BESA Statistics
New Features and Bugfixes

BESA Statistics 2.0 July 2015

New features

- Cluster permutation testing now extended to Analysis of Variance or Covariance (ANOVA / ANCOVA) and Correlation.

- Post-Hoc testing based on cluster permutation Scheffe's test.

- TF-mapping: clusters in the sensor-space time-frequency domain can now be visualized with topographic maps

- OpenMP support results in massive improvement in calculation times due to use of parallel computing

Data Readers

- Data reader for BESA's generic file format (ERP / ERF)

- Data reader for BrainVision Analyzer 2 data format for time and time-frequency data

Miscellaneous

- In TFC-ERF (MEG) data, averaging over channels now works as expected.

- Scaling issues in Image data showing (de-)synchronization were fixed.

BESA Statistics 1.0 February 2014

64 bit

- BESA Statistics is now also available as a 64 bit version. This should prevent memory issues stemming from the 32 bit restriction when running statistics on larger datasets. Please check if your Windows system supports 64 bit.

Exporting options

- Pressing Export / Statistical Results / Summary of Cluster Statistics for ERP/ERF or TFC data now additionally outputs the channel labels belonging to a cluster.

Data Readers

- Minor bugfixes related to re-referenced EEG data. BESA Statistics now accepts channel labels of all kinds of re-referenced EEG data.

Scaling

- Fixed display bug with time frequency scale bar in the detail window. The scale bar now changes when rescaling.

BESA Statistics 1.0 July 2012

Exporting options

1. Images of all data windows can now be exported as vector graphics (eps) or bitmap-based images (png).

2. Statistical results (only cluster permutation statistics) can be exported as comma-separated text-files. The summary export will output group means per cluster, as well as cluster boundaries and significance levels. The detailed export will output mean values per person and cluster for further statistical analysis.

BESA Statistics 1.0 May 2012

Data readers

1. The TFC SWF data reader for now supports all exporting options from BESA Research ("all traces", "radial orientation", "first orientation" and "all traces").

2. SWF data that were exported in columns can now be read.

3. Data readers are no longer case-sensitive, so that deviations in electrode label naming no longer cause problems.

4. The TFC ERP data reader now correctly interprets labels of re-referenced EEG data.

5. The TFC SWF reader now automatically detects if data stem from source coherence analysis and accepts that the source position file (*.bsa) contains one more source (the reference source) than the individual coherence files.

6. The data readers can now handle one or more empty lines in ascii files.

7. Project names can now contain full stops.

8. If a user attempts to load minimum norm data that were calculated on a cortical surface, BESA Statistics now displays an error message explaining that cortical solutions are not yet supported.

Scaling

1. Scaling in the TFC workflow is now improved.

2. Full scaling of SWF and Image data is now possible.

Miscellaneous

1. When saving extremely large datasets, BESA Statistics no longer crashes but displays the error message "memory allocation error".

2. Neighborhood distance values can now contain two digits after the comma for more precision.