

# README

June 11, 2021

## 1 Readme

### 1.1 General Description

This is a realtime Heatplot EMG/EEG Datavisualizer. At the moment only Databases can be used as data sources however it is possible to add other data sources for future . Additional to the Heatmap a line plot and a spectrum plot was added. ## User Guide ### Installation 1. Click on the installer to install the programm at the current directory 2. Follow instructions of the installation wizard 3. Go to dist directory and execute main.exe

#### 1.1.1 Program

On the first window the user is asked to input the Database information as well as the sample frequency and number of sensors. The user can then choose the desired plot and click on create plot. Note that the Databases must not be password protected.

MainWindow

☒ Database

Database name: alexanderp

User: postgres

Host/IP: localhost

Port: 5432

Table name: new\_table

*Note: The columns of the table should contain an index column, the numerated channel columns as well as the following columnnames: "subject\_id" and "condition"*

Channel name: HA-2015.08.05\_channel

Subject\_id: vincent

Condition: test\_0

Number of Channels: 64

☐ Serial *Check to choose Serial as Data source. This option is currently unavailable*

Port:

Baudrate:

Timeout [ms]: 0

Frequency [Hz]: 2400

Choose Plot: Heatmap

Create Plot

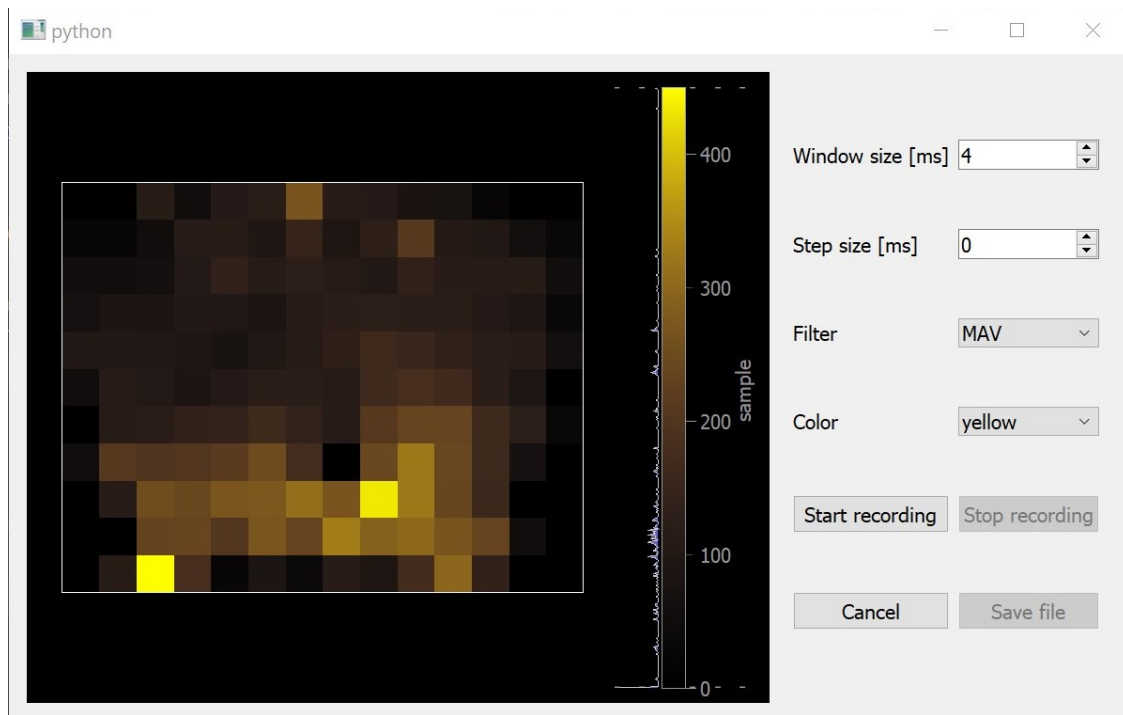
If the user chooses the Heatmap another window pops up in order to choose the arrangement of the sensors. There it is possible to save or load a configuration too.

Setup input map?×

				3		2		1					
	10		9		8		7		6		5		4
17		16		15		14		13		12		11	
	24		23		22		21		20		19		18
31		30		29		28		27		26		25	
	37		36		35		34		33		32		
		43		42		41		40		39		38	
	49		48		47		46		45		44		
		54		53		52		51		50			
			59		58		57		56		55		
		64		63		62		61		60			

Row size  Column size

Once the configuration is chosen the Heatmap plot appears



As an alternative one could also choose the Lineplot or Fourier plot to show either a channel with respect to time or the spectrum of a channel. However note that at the moment the 2 different plots should NEVER be chosen at the same time (Otherwise the program crashes). Before a second plot is opened the first has to be closed. In the future this problem could be solved using multiprocessing.

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