

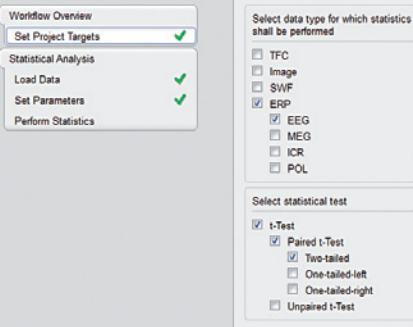


## **BESA Statistics**

**CE-certified software for cross-subject  
statistics of EEG / MEG data**

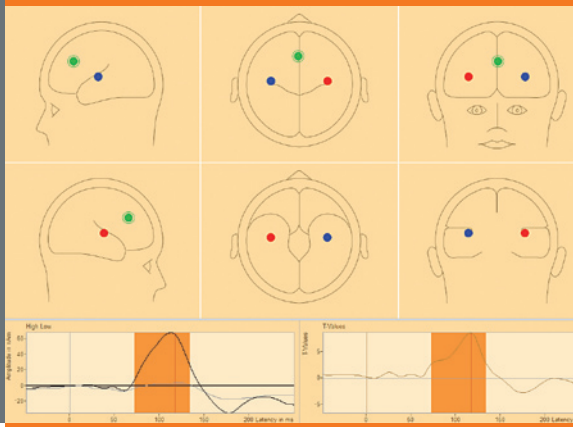


## Intuitive Workflow



Optimized for data type

## Preliminary Statistics



For defining regions of interest

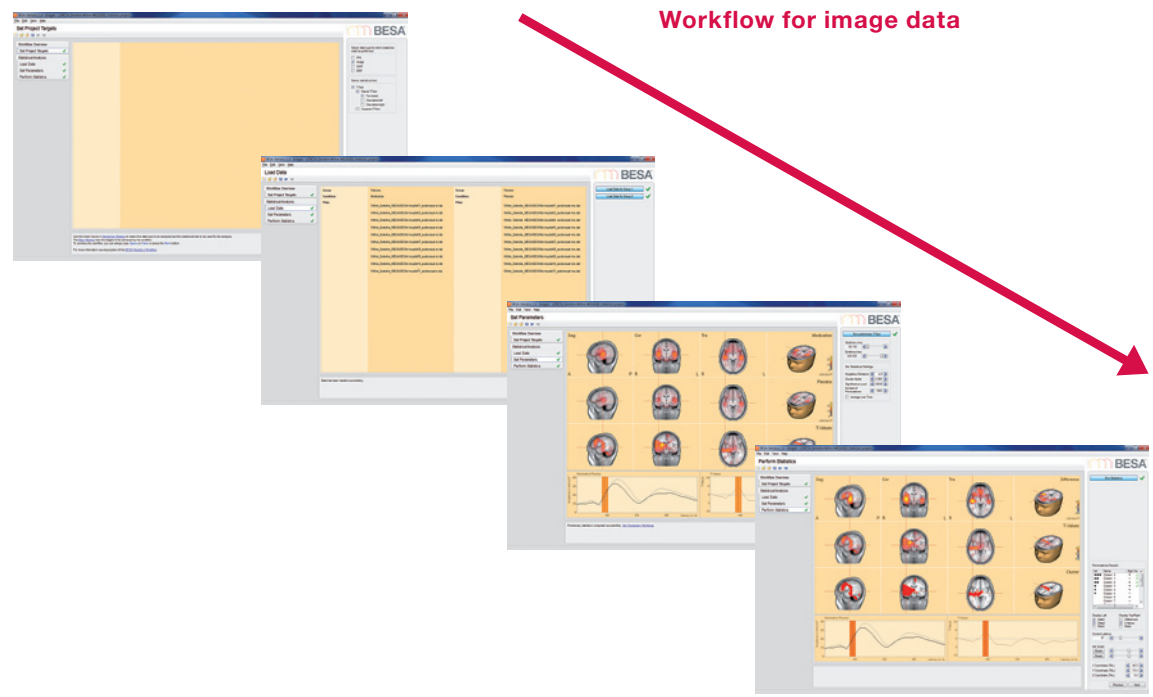
## Data Input

- Event-related potentials / fields (ERP/F)
- Image data, e.g. LORETA, beamforming
- Time-frequency data, e.g. temporal-spectral evolution, coherence, inter-trial phase-locking
- Source waveforms

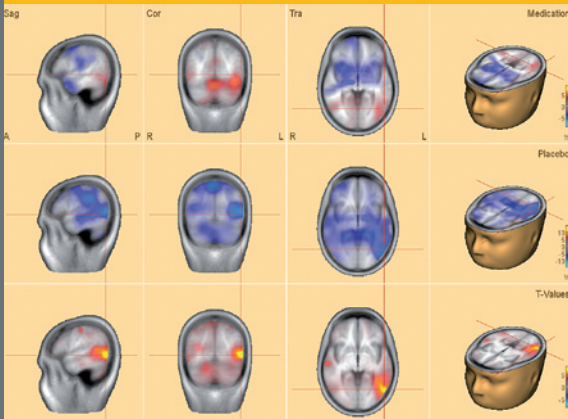
## Preliminary Statistics

- Two groups (e.g. patients, controls) or conditions within the same group of subjects (e.g. time 1, time 2) can be compared
- Paired or unpaired Student's T-tests are calculated and visualized
- Based on these preliminary T-tests regions of interest can be defined that are passed on to permutation testing

## Workflow for image data

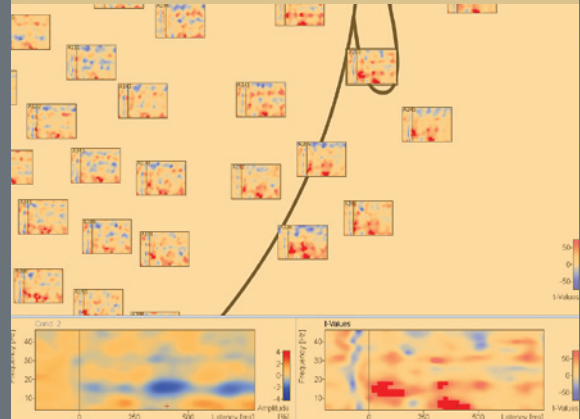


## Cross-Subject Statistics based on Permutation Tests



Significant clusters in time, space and frequency are determined

## Visualization of Significant Data Clusters



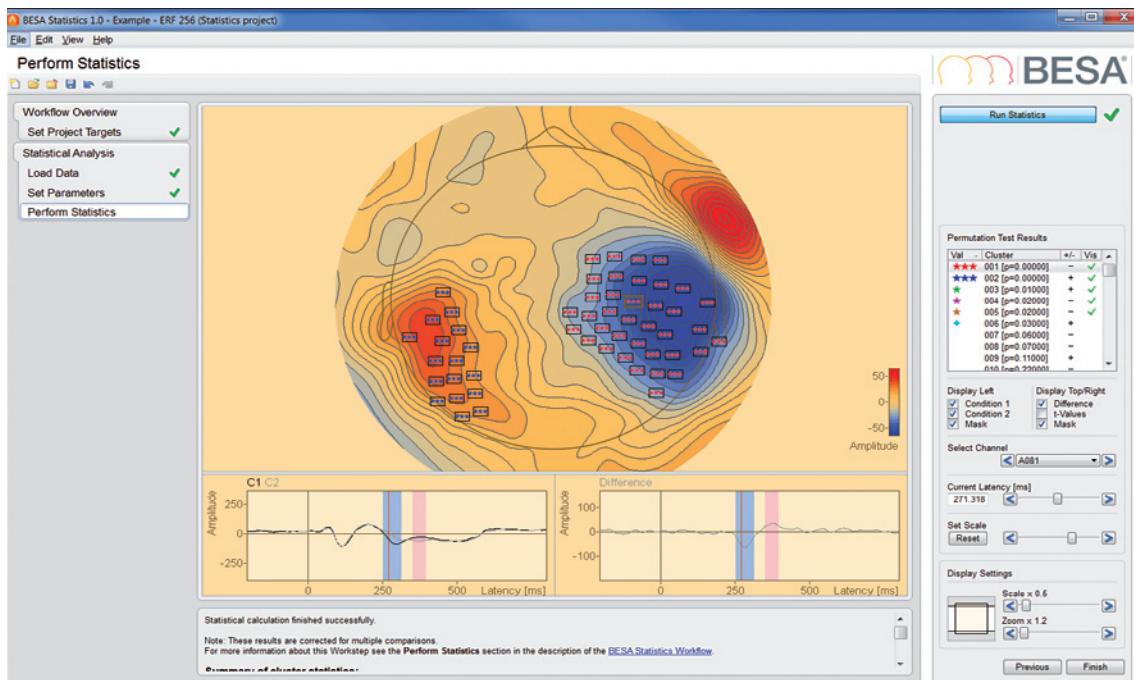
Suitable for publications

## Cluster Permutation Statistics

- BESA® Statistics will determine significant clusters in time and if applicable space and frequency that show robust differences between groups / conditions
- Clusters will be probed for significance by permutation testing
- Significant data clusters are visualized in categories (highly significant, significant, trend)
- Results are corrected for multiple comparisons

## Exporting Data

- Statistical values can be directly used in scientific reports without further analysis
- NEW** - All statistical results can be exported
- NEW** - Detailed cluster information per person can be exported
- NEW** - All images can be saved as vector graphics (eps)



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The CE marking certifies that this product fulfills the basic requirements of the Medical Devices Directive MDD 93/42/EEC. The number represents the identification number of the Notified Body which carried out testing and certification.

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