

B-Alert[®]Lab

B-Alert Lab

B-Alert Lab is a highly flexible and comprehensive suite of analysis tools. With a look and feel recognizable to anyone with MatLab experience, the easy-to-use scripting interface and GUI provides efficient means for assessing techniques across all three main categories of EEG analyses: Epoch by Epoch, Event Locked and LORETA. The software supports multi-file batch processing and analysis of 3rd party EDF-formatted files.

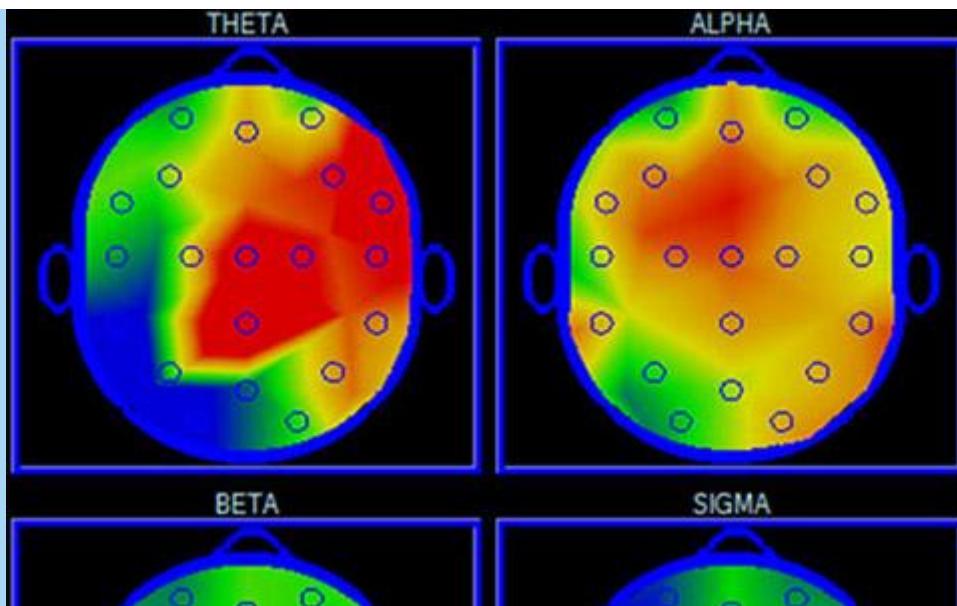
Upgrading to B-Alert Lab additionally provides all of the **B-Alert Live Software** features.

[Inquire here](#) for more information and pricing on the B-Alert software and systems.

Key Features

- Custom scripting interface
- Library of Analysis Commands Developed by ABM Research Team
- Multi-File Batch Processing
- Advanced Event Related Analyses
- LORETA Brain Imaging

B-Alert Lab Offers Three Distinct EEG Analysis Approaches



Epoch by Epoch Over Time

Epoch lengths ranging from 0.5 sec to several minutes

Power Spectral Densities

- 1-40 Hz, Relative or Absolute
- Custom bins or bands

Traditional Bands

- Delta (1-3)
- Theta (3-7)
- Alpha (8-13)
- Beta (13-30)
- Gamma (25-40)

Wavelets

- Topographic Mapping frontal, central, parietal, left, midline, right

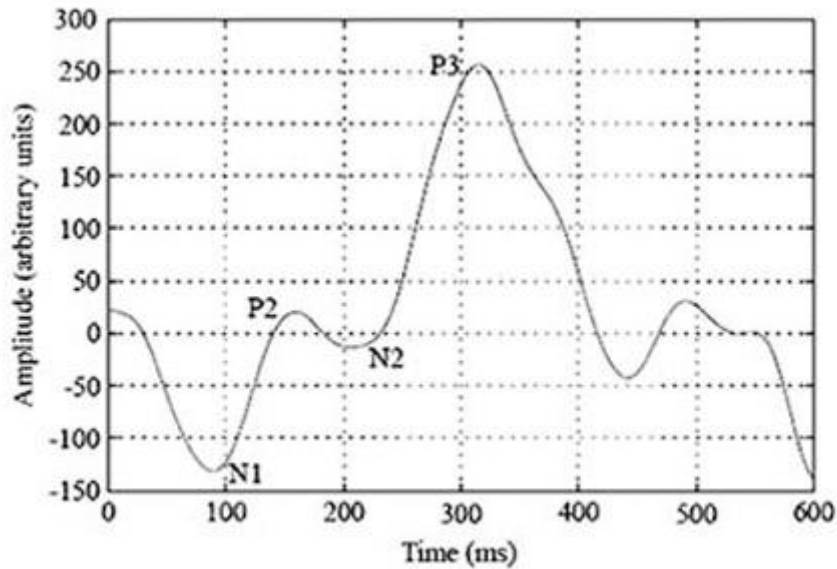
B-Alert Engagement Metrics*

B-Alert Cognitive Workload Metric*

Heart Rate, HRV

- Sympathetic/Parasympathetic Balance

**Metrics require one-time benchmark session for individualization.*



Event Locked

Events can be external stimuli, responses, or biological

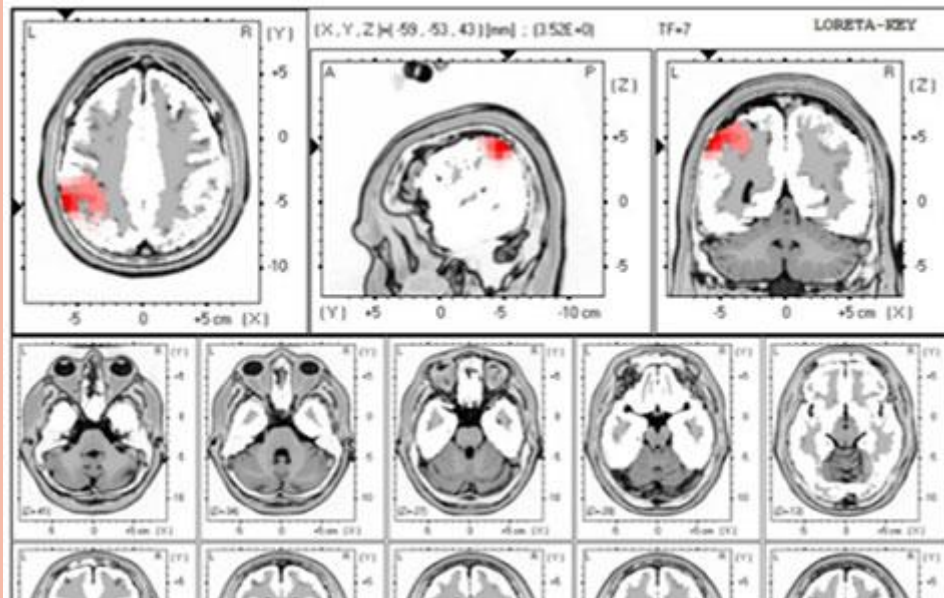
Pre- and Post-Event Analyses

ERPs

- Averaged over trials
- Averaged over sites for single-trial ERPs
- Enables regional comparisons
- Measurement tools for amplitude latency area-under-the-curve

PERPs (PSDs)

- ERD / ERS
- Event related B-Alert Metrics



LORETA/sLoreta

Resting State Brain Connectivity Analyses & Imaging

- EEG Coherence & phase-related analyses
- Compute amplitude asymmetry
- Real-time 3-Dimensional source & network dynamics
- Brodmann Areas: source correlations, coherence, and phase differences
- Adaptive neurofeedback: Z-Score and LORETA Z-Score

**Requires Installation of NeuroGuide*

[Learn more about NeuroGuide Integration](#)