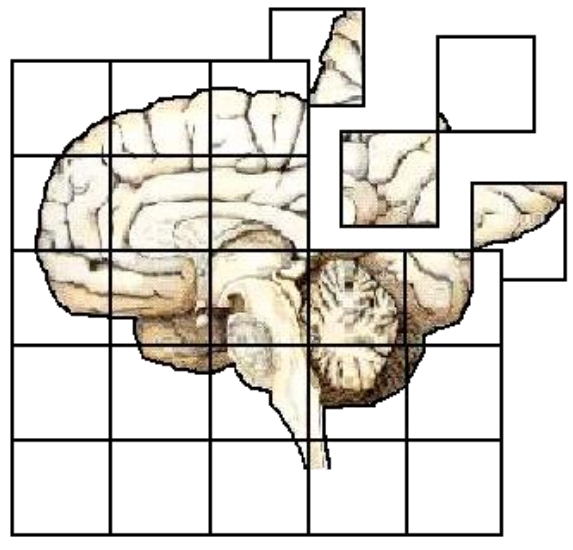


CHAP: An Open Source Software for Processing and Analyzing Pupillometry Data



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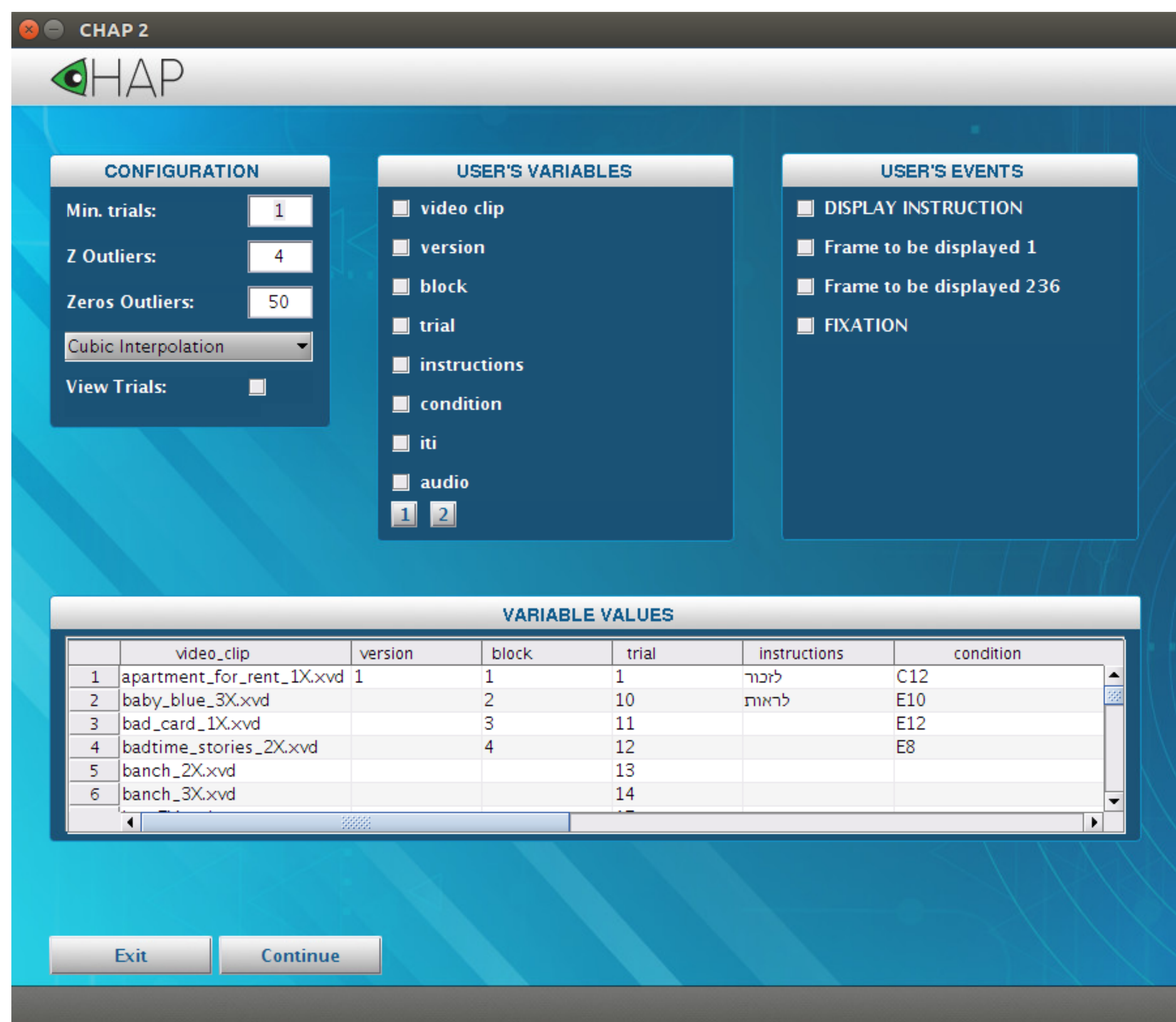
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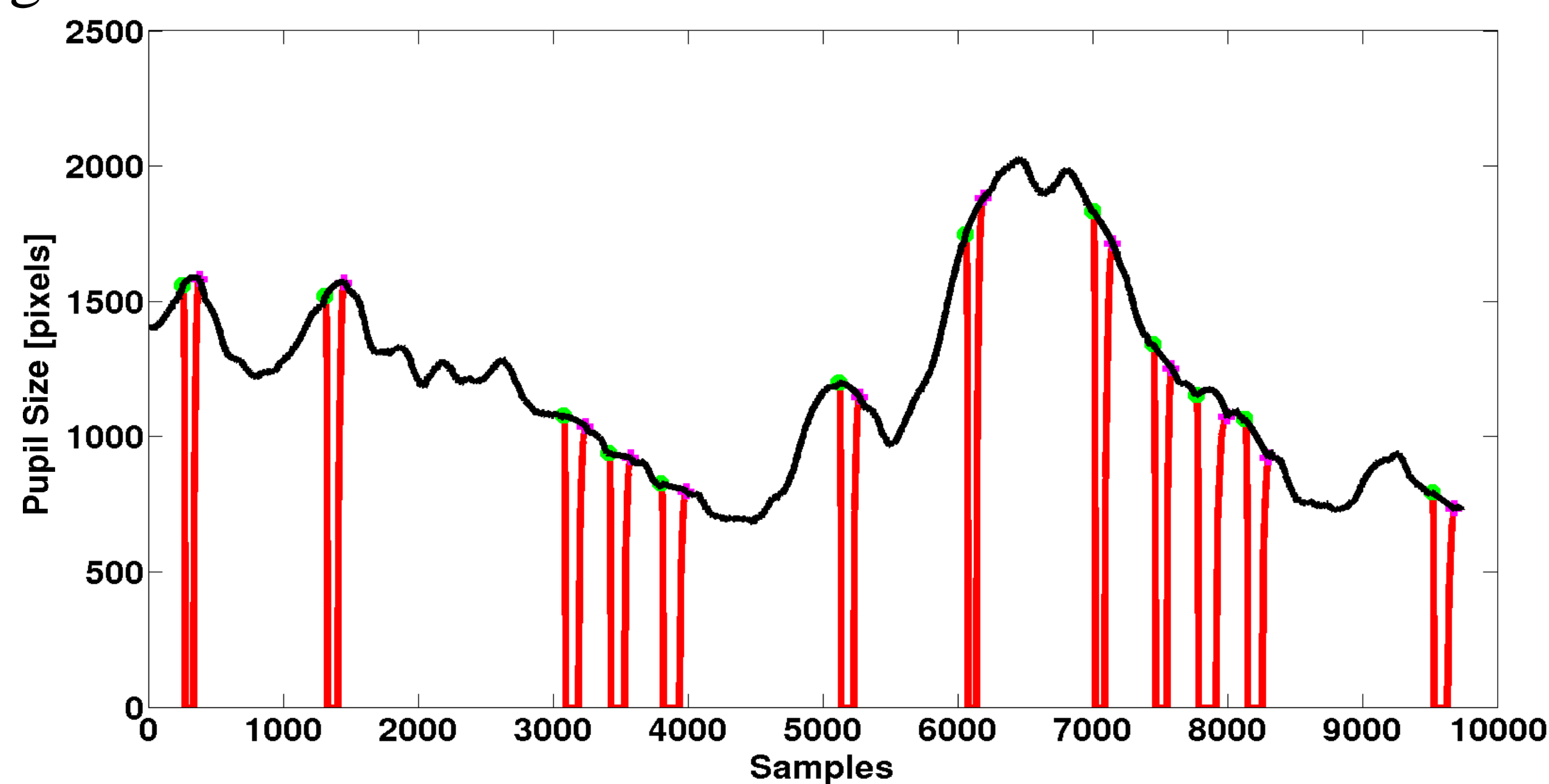
מרכז זלוטובסקי למדעי העצב
Zlotowski Center for Neuroscience

Variables & Events



Data Processing

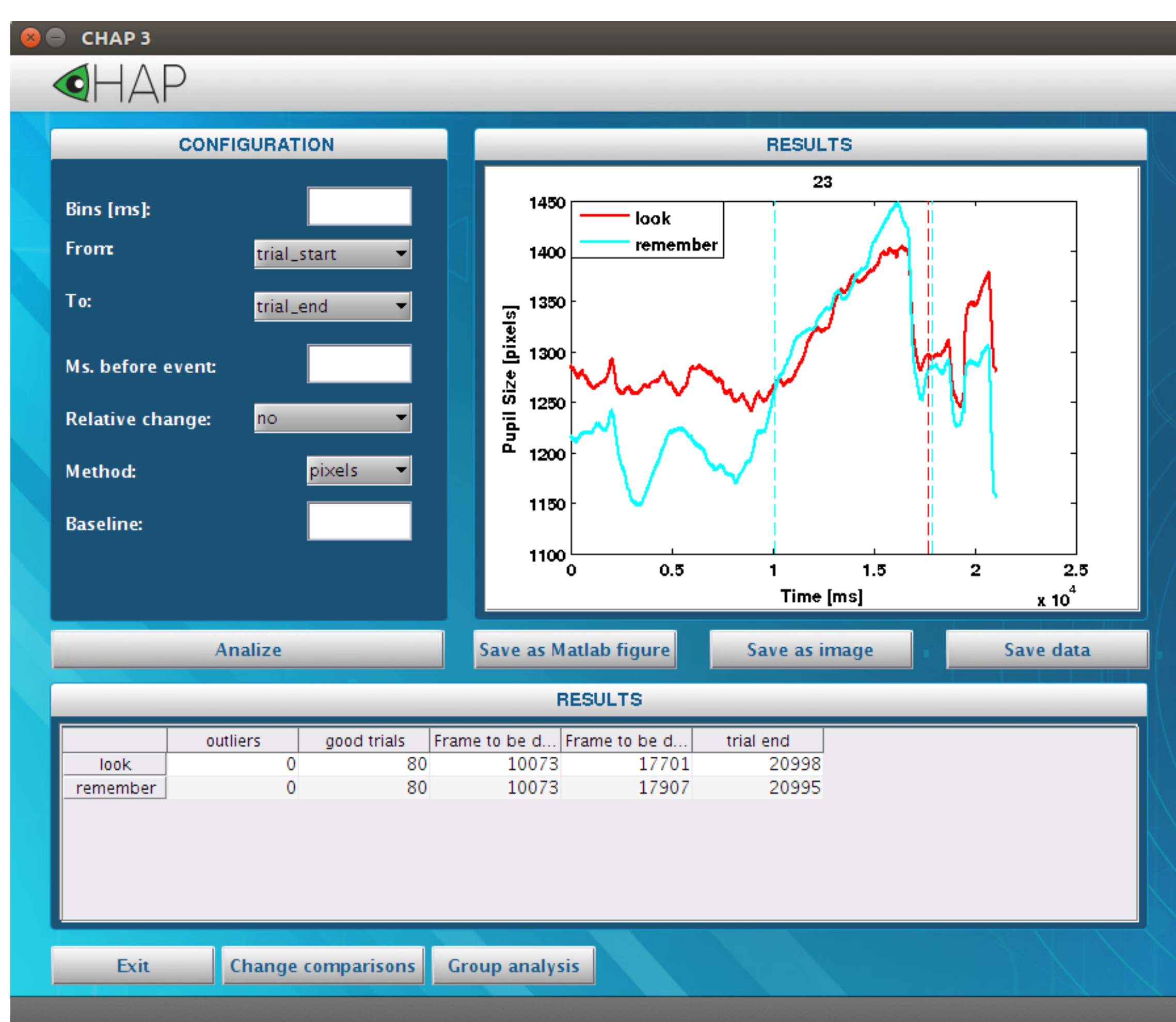
- Reconstruction of pupil size during eye blinks using a unique algorithm.



- Removal of outlier samples based on user-defined Z score.
- Removal of outlier trials based on user-defined percent of missing samples.
- Removal of outlier subjects based on user-defined number of missing trials.

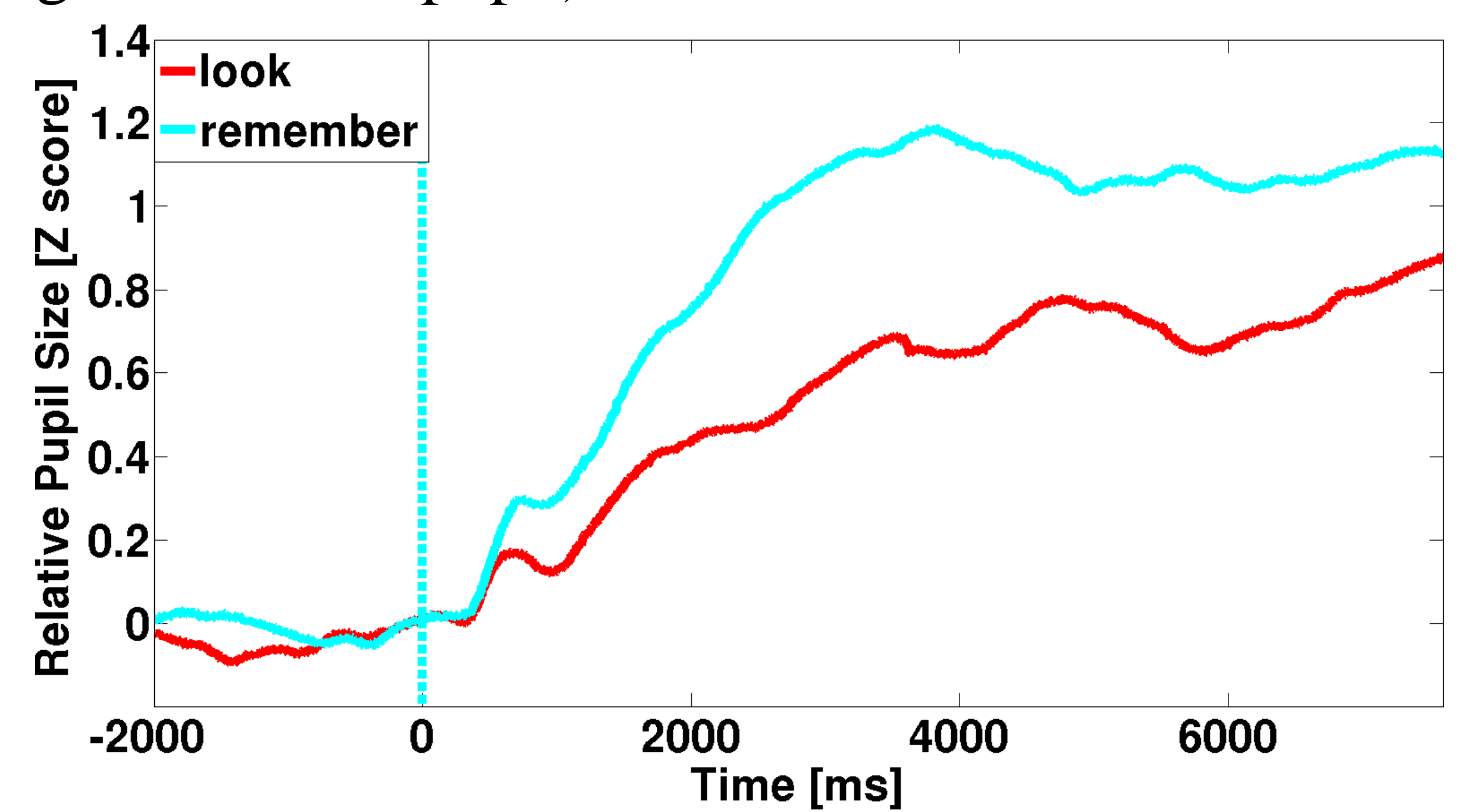


Time-Course Visualization



Advanced Processing Options

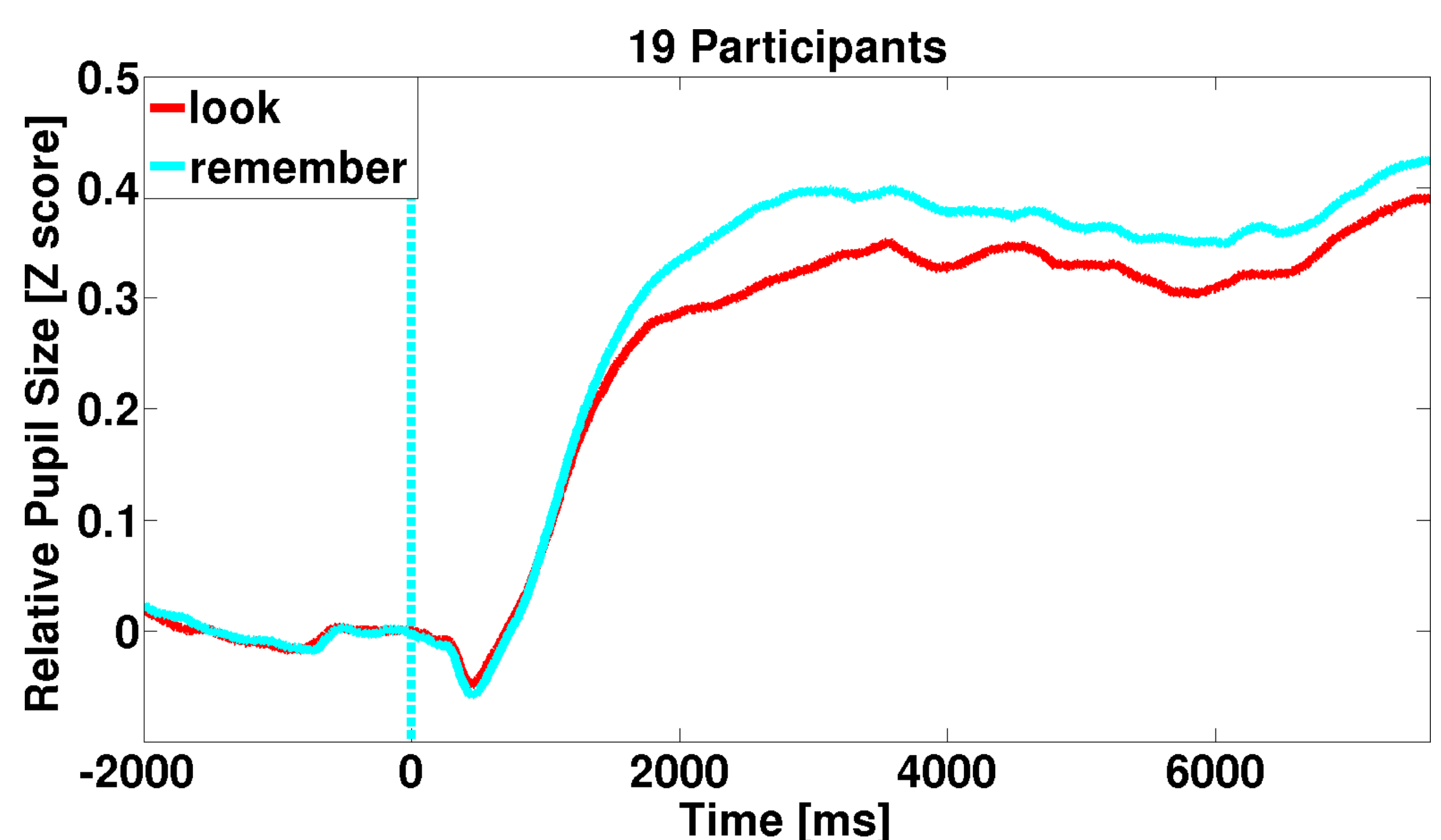
- Bins:** Averaging of X (user-defined) adjacent samples.
- Range:** The user can select a specific time-window (from one event to another) for visualization analyses purposes.
- Pre-event:** The user can add pre-event samples to the time-course for visualization analyses purposes.
- Relative Changes:** The user can present the data by relative range. The baseline is an average of a chosen window prior to the onset of the first event.
- Converting to Z Scores / mm:** The user can easily convert pixel data to Z scores (by using the entire time course) or mm (by recording an artificial pupil).



Output

1. CSV / Matlab file that contains all the data about the relevant variables and events for each participant.
2. Matlab figure with the graphs of average data for each participant.
3. PNG image of the graphs of the average data for each participant.

In addition, our software has an option to run the same figureation for multiple input files (e.g., different participants). The software will create Matlab and CSV files for all input files.



For More Information



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<http://in.bgu.ac.il/en/Labs/CNL/chap>