JavaFX 8

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St. Louis Java Users Group
About the Presenter

- Java developer since 1998
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Agenda

- Introduction
- SceneBuilder
- JavaFX 3D
- Printing
- CSS Support
- iOS, Android, and Raspberry PI
History

- JavaFX 1.0 (12/08, JavaFX Script, Win, Mac)
- JavaFX 1.1 (02/09, Mobile)
- JavaFX 1.2 (06/09, Linux/Solaris, charting)
- JavaFX 1.3 (04/10, End of line for 1.0)
- JavaFX 2.0 (10/11, Java API, WebView, FXML)
- JavaFX 2.1 (04/12, Mac support)
- JavaFX 2.2 (08/12, Linux support, Canvas/ImageOps)
- JavaFX 8 (03/14, 3D, Printing & Rich Text, Part of JRE)
SceneBuilder

- Open Source, Written in JavaFX
- GUI Painter of Scenes
- Serializes to FXML format
- Runtime FXMLLoader loads FXML
- Supports Controllers with backing code
SceneBuilder

- Integrated into IDEs (IDEA 14.0, etc.)
- Provide visual guides as controls are dragged in a container
- Provide hierarchical (document) view
- Property, layout, Code panels
- Supports user defined components
FXML Files

- Declarative UI information
- FXMLLoader loads FXML files into a Node
- Can have Companion Controller class
- Hand (IDE) editable as well as SceneBuilder editable
JavaFX 3D

- Hardware accelerated
- Shape3D
- Primitives: Sphere, Cylinder, Box
- Custom shapes: MeshView, TriangleMesh
- Support materials, lights, and cameras
- Importing 3D models generated elsewhere
JavaFX 3D

- ParallelCamera
- PerspectiveCamera
- AmbientLight
- PointLight
- PhongMaterial
  - diffuseColor, specularColor,
  - diffuseMap, specularMap,
  - bumpMap, selfIlluminationMap
Printing
CSS Support

- Borrowed from Web (CSS 2.1, 3)
- Split designer and developer workflow
- Stylesheets files or inline styles
- “-fx-” prefix for all properties
- Type, class, id selectors
- JavaFX Extensions
- Custom components can support CSS (javafx.css API)
CSS Support

- System default style: modena
- Find modena.css in jfxrt.jar
- Stylesheets can be specified in code or FXML
- Controls, containers, charts, etc. are CSS stylable
- Supports BSS files
JavaFX on iOS

- Apple iOS Developer Program, signing identities, provisioning profile
- RoboVM [http://robovm.com](http://robovm.com)
- Eclipse plugin, command line tool, Maven plugin
- Compiles Java byte code to native
- Run in simulator, device
- Submit to App Store
JavaFX on iOS
JavaFX on Android

- Needs the ADT
- The Dalvik SDK for JavaFX
- Compile JavaFX app with java
- Compile to *.apk using ADT tools
- Run in Simulator, device
- Upload to Play Store
On Raspberry PI

- Install raspbian
- Install JDK for ARM
- Feels and works essentially like any other Linux system.
Resources

- http://www.robovm.com (RoboVM)
- http://javafxports.org/page/home (Dalvik SDK for JavaFX)
- http://www.apress.com/9781430265740 (Pro JavaFX 8)
- https://bitbucket.org/projavafx/projavafx8 (Source code for Pro JavaFX 8)
Q & A