# EEGpal: **Epoching module**

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The module 'Epoching' has three purpose :

1. As its name suggests, it allows you to create epochs from a pre-processed EEG file. In other words, it allows the signal to be divided into several segments of equal length. The origin of the segment can be a trigger/marker or the whole file.
2. The module also allows artefact rejection. In the 'ARTEFACT REJECTION' tab, you can specify a rejection criterion and the epochs that don't respect it will be suppressed/ignored.
3. Finally, the module allows you to average all the clean epochs to create an Event Related File (ERP), which is the most common type of analysis in EEG.

Pannel A: EPOCHS

1. In EEGPal, we made the distinction between triggers (tag inside of the EEG file) and marker (tag recorded in a separate .mrk file). Here, you can

FAQ

**What the output looks like?**

A screenshot of a computer

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The first columns are the amplitude, and the last columns are the position, either in milliseconds or in a time frame according to parameter **8**.

**How is the peak detection performed?**

The module uses the Matlab function *findpeaks*. It specifically looks for a high value surrounded by smaller values. This detection is not perturbate by the boundary of the interval (which are never detected as peak). This function only detects local maxima. To detect local minima, the signal is inverted. It is why you cannot detect a positive peak (max) and a negative peak (min) at the same time. You must perform two separate runs by changing the option **5**.

**What happens if there are several local peaks?**

The Find Peaks module will always return only one peak in the output file. It will report the peak with the largest amplitude (for positive peaks) or the smallest amplitude (for negative peaks). However, the check file allows you to know if more than one peak has been found in the specified time interval (**3**).

**How can I use the check file?**

The optional check file allows you to know if only one peak is detected in the interval (**value=0**), no peak is detected (**value=1**) or several peaks are detected (**value=2**). You can use this information to look at the signal yourself in Cartool to possibly correct the position according to your own expertise.

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