# Visualize the EEG output from the PREP processing pipeline.

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#### Calling directly: prepReport

This helper reporting script expects that EEGReporting will be in the base workspace with an EEGReporting.etc.noiseDetection structure containing the report. It also expects the following variables in the base workspace:

- summaryFile variable containing the open file descriptor for summary
- consoleID variable with open file descriptor for console (usually 1 unless the output is redirected).
- · relativeReportLocation report location relative to summary

The reporting function appends a summary to the summary report.

Usually the prepReport script is called through the function:

```
publishPrepReport
```

It is not a function itself, to allow the MATLAB publish to dump a nice output.

#### Write data status and report header

```
EEG
Channels: 3
Frames: 328718
Error status: unprocessed
Boundary errors: [prepPipeline bad boundary events: #### prepPipeline
 (line 92)
Dataset EEG has boundary events: [[ 1 ]] which are treated as
 discontinuities unless set to ignore. Prep cannot continue]
Detrend errors: [ ]
Line noise errors: [ ]
Reference errors: [ ]
Prep version: PrepPipeline0.55.3
Data summary: sampling rate 1000Hz
Events: 1
Original events: 0
Channels interpolated during reference:
Channels still noisy after reference:
Channels removed during post-process:
  [ ]
```

### Line noise removal step

Initial detrend for reference calculation Spectrum after line noise and detrend Referencing step Robust channel deviation (referenced) **Robust channel deviation (original) Robust channel deviation (interpolated)** Robust deviation window statistics Median max abs correlation (referenced) Median max abs correlation (original) Median max abs correlation (interpolated) Mean max abs correlation (referenced) Mean max abs correlation (original) Mean max abs correlation (interpolated) Bad min max correlation fraction (referenced) Bad min max correlation fraction(original) Bad min max correlation fraction (interpolated) **Correlation window statistics Bad ransac fraction (referenced) Bad ransac fraction (original) Bad ransac fraction (interpolated)** Channels with poor ransac correlations **HF noise Z-score (referenced) HF noise Z-score (original) HF noise Z-score (interpolated)** HF noise window stats Noisy average vs robust average reference Noisy and robust average reference by time Noisy vs robust average reference (filtered) Noisy minus robust average reference by time

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