Package compilation and basic run

Emmanuelle Comets

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Compilation

- structure
  - **tests** : removed all other folders and files except testthat from the package otherwise warnings about RDS files
  - **data** : removed remifentanil example from data folder
- **roxygen** documentation
  - warnings for ggplot (no visible global function definition)
  - added import command for pnorm (found in distribution plot) and median (found nowhere, so suspect it's the name median used in the ggplot plots, but added it all the same)
- **package size**: still 5.9 Mb so much too large for CRAN
  - the 3 simulated data files for warfarin and viral load data are all around 5Mb, consider making them available only on bookdown/website
- necessary files
  - added a DESCRIPTION file
  - added a CHANGES file
- for compilation:
  - removed NAMESPACE
  - removed man pages
- Compilation steps from Build menu
  - Document => create NAMESPACE, DESCRIPTION (update collate directive), create man pages
  - Check => update documentation, create NAMESPACE
- **FINAL COMPILATION FOR CRAN**
  - removed documentation (too large)
  - removed simWararineBase

```
setwd(file.path(workDir,"npde"))
system("rm man/*")
cmd<-paste("cp ", file.path(workDir,"latexDoc","userguide_3_0.pdf")," ", file.path(workDir,"userguide_n
system(cmd)
roxygenise()
```

```
## Loading npde
```

```
## Writing NAMESPACE
## Writing NAMESPACE
## Writing NpdeSimData-class.Rd
## Writing extract-methods.Rd
## Writing NpdeData-class.Rd
## Writing read.Rd
## Writing show.Rd
## Writing npdeData.Rd
## Writing npdeSimData.Rd
```

```
## Writing print.NpdeData.Rd
## Writing showall.Rd
## Writing summary.NpdeData.Rd
## Writing subset.NpdeData.Rd
## Writing NpdeRes-class.Rd
## Writing kurtosis.Rd
## Writing skewness.Rd
## Writing gof.test.Rd
## Writing NpdeObject-class.Rd
## Writing dist.pred.sim.Rd
## Writing computenpde.Rd
## Writing npde.decorr.method.Rd
## Writing computepd.Rd
## Writing compute.ploq.Rd
## Writing autonpde.Rd
## Writing pdemenu.Rd
## Writing npde.main.Rd
## Writing npde.save.Rd
## Writing npde.graphs.Rd
## Writing npde-package.Rd
## Writing theopp.Rd
## Writing simtheopp.Rd
## Writing warfarin.Rd
## Writing virload.Rd
## Writing npde.cens.method.Rd
## Writing npdeControl.Rd
## Writing set.plotoptions.Rd
## Writing replace.plotoptions.Rd
## Writing npde.binning.Rd
## Writing npde.plot.covariate.Rd
## Writing npde.plot.dist.Rd
## Writing npde.plot.loq.Rd
## Writing plot.NpdeData.Rd
## Writing plot.NpdeRes.Rd
## Writing plot.NpdeObject.Rd
## Writing npde.plot.select.Rd
## Writing default.npde.plots.Rd
## Writing npde.plot.covariates.Rd
## Writing npde.plot.npde.Rd
## Writing npde.plot.data.Rd
## Writing npde.plot.default.Rd
## Writing npde.plot.scatterplot.Rd
```

```
setwd(workDir)
system("R CMD build npde")
system("R CMD check --as-cran npde_3.0.tar.gz")
```

Apres correction, la compilation du package passe sans erreurs et avec 2 notes restantes.

- **notes**
  - previous version archived
  - package size too large (recommended size less than 5Mb): reduce nb of simulations for warfarin ?
  - ggplot variables (rien a faire pour ça)
- **warnings** corriges
  - jeux de donnees non documentes: removed remifentanil, added virload documentation (used to

be a specific man page, reintegrated them into roxygen format in npde.R like warfarin)
  - duplicated alias: fixed !

Warnings

- ggplot warnings

```
Undefined global functions or variables:
  .x X2.5. X50. X97.5. Y0.025 Y0.025.1 Y0.5 Y0.5.1 Y0.975 Y0.975.1 aes
  annotation_logticks category coord_cartesian coord_flip element_blank
  element_line element_rect element_text expand_limits facet_wrap
  geom_bar geom_boxplot geom_crossbar geom_hline geom_line geom_point
  geom_ribbon ggplot ggtitle gpar grid.arrange group grp guides labs
  lower name obs.inf obs.median obs.sup pinf.lower pinf.median
  pinf.upper pmid.lower pmid.median pmid.upper psup.lower psup.median
  psup.upper scale_fill_manual scale_x_continuous scale_x_discrete
  scale_x_log10 scale_y_continuous scale_y_log10 textGrob theme upper
  value x x1 x2 x_area_0.25 x_area_0.5 x_area_0.975 xcent y y1 y2
  y_area_0.25 y_area_0.5 y_area_0.975
```

- Warnings in first compilation (solved)

```
W  checking Rd metadata ...
   Rd files with duplicated alias 'aux.npdeplot.computepi':
     ‘npde.plot.default.Rd’ ‘npde.plot.scatterplot.Rd’
   Rd files with duplicated alias 'compute.bands':
     ‘npde.plot.default.Rd’ ‘npde.plot.scatterplot.Rd’
   Rd files with duplicated alias 'compute.bands.true':
     ‘npde.plot.default.Rd’ ‘npde.plot.scatterplot.Rd’
   Rd files with duplicated alias 'npde':
     ‘npde-package.Rd’ ‘npde.Rd’
  checking Rd line widths ...
  checking Rd cross-references ...
W  checking for missing documentation entries (346ms)
   Undocumented code objects:
     ‘remifent’ ‘simremifent’ ‘simremifent_base’ ‘simvirload’ ‘virload’
     ‘virload20’ ‘virload50’ ‘virloadMDV20’
   Undocumented data sets:
     ‘remifent’ ‘simremifent’ ‘simremifent_base’ ‘simvirload’ ‘virload’
     ‘virload20’ ‘virload50’ ‘virloadMDV20’
   All user-level objects in a package should have documentation entries.
   See chapter ‘Writing R documentation files’ in the ‘Writing R
   Extensions’ manual.
```

Install package in development mode

```
dev_mode() # development mode
```

```
## Dev mode: ON
```

```
install.packages(pkgs=file.path(workDir,"npde_3.0.tar.gz"),repos=NULL)
```

```
## Installing package into '/home/eco/R-dev'
## (as 'lib' is unspecified)
```

```
library(npde)
library(ggplot2)
library(gridExtra)
library(mclust)
```

```
## Package 'mclust' version 5.4.6
## Type 'citation("mclust")' for citing this R package in publications.
```

```
library(testthat)
```

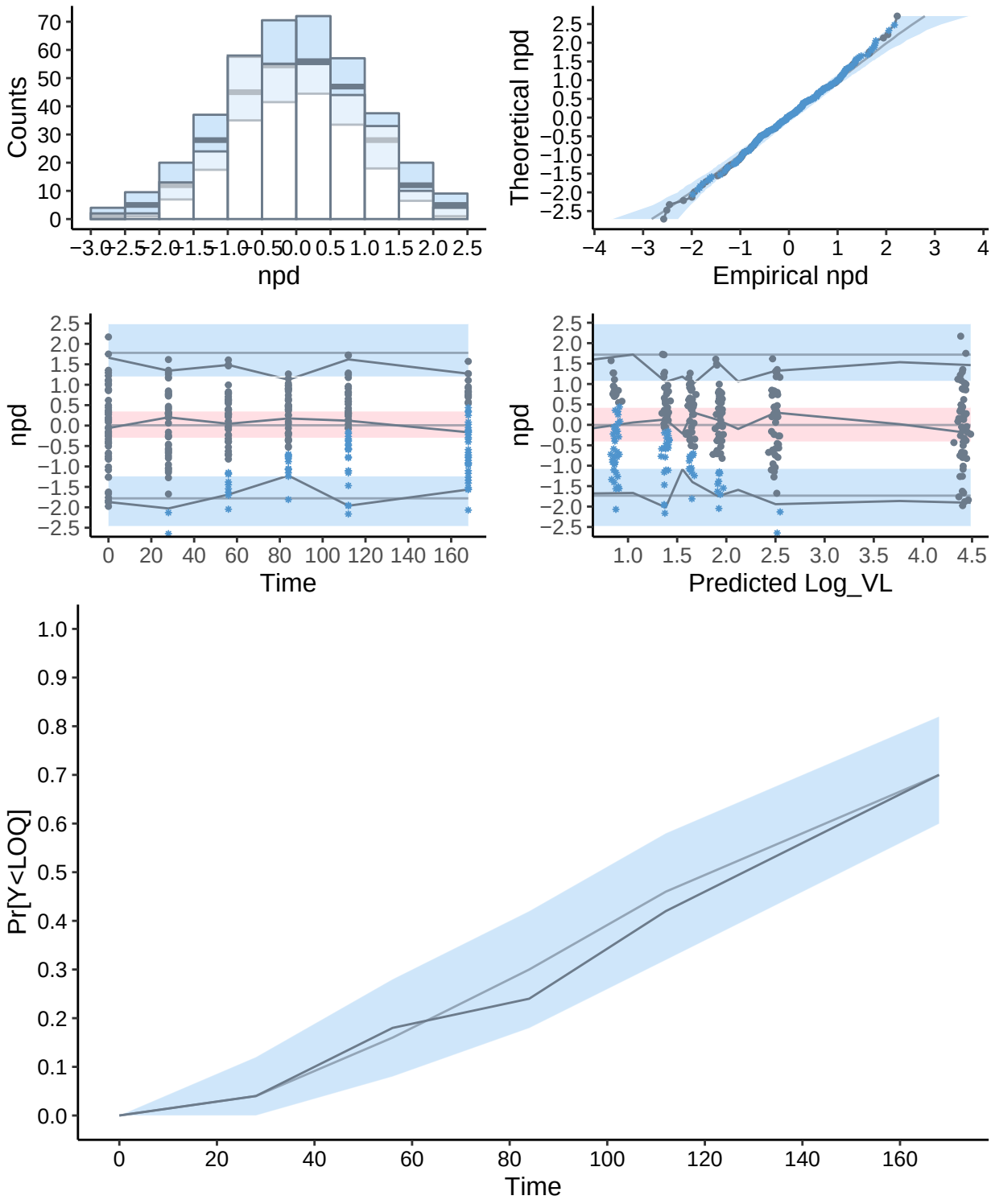
```
##
## Attaching package: 'testthat'
```

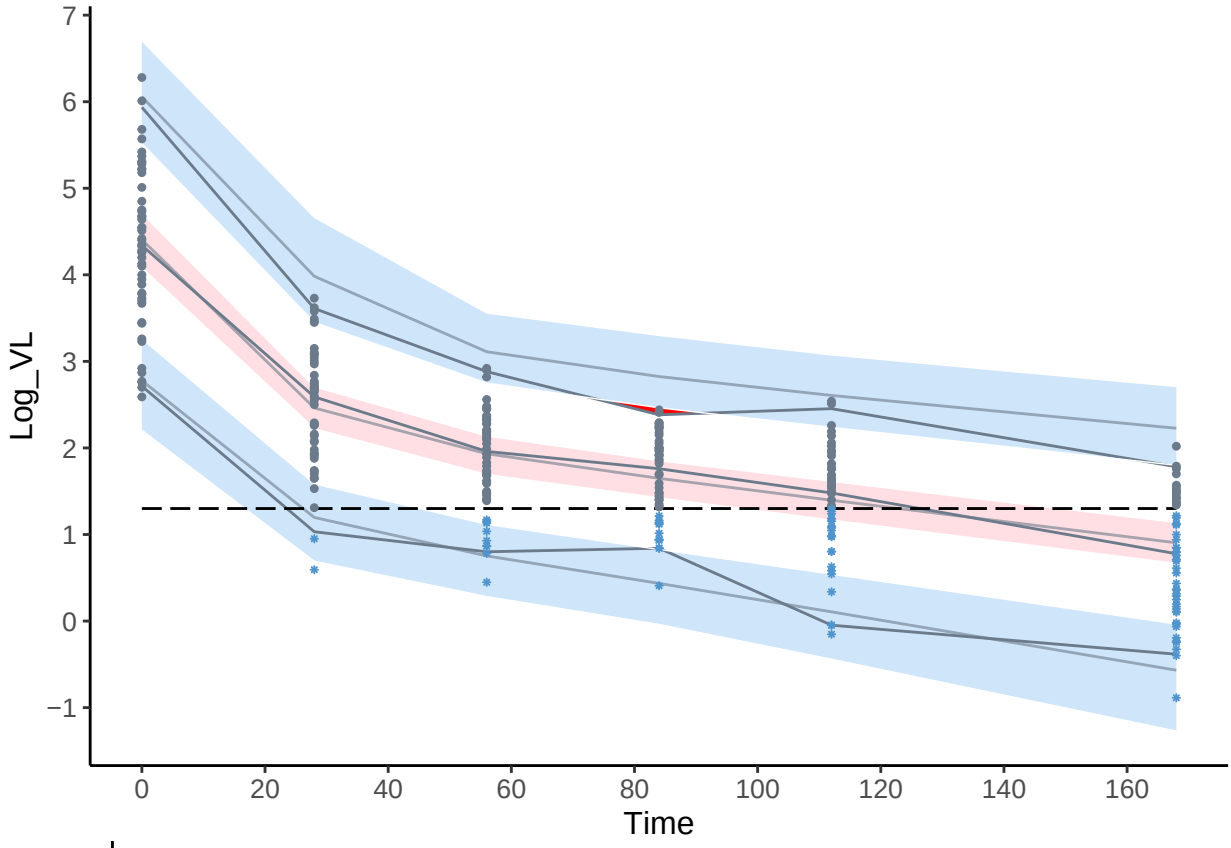
```
## The following object is masked from 'package:devtools':
##
##     test_file
```

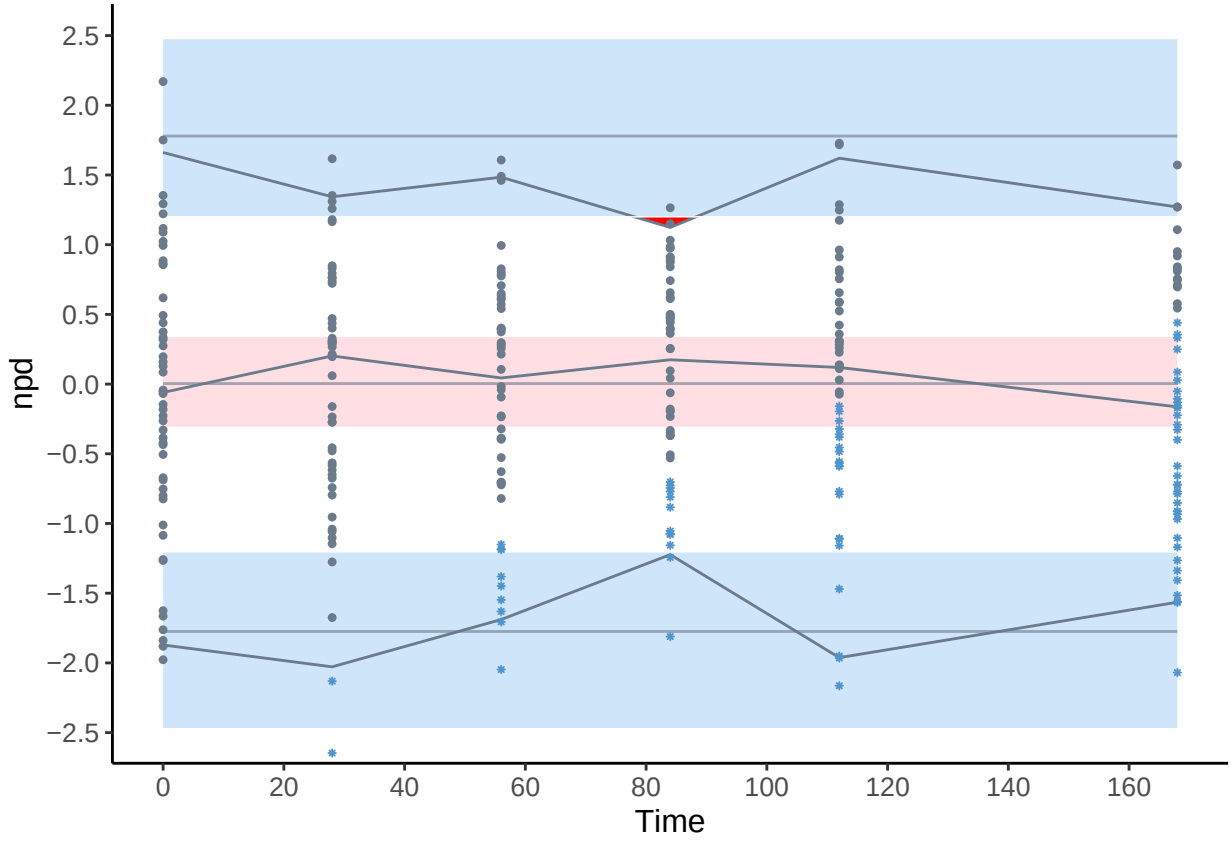
```
library(grid)
```

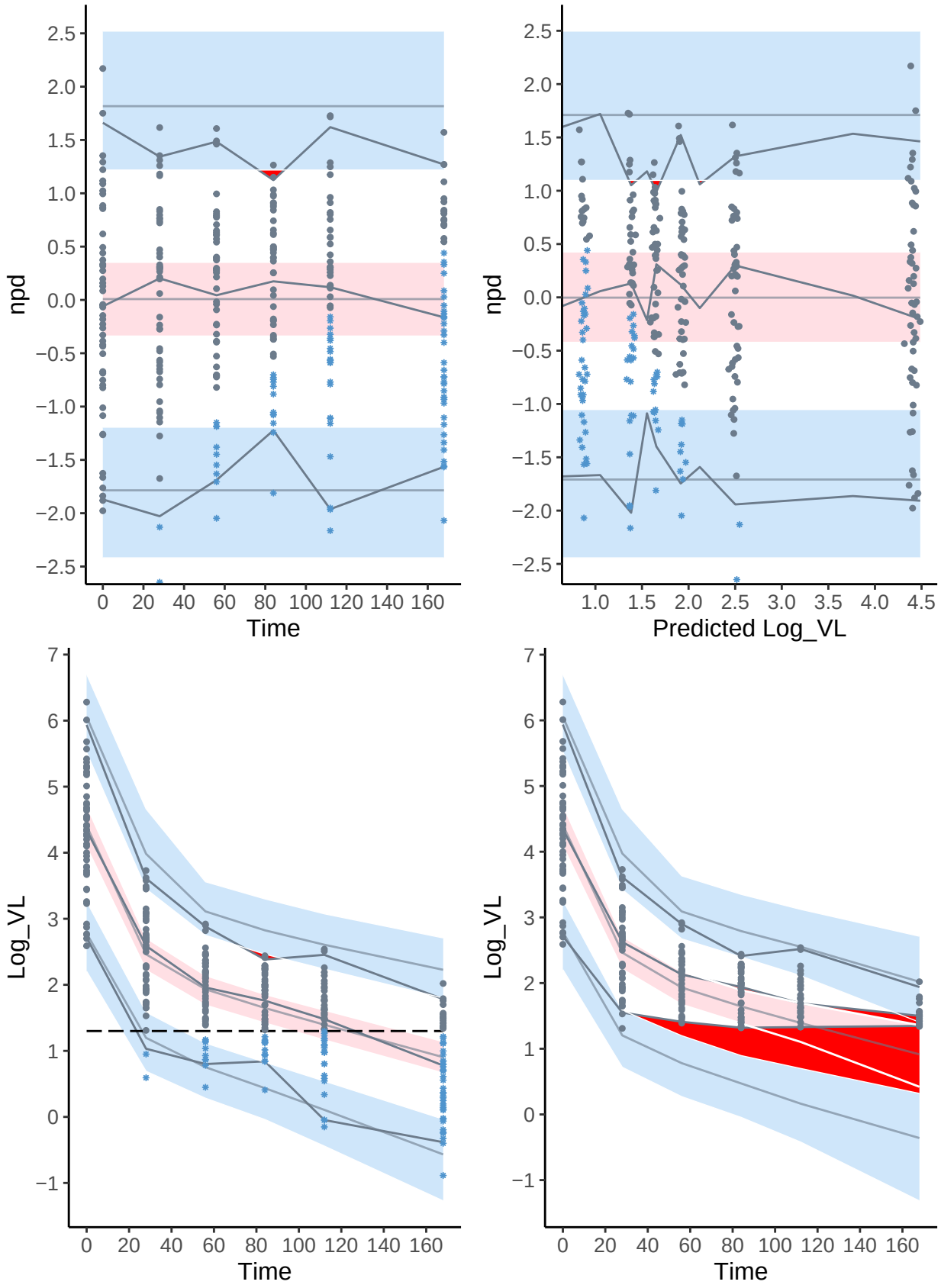
```
## ------------------------------------------
## Distribution of npde :
##       nb of obs: 300
##            mean= -0.02458   (SE= 0.054 )
##        variance= 0.8772   (SE= 0.072 )
##        skewness= -0.05996
##        kurtosis= -0.3034
## ------------------------------------------
## Statistical tests (adjusted p-values):
##   t-test                : 1
##   Fisher variance test  : 0.37
##   SW test of normality  : 1
##   Global test           : 0.37
## ---
## Signif. codes: '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1
## ------------------------------------------
```

```
## ------------------------------------------
## Distribution of npde :
##       nb of obs: 221
##            mean= 0.1017   (SE= 0.062 )
##        variance= 0.8422   (SE= 0.08 )
##        skewness= -0.09416
##        kurtosis= -0.2381
## ------------------------------------------
## Statistical tests (adjusted p-values):
##   t-test                : 0.303
##   Fisher variance test  : 0.257
##   SW test of normality  : 1
##   Global test           : 0.257
## ---
## Signif. codes: '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1
## ------------------------------------------
```


Counts
npd
Theoretical npd
Empirical npd
npd
Time
npd
Predicted Log_VL
Pr[Y<LOQ]
Time


Log_VL
7
6
5
4
3
2
1
0
−1
0
20
40
60
80
100
120
140
160
Time


npd
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−1.0
−1.5
−2.0
−2.5
0
20
40
60
80
100
120
140
160
Time


npd
Time
Predicted Log_VL
Log_VL
Time
Log_VL
Time

Bugs to sort

plot.NpdeRes (dans plotNpde-methods.R)

- **Romain TODO**: la fonction devrait prendre un objet NpdeRes et pas un objet NpdeObject (NpdeRes n'a pas d'element data, c'est juste le slot res d'un element NpdeObject !!!)
  - il faut lui donner des defauts pour xlab, ylab (et la possiblite de passer outre en passant des arguments en ...)
  - normalement il doit y avoir l'equivalent de xobs dans le dataframe res de l'objet
  - pas sure qu'on ait not.miss mais dans ce cas le reconstruire (a tester +++)
  - il n'y a pas de liste plot.opt donc prendre des defauts dans set.default.options()
- faire un testthat pour verifier que cette fonction marche par elle-meme (use testthat for class to generate an object npdeData and plot it)

plot.NpdeData (dans plotNpde-methods.R)

- **Romain TODO**: faire un testthat pour veeifier que la fonction et les options passent (use testthat for class to generate an object npdeData and plot it)