The movements of the hands consisted in the compression of the hands into a fist. The premotor RPs of 15 persons in each trial of movement execution both with the right and left hand. We prepared data sets of classes namely the "right hand (RH)" (label\_001) and the "left hand (LH)"(label\_002). For each person were also prepared data sets, connected with the state of rest (label\_000).

**File description**

Epochs extracted from raw EEG recordings were used for the analysis. Epochs were recorded in the form of CSV files (**Fig. 1.**).



**Fig. 1.** A time diagram of an experimental session for voluntary movements.

Epochs extracted from raw EEG recordings were used for the analysis. Epochs were recorded as CSV files, each of which contained 23 channels recorded in lines, each channel contained 375 samples, delimiter – «;», decimal separator – «.». Each CSV file contains EEG data in which a segment is recorded with an interval of 0.9 seconds before the start of movement and 0.5 seconds of the duration of movement.

Sequence of channels in CSV files (**Fig. 2.**):

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **№** | **Channel** | **Description** | **№** | **Channel** | **Description** |
| 1 | F7 | EEG | 13 | Pz | EEG |
| 2 | F3 | EEG | 14 | P4 | EEG |
| 3 | Fz | EEG | 15 | T6 | EEG |
| 4 | F4 | EEG | 16 | O1 | EEG |
| 5 | F8 | EEG | 17 | O2 | EEG |
| 6 | T3 | EEG | 18 | A1 | Reference electrode |
| 7 | C3 | EEG | 19 | A1-N | Ground |
| 8 | Cz | EEG | 20 | EMG1 | EMG Right hand |
| 9 | C4 | EEG | 21 | EMG2 | EMG Left hand |
| 10 | T4 | EEG | 22 | EMG3 | EMG Legs |
| 11 | T5 | EEG | 23 | EOG | EOG |
| 12 | P3 | EEG | 24 | Event | initiating motion |



Fig. 2. A segment of the EEG data of the right-hand movement.