The Cartool Software: Helping EEG researchers for 25 years

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BACKGROUND
EEG analysis can provide invaluable information, such as micro-states, source localizations, frequencies etc...
The need for a fast, robust, interactive and state-of-the-art EEG analysis software is what led to the creation of Cartool.

AIMS
The Cartool software was built so as to:
• Gather expertise, then re-distribute it
• Allow the user to interactively visualize data
• Be robust across many different scenarios
• Process data quickly, and be easy to install

PRE-PROCESSING TOOLBOXES
Pre-processing EEG:
• Filtering: Butterworth, Notch, Spatial
• Interpolating bad tracks
• Downsampling

Pre-processing Electrodes setups:
• Converting from Krios scanner
• Creating template electrodes setup
• Downsampling

Pre-processing MRIs:
• Re-orienting, re-sampling, sagittal + transverse + origin as MNI space
• Brain & Tissues extraction

PROCESSING TOOLBOXES
Statistics:
• EEG Tracks
• Source space
• Micro-States

ERPs:
• User guided ERP computation
• Multiple conditions & synced display

Frequency Analysis:
• All FFT cases
• Wavelets
• Source localization of frequencies

Micro-states Analysis:
• All ERP cases
• All Resting States cases

Sources Localization:
• All ERP cases
• All Resting States cases
• Many source models

The Cartool Software has served the community since 1996, with thousands of users and hundreds of publications.
It will get even more leverage when it becomes an Open Source software with its 160’000 lines of code and thousands of functions, allowing external contributions while being more compatible with Open science.