

SAS/Graph to help data Dose/ Concentration consistency review

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Berlin, October 20, 2010

SAS/Graph

Agenda

- Why a graph macro?
- Plot 1 : Dose vs concentration time
- Plot 2 : Overall concentration
- Plot 3 : Subject profile
- More options
- Questions

Why a graph macro

- Help validation process
- Check data quality and data issues
- Find outlier

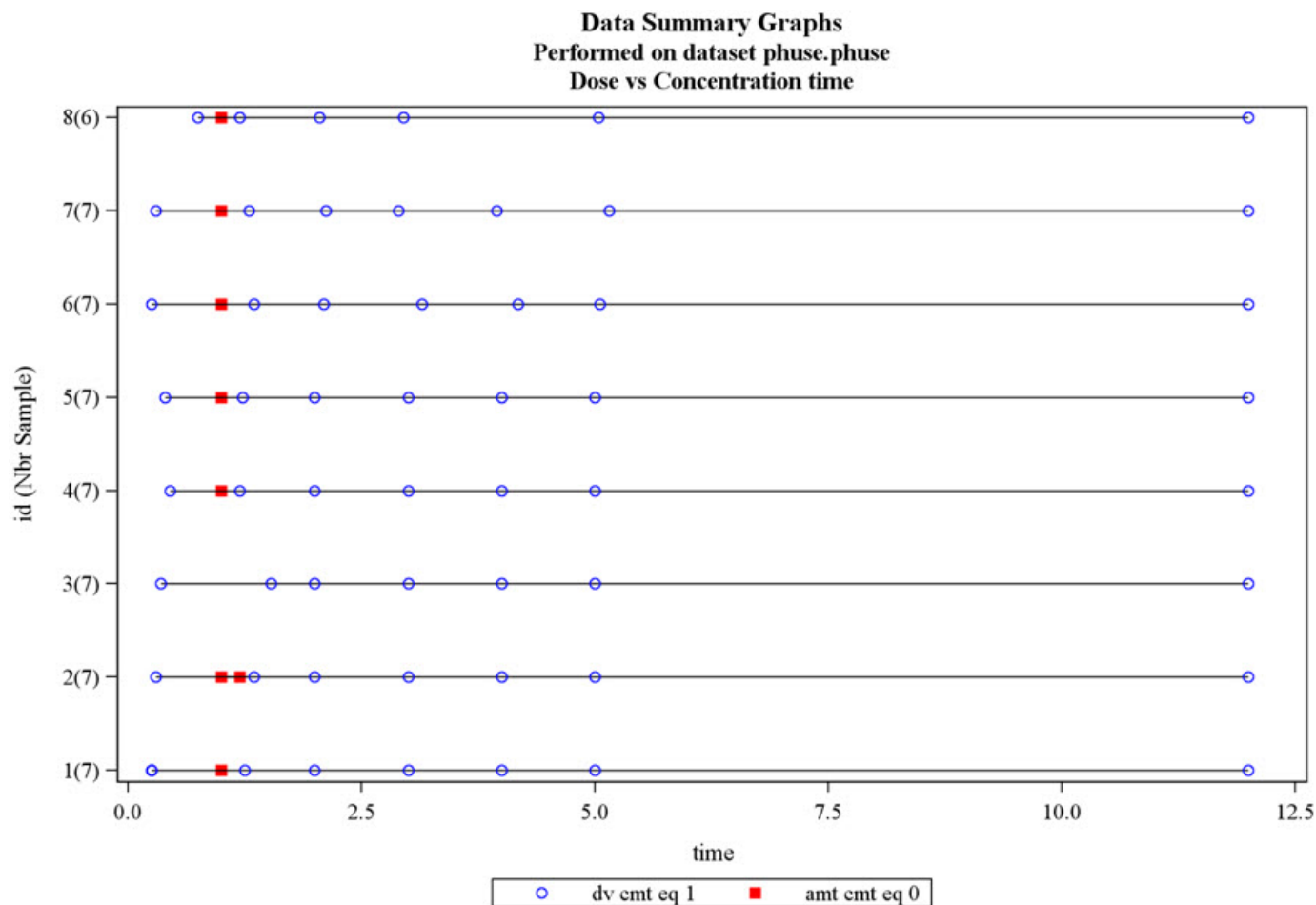
Macro prerequisite

- Data must be merged in one dataset
- A time column must exist

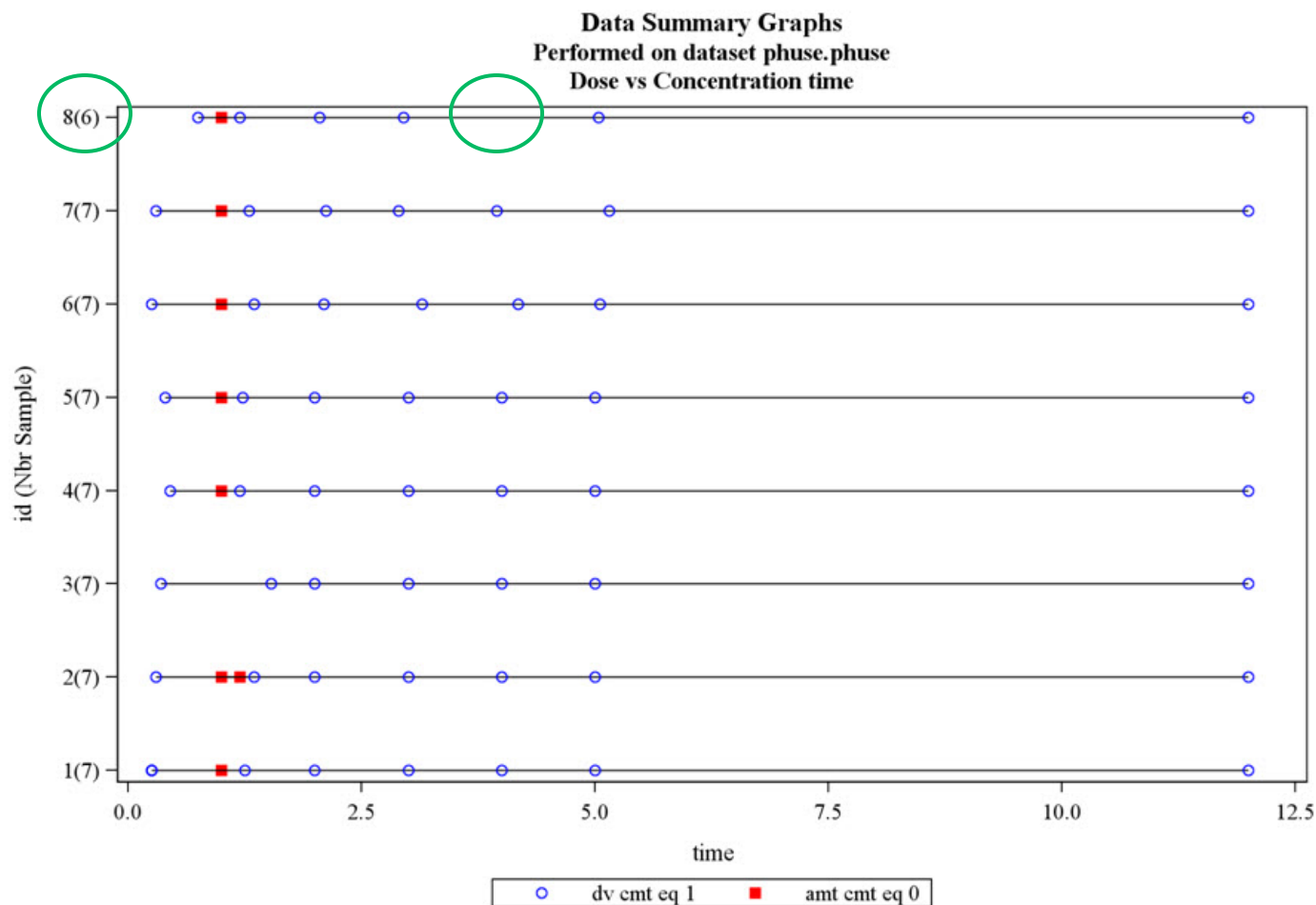
Plot 1 : Dose vs concentration time

- Show dose and concentration date/time relation
- Ease finding missing dose or incorrect event time
- Display number of sample for each subject

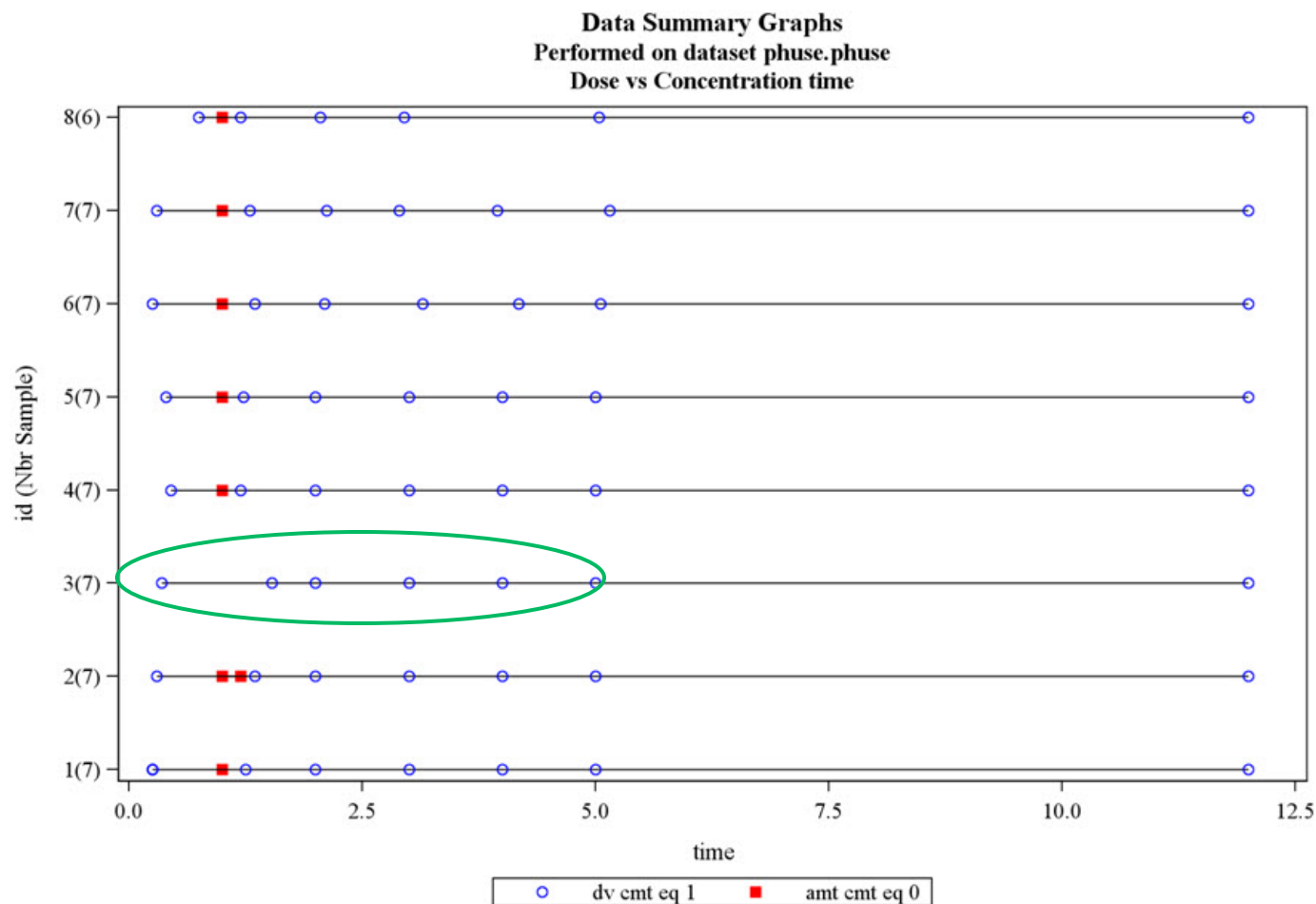
Plot 1 : Dose vs concentration time



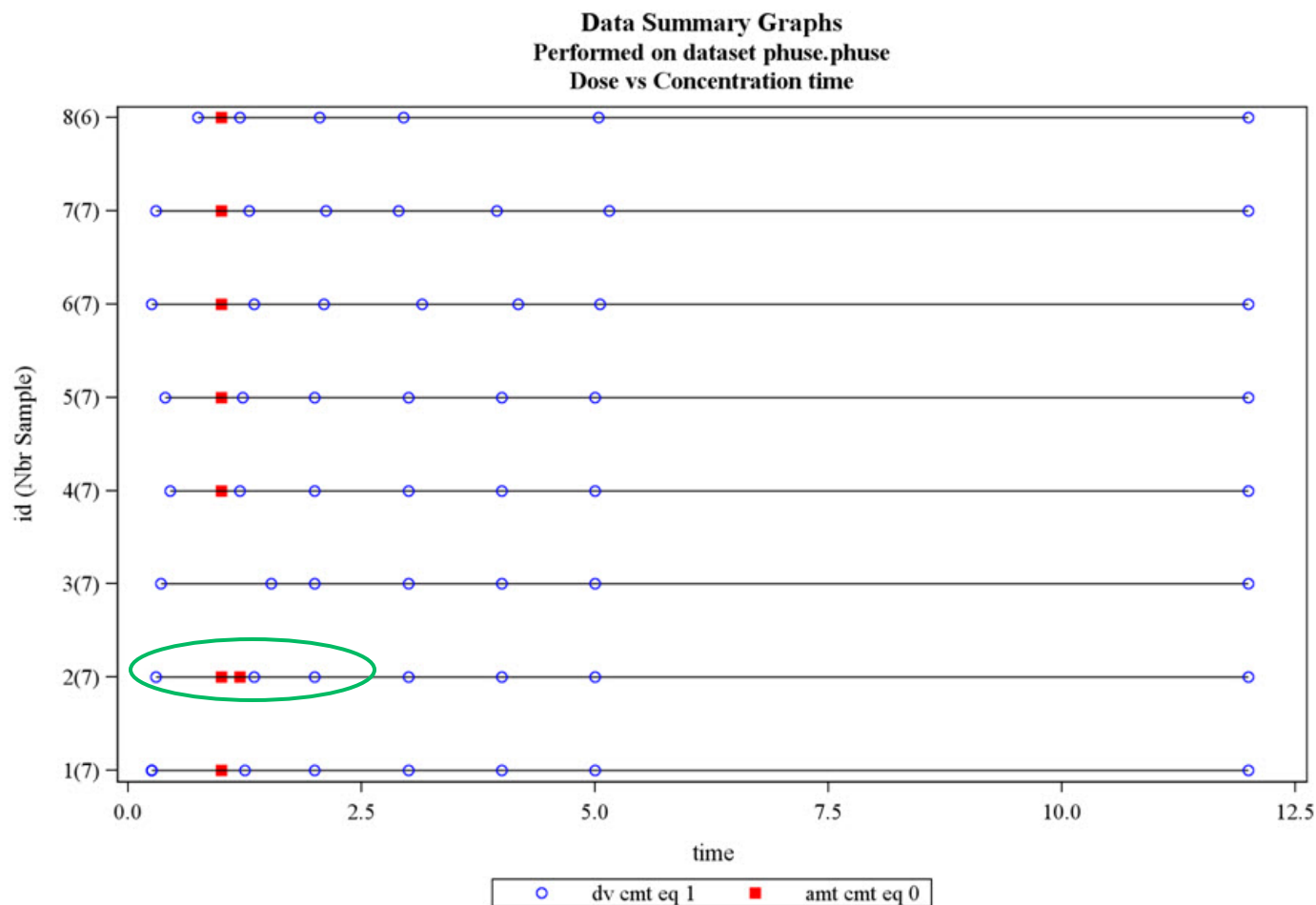
Plot 1 : Dose vs concentration time



Plot 1 : Dose vs concentration time



Plot 1 : Dose vs concentration time



Plot 1 : Dose vs concentration time

Extract of SAS code

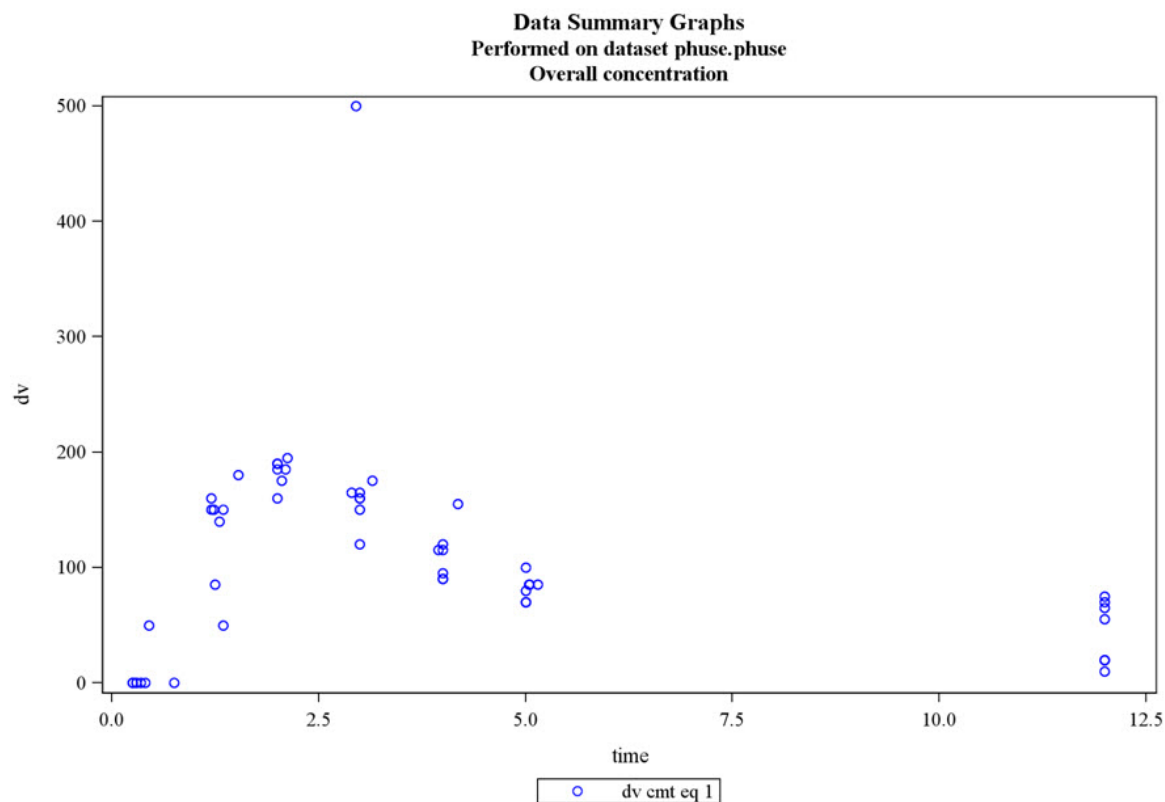
```
proc sgplot data=work._dsPlotg1 ;  
  by _msbreak ;  
  format _yaxisDose1 _yaxisPk1 _msgrph. ;  
  
  series x=_timeDose1 y=_yaxisDose1 /  
    group=_yaxisDose1 lineattrs=(pattern=solid color=black) markers  
    markerattrs=(symbol=squareFilled color=red) name ="GX1" ;  
  series x=_timePk1 y=_yaxisPk1 / group=_yaxisPk1  
    lineattrs=(pattern=solid color=black)  
    markers markerattrs=(symbol=circle color=blue) name ="GY1" ;  
  yaxis type=discrete label="id (Nbr Sample)" ;  
  xaxis label="time" ;  
run ;
```

- Column `_msBreak` limit the number of subject per page
- Format `_msgrph` display sujet and number of samples
- Both series overlap each other but use different symbol

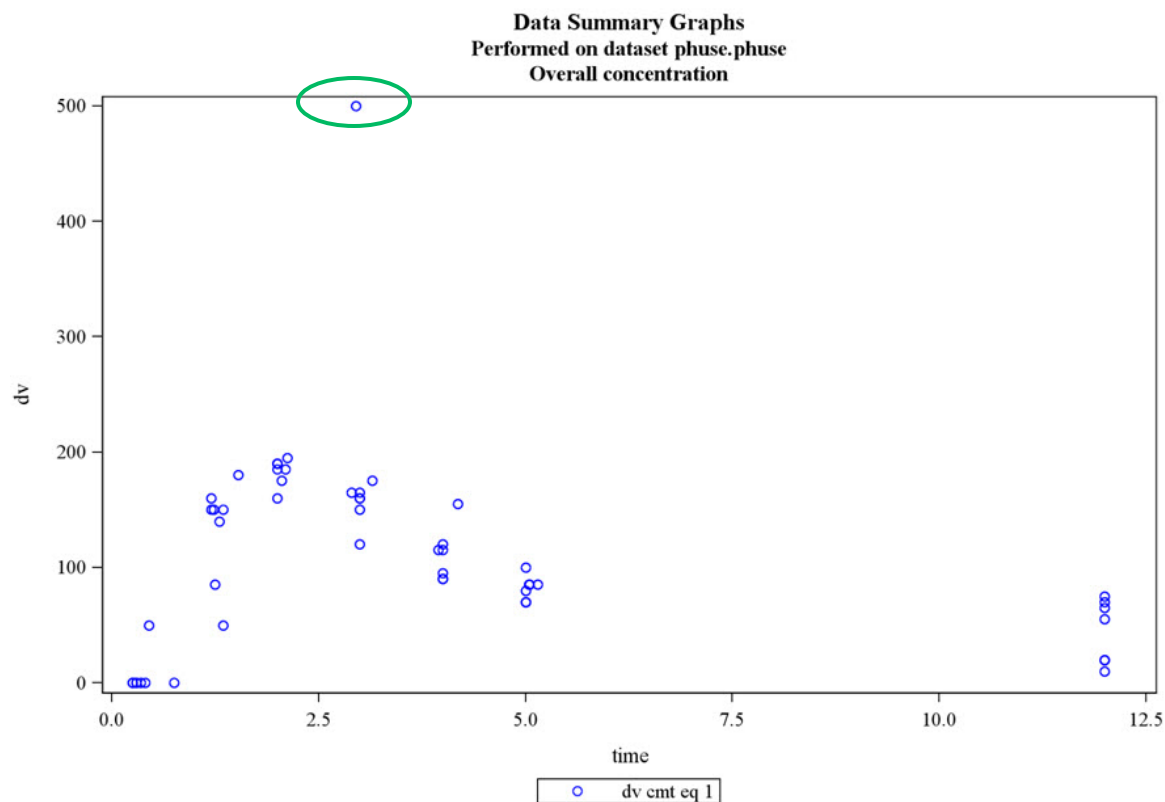
Plot 2 : Overall concentration

- Help find outlier
- Ensure concentration levels are consistent

Plot 2 : Overall concentration



Plot 2 : Overall concentration



Plot 2 : Overall concentration

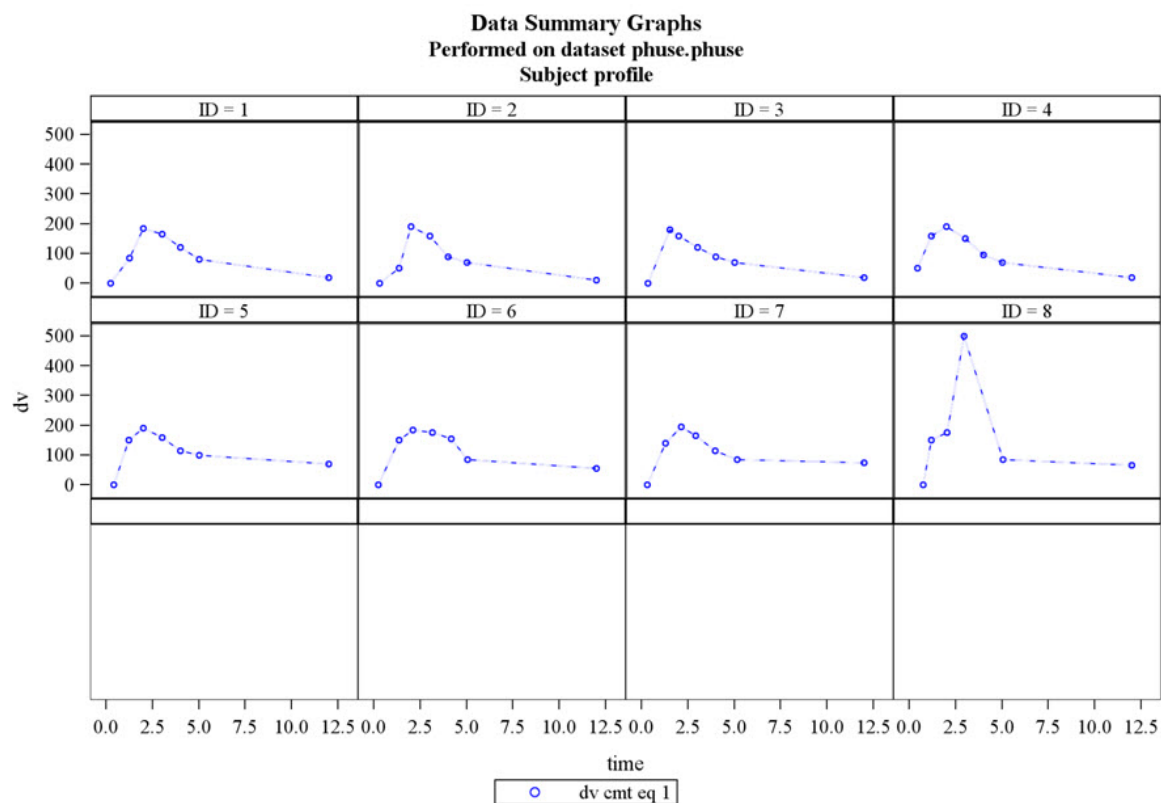
SAS code

```
proc sgplot data=work._dsPlotg2 ;  
    series x=_plot2xaxis_pk1 y=_plot2yaxis_pk1 /  
        lineattrs =(color=white) markers  
        markerattrs=(symbol=circle color=blue) ;  
run ;
```

Plot 3 : Subject profile

- Allow detail review of all subjects
- Help find patterns

Plot 3 : Subject profile



Plot 3 : Subject profile

SAS code

```
proc sgpanel data=work._dsPlotg3 ;  
    panelby id / columns=4 rows=3 ;  
    series x=_plot3xaxis_pk1 y=_plot3yaxis_pk1 /  
        lineattrs=(pattern=solid color=blue)  
        markers markerattrs=(symbol=circle color=blue) ;  
run ;
```

Global macro options

- Create only some of the graphs
- Multiple compartements, separated by a “/”
- Allow subset
- Allow group by option

Questions ?

