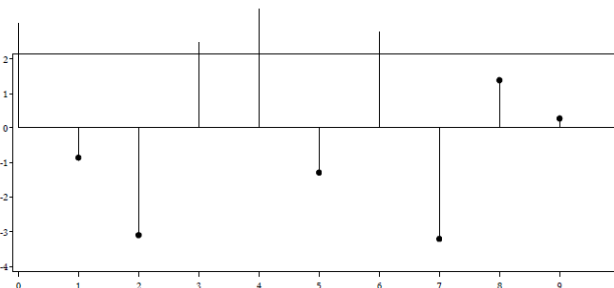
Same for Interpol=HILO, STD, L, SM, SPLINE, R
or with BUBBLE statement

Proc Gplot & Interpol option

Interpol=needle

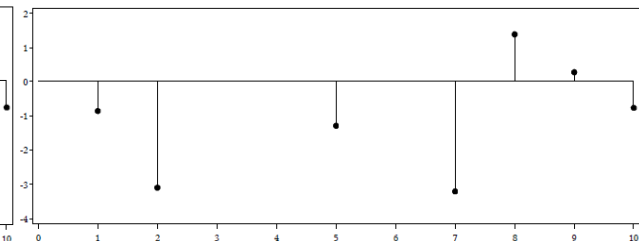


mode=include



No warning
Note

mode=exclude



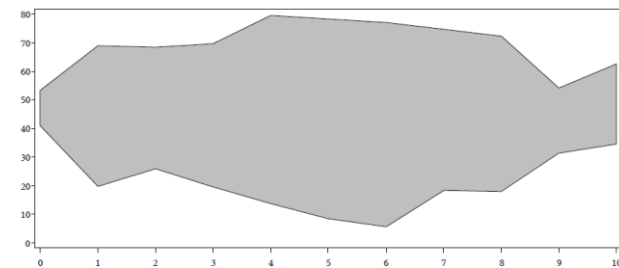
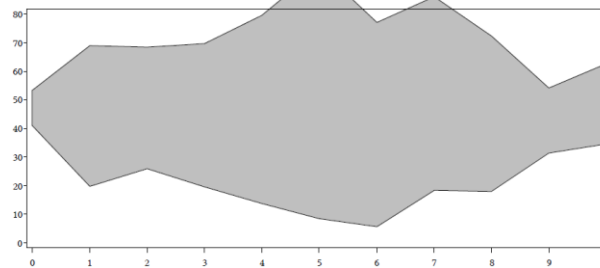
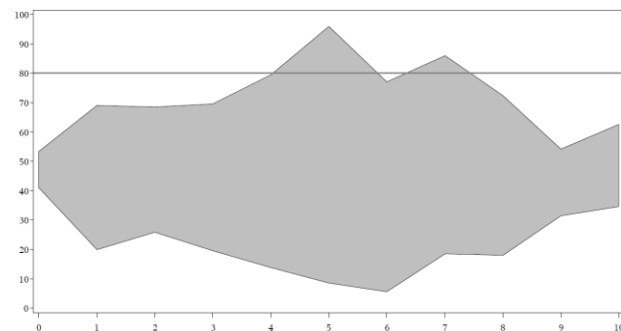
No warning
Note

Proc Gplot & Interpol option

Interpol=*map/plot-pattern*

mode=include

mode=exclude



No warning
Note

Warning
Note

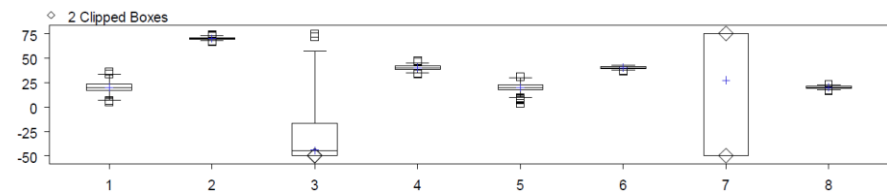
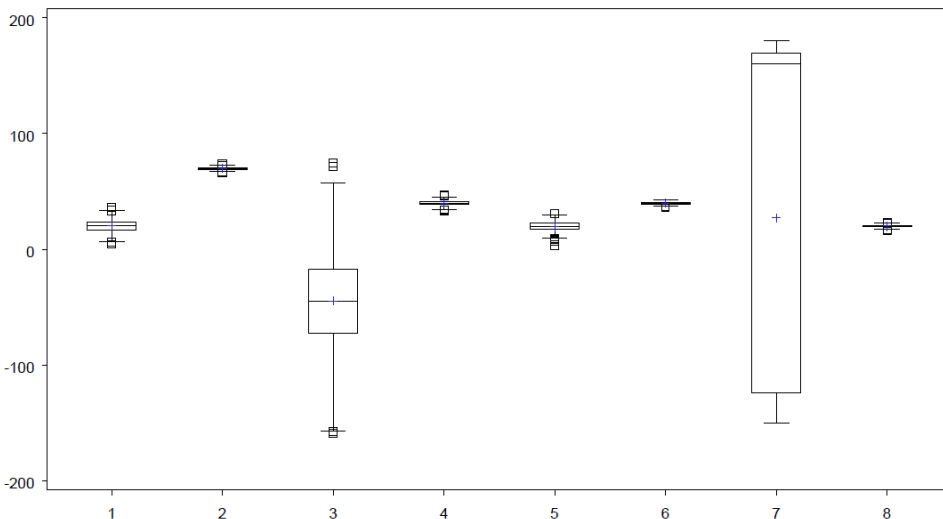
Proc Boxplot & clipfactor

$\text{Clipfactor} = \text{factor}$

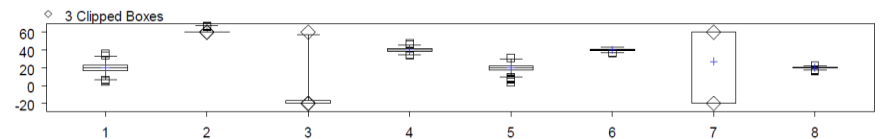
$\text{factor} > 1.$

The upper limit is: $Q1 + R \times \text{factor}$
 The lower limit is: $Q3 - R \times \text{factor}$

$R = Q3 - Q1$ is the interquartile range and
 $Q1$ and $Q3$ the mean of lower and upper
 quartiles across all groups.



$\text{Clipfactor} = 2$

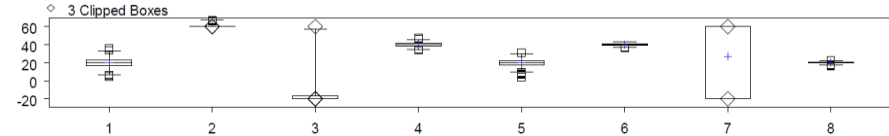
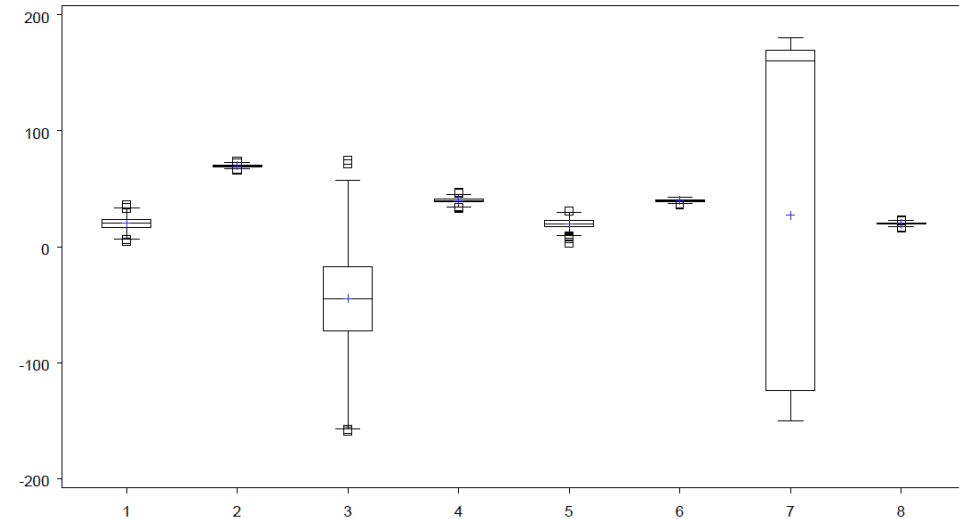


$\text{Clipfactor} = 1.4$

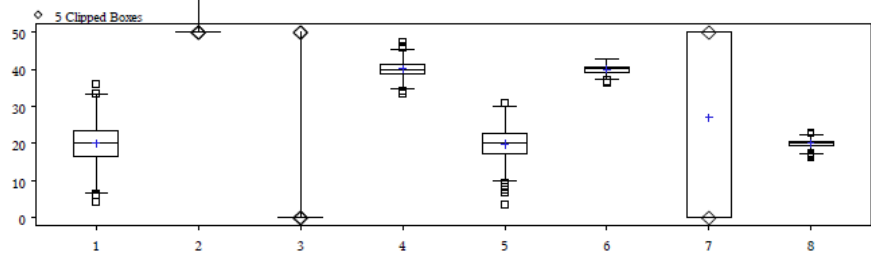
Proc Boxplot & clipfactor

Clipfactor=1.4

Output via GOPTIONS
VS.
ODS Output



GOPTIONS output

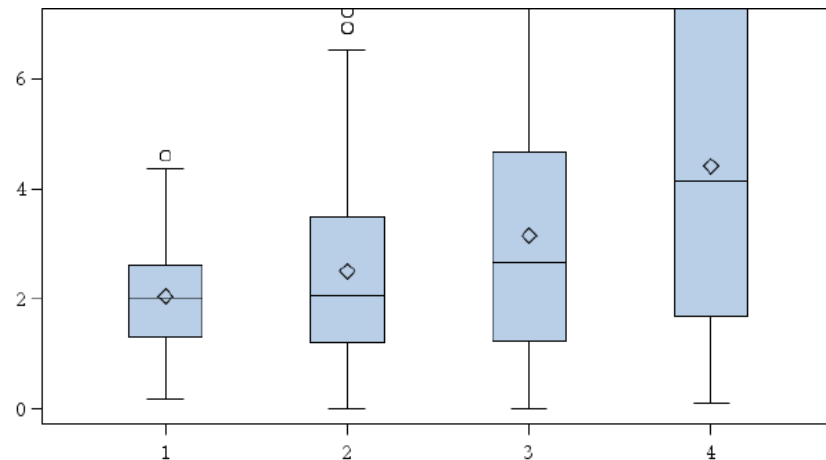
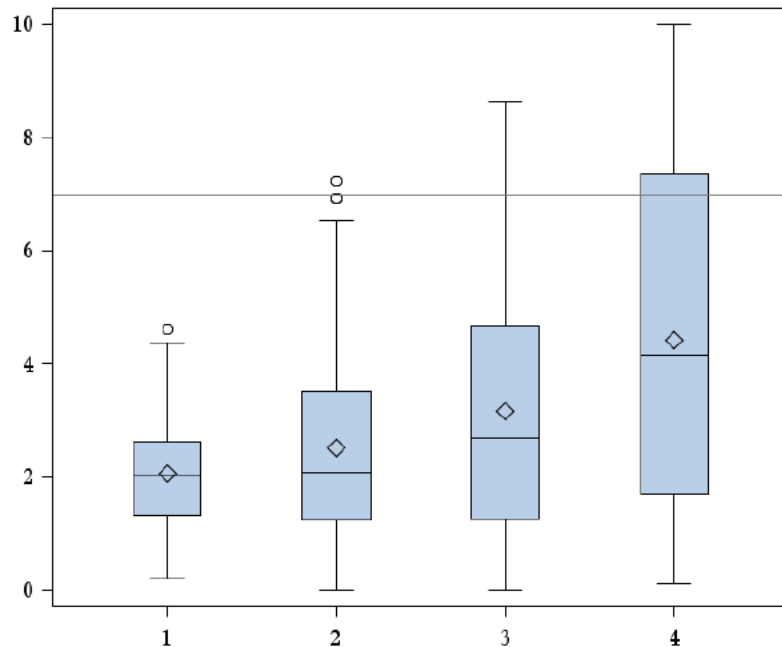


ODS output

Proc Sgplot

Boxplot:

```
proc sgplot;
  vbox y / category=x;
  yaxis max=7;      /* same with values=(0 to 7) */
run;
```

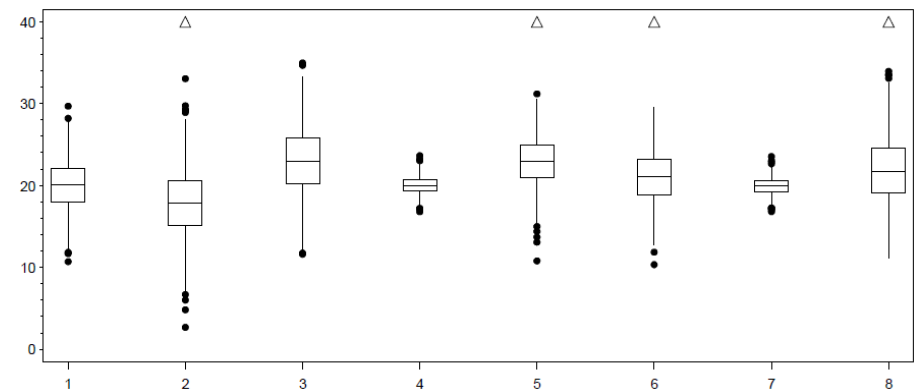
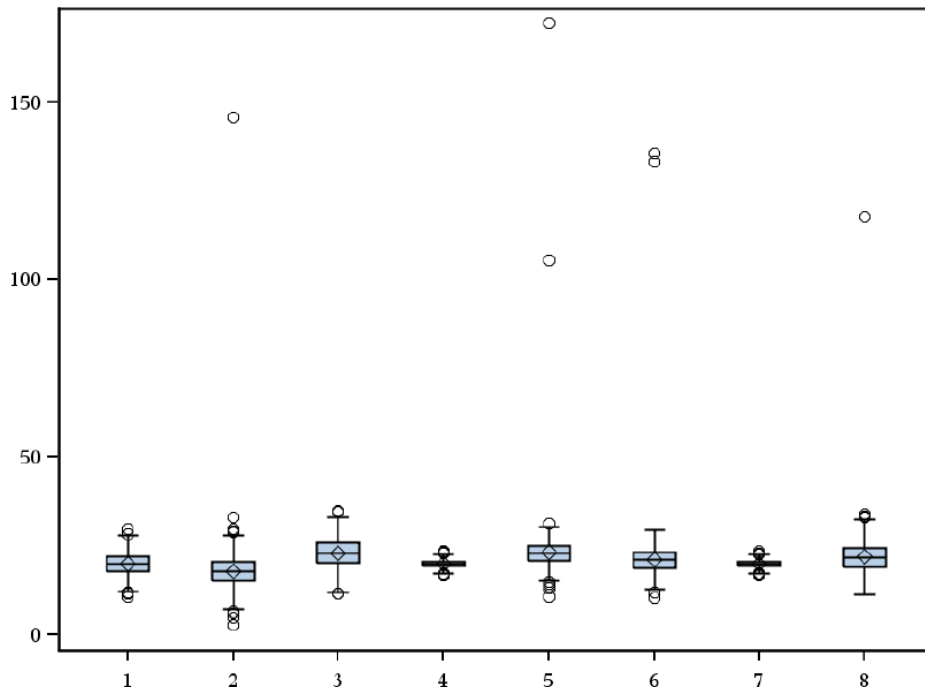


Example: Clipping extremes

```

symbol1 i=box v=dot
      mode=include;
symbol2 i=none v=triangle;
axis1 order=(0 to &cutpnt by 10);
proc gplot;
  plot y*x=mark / vaxis=axis1;
run; quit;

```



Quartile definitions

Procedure	Option
SGPLOT	PERCENTILE
BOXPLOT	PERCENTILE
UNIVARIATE	PCTLDEF
SUMMARY/MEANS	QNTLDEF / QMETHOD
GLOT	?

Upper Quartile for two toy dataset					
Dataset	Percentile definition				
	1	2	3	4	5
1,2,3,4	3	3	3	3.75	3.5
1,2,3,4, 5,6	4.5	4	5	5.25	5

Thank you for your interest