## Version 4.1, 10 February 2016 (Chlopskie jadlo)

## New features:

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- + Switching between datasets (datasets can be stored using the function pokeDataset for later use, when they can be restored by peekDataset or selectDataset).
- + The datasets stored by the function pokeDataset, as well as those freshly loaded into the system using the functions loadData and accessVar, become components of a list WRCube.
- + WRCube can be cleared using the function purgeDatasets; only the most recent copy of the current dataset survives this operation.
- + figCex, plateCex accept now the value NA (no quotes) that means no plotting of symbols (most useful on spiderplots if only lines are desired).
- + figAddReservoirs checked and reprogrammed; it newly does work for ternary plots, and is Figaro-compatible for binaries, ternaries and spiders. It also includes a lot of new arguments, mainly plotting parameters.
- + new function figOverplot allows overplotting a reference dataset onto Figaro-compatible binary plots, ternary plots, or spiderplots. The reference dataset, stored in an arbitrary global variable, can contain either real-world data or a numeric matrix spanning from petrogenetic modelling.
- + new functions oxide2ppm and ppm2oxide to recast wt.% of the given oxide to ppm of cation (and back)
- + triplot accepts a new parameter cex; triplotadd in addition parameters labs and types.
- + Platform-independent functions tk\_winDialog and tk\_winDialogString written in Tcl/Tk.

## Bug fixes, performance improvements:

- + selectAll was not correctly restoring labels; as a consequence any consequent plots failed.
- $+\ \mbox{selectAll}$  completely rewritten using the dataset switching, i.e. backup copy of data stored in the WRCube.
- + Variables WR.bak, WRanh.bak, milli.bak and labels.bak are not needed anymore.
- + spider.contour was sometimes opening an extra empty plotting window.
- + spiders plotted after any plate rendered the Plot editing menu inactive.

- + All HTML output is now generated in the data directory (data.dir), where all the users should have the writing permission.
- + saveData was failing if there were some completely empty columns present in the dataset.
- + to reservoirs.data were added near complete crustal compositions of Taylor & McLennan (1995).
- + Wedge did not ask for x axis in GUI.
- + OConnorPlut boundaries fixed (made the same as for volcanic rocks) if normative (and not modal) compositions are being used.
- + If adding results with variable names to the dataset, any trailing spaces in the beginning are dropped.
- + Abbreviation of pyrite (Pr) in the Catanorm was changed to Py in order not to be confused with Praseodymium.
- + calcCore does not require global variables anymore, but can use also those from the parental environment.
- + accessVar does not utilize Windows clipboard to transfer data into variables WR and labels anymore.
- + prComp returns results into a namesake variable.