Benutzerhandbuch

EyeRIS Manual

Table of contents

1. Quickstart

I. Mount EyeRIS at a appropriate position (see **Error! Reference source not found.**. **Error! Reference source not found.** on page **Error! Bookmark not defined.**).

II. Connect EyeRIS via USB with a computer.

III. Insert the installation CD and install EyeRIS.

IV. Start the installed EyeRIS software.

V. Start the calibration:

VI. Align EyeRIS using the laser (red switch at the rear of the EyeRIS hardware) at the shown crosshair and click on „OK".

VII. Press the pen on the red crosshairs until they fill red.

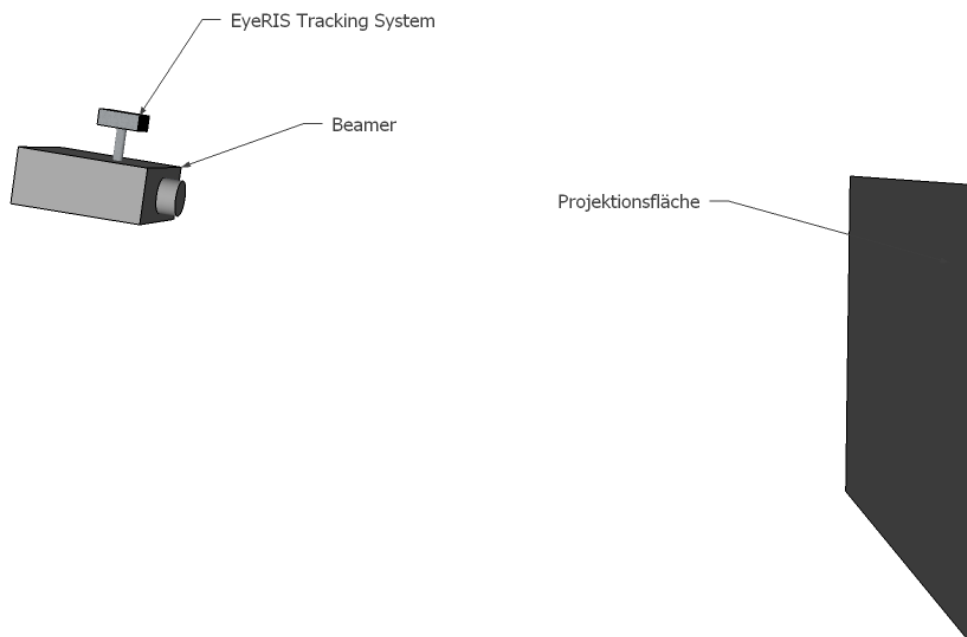VIII. Type in a name for this calibration or click on "Cancel".

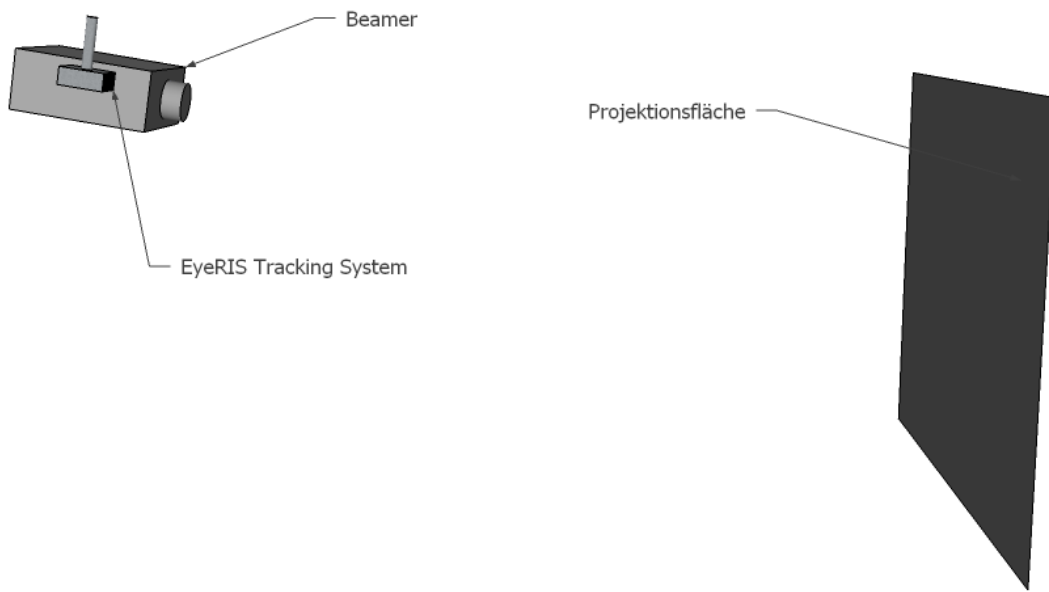If you have problems, please see our Troubleshooting document.

2. Positioning

EyeRIS Tracking System must be positioned, so that the front side is pointing at the projection screen. Keep enough distance between EyeRIS and the projection screen, so that the whole screen can be covered by the tracking system. **Notice**: If the distance is too high, the signals of the ePens could be too weak! In this case you can increase the sensitivity of EyeRIS using the software (see chapter 4 EyeRIS Options). To test if the whole screen is covered you can perform a normal calibration and check if all crosshairs are filling red or use the Tracking Monitor (see 4.2 Tracking Monitor on page 11).

The distance should be bigger than the diagonal of the screen. The best position is the position of the projector. EyeRIS should be mounted on the projector or nearby at the ceiling. Alternatively you can also use the a wall to mount EyeRIS. A low position (like the floor or a table) is not recommendable.
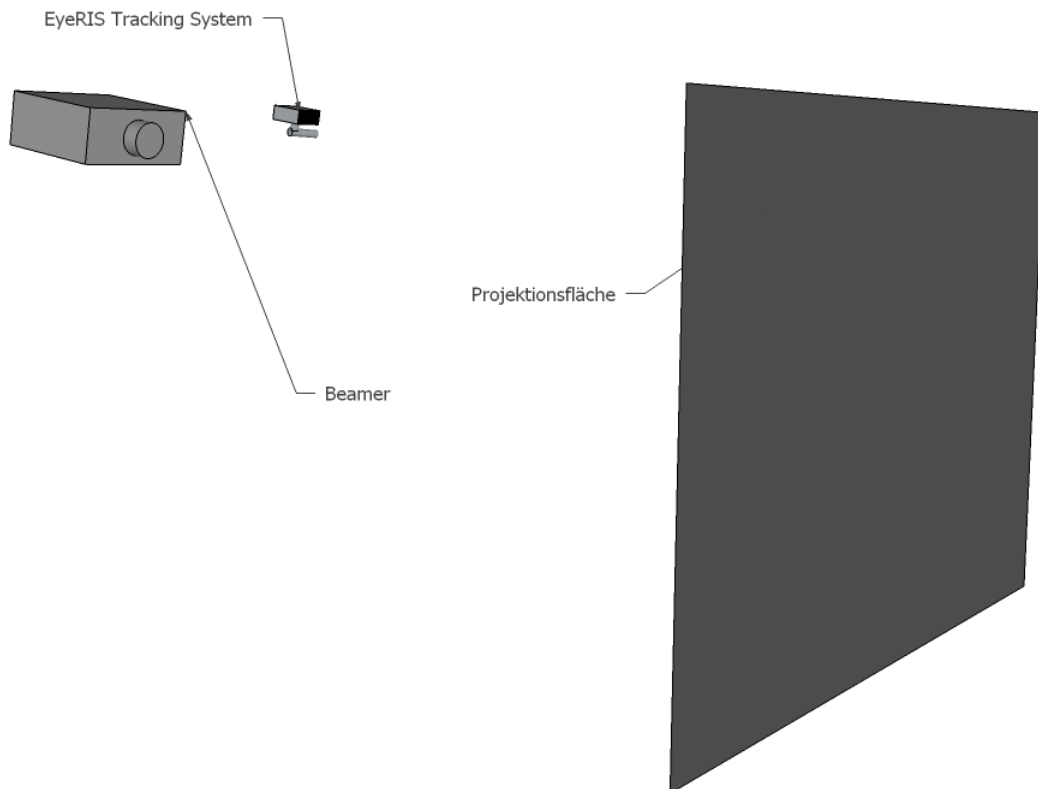
Following graphics describe the different positioning options:

Image 1 EyeRIS on the projector

Beamer

EyeRIS Tracking System

Projektionsfläche

Image 2 EyeRIS beside the projector at the ceiling

EyeRIS Tracking System

Beamer

Projektionsfläche

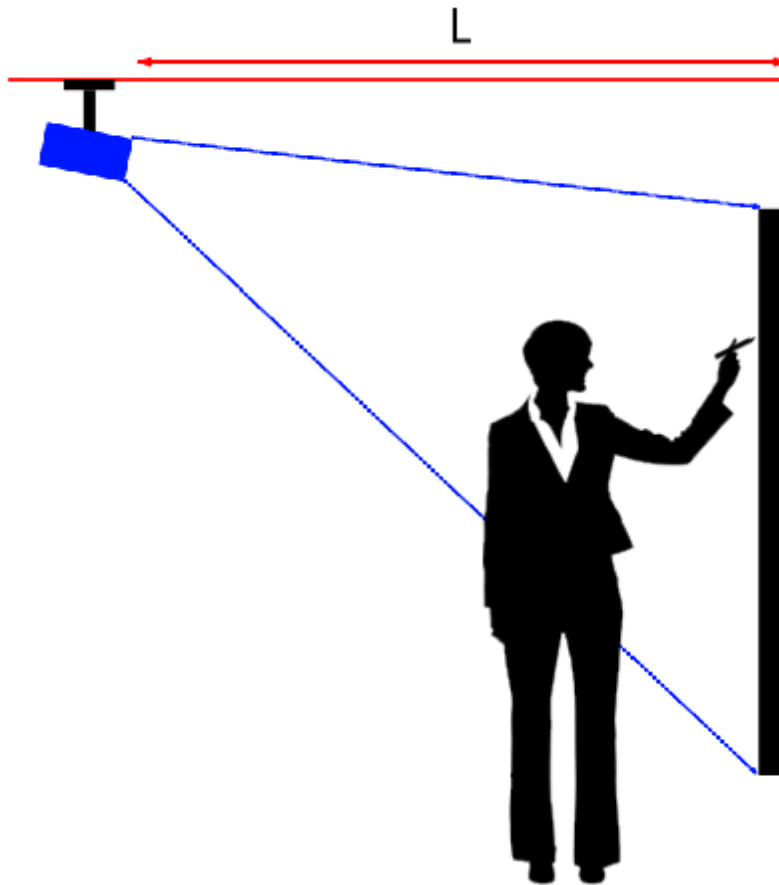**Abbildung 3 EyeRIS mounted sidewise on the wall**

Image 4 EyeRIS at the ceiling in 2D

3. Calibration

3.1.   Start

After connecting the hardware and starting the EyeRIS software following toolbar should appear, when no calibration is predefined. Here you can calibrate EyeRIS, configure it and solve problems.

Click on following icon to start the calibration:

Abbildung 5 EyeRIS Kalibrierung

3.2.   Alignment

Before calibrating EyeRIS you have to make sure it is correctly aligned. You will see a big crosshair in the first step of calibration. Use this crosshair with the inbuilt laser to align EyeRIS at the center of the screen. After that click on „OK".
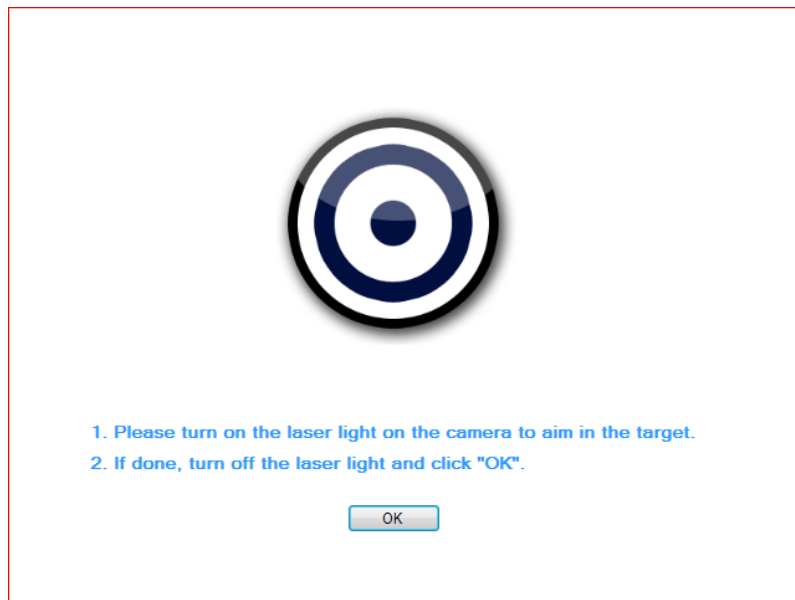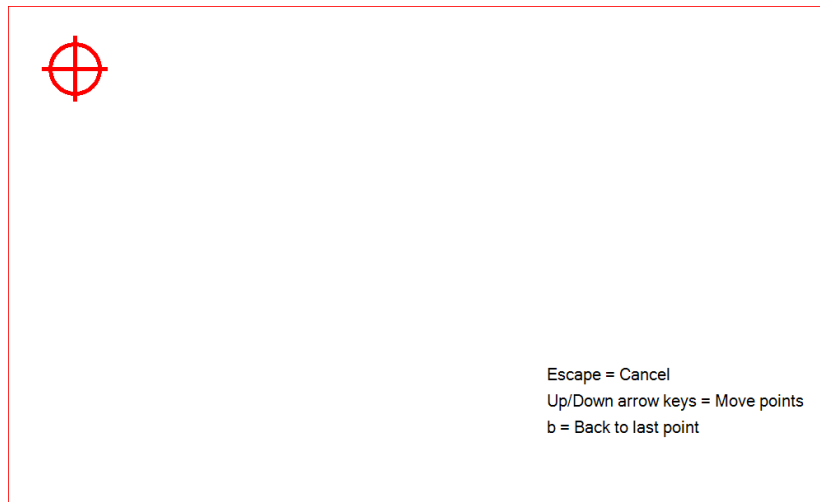

1. Please turn on the laser light on the camera to aim in the target.
2. If done, turn off the laser light and click "OK".

OK

Image 6 Alignment

3.3.   Nine-Point-Calibration

The next step is the calibration window. Here you will see several red crosshairs. Push these crosshairs with the ePen into the center until it fills completely red and disappears. Perform this step with each crosshair until the window closes. If one of the crosshairs doesn't fill red, make sure the ePen is working and the position and alignment (angle) is correct. You can use the Tracking Monitor to test both (see 4.2 Tracking Monitor). After the calibration you can immediately use the ePens to control the cursor!
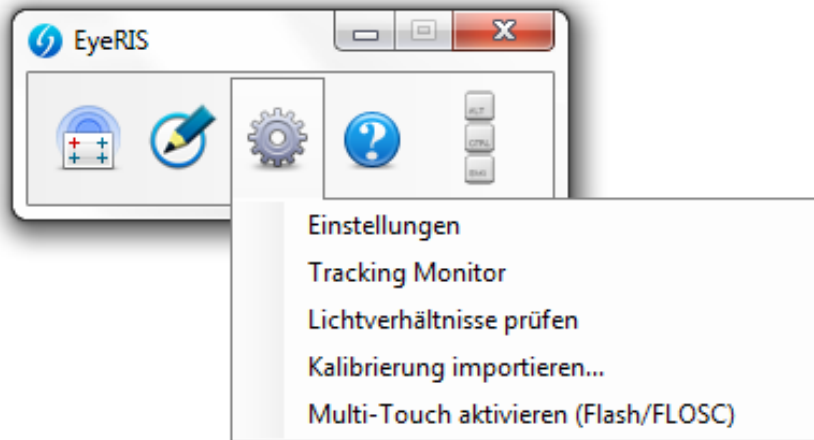

Image 7 calibration

Press "B" on the keyboard to undo the last action and recalibrate a crosshair. By pressing "Escape" you can cancel the calibration.

After the calibration the EyeRIS toolbar will minimize into a tray icon. You can access the toolbar with a rightclick on the tray-icon (find it bottom right in the Windows system-tray).
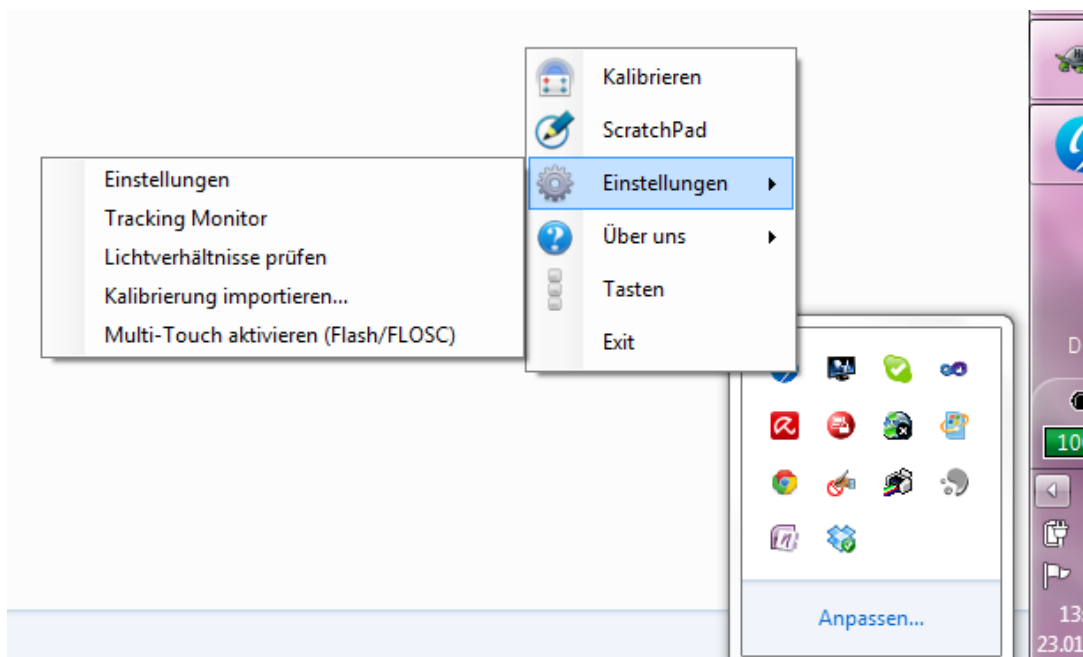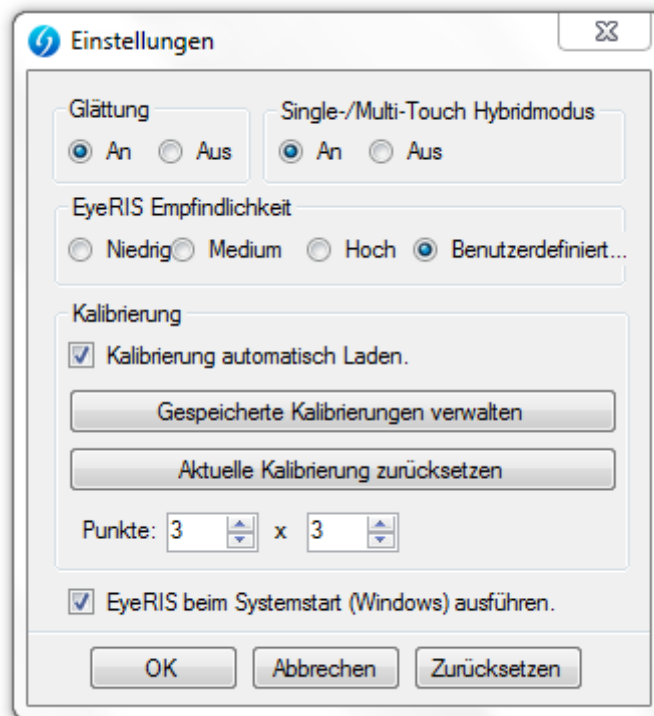
4. EyeRIS Options

Image 8 EyeRIS Options on toolbar

You can access the EyeRIS options by clicking on the option icon (see above). When EyeRIS is minimized, use the option icon in the system-tray (rightlick on EyeRIS icon):

Image 9 EyeRIS options in system-tray

4.1. Settings

Image 10 Settings

In the settings window you can adapt the sensitivity of EyeRIS and configure your calibration. Normally you can leave the settings like they are.
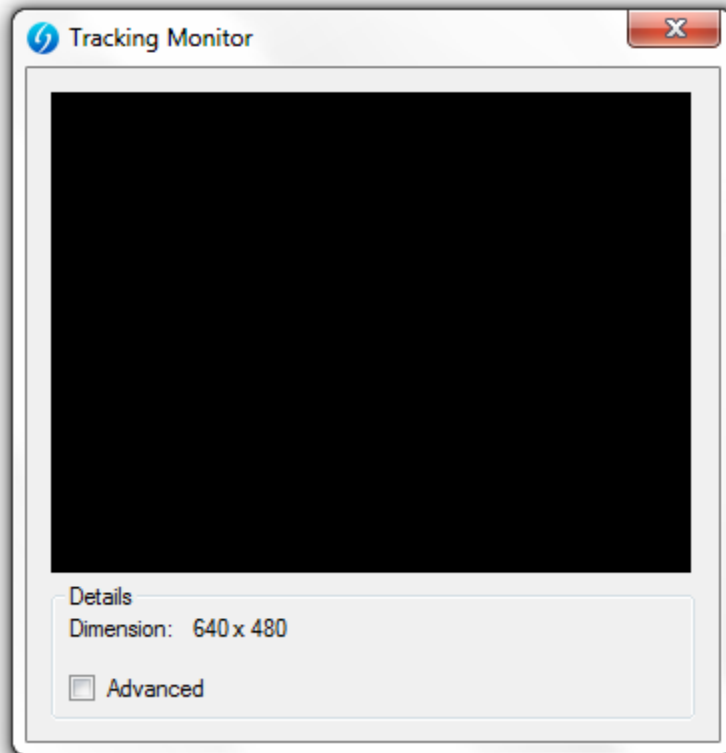
Smoothing: EyeRIS creates smooth strokes.

Single-/Multi-Touch Hybridmodus: "On" switches automatically between single- and multipen input. "Off" makes the multipen input permanent.

EyeRIS Sensitivity: Adapt the EyeRIS sensitivity on the transmission power of the pens. Weak transmitting pens require a high sensitivity. Strong transmitting pens need a low sensitivity. If the distance is very high between screen and pens (> 6m) and the signal doesn't reach each area, the sensitivity should be configured as "High".

Calibration: Here you can manage your saved calibrations and configure it.

4.2. Tracking Monitor

Image 11 Tracking Monitor

The Tracking Monitor helps in the installation process of EyeRIS and is a tool for troubleshooting. Here you can see the signals of the pens and faulty signals from other sources. Following image shows a normal signal:

Image 12 Normal signal

The first number describes the ID of the signal, the second describes the strength. The strength should be between 30 and 140. Faulty signals are mostly much bigger or smaller. Sources for faulty signals could be direct sunlight or concentrated light of a lamp. Avoid direct light on the interactive area.

You can also use the Tracking Monitor to find a good alignment of EyeRIS. Push the edges of the interactive area with your pen and you see if it is covered by EyeRIS by checking the tracking monitor.