PIRAÑA

The flexible modeling environment for NONMEM

Download at: wwww.pirana-software.com

What is Piraña?

- Complete modeling environment for NONMEM
- Graphical user interface for PsN
- Model manager
- Output manager (plots, run records, etc)
- Interface for clusters (SGE, MOSIX), or stand-alone

Why use Piraña?

- Streamline modeling workflow, intuitive interface.
- Compatible with NM7.2
- Highly customizable, e.g. use custom R scripts
- Runs on Windows, Linux, Mac OSX
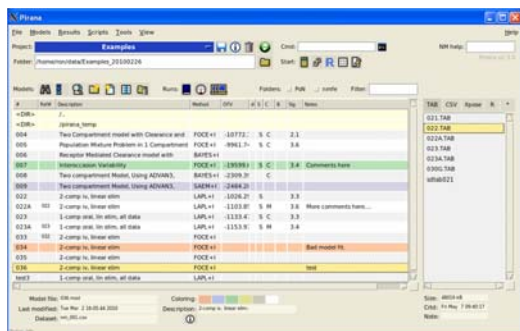
Model management

- **Logbook-like interface** for model management: add descriptions, notes, and coloring to models and results. Choose between condensed / detailed model information, and list / tree views.

- **Create and edit models**: Create new models from templates, duplicate model with updated run- and table numbers and parameter estimates. Delete model files and all associated results and table files.
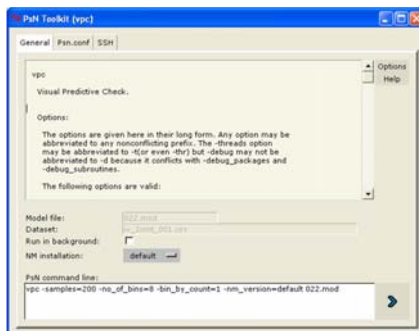
Clusters

- Wizards for creation of configuration files for **parallel computation features** of **NM7.2**.

- **Connect to computer clusters through SSH** Computer clusters running NONMEM can be accessed directly through SSH, both from/to Linux and Windows systems.

- Piraña can be installed on the cluster server, and run by multiple clients through **SSH-X-window tunneling**[1].
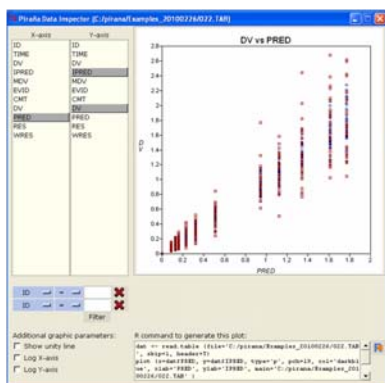
Output management

- Create **HTML / LaTeX run reports**: Quickly create formatted reports, containing model information and estimations results for all estimation methods that were used, including parameter estimates, uncertainty, shrinkage etc. Piraña is compatible with output from NONMEM version 5, 6 and 7

- Extend Piraña with custom **R-scripts** Custom R-scripts can be used conveniently from, e.g. to automate **creation of custom plots / reports**. Multiple useful scripts are already included with Piraña (e.g. Xpose menu)

- **Built-in Data Inspector**: e.g. goodness-of-fit plots, or plots of covariates against individual parameter estimates.

- Convert $DES code to **Berkeley Madonna** or **R-deSolve** code for simulation purposes.
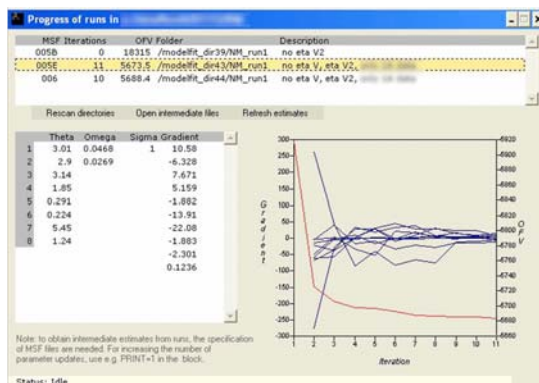
- Compare parameter estimates of multiple runs

Pirana main window, showing model files (left) and data files(right). By right-clicking on a model, actions become available.

PsN dialog window. Shows help / info files. NONMEM version can be chosen. PsN command line is shown, can be altered, and options are saved.

NONMEM / PsN / WFN

- Install **NONMEM 5, 6, or 7** from Piraña, or add existing installation to be used in Piraña. Manage and view SIZES variables for NM6 and NM7 installations.

- Run a selected model in the current folder or in a separate folder. Conveniently choose the desired NONMEM installation from a list.

- Follow NONMEM **run progression**: graphical view of parameters and gradients

- All **PsN toolkit** commands can be started from a dialog window. The NONMEM version used by PsN for the command can be chosen from a list. The actual command line that is used is displayed and can be edited.

- Run models using **Wings for NONMEM**, using NMGO or NMBS

Built-in data inspector. Plot variables in dataset. Customize plot, and create R-code for the plot.

Intermediate results windows. Shows intermediate parameter estimates, and plots of gradients and OFV, for results in current directory and directories below (e.g. PsN).

References

1. van Hasselt et al. PAGE 2010; abstract 1721
2. Keizer *et al*. Comput Meth Programs Biomed (2010)

Piraña documentation and downloads are available from **www.pirana-software.com**. Contact: **info@pirana-software.com**