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function eyelink_INIT_VPixx

%==== CREDITS ===
%Author: Gianpiero Monittola @ University of Trento
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%MATLAB R2012b
%Psychtoolbox-3-Psychtoolbox-3.0.11_for_MATLAB32bits

% === Script Description ===
%Force default setting when the host PC (re)boots.

    %Set Camera.Tracking mode
    Eyelink('Command', 'sample_rate = 1000'); % Select the sampling rate for the
recording. Here 1000 Hz is select
    Eyelink('Command', 'use_ellipse_fitter = NO'); % Select the tracking mode
(Pupil-only vs. Pupil-CR)

    Eyelink('Command', 'enable_search_limits = ON'); % Autothreshold on mouse
click on setp mode image
    Eyelink('Command', 'autothreshold_click = TRUE');
    Eyelink('command', 'elcl_tt_power = %d',2); % set illumination power in
camera setup screen 1 = 100%, 2 = 75%, 3 = 50%

    %Set Option.Select Configuration
    %Long Range Mount Binocular 35-75mm lenses
    Eyelink('Command', 'binocular_enabled = YES');
    Eyelink('Command', 'active_eye = BINOCULAR');

    %Set Option.Calibration and Validation
    Eyelink('command', 'calibration_type = HV9'); % 9 points, biquadratic with
corner correction
    Eyelink('Command', 'generate_default_targets = YES');
    Eyelink('Command', 'automatic_calibration_pacing = 1000'); % delay in ms
between calibration and validation
    Eyelink('Command', 'randomize_calibration_order = YES'); % randomize the
calibration and validation target presentation order
    Eyelink('Command', 'cal_repeat_first_target = YES'); % redisplay the fist
calibration and validation target at the end of the calibration sequence
    Eyelink('Command', 'val_repeat_first_target = YES');

    %Set Option.Tracking
    Eyelink('Command', 'enable_search_limits = YES'); %enable display of global
search limit
    Eyelink('Command', 'track_search_limits = NO'); %enable tracking of pupil to
global search limit
    Eyelink('command', 'aux_mouse_simulation = ON'); % NO wheter mouse
stimulation is enable
    Eyelink('command', 'pupil_size_diameter = AREA'); %select the type of data
used for pupil size

    %Set Option.Event and Data Processing
    Eyelink('Command', 'recording_parse_type = GAZE'); %data type used to compute
velocity for parsing of eye movement during recording
    Eyelink('Command', 'select_parser_configuration = 0'); %select the preset
standard parser setup
    Eyelink('Command', 'heuristic_filter = ON');
    Eyelink('Command', 'heuristic_filter = 1 2'); %1 File Sample Filter EXTRA, 2
Link/Analog Filter STD

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    % 1 File Sample Filter EXTRA
    % EyeLink use a heuristic filtering algorithm for data smoothing
    % Data filtering can be applied indipendently for the data saved in
    % the EDF file e for data set to link/analog output.

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% The current option selects filter level of data recorded to the EDF file.
% Each increase in filter level reduces noise by factor of 2 to 3.

% 2 Link/Analog Filter STD
% Select the filter level for data available via Ethernet link and analog
output
% Each increase in filter level reduces noise by factor of 2 to 3
% but introduces a 1-sample delay to the link sample feed.
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%% Set Option.Analog Output
% Select the type of the analog output
Eyelink('Command', 'analog_out_data_type = GAZE'); % GAZE is screen gaze x,y
% RAW is uncalibrated pupil x,y in camera coordinate;
% HREF is head referenced calibrated x,y

%Set Option.File data Contents
Eyelink('Command', 'file_event_filter =
LEFT,RIGHT, FIXATION, SACCAD, BLINK, MESSAGE, BUTTON, INPUT');
Eyelink('Command', 'file_sample_data =
LEFT,RIGHT, GAZE, HREF, AREA, GAZERES, STATUS, INPUT, HTARGET');

% This command sets the contents of the sample data in the EDF file recording
% Selecting 0Samples0 will record data samples to the EDF file, and selecting
Events will record online parsed events.

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% The data contents of an EDF file are organized in two streams: samples and
events.
% Samples are used to record instantaneous eye position data, while events
are used to record important occurrences,
% either from the experimental application or from changes in the eye data.
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%Set Option.File Sample Contents
Eyelink('Command', 'link_event_filter =
LEFT,RIGHT, FIXATION, SACCAD, BLINK, MESSAGE, BUTTON, FIXUPDATE, INPUT');
Eyelink('Command', 'link_sample_data =
LEFT,RIGHT, GAZE, GAZERES, AREA, STATUS, INPUT, HTARGET');

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% The data passed are in a list with these types:
% LEFT,RIGHT: data for one or both eyes
% GAZE: screen xy (gaze) position (pupli position for calibration)
% GAZERES: units-per-degree screen resolution (start end of the event)
% HREF: head-referenced gaze position
% PUPIL: raw eye camera pupil coordinates
% AREA: pupil area
% VELOCITY: velocity of parsed position-type (avg, peak)
% Status: warning and error flags, aggregated accros event
% FIXAVG: include only averages in fixation and events, to reduce file size
% NOSTART: start events have no data, just time stamp
% BUTTON: button state and change flags
% INPUT: input port data lines
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%Set Option.Recording data view
Eyelink('Command', 'rec_plot_enabled = NO');
Eyelink('Command', 'rec_plot_data = GAZE'); % controls what to show on the
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Record screen during data output.

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% If Record View is set to Gaze Cursor, the Host PC Record screen will
display the participant's current gaze
% position as a cursor graphic overlaid on a simulated display screen. If set
to Plotting, x, y data traces
% will be graphed as a function of time. The user can further select which
data type should be plotted.
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%Set Option.Video overlay
Eyelink('Command', 'video_overlay_on = OFF'); %sets the state of the video
overlay mode.
%This is updated at the end of each session to the lastrun.ini file,
%which overrides the vidvl.ini file. OFF if overy mode is off.
%Clicking Video Setup goes to the Video Setup screen. Clicking Enable
Overlay activates the video overlay option.
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% calibration/drift correction target
Eyelink('Command', 'button_function 5 "accept_target_fixation"');
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**end**