

SoFi history list

fixed bugs and new features

CONSIDERATIONS

The list contains the improvements and fixed bugs per SoFi version. Each version is on a separate page and the changes always refer to the previous version. The history starts with the version 6.5, released mid-2018. The list is not exhaustive, i.e. only major improvements and resolved bugs are listed.

Changes made in 6.8

BUGS

- Result panel (red): modelled fraction points in model subtraction plots are now colored properly.
- Criteria panel (dark blue): multilinear regression option is now working for a single independent variable.
- Criteria panel (dark blue): ratio between two variables of the same factor is now working properly.
- Criteria panel (dark blue): bootstrap option (pink panel) doesn't cause problems on the SoFi Pro key anymore.

IMPROVEMENTS

- Result panel (red): calc. for option "model subtraction" has been boosted and is now ~5 times faster.
- Terms and conditions have been fully revisited

Changes made in 6.7

BUGS

- Unconstrained factors were sorted in the criteria panel if the user highlighted them. But the positions were not passed to the result panel.
- Interquartile range was too small (erroneous normalization) for the relative fraction.
- Criteria panel: score representation wasn't properly visualized when sorted for non-rolling PMF runs
- Profile plot: when using txt symbols for the variables error message 'out of range' popped
- Bootstrap analysis in criteria panel was not working for criteria involving cycles and profiles

IMPROVEMENTS

- Result panel (red): user chooses on which axis (left, right or new left, new right) to plot traces.
- Result panel (red): plot from overview or fraction result tab can be loaded into the standard plot tab, e.g. when external traces should be added to factor traces
- PMF settings panel: user chooses the normalization equations during PMF (default is disabled, over the profiles, over the time series)
- Result panel (red): the residual tab contains full residual (res., abs res., scaled res., abs. scaled res., Q) matrix. The thresholds for the color-code are slider-controlled and allow for a dynamic inspection of the matrix.
- Result panel (red): the avg. solution tab allows under the t-profile tab to pop averaged factor profiles over user-defined temporal regions. The same tab performs a one-way ANOVA test on the time-dependent factor profiles. The test analyses the probability that all profiles are drawn from the same distribution
- all SoFi graphs: SoFi-related marquee tool is now windows-specific
- Result panel (red): user selects which result graphs should remain open
- External panel (yellow), Criteria-panel (blue) and Result panel (red): resolutions: weekly, monthly and yearly have been added

Changes made in 6.6

BUGS

- fraction plot over time produced an error message
- blacklist panel had all years pre-checked and caused some trouble and was responsible for year-related error messages, as all years were blacklisted by default
- Bootstrap runs were not compatible with PMF input containing classes

IMPROVEMENTS

- fast averaging over PMF results allows now to treat up to 5000 PMF/ACSM runs of ~2 month length each (previously it was around 1000 PMF runs). This corresponds to ~100'000 cells for the input data matrix.
- for highly constrained PMF runs the normalization during the PMF iteration was responsible for non-convergent results. Default in SoFi is now to have un-normalized PMF runs. The user can enable the normalization equations anytime in SoFi (consult the manual).
- criteria panel has independent mean and median results for the cycle plots
- criteria panel shows p-values also for the criterion "multilinear regression"

Changes made in 6.5

BUGS

- median values for plots were nan when values were zero. Zero is now passed
- scatter plot for single variables contained a bug when data was blacklisted first in rolling windows run the hdf file h.5 was empty, due to an erroneous stringmatch
- HR plot: elemental ratios were missing
- a value constraints panel: external wave as template was not working
- a value constraints panel: constraints of single variables was off, when variables were blacklisted
- first part of criteria-based approach in SoFi Pro revised
- avg over wind data is present in SoFi and operational when averaging and the wavename of the wind direction wave contains 'wind_dir'

IMPROVEMENTS

- criteria-based panel revised (consult the manual)
- normalization over the profiles during the iteration can enabled/disabled