

EyeLinkServer

Michael Stephan

February 26, 2019

1 How it works

Coordinates: (0,0) is the center of the screen. Positive values going to the right and up respectively. The auto reset event named **EyeServerDone** is signaled after server startup and when a "stop" command finishes (this may take some time when an **.edf** file is transferred).

2 Commands

Commands are sent through the named kernel32 pipe **EyeServerPipe**.

2.1 General Commands

[00 0 0] stop recording. If a file was specified in the start command, a file selection dialog will open. You may specify a destination for the **.edf** or abort the dialog (then the **.edf** will not be copied).

[00 0 0 filename] stop recording (and copy **.edf** to the specified file).

[00 0 1 width height] set screen size. This command is not needed if the EyeLink **.INI** files contain valid entries.

[00 0 2] start recording without **.edf**

[00 0 2 filename] start recording. The **filename** has to be specified with the extension (**.edf**) included. Note that this specifies the name of the file on the remote EyeLink computer. The filename is restricted to 8 characters (plus extension). Consider to always use the same filename. This will prevent the remote disk from filling up over time.

[00 0 3] remove transformation

[00 0 3 x0 y0 x1 y1] set coefficients (single precision floating point) for a linear transformation

[00 0 3 x0 y0 x1 y1 x2 y2] set coefficients (single precision floating point) for a quadratic transformation

2.2 Target Creation

Each target creates two named manual reset kernel32 event objects: `nameIn` and `nameOut`. These events are set when the eye position enters or leaves the target region. You have to read the key of the newly created target as a 16 bit unsigned integer after issuing these commands.

[00 1 *x y r name*] create circular target with radius *r* at position (*x,y*). *x*, *y*, *r* are single precision floating point values.

2.3 Target Commands

[kk 0] remove target.

[kk 1] force target to generate `Out` events on blinks.