

PP12: Automation of clinical trial reporting: Graphical approach

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Process

- ClinXport has 2 component: a **Microsoft Excel** interface to define the table of content and shells for the TFLs and a **SAS** macro library to execute programs and generate TFL. All the reporting project is managed in a single Excel workbook.
- The **list of outputs** is in a sheet containing additional information about templates, titles, footnotes, data, subset ...

	Boxplot of laboratory results by time and treatment	Safety analysis set
Safbox3	Figure 14.3-3.1 treatment	Safety analysis set
Safbox3	Figure 14.3-3.4 Boxplot of ecg by time and treatment	Safety analysis set
Safbox3	Figure 14.3-3.5 Boxplot of vital signs by time and treatment	Safety analysis set

- Each graphical output is associated to a **template** containing all the specific elements for the output.

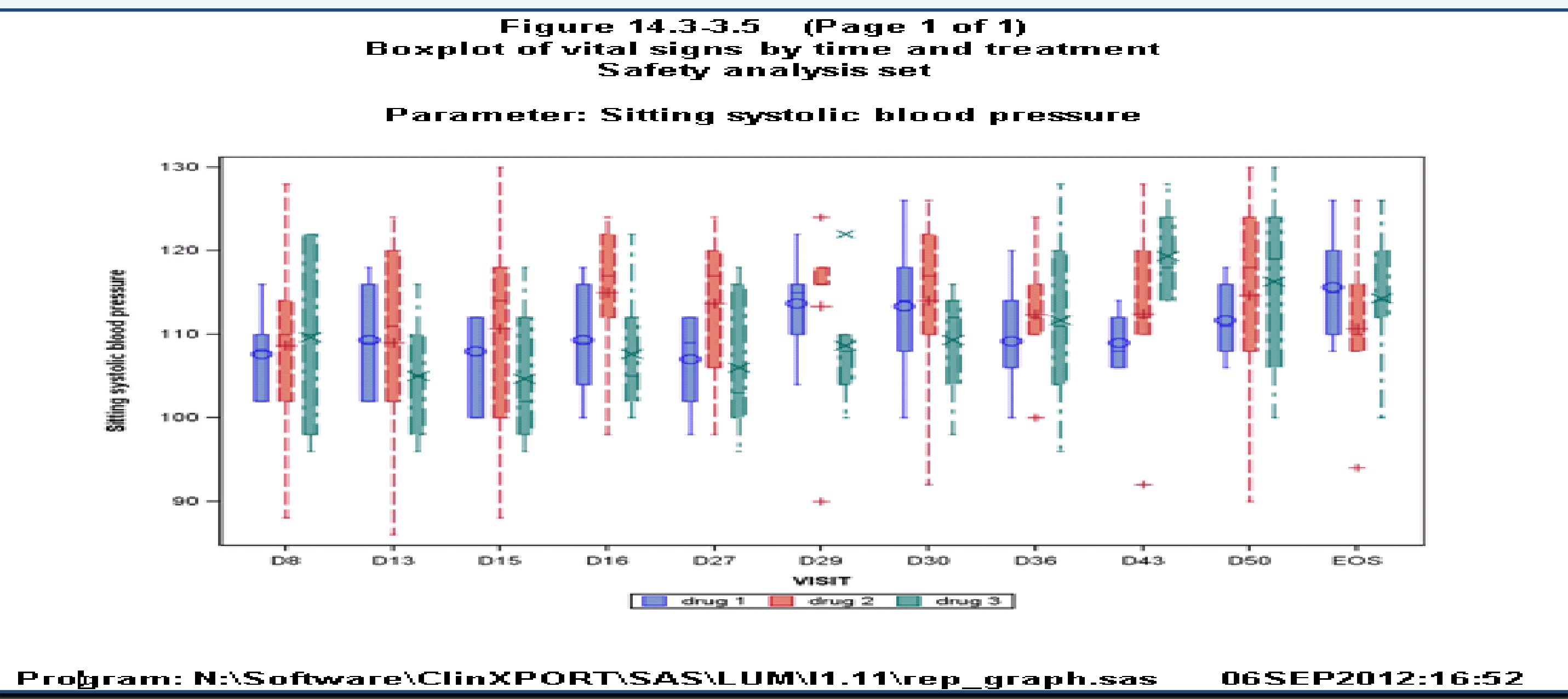
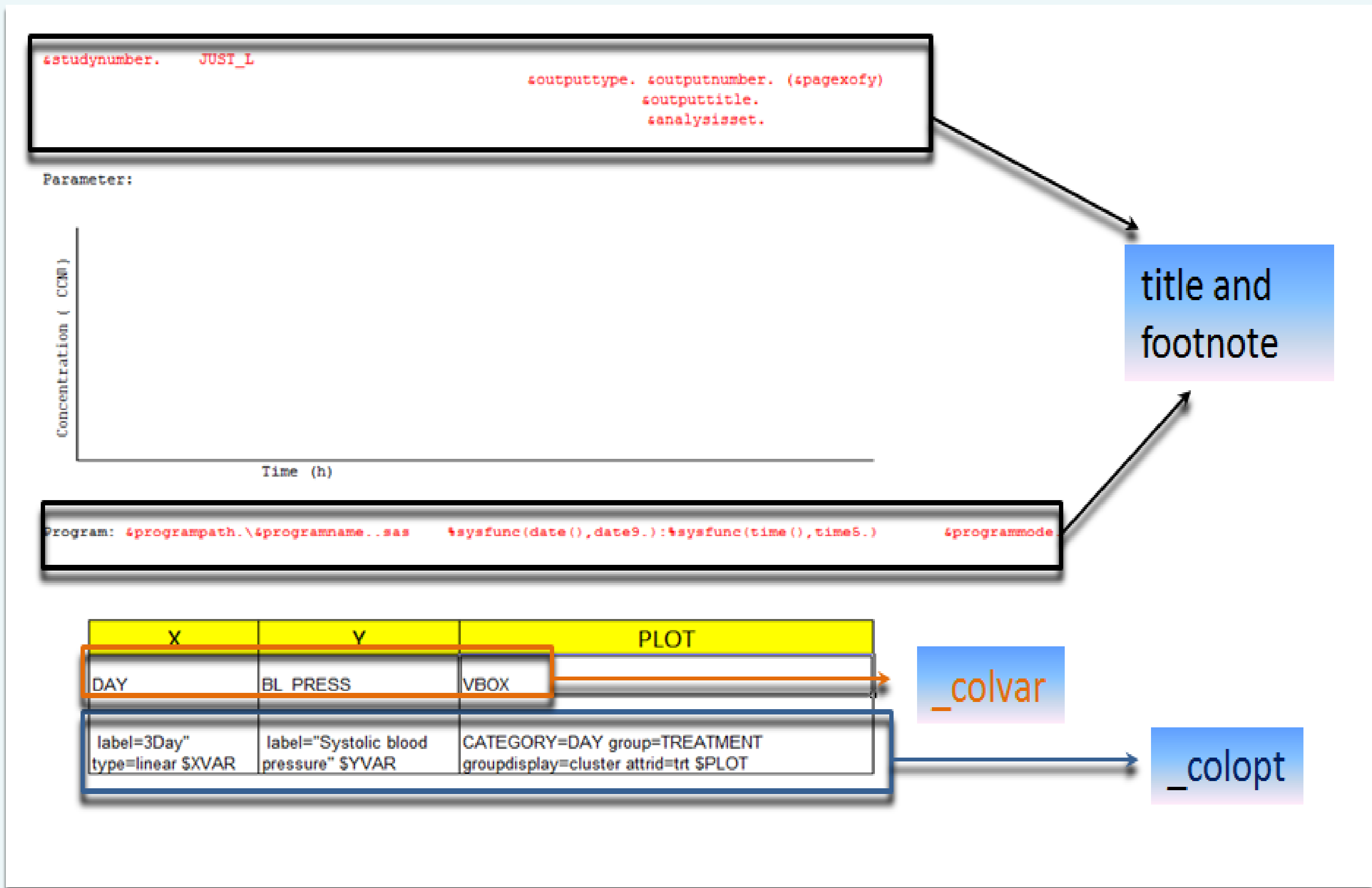
colvar

- 1/ **AXIS X** : Name of the X variable (ex: Time → TIME)
- 2/ **AXIS Y** : Name of the variable of interest
- 3/ **The type of figure** : (ex : Box plot → VBox)

colopt

- 1/ **AXIS X** : label="Time (days)"
- 2/ **AXIS Y** : label="Systolic blood pressure"
- 3/ **VBAR** : group=TREATMENT etc..

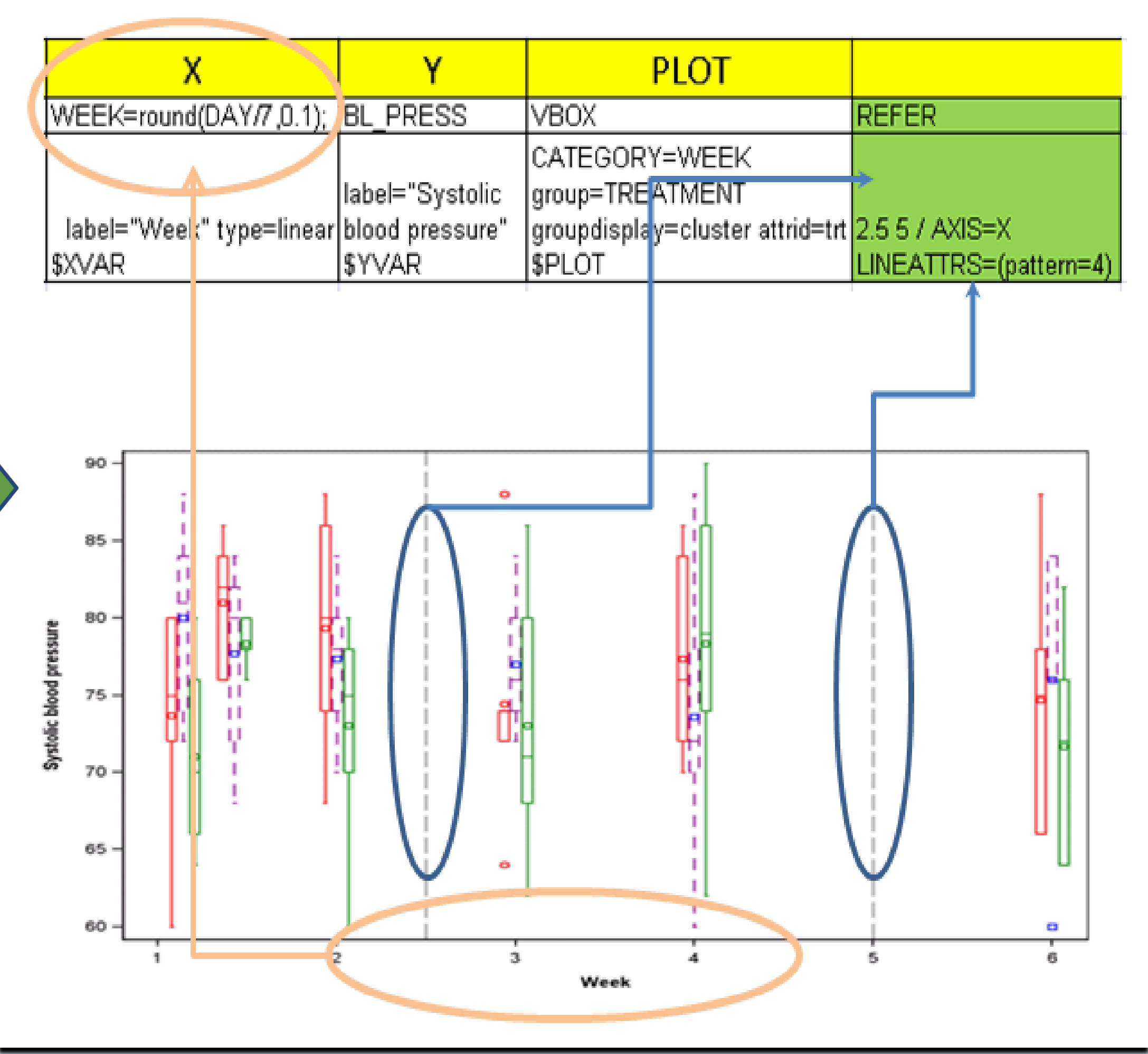
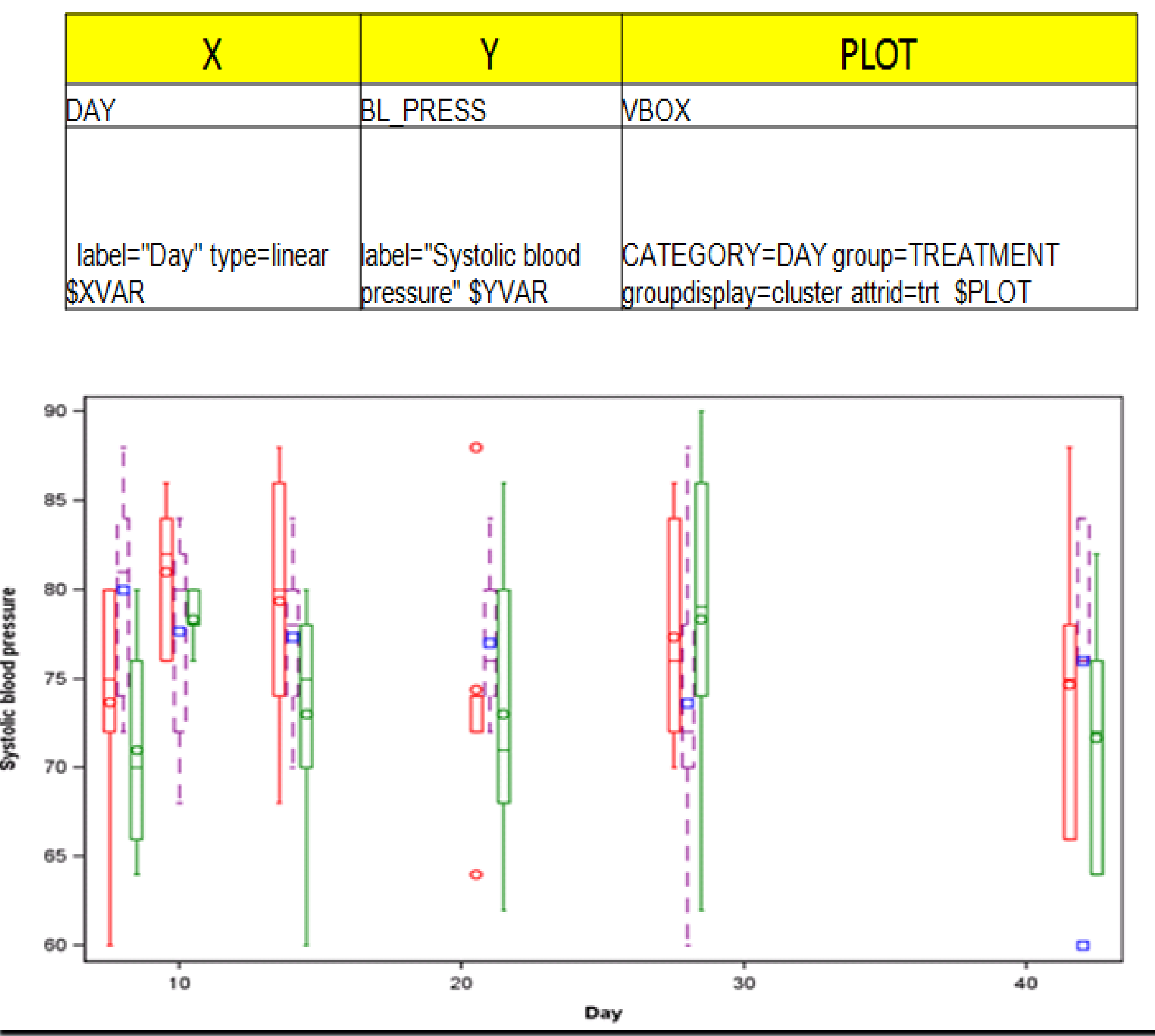
- Once the different sheets are completed, the last step is to click the ClinXport button to export all information defined in the Excel sheet to a SAS script and to run the SAS code automatically.



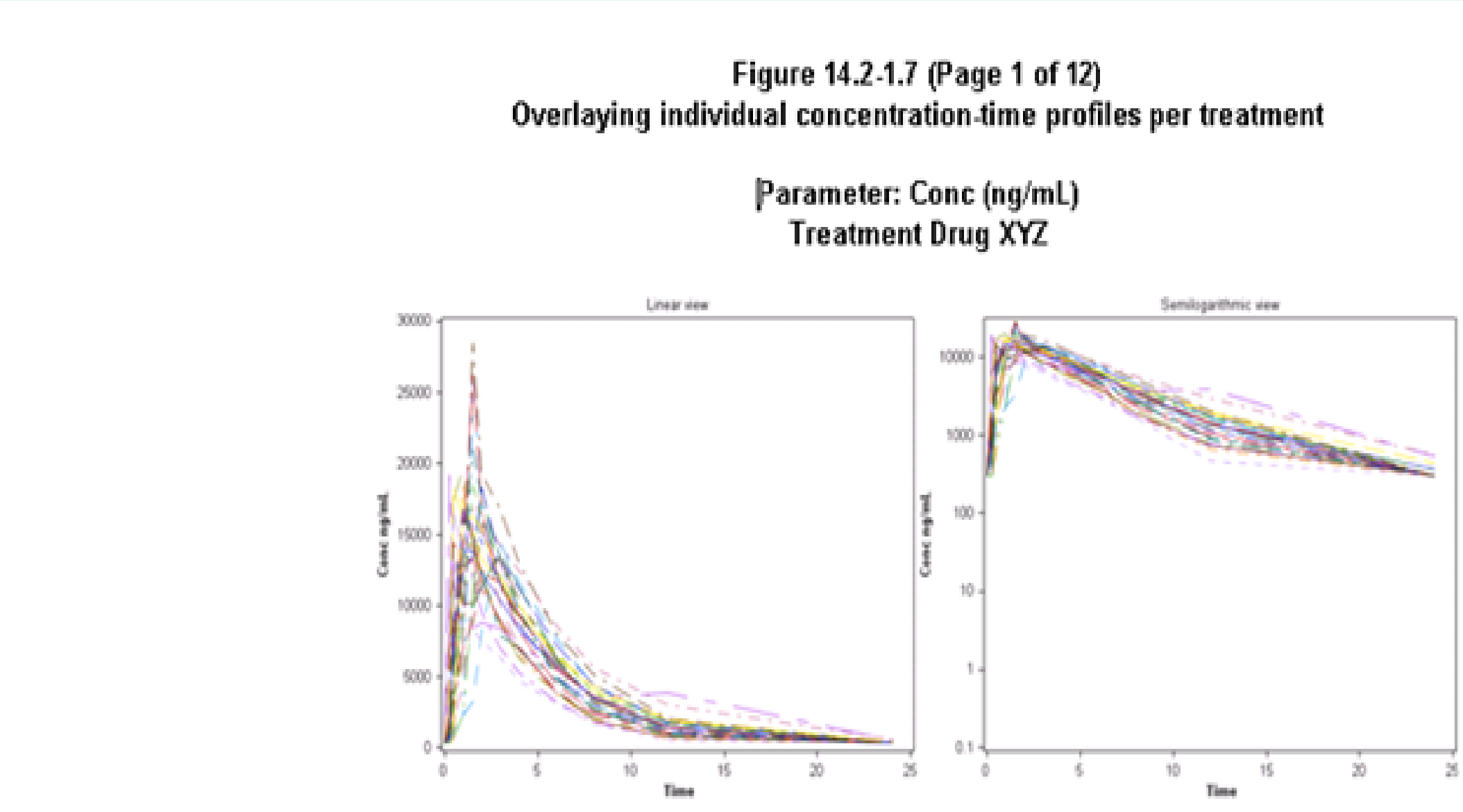
Modify or reuse code with a minimum of effort.

- Once a graph is defined in the Excel template, nothing is easier to adapt it to a new set of data or to complete it.
- There is no need to go inside the program
- Changes are intuitive, quick and applicable directly from the same template.

- Change of unit from Days to Weeks
- Adding vertical reference lines



Proc template is fully integrated



```
%macro temp_pkoverlay;
data ads2;
set ads2;
...
proc template;
define statgraph temp_pkoverlay;
dynamic _XLABEL _YLABEL XVAR YVAR GROUPVAR _TICKLIST _XMAX _YMAX _TITLE;
beginninggraph / designwidth=2500px designheight=1400px;
layout overlay /XAXISOPTS =(LABEL=_XLABEL LABELATTRS=GRAPHVALUETEXT (SIZE=10pt)
Linearopts=( viewmin=0 viewmax=_XMAX tickvaluelist=_ticklist))
YAXISOPTS =( LABEL=_YLABEL LABELATTRS=GRAPHVALUETEXT (SIZE=10pt)
Linearopts=( viewmin=0 viewmax=_YMAX ));
seriesplot x=_XVAR. y=_YVAR. /group=GROUPVAR ;
endlayout;
endgraph;
end;
run;
%mend temp_pkoverlay;
```

X	Y	PLOT	BY VARIABLES
TIME	CONC	temp_pkoverlay	BYVAL1=PARAMETER; BYVAL2=TRT;
		thicklist="0 15 10 15 20 25"	
		_XLABEL="Time" _XMAX="max(xvar)"	
		_YLABEL="BYVAL1"	
\$XVAR	\$YVAR	GROUPVAR="Subject" \$TEMPLATE	

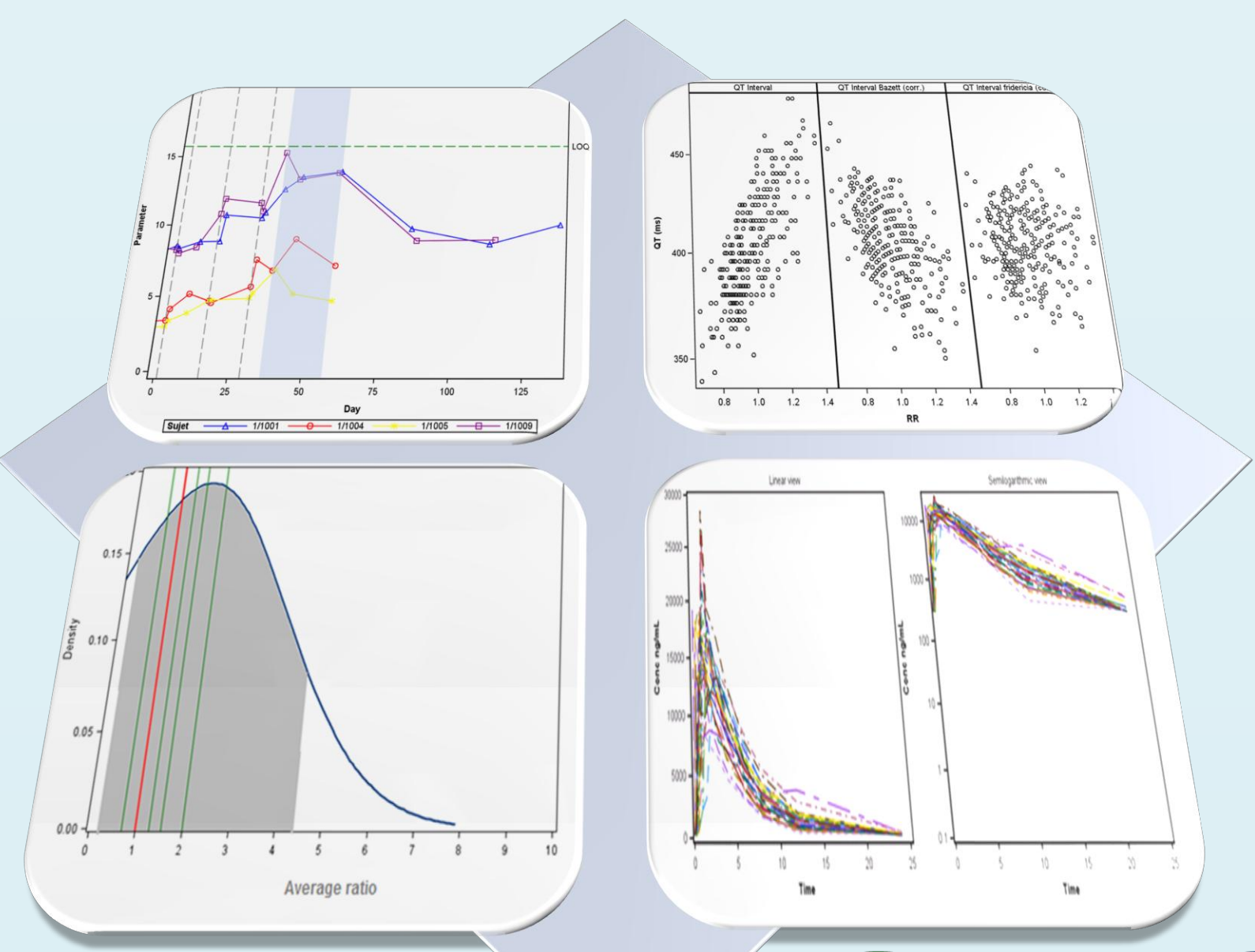
Template name

Dynamic variables

- Possibility to use a graph template through the interface.
- Make it usable by any user.

Conclusions:

- Significant gain in time and quality
- Easy to reuse or adapt code
- All type of graphs are available
- Available in ClinXPORT v2.0



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