JSR 231: Java Binding for the OpenGL(r) API

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Agenda

- JSR 231 Specification update
- JSR 231 Reference Implementation status
- Cool new JOGL features
- Community involvement
- Demos
JSR 231: Specification Status

• Specification in Proposed Final Draft stage on JCP.org

• Target 1.0.0 Specification Schedule
  • Submission of all final materials to JCP: late June
  • Final Official Approval from JCP: early August

• Maintenance release process
  • OpenGL 2.1 coming
  • JCP maintenance process much lighter weight than 1.0

• Probable Name Change: Java Binding for the OpenGL(r) API
JSR 231 Specification Status, Contd.

- Major API changes since BOF last June (partial list)
  - Removed all OpenGL extensions that were promoted to core OpenGL by OpenGL 1.3
  - `javax.media.opengl`, `javax.media.opengl.glu`
  - `GLDrawableFactory` changes, `GLCanvas/GLJPanel` now extensible
  - Support interaction with external OpenGL libraries (enables JOGL/Java 2D bridge)
  - Method for exposing new OpenGL extensions
  - Exposed Threading class to increase run-time control over threading model used by implementation
  - Removed all `glX`, `wgl`, `cgl`, etc. platform-specific APIs
  - Decided not to expose GLU NURBS
JSR 231 Reference Implementation

- **Release status**
  - Merge of JOGL project & JSR 231 completed
  - Builds posted to web nightly
  - Beta 4 release available
  - Signed Java Web Start JOGL binaries updated with each release

- **Platforms:** Solaris (SPARC32/64, x86, AMD64), Linux (x86, AMD64), Windows (x86), Mac OS X (PPC, x86)

- **Target schedule**
  - Beta 5: early June
  - 1.0.0 Release: early August
  - Regular update releases after that
JSR 231 Reference Implementation, Contd.

- Some JOGL deployment options
  - Point user to java.net JOGL web site
  - Bundle JOGL libraries with your application
  - Use Java Web Start
  - Applet (still experimental)
  - Future possibility: JOGL Installers

- JOGL source vs. Reference Implementation
  - We will periodically copy source code verbatim from JOGL to RI
  - Periodically run TCK on RI, release in binary form as official release
Cool New Features

- TextureI/O classes
- Screenshot class
- Gamma class
  - Control over gamma, brightness, contrast
- TileRenderer class for high-resolution screenshots
  - Courtesy of Brian Paul
- Java2D/JOGL bridge
  - High performance for GLJPanel
Community Involvement

- JOGL forum on http://javagaming.org/
- Try latest builds, provide feedback
- Contribute to your areas of interest
  - 2D/3D font helper classes
  - More...
DEMOS

Java2D/JOGL bridge
Medical Imaging demo from GE Healthcare
Swamped!
For More Information

- https://jogl.dev.java.net
  - These slides will also be available here
- https://jogl-demos.dev.java.net
  - Run the Java Web Start demos from your browser!!
- Pavilion
  - POD #719 – Java 3D, JAI, and JOGL
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Q&A

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