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eegdetectstep

- **Description**

Detects on single-trials (epochs) an amplitude variation greater than a threshold in a time window. One results text file is created for each event type. It contains the event code, the event code indice, the channel number, the threshold number, the latency (starting from the event), the amplitude and duration, for each threshold detection.

- **Usage**

eegdetectstep myeegfilein.eeg myeventfile.pos myparameterfile.par [-e]
with :

- myeegfilein.eeg : input EEG file to process (with extension).
- myeventfile.pos : input event file (with extension) used to define epochs.
- myparameterfile.par : text file containing detection parameters (with extension).
- options :

-e : no header is written in output file.

- **Fields of parameter file and examples**

fileprefix myoutfilename	Prefix of the output text files.
nb_eventcode 2	Number of event codes to process.
list_eventcode 2 5	List of the event codes to process.
prestim_nbsample 400 800	List of the numbers of samples in the prestimulus period; one value for each event code.
poststim_nbsample 1000 1200	List of the numbers of samples in the poststimulus period; one value for each event code; the total number of samples of the analysis is prestim_nbsample + poststim_nbsample + 1, the extra sample corresponds to the event itself.
ep_channel_flag 1 1 0 1 0 0 0	List of the channels to average: 1/0 for selected/unselected channels; the total number of flags is N+2, N being the number of recorded channels in myeegfilein.eeg file; the last 2 flags should be set to 0. In this example, N=5, and only channels number 1, 2, 4 will be used to detect thresholds.
step_size_ms 100 200 150	Window size for amplitude variation detection for each channel used. In this example, the number of channels for the detection is 3 (indices 1, 2 and 4), and the window durations are 100 ms for channel 1, 200 ms for channel 2, and 150 ms for channel 4.
step_size_microV 1000.0 500.0 750.0	Physical value (in physical units, not only microV) of the amplitude variation for each channel used. In this example, the number of channels for the detection is 3 (indices 1, 2 and 4), and the amplitude variations are 1000 for channel 1, 500 channel 2, and 750 for channel 4. These amplitude variations are in physical units.

- **Example**

- **Comments**

- **Current version**

1.04 29-09-2010

- **History**

- 1.03 12-01-2004 (PEA) : 1st documented version.
- 1.04 29-09-2010 (PEA) : update to use cmake and free release of Elan. Remove static allocation for reading EEG file header.

- **Files**

\$ELANPATH/bin/eegdetectstep

- **See also**

Lyon Neuroscience Research Center - Brain Dynamic and Cognition team

CRNL

