今天的演讲者

Today’s Speakers

科纳斯工业协会总裁
Khronos Group President
尼尔·特雷维特
Neil Trevett, NVIDIA

3D商务工作组主席
3D Commerce Working Group Chair
轩尼克·赛尔德基
Shrenik Sadalgi, Wayfair

Vulkan WG 主席
Vulkan Working Group Chair
汤姆·奥尔森, ARM
Tom Olson, ARM

Vulkan Ray Tracing
TSG主席
Vulkan Ray Tracing Task Sub Group Chair
丹尼尔·科赫, 英伟达
Daniel Koch, NVIDIA

Vulkan Ray Tracing Task Sub Group Chair

皮埃尔·布迪耶
Pierre Boudier, Intel

OpenXR WG主席
OpenXR Working Group Chair
布伦特·因斯科, 英特尔
Brent Insko, Intel

主办 Host
Khronos中国总监
Khronos Director, China
傅世雄
Dennis Fu

Vulkan机器学习TSG主席
Vulkan Machine Learning Task Sub Group Chair

英伟达
Khronos Connects Software to Silicon

Open, royalty-free interoperability standards to harness the power of GPU, multiprocessor and XR hardware

3D graphics, augmented and virtual reality, parallel programming, inferencing and vision acceleration

Non-profit, member-driven standards organization, open to any company

Well-defined multi-company governance and IP Framework

Founded in 2000

>150 Members ~ 40% US, 30% Europe, 30% Asia

This work is licensed under a Creative Commons Attribution 4.0 International License
Khronos Active Initiatives

3D Graphics
Desktop, Mobile and Web

3D Assets
Authoring and Delivery

Portable XR
Augmented and Virtual Reality

Parallel Computation
Vision, Inferencing, Machine Learning

Safety Critical APIs
Khronos Ecosystem Segmentation

Multiple Khronos standards are often relevant to developers with similar requirements.

Khronos currently identifies six market segments:

- Performance 3D
- Interactive 3D and Compute on Desktop and Mobile
- XR
- Parallel Computing and Visualization on HPC and Desktop
- Performance Compute
- Embedded Compute

Working Groups within a segment coordinate and cooperate to develop coherent solutions and outreach programs.
Khronos IP Framework

**Members can exclude themselves from specific working groups**
In which they have no interest

Khronos has a state-of-the-art IP Framework that protects both Member IP and Khronos standards in the industry

**Khronos Group**
All Members Agree to NOT assert their patents against any CONFORMANT implementation of a RATIFIED Specification (no patents need be disclosed)

Successful Submission review means that product is Conformant ->
Product can use API trademark AND is protected from patent litigation from other members

**Members can exclude specific patents**
Rarely needed as license grant is very narrow

Adopters are companies IMPLEMENTING a specification. There are never any fees for developers USING a specification

More information at www.khronos.org/members/ip-framework

Working Group releases Conformance Tests for each Ratified Specification

Adopters Process defines how to submit Conformance Test Results for Working Group Review (30 days)

Implementer executes Adopters Agreement to access Adopters Process. Adopters fee for each specification major version (typically, around $20-50K for unlimited number of products)

This work is licensed under a Creative Commons Attribution 4.0 International License
Khronos Exploratory Group Process

Exploratory Group
- Online discussion forum and weekly calls, probably for a few months
- Discuss industry requirements for open, royalty-free interoperability standards
- No detailed design activity to protect participants IP
- Explore if consensus can be built around an agreed Scope of Work for standardization activities

Any company is welcome to join
- No cost or IP Licensing obligations
- Simple NDA to cover Exploratory Group Discussions

Any company (Khronos member OR non-member) is welcome to suggest potential topics for new standardization activities

Khronos Board selects topics for to take into Exploratory Groups

Working Group established at Khronos or partner organization to execute the SOW

Agreed SOW document released from NDA
Get Involved!

- These slides and information on Khronos Standards
  - www.khronos.org
- Any company is welcome to join Khronos
  - www.khronos.org/members

Benefits of Khronos Membership

- Gain early insights into industry trends and directions
- Influence the design and direction of key open standards that will drive your business
- Accelerate your time-to-market with early access to specification drafts
- Network with domain experts from diverse companies in your industry
- State-of-the-art IP Framework protects your Intellectual Property
- Enhance your company reputation and visibility as an industry leader through Khronos participation
- Draft Specifications Confidential to Khronos members
- Publicly Release Specifications and Conformance Tests

Khronos Standardization Process
Thank you so much!

- You may access this material at
  - www.YouKu.com (search “Khronos”)
  - www.khr.io/chinavirtualopenhouse
- For more information, you may also reference the resources in the slide
- Please contact me directly with any questions

Dennis Fu
Khronos Director, China
dennis@khronos.org