OpenXR eye-tracking integration – Quick Guide

This is a demo code for XR eye tracking integration to your C++ projects.

Demo can be downloaded in this Discord message or via this link

This demo assumes that the user has prior experience with the OpenXR API and understands the fundamental process of integrating OpenXR into a project. It also requires familiarity with registering the VR manufacturer's OpenXR driver, as well as a solid understanding of C++ and VR technology.

Demo code can be copied, used and extended as you wish.

Eye Tracking integration steps using OpenXR:

1. **Enumerate available extensions** – Check if XR_EXT_eye_gaze_interaction is supported.

2. **Enable the extension** – Include it in the session creation process.

You may find code for steps 1 and 2 in CheckAndEnableEyeTrackingExtension() function in xr_eye_demo.cpp

3. **Create an eye Tracker** – Ensure that XrEyeTrackerEXT is properly created.

InitOpenXREyeTracking() show demo code for initialization of XR eye tracking and also calls the CheckAndEnableEyeTrackingExtension function

4. **Retrieve eye tracking data** – Query gaze pose correctly.

GetEyeGaze() function demonstrate the tracking data read out

Notes

To get data from Somnium VR1 eye tracker, you need to first calibrate and enable it using Somnium VR1 tool app. You can use fast or advanced more precise calibration. Currently there is not a standard API using OpenXR.

In case of question please contact us in our Discord