Running Eye

Technical Supplement

File:

Running Eye is available as executable file (.exe) for Microsoft Windows. We recommend not to disturb the surrounding file structure, since it is a build out of the Unity game development platform.

Execution:

When executing the Running Eye file, the player can choose quality and performance settings. We recommend using the best screen resolution for the available screen. Ideal is a screen with a resolution of 1920 x 1080. An adequate graphics quality is the “High” setting. Further adjustments should not be necessary. The game starts when clicking the “Play!” button.

Eye Tracker:

Model:

Running Eye is optimized for the Tobii Eye Tracker 4C. So, for an optimal experience, the usage of the Tobii Eye Tracker 4C is necessary (Link: https://gaming.tobii.com/products/).

Setup:

The Tobii Eye Tracker 4C should be attached below the display of the gaming computer. For this, the included magnet strip can be used. Connect the eye tracker to the USB-port of the gaming computer. Guarantee a clear field of vision between the eye tracker and the face of the player.

Calibration:

Make sure the Tobii Eye Tracking Core Software is installed on your gaming computer (Link: https://gaming.tobii.com/getstarted/). Open the Software and establish a connection between eye tracker and software. To calibrate the eye tracker for a new player, create a new account in the Tobii environment. Place the player in front of the gaming computer. The software will recognize the presence of a person and will show the recognized eyes. The following calibration process needs the player to repeatedly look at small circles on screen, until they disappear. If this process is successful, the player has to insert an account name to finalize the calibration.

Graphics & Physics:

Real time lightning is used in combination with otherwise low poly graphic. Physic simulation is used in regards affectable objects and Volker, even if some axis and rotations are constrained. An external GPU is recommended to deliver sufficient FPS at higher graphic settings.

Screens:

Start Menu Screen:

The start screen of Running Eye has four menu points. When clicking on END, the game exits. With INFO, information on how to play the game, especially the control, is given. Clicking on START loads the game scene and the player can start to play. In SETTINGS, the player can make adjustments to length, difficulty and controls of the game.

Furthermore, the start screen shows the current high score, the score of the last played game and the success of the last played game.

Settings Screen:

The checkbox “Keyboard & Mouse” deactivates eye tracker control and activates alternative controls via keyboard and mouse. With the regulator “Game Length”, the player can choose the number of obstacles between start and target. The number of objects ranges between 2 and 20. The regulator “Game Speed” manipulates the pace of the player`s character and can be set between 0.2 and 4. For beginners, we recommend a value below 1. Generally, for eye tracking controls, lower speed values should be chosen, than for mouse and keyboard controls. The regulator Mouse Focus Time sets the timespan in seconds an object stays focused after mouse over. The button SAVE accepts the changes made and navigates back to the start menu.

Ingame Screen:

Camera View: The camera shows Volker, the landscape, obstacles and any other gameplay.

Back Button: The button BACK pops up in the top right corner of the screen when playing the game. Clicking on it navigates to the start menu and loses the current game. This button was implemented so that players do not have to wait for the game over caused by the tornado, if they are in a hopeless situation. Instead, they can cancel and restart the game earlier or make adjustments in settings.

Meter Display: In the right lower corner the meters to the target, the meters to the start and the meters to the tornado are displayed.