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epnorm

- **Description**

Normalizes individual **.p** files from several paired groups (conditions) of EP files (**.p**). The output are normalised **.norm.p** files.

- **Usage**

```
epnorm myparameterfile.par mycondfile.cond
```

with :

- myparameterfile.par : conversion parameter file (with extension).
- mycondfile.cond : ascii file including the list of **.p** to process (see below).

- **Fields of parameter file and example**

epnorm_channel_flag 1 1 0 0 1	List of the channels to normalize: 1/0 for selected/unselected channels.
epnorm_time_hw 50	Half-window size (in ms) of smoothing window. If the value is set to 0, no smoothing is applied, and all samples are computed.
epnorm_time_step 50	Time step (in ms) of smoothing window.
epnorm_normalization 1	Normalization type. Possible values are : 0: no normalization 1: for each subject, each sample is divided by the norm of the vector in channel <input type="checkbox"/> condition space 2: for each subject and each condition, each sample is divided by the norm of the vector in channel space 3: for each condition and sample, each sample is divided by the norm of the mean vector (across subjects) in channel space 4, 5, 6: same as 1, 2, 3 except that the maximum norm in the analysis time-window is taken
epnorm_lat_beg_ms 100	Beginning latency for normalization (in ms).
epnorm_lat_end_ms 300	Ending latency for normalization (in ms).

The condition file is a text file formatted as follow:

Parameter (example)	Comment
1 2 4	Number of factors (must be 1). Number of conditions for this factor (must be 2). Number of .p files for each condition.
fact1 cond1 suj1 Myfile_cond1_suj1.p fact1 cond1 suj2 Myfile_cond1_suj2.p fact1 cond1 suj3 Myfile_cond1_suj3.p fact1 cond1 suj4 Myfile_cond1_suj4.p fact1 cond2 suj1 Myfile_cond2_suj1.p	List of .p files preceded by the following labels: name of the factor name of the condition name of the subject name of the .p file Each file in condition 1 has its paired file in condition 2.

fact1 cond2 suj2 Myfile_cond2_suj2.p fact1 cond2 suj3 Myfile_cond2_suj3.p fact1 cond2 suj4 Myfile_cond2_suj4.p	For one-sided tests, the condition with the predicted most positive mean must be placed first.
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- **Examples**

- **Comments**

1. All EP files should be compatible (in terms of number of channels and samples, number of pre-stimulus samples, sampling frequency) to the first EP file (file 1 in condition 1).
2. Note that this program may use `epranddiff`^[1] parameters (`eprand_channel_flag`, `eprand_time_hw`, `eprand_time_step`, `eprand_normalization`, `eprand_lat_beg_ms`, `eprand_lat_end_ms`) instead of its own parameters.

- **Current version**

1.07 14-08-2012

- **History**

- 1.00 21-03-2006 (PEA) : 1st version.
- 1.01 23-03-2006 (JB) : adds maximum norm, smoothing window.
- 1.02 29-03-2006 (JB) : normalizes smoothed values. Adds parameter file. Reads `epranddiff` parameters.
- 1.03 23-03-2006 (JB) : fixes error with subsampling.
- 1.04 22-05-2006 (JB) : fixes error with subsampling (time 0), improves test of compatibility of files.
- 1.05 29-09-2010 (PEA) : updates to use `cmake` and free release of Elan.
- 1.06 26-01-2011 (PEA) : removes static allocation for reading and writing EP files.
- 1.07 14-08-2012 (PEA) : fixes error when reading files 2nd time (1st for compatibility check, 2nd for data). File name was freed after 1st read.

- **Files**

`$ELANPATH/bin/epnorm`

- **See also**

`epranddiff`^[1]

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CRNL



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

Links:

[1] <http://elan.lyon.inserm.fr/?q=epranddiff>