

Table Of Contents

Table Of Contents	1
eegcomponent	2
CRNL	3



Published on *elan* (<http://elan.lyon.inserm.fr>)

[Home](#) > [Printer-friendly PDF](#) > [Printer-friendly PDF](#)

eegcomponent

- **Description**

Computes component analysis from continuous data and outputs inverse of weight matrix. The analysis may be processed on epochs (around events) or on a part of the file by defining beginning and ending latencies.

- **Usage**

eegcomponent myeegfilein.eeg myparameterfile.par mymatrixout.xml [myeventfile.pos]

with :

- myeegfilein.eeg : input EEG file to process (with extension).
- myparameterfile.par : parameter file (with extension) containing computing parameters.
- mymatrixout.xml : output XML matrix file (with extension) containing inverse matrix of weights.
- options:
myeventfile.pos : input event file (with extension) used for epoching data. If omitted, whole file is used to compute component analysis.

- **Fields of parameter file and example**

component_analysis_channel 1 1 0 1 0 0 0	List of the channels to use for component analysis: 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.
component_analysis_method 0	Used method to compute component analysis. Valid values are : 0 : PCA 1 : SVD 2 : ICA using FASTICA algorithm (see http://research.ics.tkk.fi/ica/fastica/ [1])
nb_eventcode 2	Number of event code to use for component analysis processing.
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.
baseline_msec_start -200 - 200	List of the baseline start latencies (in ms); one value for each event code. If omitted, the baseline value is not computed.
baseline_msec_stop -50 -50	List of the baseline stop latencies (in ms); one value for each event code. Required if baseline_msec_start is specified. If omitted, the baseline value is not computed.
first_sample 100	Sample number (from beginning of file) of data beginning to process component analysis.
sample_nb 5000	Number of time samples to use for component analysis.

Use **parameters** when processing component analysis from an epoch list.

Use **parameters** when processing component analysis from a part of file only.

- **Examples**

- **Comments**

- **Current version**

1.01 03-04-2012

- **History**

- 1.00 05-03-2012 (PEA) : 1st version.
- 1.01 03-04-2012 (PEA) : adds FASTICA method.

- **Files**

\$ELANPATH/bin/eegcomponent

- **See also**

[eegproject](#) ^[2], [eegfiltica](#) ^[3], [matrix2p](#) ^[4]

Lyon Neuroscience Research Center - Brain Dynamic and Cognition team

CRNL



Source URL: <http://elan.lyon.inserm.fr/?q=eegcomponent>

Links:

[1] <http://research.ics.tkk.fi/ica/fastica/>

[2] <http://elan.lyon.inserm.fr/?q=eegproject>

[3] <http://elan.lyon.inserm.fr/?q=eegfiltica>

[4] <http://elan.lyon.inserm.fr/?q=matrix2p>