# 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.
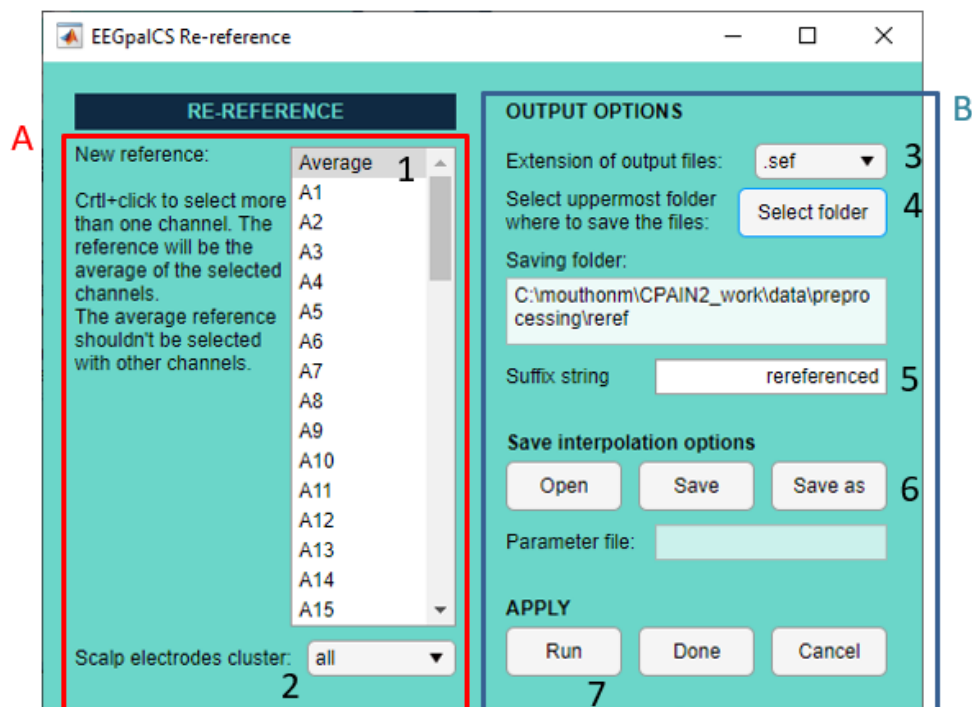
Pannel A

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

3. Select the format for the output files.
4. 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).
5. The suffix added to the input filename to obtain the output filename
6. 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.

7. 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.