Resources Available for OpenXR Development
OpenXR 1.0 Release

Oculus, Hololens and Vive users will soon be able to share applications across platforms.

The OpenXR standard could lead to loads of cross-platform AR and VR applications.

The Khronos Group Ratifies and Releases OpenXR 1.0

An effort to standardize certain aspects of VR and AR applications gains wide industry support today with the release of version 1.0 of the OpenXR specification.

https://www.engadget.com/2019/07/30/openxr-1-launch/
https://uploadvr.com/openxr-specification-standard/
https://pcper.com/2019/07/the-khronos-group-ratifies-and-releases-openxr-1-0/
What Resources Are Available?
What Resources Are Available?

- **OpenXR Landing Page - Specification, Reference Pages, Sample Code, Overview:**
  - [http://www.khronos.org/openxr](http://www.khronos.org/openxr)

- **Slides from today’s presentations (not all posted yet):**
  - [http://khr.io/chinavr](http://khr.io/chinavr)
What Resources Are Available?

200+ page specification
What Resources Are Available?

200+ page specification

Reference Pages
What Resources Are Available?

200+ page specification

Reference Pages

Overview Guide
What Resources Are Available?

- [https://github.com/KhronosGroup/OpenXR-Docs](https://github.com/KhronosGroup/OpenXR-Docs)

- Contains the source for generating the specification document and reference pages, scripts to be added soon

- Contains the openxr header files
What Resources Are Available?

- [https://github.com/KhronosGroup/OpenXR-Registry](https://github.com/KhronosGroup/OpenXR-Registry)

- Contains the specification, reference pages, and overview guide

---

**OpenXR-Registry**

The OpenXR-Registry repository contains the OpenXR™ API and Extension Registry, including generated specifications and reference pages, and reference cards. The sources for these documents are found in the separate https://github.com/KhronosGroup/OpenXR-Docs repository; this repository is used as a backing store for the web view of the registry at https://www.khronos.org/registry/OpenXR/. Commits to the master branch of OpenXR-Registry will be reflected in the web view.

Interesting files in this repository include:

- **specs/1.0/** - OpenXR 1.0 API specifications and reference pages.
- **specs/0.90/** - OpenXR 0.90 Provisional API specifications and reference pages and API reference card.
- **index.php** - toplevel index page for the web view of https://www.khronos.org/registry/OpenXR/. This relies on PHP include files found elsewhere on www.khronos.org and so is not very useful in isolation.
What Resources Are Available?

- [https://github.com/KhronosGroup/OpenXR-SDK-Source](https://github.com/KhronosGroup/OpenXR-SDK-Source)

- Contains the source for:
  - Loader
  - Some basic API layers
  - Test sample

- For the current best example code, see: `src/tests/hello.xr`
What Resources Are Available?

- https://github.com/KhronosGroup/OpenXR-SDK
- Contains Generated Files
- Use for building on Windows and Linux
- Embed this in your projects
What Resources Are Available?

- [https://github.com/KhronosGroup/OpenXR-CTS](https://github.com/KhronosGroup/OpenXR-CTS)

- The Conformance Test Suite

- Automated and interactive tests for determining conformance of an XR implementation with the specification

OpenXR Conformance Test Suite

OpenXR Conformance Test Suite is a collection of tests covering the breadth of the OpenXR API. Some tests have been grouped by tags depending on the involvement of the tester/invoker (e.g. `[interactive]`) and the area of the test (e.g. `[composition]` and `[actions]`). Interactive tests for validating layer composition must run for all graphics APIs supported by the runtime and action tests must run for all interaction profiles supported by the runtime. For this reason the suite of tests is run multiple times with different configurations.

`conformance_c11`, a command-line interface application, is provided for running on PCs and other devices and platforms which support this form of application. `conformance_c11` also demonstrates how to build an application which can interop with the `conformance_test` shared library. If the device being tested does not support a command-line interface, a host application must be built for the device which the OpenXR runtime will run on. The conformance host must invoke `conformance_test`, the test suite shared library.
Additional Resources

- OpenXR sample code for simple, cross-platform “hello_xr” VR application
- OpenXR Registry (links to specification, documentation, reference guide and more…)
- Microsoft: Getting started with OpenXR
- Microsoft: OpenXR app best practices
- Microsoft: OpenXR performance
- Microsoft: OpenXR troubleshooting
- Microsoft: Getting started with OpenXR
- Microsoft: OpenXR Samples for Mixed Reality Developers
- Oculus: OpenXR Mobile SDK
- Monado: A free, open-source XR platform
  - Collabora: What’s new in OpenXR 1.0 & Monado?
- Collabora: OpenXR Masterclass from Laval-Virtual 2020
- Collabora: OpenXR easy-to-read example for OpenGL/Linux
- OpenXR Youtube Playlist
- Varjo: OpenXR Developer Site
- Video: A Look at OpenXR - SIGGRAPH 2019 BOF Sessions
- Video: OpenXR – State of the Union - Khronos GDC 2019

- OpenXR Forum and Slack Channel
  - Forum: https://khr.io/openxrfeedback
  - Discussion: https://khr.io/slack
Thanks!

- To these companies for enabling their engineers to dedicate time to OpenXR!
Thanks to the Engineers!

Before we go...
Before we go... as always give us Feedback!

- Tell us:
  - What should be in the spec
  - What shouldn’t be in the spec
  - How things need to be added for your application/runtime/hardware/OS/...
Join Khronos!

- Get more involved
- Have direct impact on the direction of the API
- Be part of the effort to deliver OpenXR 1.1!
Thank You!