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1 % eeg_DataImport_merge_run.m
2 % Matlab script for EEG:
3 % (1)running the main script for importing individual data(.edf)
4 % (2)merging(append) datasets by selecting Ss# (single or multiple)
5
6 % check sample rate, should be 256
7
8 clear all % clear all objects in Workspace
9 close all % delete all unhidden figures
10 clc % clear Command Window
11 [ALLEEG EEG CURRENTSET ALLCOM] = eeglab;
12
13 Path_n_Name='eeg_Path_n_Name'; %Path and Name definition script *in the same folder*
14 open([pwd, filesep, Path_n_Name, '.m']);
15 run(Path_n_Name);
16
17 choice = questdlg('Which task would you like to run?', 'Task', 'Import individual
data.edf file(s)', 'Merge(append) datasets', 'Import individual data.edf file(s)');
18 switch choice
19     %% import individual data.edf file(s)
20     case 'Import individual data.edf file(s)'
21
22         cd(pData);
23         main_import='eeg_DataImport_main'; %data import main script *in the same
folder*
24         open([pwd, filesep, main_import, '.m']);
25
26         choice = questdlg('Which data file(s) would you like to import?', 'Data
Processing Methods', 'Choose one file', 'Run all files', 'Run all newly-added file(s)',
'Choose one file');
27         switch choice
28         case 'Choose one file'
29             fName=uigetfile('*.edf');
30             EEG = pop_biosig(fullfile(pData, fName), 'channels', [1:9]
, 'importhevent', 'off', 'importannot', 'off', 'blockepoch', 'off');
31
32             cd(pStart);
33             run(main_import);
34
35             fprintf('Subject = %s\n', Ss);
36             fprintf('Session = %s\n', Sn);
37             fprintf('Sampling Rate = %d\n', EEG.srate);
38             fprintf('# of Channel = %d\n', EEG.nbchan);
39             fprintf('# of events = %d\n', event_no);
40
41             msgbox(strcat(EEG.filename, ' is saved. # of events = ', num2str
(event_no)));
42
43         case 'Run all files'
44             fNames = dir( fullfile(pData, '*.edf') );
45             fNames={fNames.name};
46
47             for f=1:length(fNames)
48                 fName=fNames{f};
49                 EEG = pop_biosig(fullfile(pData, fName), 'channels', [1:9]
, 'importhevent', 'off', 'importannot', 'off', 'blockepoch', 'off');

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50         cd(pStart);
51         run(main_import);
52
53     end
54     fprintf('Number of files processed: %d\n', f);
55
56     save('fNames.mat','fNames');
57     msgbox(strcat('Number of files processed: ', num2str(f)));
58
59     case 'Run all newly-added file(s)'
60         load('fNames.mat');
61         fNames_re = dir( fullfile(pData, '*.edf') );
62         fNames_re={fNames_re.name};
63         fNames_chk=~ismember(fNames_re,fNames);
64         fNames_new=fNames_re(fNames_chk);
65         f_diff=numel(fNames_re)-numel(fNames);
66
67         for f=1:length(fNames_new)
68             fName=fNames_new{f};
69             EEG = pop_biosig(fullfile(pData,fName), 'channels',[1:9]
, 'importevent','off','importannot','off','blockepoch','off');
70
71             cd(pStart);
72             run(main_import);
73
74         end
75         fprintf('Number of files processed: %d\n', f);
76         fprintf('Number of files difference: %d\n', f_diff);
77
78         fNames=fNames_re;
79         save('fNames.mat','fNames');
80         msgbox(strcat('Number of files processed: ', num2str(f), '. Number of
files difference: ', num2str(f_diff)));
81
82
83     end
84
85     eeglab redraw;
86     erplab redraw;
87
88     cd(pStart);
89
90
91     %% Merge(append) datasets
92     case 'Merge(append) datasets'
93         fTemp=csvread(fLog);
94         Ss_list=fTemp(1:length(fTemp));
95         Ss_list=unique(Ss_list);
96         Ss_list=arrayfun(@num2str,Ss_list,'unif',0);
97
98         clear fTemp
99
100     cd(pDset_ind);
101     Ss_select=listdlg('PromptString','Select Subject #
','SelectionMode','mutiple','ListString',Ss_list);
102     Ss_select=Ss_list(Ss_select);

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103
104     for m=1:length(Ss_select);
105         Ss=Ss_select{m};
106         if length(Ss)==1; Ss=strcat('S0',Ss); else Ss=strcat('S',Ss); end
107         Dset_list=dir(fullfile(pDset_ind, strcat(Ss, 'n*.set')));
108         Dset_list={Dset_list.name};
109
110         for n=1:length(Dset_list);
111             Dset=Dset_list{n};
112             EEG = pop_loadset('filename',Dset,'filepath',pDset_ind);
113             [ALLEEG, EEG, CURRENTSET] = eeg_store( ALLEEG, EEG, 0 );
114         end
115
116         EEG = eeg_checkset( EEG );
117         EEG = pop_mergeset( ALLEEG, [1:n], 0);
118         [ALLEEG EEG CURRENTSET] = pop_newset(ALLEEG, EEG, n+1,'setname',↵
Ss, 'savenew',strcat(pDset_mer,Ss), 'gui', 'off');
119         ALLEEG = pop_delset( ALLEEG, [1:n+1] );
120
121         eeglab redraw;
122         erplab redraw;
123
124     end
125
126     msgbox('Done. ');
127
128     cd(pStart);
129 end

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