

Tools for Multimodal Data Collection and Analysis

~MoBILAB~

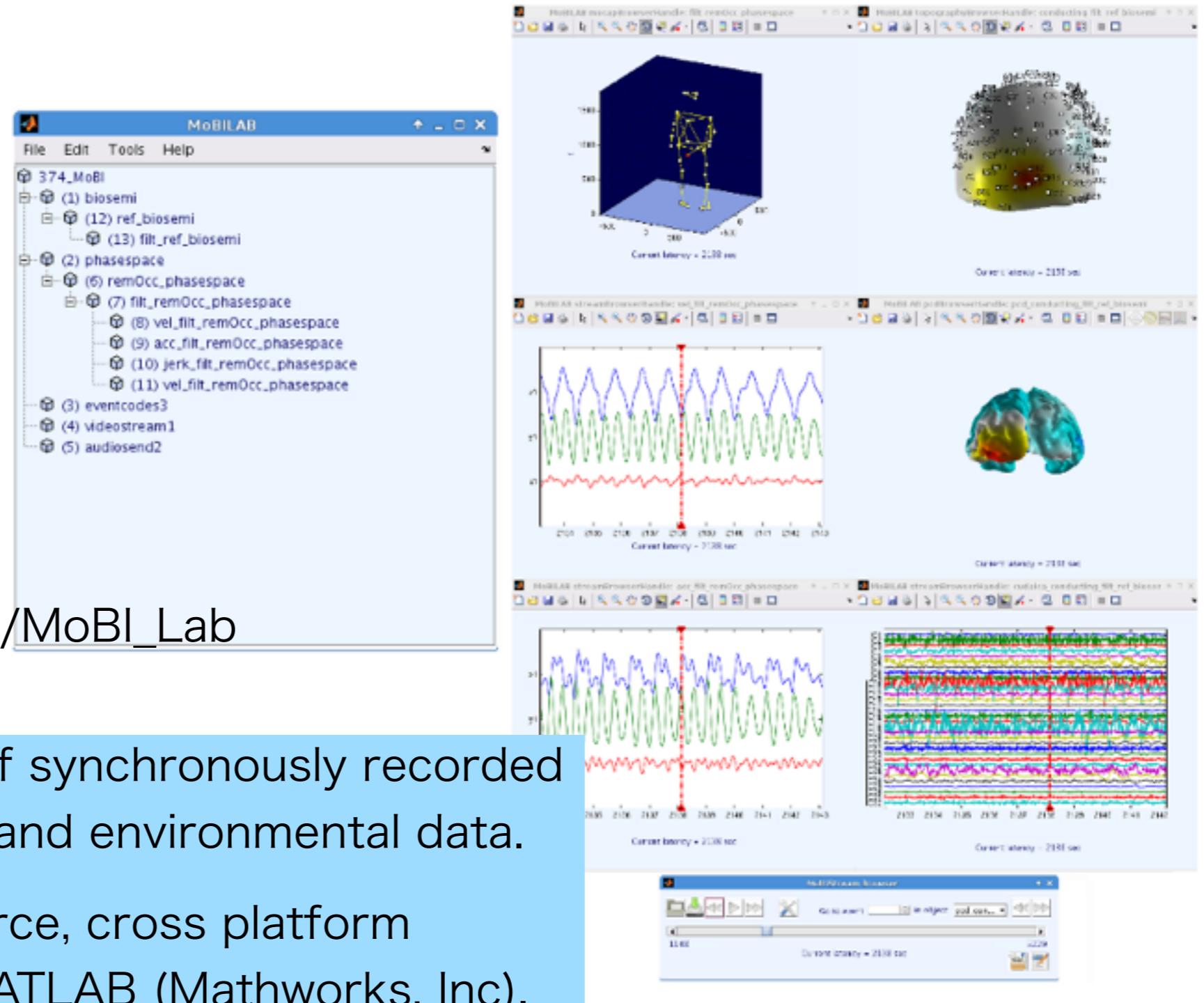
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MoBILAB



Alejandro Ojeda

https://sccn.ucsd.edu/wiki/MoBI_Lab



- Supports visualization of synchronously recorded brain, body, behavioral, and environmental data.
- A standalone, open source, cross platform toolbox operating on MATLAB (Mathworks, Inc).

Juggling Experiment



Data recording by LSL

- EEG (Biosemi 205 ch)
- Mocap (Phasespace 13 ch)
- Video (PointGrey 60fps)
- Audio (microphone 8000 hz)

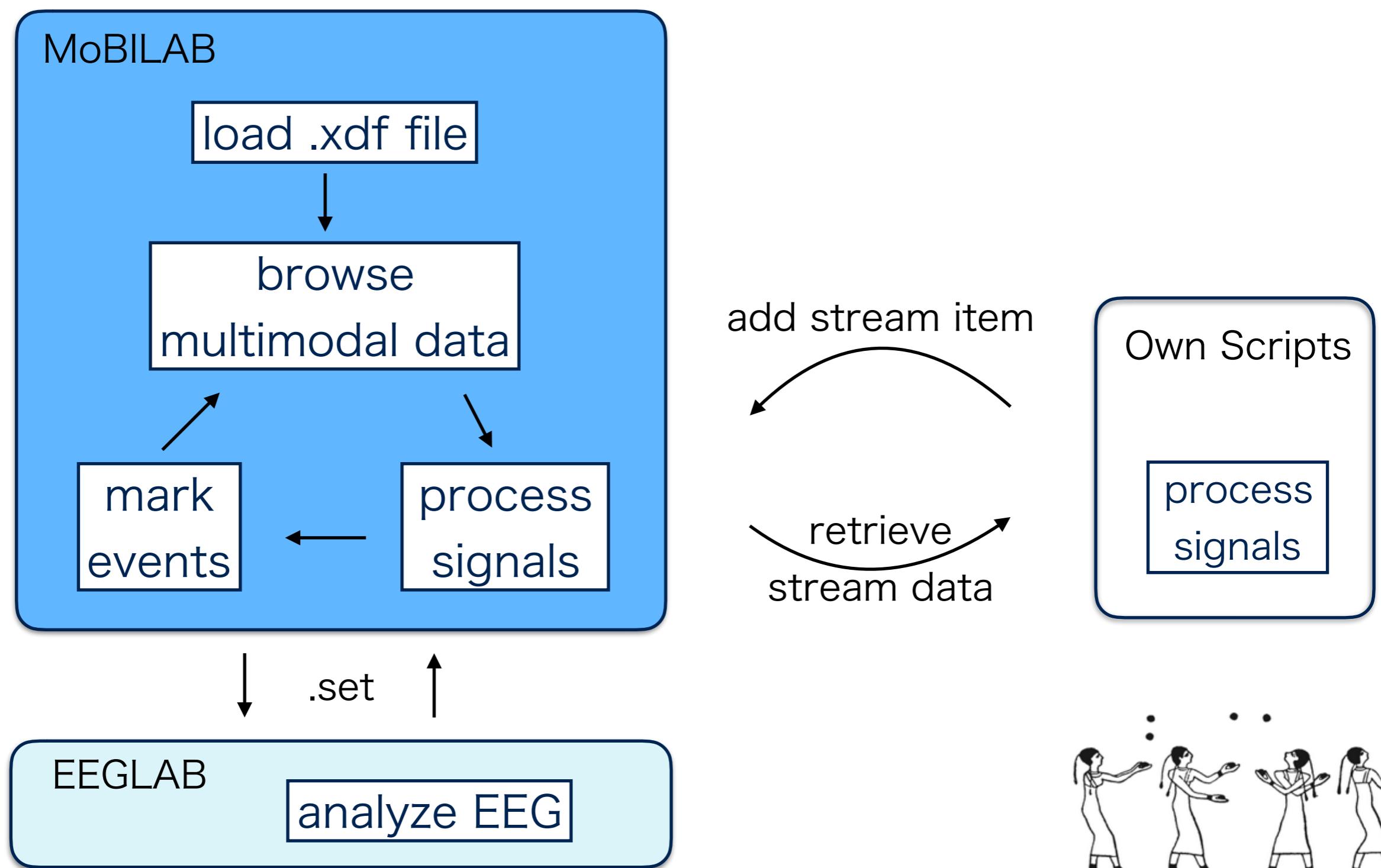


MoBI Analysis Outline

- load recording data (.xdf file)
- browse synchronized multimodal data
- process signals
- mark events
- analyze EEG

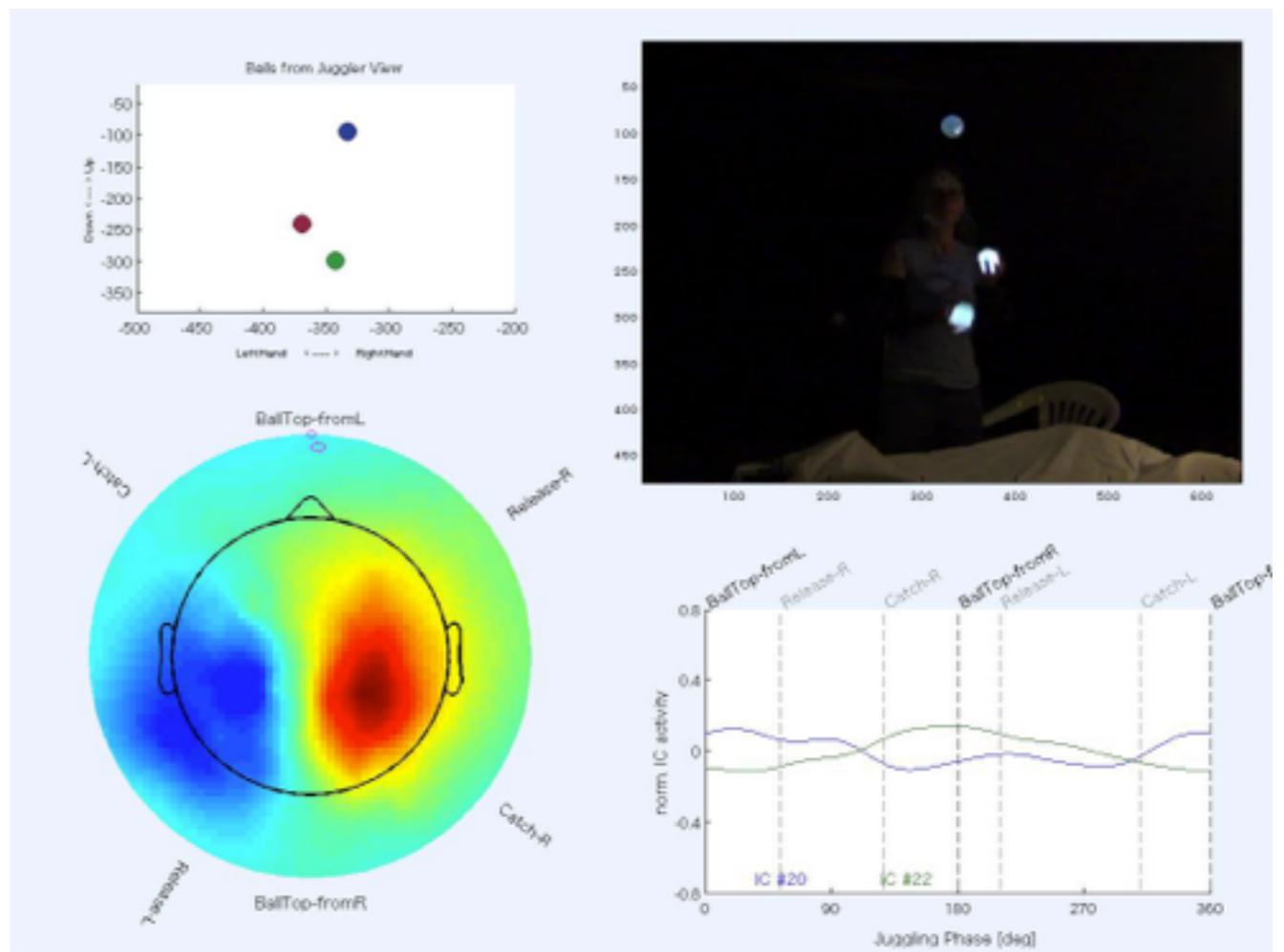


MoBI Analysis Flow



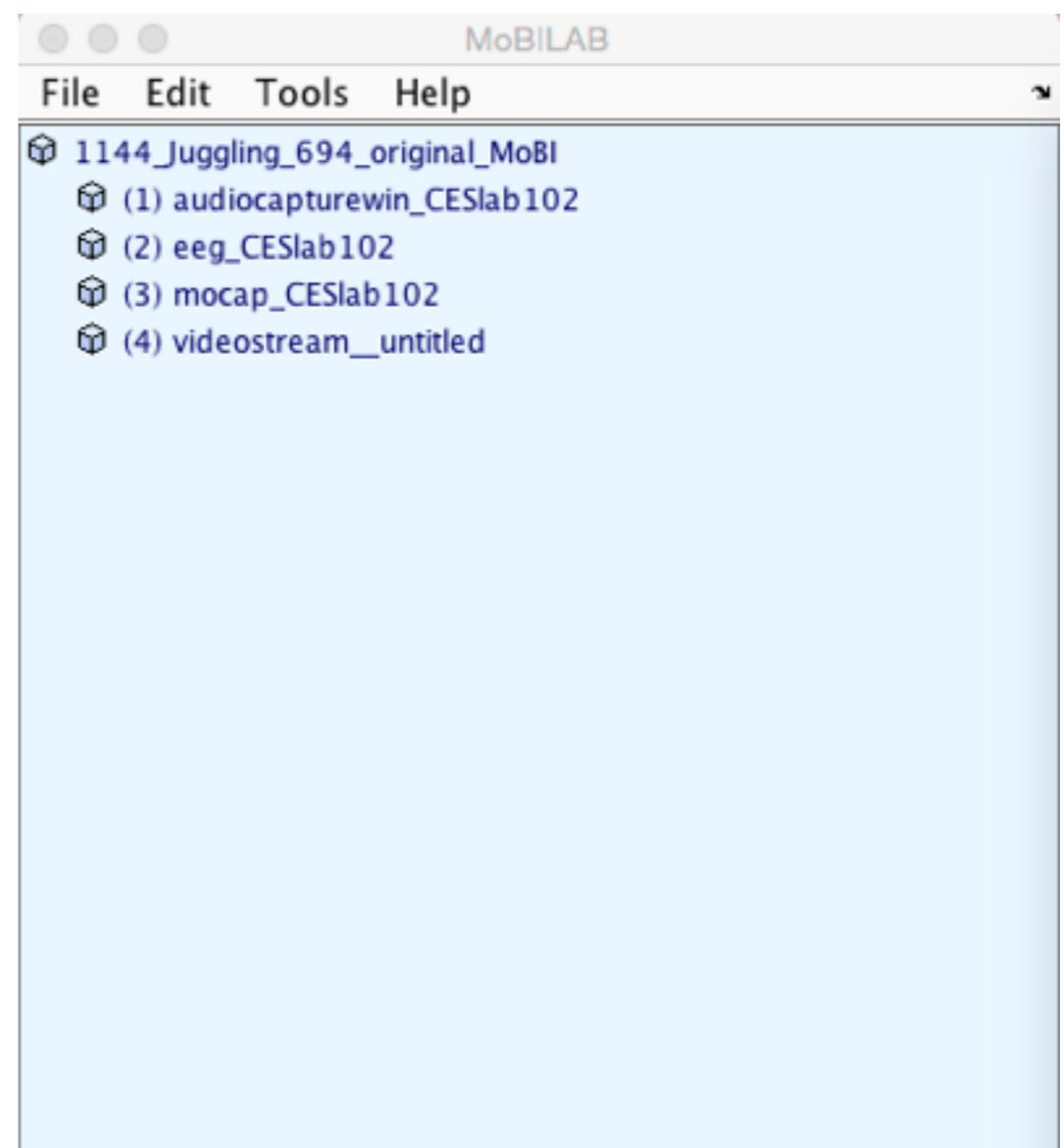
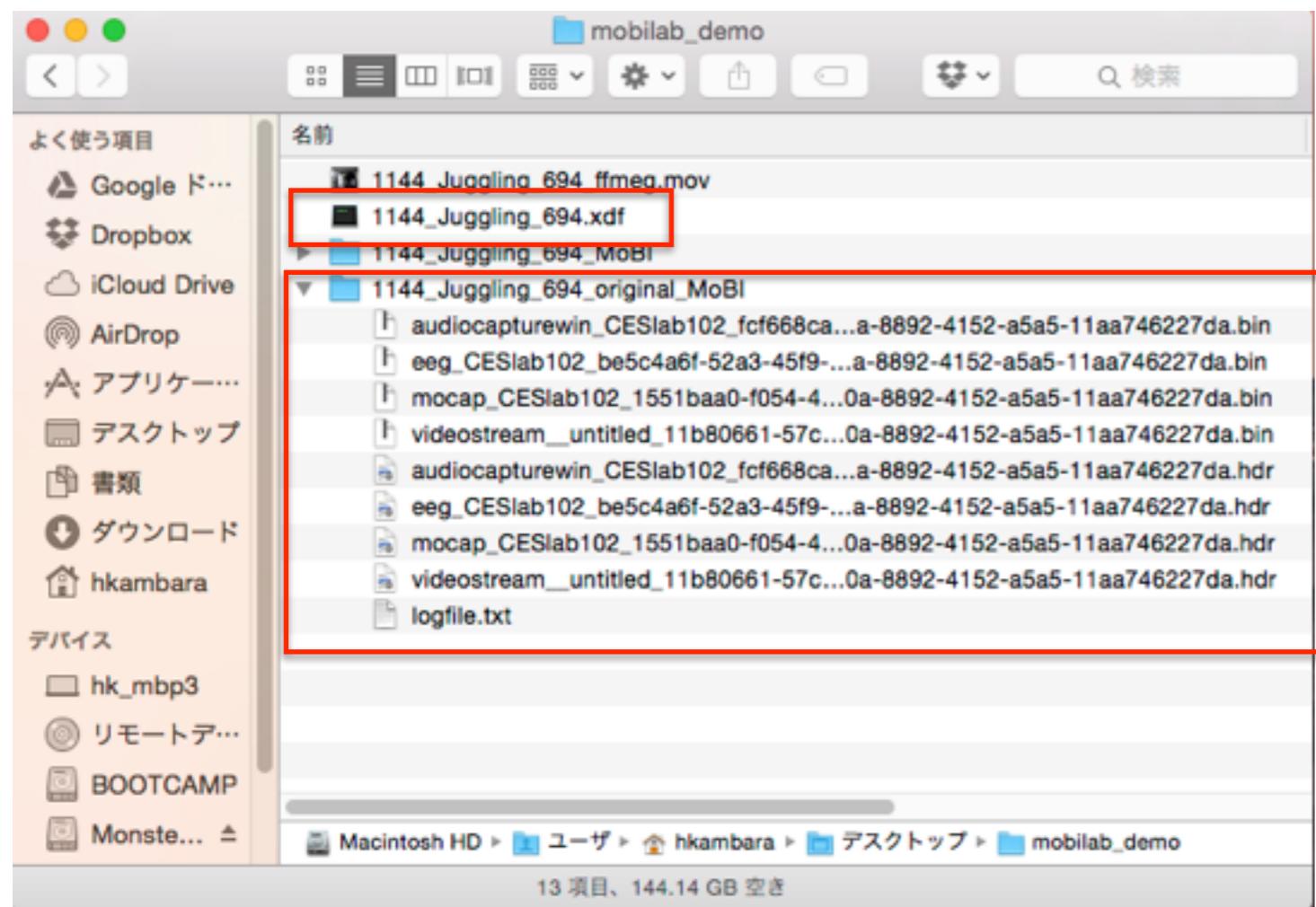
MoBI Analysis Demo

- load .xdf data
- browse data
- process signals
- mark events
- analyze EEG



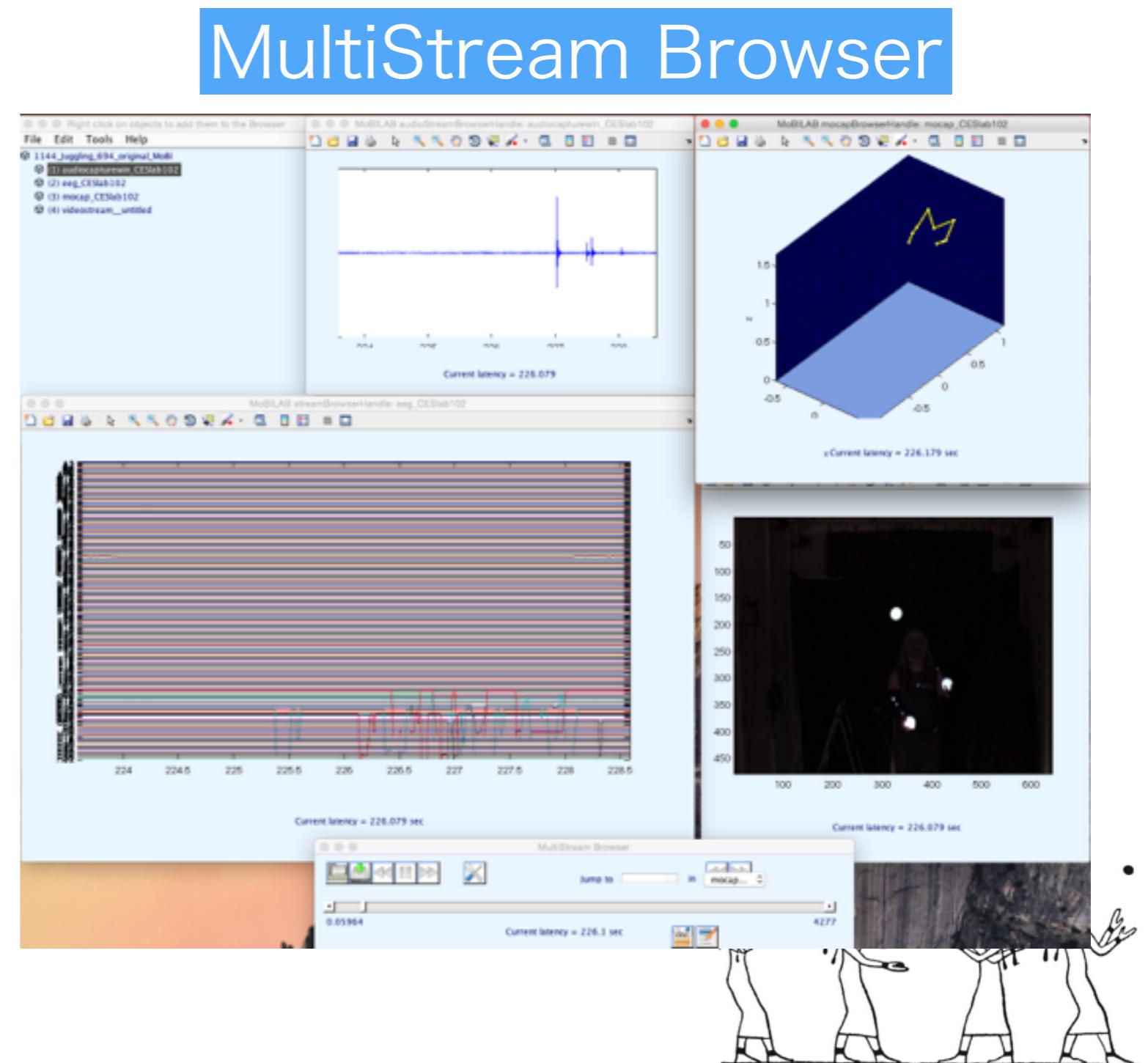
MoBI Analysis Demo

- load .xdf data



MoBI Analysis Demo

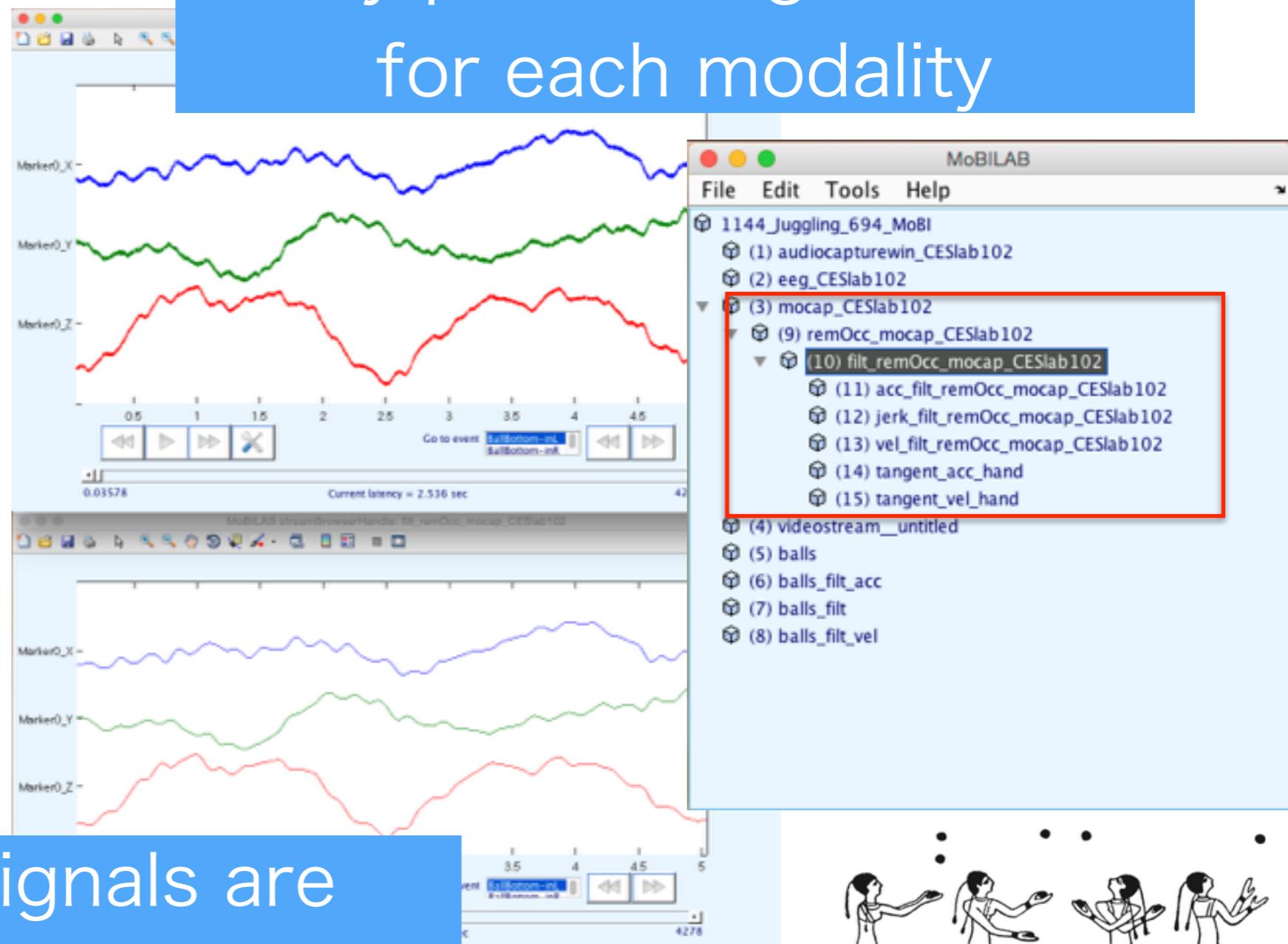
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MoBI Analysis Demo

- load .xdf data
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Many processing functions
for each modality



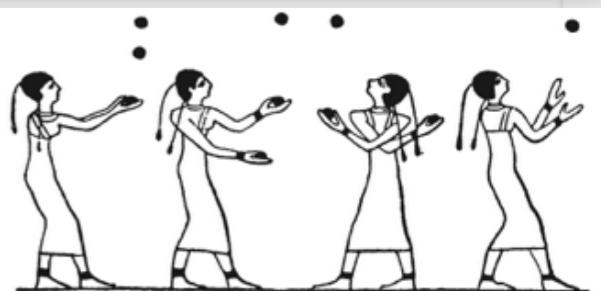
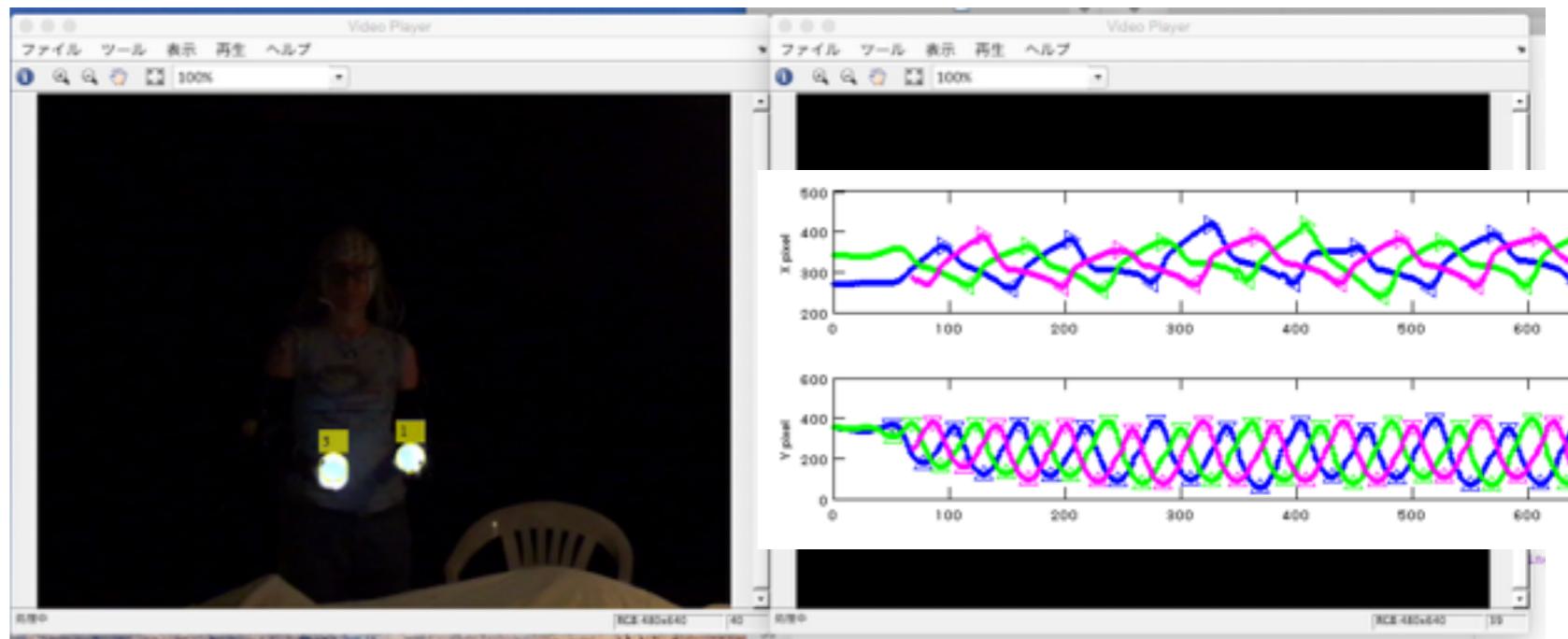
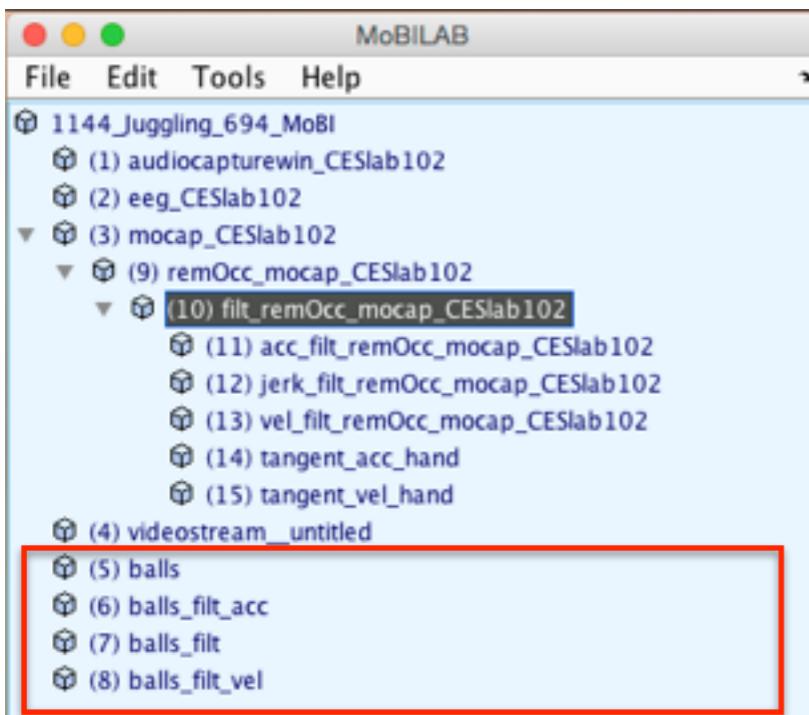
Processed signals are
added as new data streams



MoBI Analysis Demo

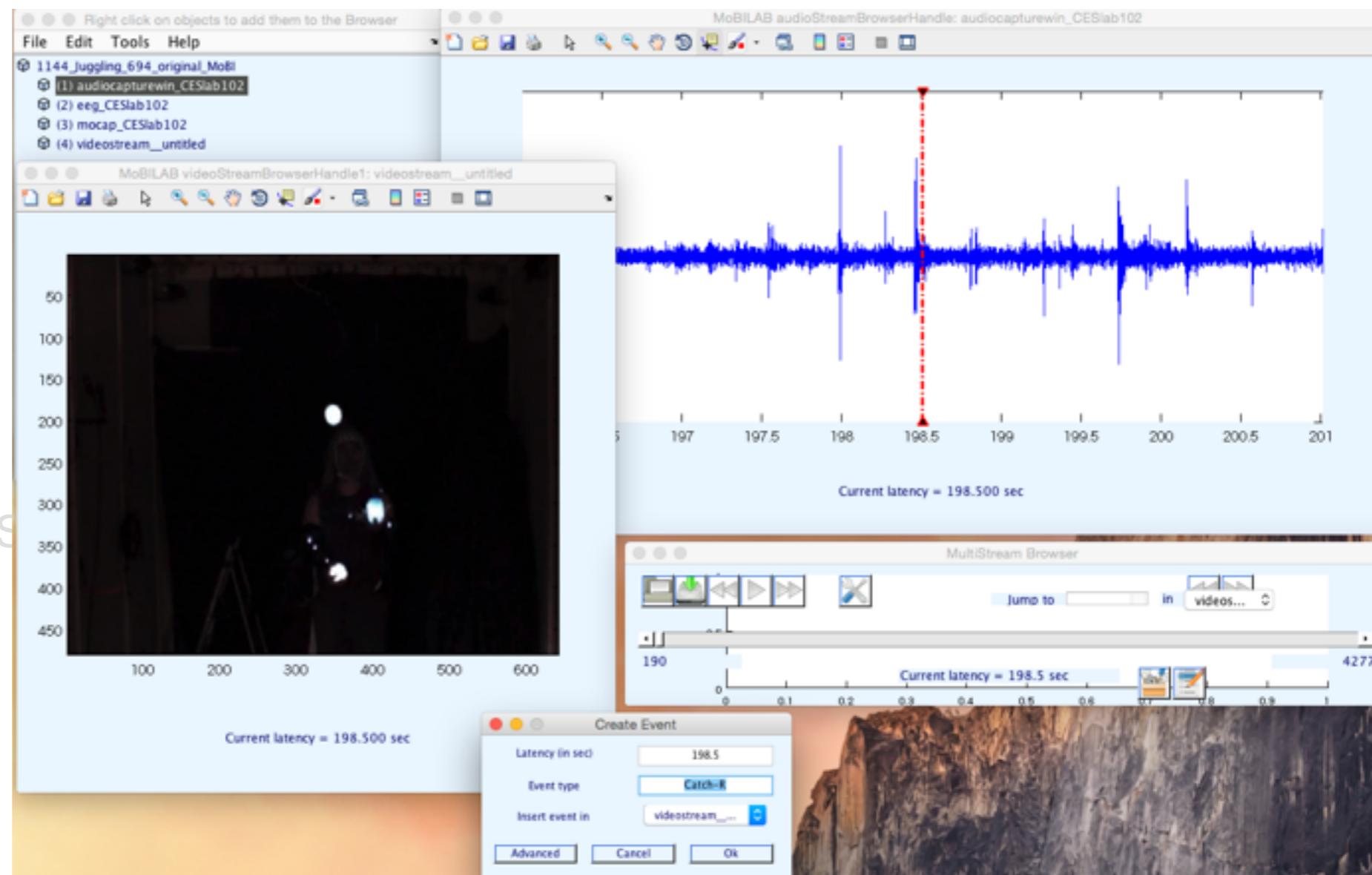
- load .xdf data
- browse data
- process signals

Able to add data stream
processed by your own code



MoBI Analysis Demo

- load .xdf data
- browse data
- process signals
- mark events
- analyze EEG



Able to add events by GUI and also script base.



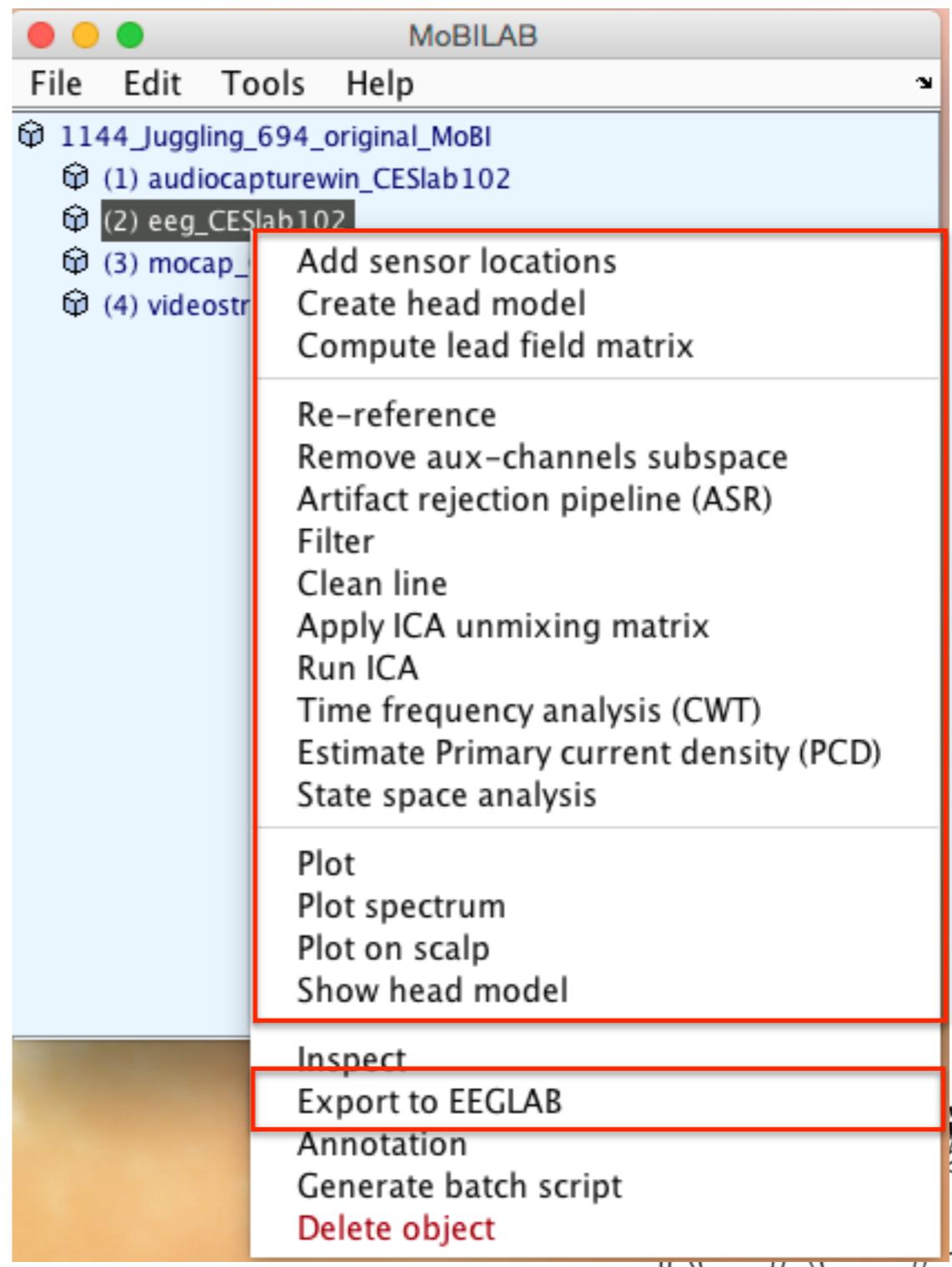
MoBI Analysis Demo

- load .xdf data

browsing data

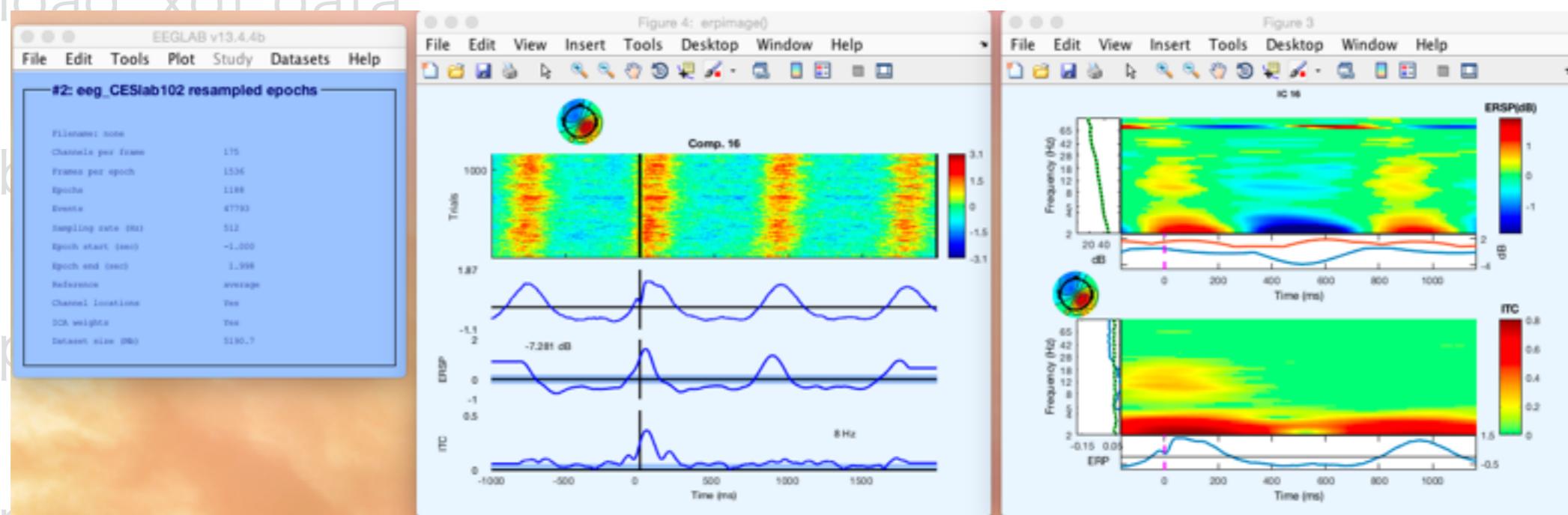
Able to analyze EEG
by MoBILAB or
exporting to EEGLAB

- mark events
- analyze EEG



MoBI Analysis Demo

- load xdf data



- mark events
- analyze EEG

