# EEGpal: **Re-referencing module**

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The 'Re-referencing' module can be used to change the reference channel of the EEG signal. As you probably know, the EEG measures the difference in electrical potential between each channel and a reference channel. The reference channel has a large influence and completely changes the signal. The usual convention is to use the average reference (the average signal from all electrodes). However, you can use this module to re-reference the signal to any scalp or auxiliary channel.

A screenshot of a computer

Description automatically generated

Pannel A

1. Select the new signal reference. The default option ‘**Average’** is to use the average reference (standard). However, you can select any other scalp channel. You can even select several channels (with Ctrl+click) to create a custom average reference. However in this case, you can not select the **Average** option.
2. In the majority, leave the default option “all”. Need explanations from MichaelDP for the use of this option.

Pannel B

1. Select the format for the output files.
2. Select the destination folder where the results files will be saved (note: it reproduces the input structure. For example, a folder per participants if the input files where in subfolder).
3. The suffix added to the input filename to obtain the output filename
4. You can save a parameters file which will recode all the chosen options for a later processing (**save** and **save as**). You can use the button **open** to call a previous saved parameters file.
5. Click on **Run** to carry out the processing parameterized in the Filerting module. The button **Done** will close the Filtering module without perform the processing but keep in memory your parameters if you open again the Filerting module. The button **Cancel** closes the module without processing and without keep the entered parameters in memory.

FAQ

**Can I use the mastoid as reference electrode?**

Yes, you can specify in the Electrode Setting module of EEGpal the Mastoid electrode as the channel 65 for this example. Then you can choose this channel as reference.

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