Tobii Gaze SDK

Tools User Manual

This document is part of the developer's guide for the Tobii Gaze Software Development Kit (SDK). It describes how to use the eye tracker management tools that are provided with the SDK.

Table of Contents

The Gaze SDK Tools package provides the tools needed for configuring Tobii REX eye trackers.

This document uses the terminology established in the document “Tobii Gaze SDK, General concepts”, so it is recommended that you read that document before this one.

Firmware upgrade tool (Windows/Linux only)

The firmware upgrade tool is a console application which is used for upgrading (or downgrading) the firmware of an eye tracker. It can also be used to find the version of the firmware installed on an eye tracker. It is only available on the Windows and Linux platforms.

A firmware package is distributed in the form of a file with the extension .tobiipkg. The firmware package must match the eye tracker device; it is not possible to install firmware for one model on a device of another model.

Synopsis

```
fwupgrade {url|--auto} {tobiipkg file|--info-only} [--no-version-check]
```

Options

The first option identifies the eye tracker device. Use the `--auto` option to select the connected eye tracker automatically. (This assumes that a single eye tracker is connected to the computer.)

It is also possible to specify the eye tracker explicitly using a URL. For an eye tracker with USB-HID firmware the format is “tobii-ttp://<serial number>”. For an eye tracker with TCP/IP firmware the format is “tet-tcp://<IP address>”.

The second option specifies a firmware package to be installed on the tracker, or the `--info-only` flag, which will instead print the version information for the currently installed firmware.

The option `--no-version-check` can be given to force a firmware downgrade. Unless this flag is specified, the firmware upgrade tool will refuse to install a firmware version older than that which is already installed.

Exit codes

0	Success
-1	Failed to open the firmware package
-2	Invalid firmware package (malformed package)
-3	Transfer error
-4	Package mismatch: the firmware package is not compatible with the device
-5	Invalid firmware package (bad checksum)
-6	General error
-7	Old firmware version; need to specify the `--no-version-check` option to force installation

Known issues

The output generated during the firmware upgrade process is not meant for human users.

Active Display Area configuration tool

The Active display are configuration tool is a console application which is used for setting (or getting) the active display area of an eye tracker.

The active display area is specified by three points in 3D space: top left, top right, and bottom left. The units are millimeters and the coordinate system is the UCS as described in the General concepts document.

A tool for calculating the active display area points is included in this package. It can be launched by opening the document `displayareacalc.html` in a web browser.

Synopsis

```
setdisplayarea {url|--auto} [tlx tly tlz trx try trz blx bly blz]
```

Options

The first option identifies the eye tracker device. Use the `--auto` option to select the connected eye tracker automatically. (This assumes that a single eye tracker is connected to the computer.)

It is also possible to specify the eye tracker explicitly using a URL. The format used depends on whether the eye tracker runs a USB-HID or TCP/IP[1] firmware. For a USB-HID tracker the format is “tobii-ttp://<serial number>”, and for a TCP/IP tracker it is “tet-tcp://<IP address>”.

The next set of parameters specify the active display area to be set. If you do not specify these, the tool will instead display the current active display area.

Exit codes

The tool returns zero on success and a non-zero value on error.

[1] For Tobii REX eye trackers USB/HID is the preferred and maintained firmware all devices all delivered with. The TCP/IP firmware was previously made available for portability reasons, but since there are now device drivers available for the USB/HID firmware on all supported platforms the distribution of TCP/IP firmware has been discontinued.