JavaFX Overview
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Java Organization Fit in Oracle
Java - The Foundation of the Foundation

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Oracle and Java

Oracle Strategy Webcast (Jan 27th, 2010) Overview

Software Strategy

Thomas Kurian | Executive Vice President, Product Development

URL: http://bit.ly/d2xNU2

Oracle + Sun: Java Strategy

Hasan Rizvi | Senior Vice President, Oracle Fusion Middleware

URL: http://bit.ly/9Nlul7

Java and Oracle

"Java [is] one of the crown jewels that's coming to Oracle. We continue to focus on accelerating the breadth and scale of investment in [Java, including] investing in and revitalizing the Java developer community."

Thomas Kurian | EVP, Oracle Development Products

"Oracle is committed to investing in the continued success of mobile Java. We will strengthen our leadership position by taking a direct role in improving content deployment and monetization, as well as advancing the core platform technologies."

Hasan Rizvi | SVP, Oracle Fusion Middleware Products

"Java is the single most important software asset we have ever acquired."

Larry Ellison | CEO, Oracle Corporation

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JavaFX Vision

JavaFX is *the* Platform for Creating and Delivering Rich Internet Applications Across Multiple Screens

JavaFX is Powered by Java

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Growth of Rich Internet Applications

	Video and Audio		**Animation**
	Graphics		**Transformations and Filters**
	Web Services		**Rich Text**

Simple Scripting Language

Graphical Design Tools

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What Can You Build with JavaFX

- **Video Players** across multiple browsers, platforms and devices

- **Business Apps** with immersive & interactive interfaces

- **Mash-ups** with REST, JSON, XML, RSS or ATOM based web services

- **Immersive Apps** across the browser, desktop, mobile & TV

Demo #1

- JavaFX.com samples

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JavaFX Script Language

- Purpose Built for RIA
- Declarative
- Data Binding
- Event Triggers

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Demo #2

- Attribute Binding

Beautiful Graphics

- Graphics Acceleration
- JavaFX Scene Graph
- Animations
- Lightning

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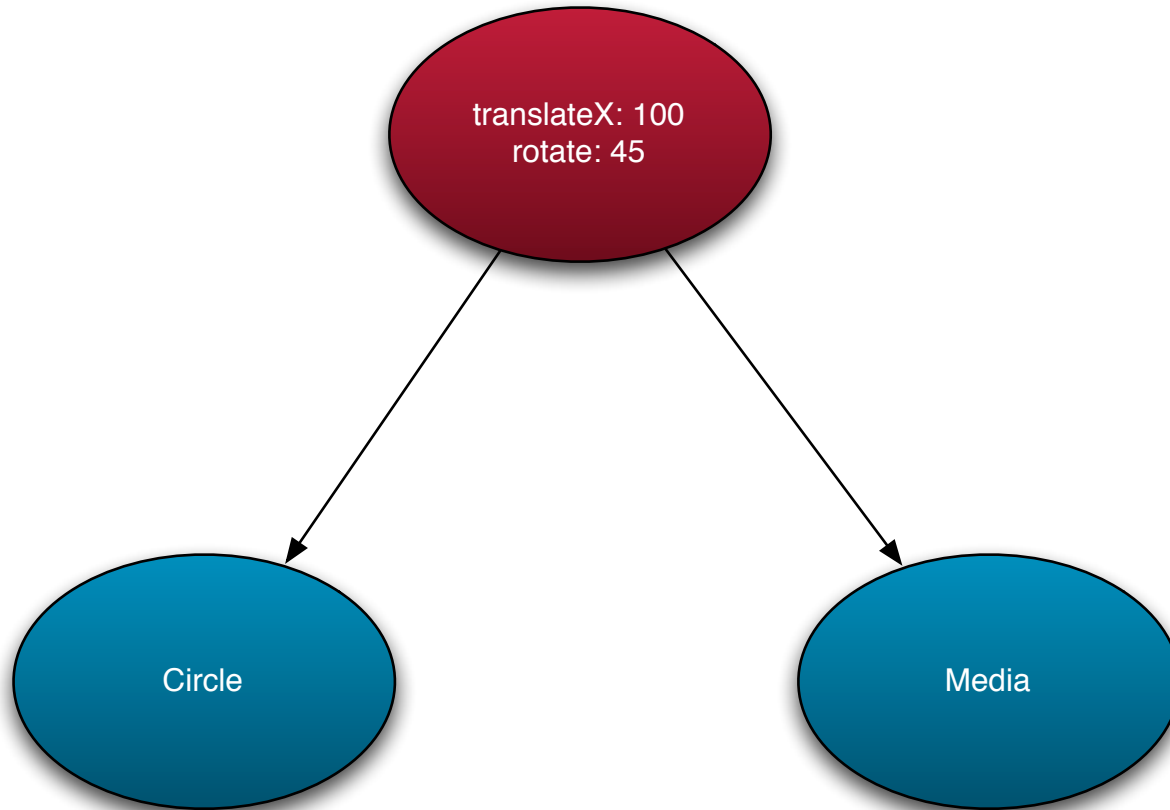Tuesday 13 April 2010

Java FX Scene Graph

- Describes the graphics and controls in a scene
- Each node in the graph has a single parent
- Special "group" nodes have zero or more children
- "leaf" nodes have no children
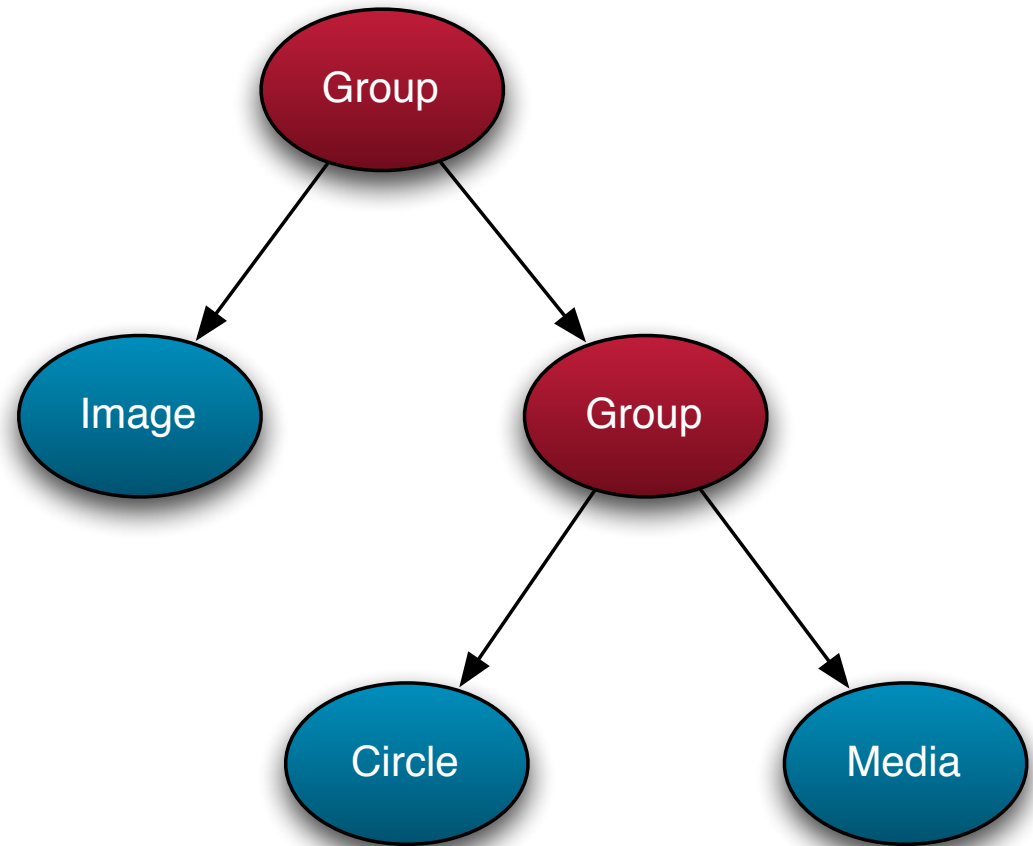
Java FX Scene Graph
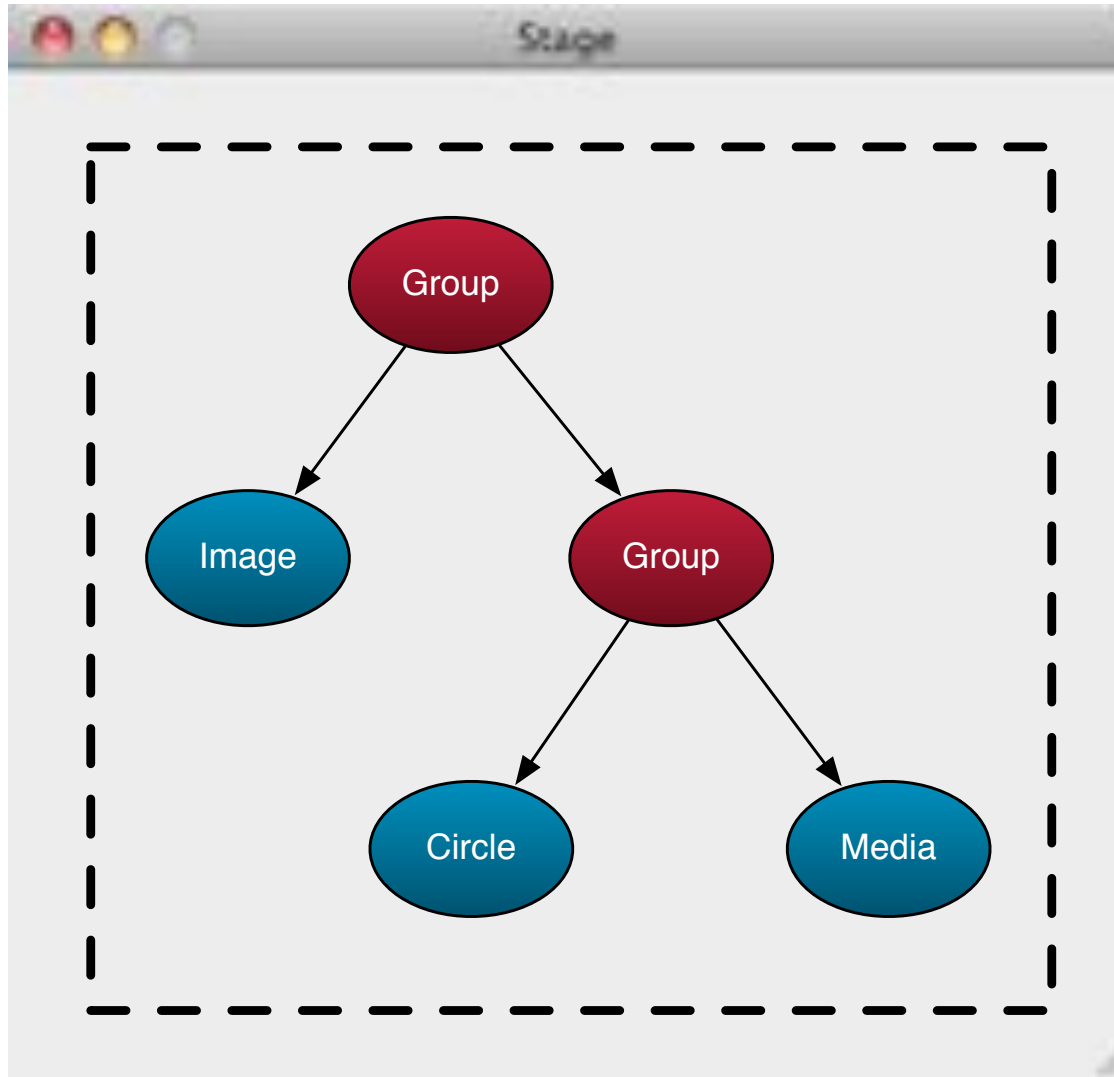
Java FX Scene Graph

Group

- 0+ child Nodes
  - Order of nodes indicates painting order
- Blend modes

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Scene

- CSS Stylesheets
- Background fill
- Width / Height

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Stage

- Top-level container
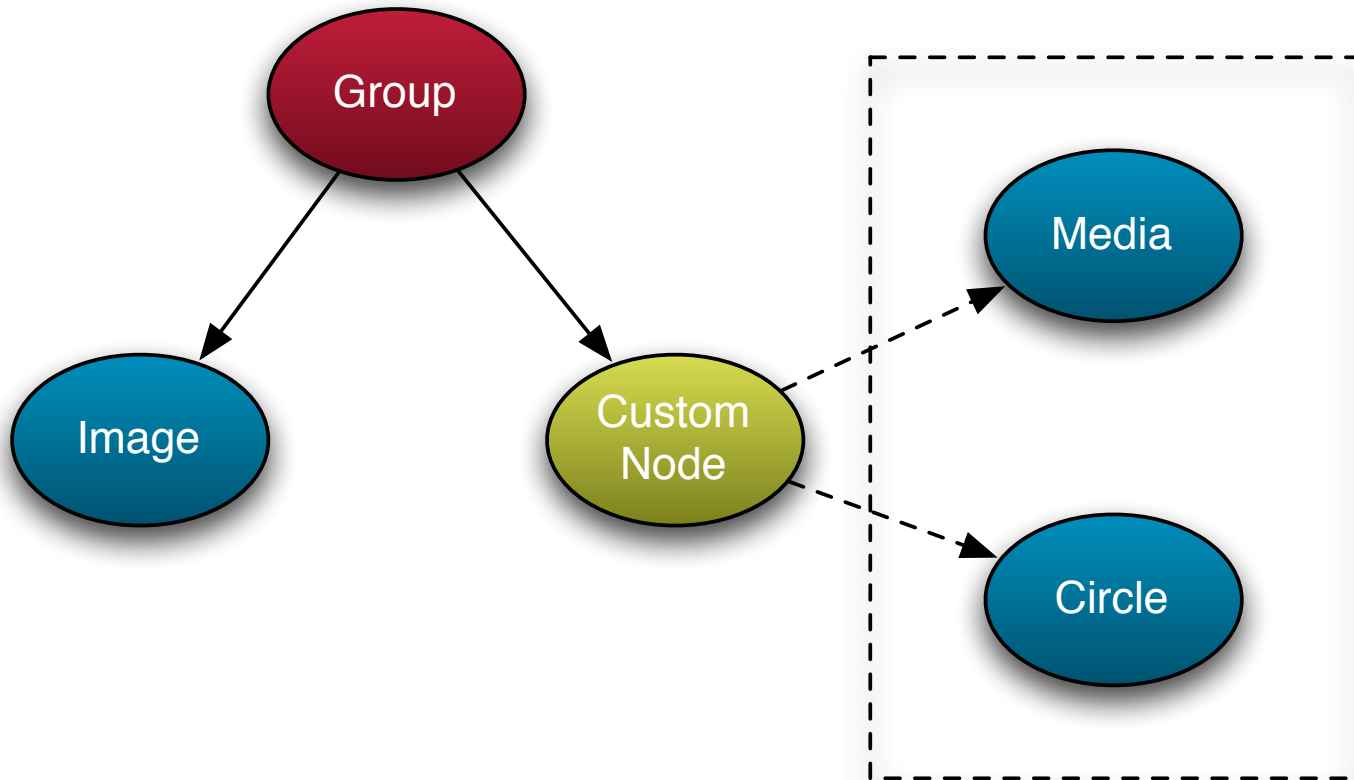- Transparent, Undecorated, Decorated
- Potentially represented by:
    - JFrame on desktop
    - JApplet on web page
    - SVG player on mobile
- Stage Extensions

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Custom Node

- Primary method of extending the Scene Graph
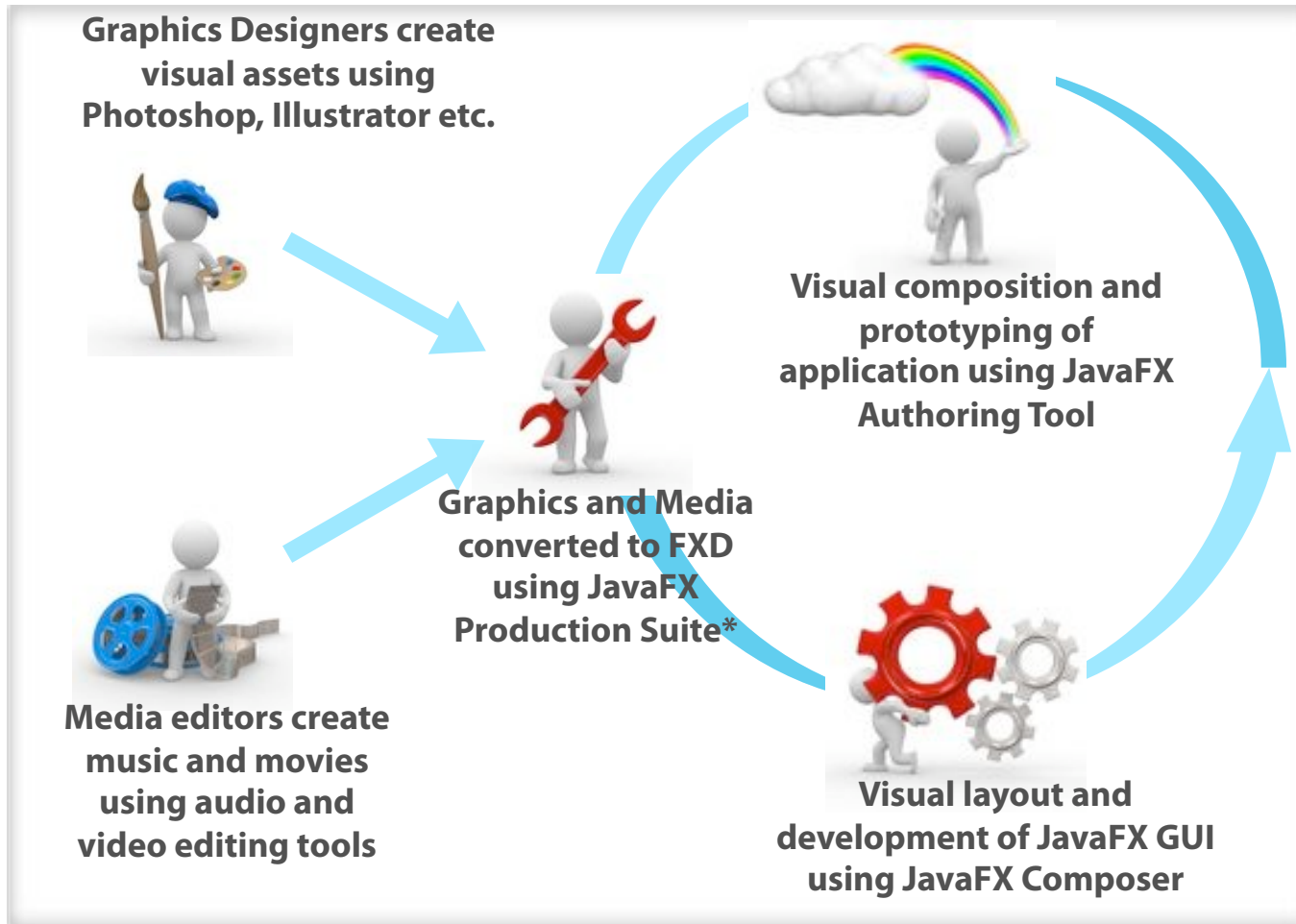- Simply override the create() method
  - Return a Node of your choice

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Java FX Custom Nodes

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Demo #3

- Build an application from scratch

JavaFX Designer Developer Workflow
A tool for each developer type

Iterative Development

Graphics Designers create visual assets using Photoshop, Illustrator etc.

Media editors create music and movies using audio and video editing tools

Graphics and Media converted to FXD using JavaFX Production Suite*

Visual composition and prototyping of application using JavaFX Authoring Tool
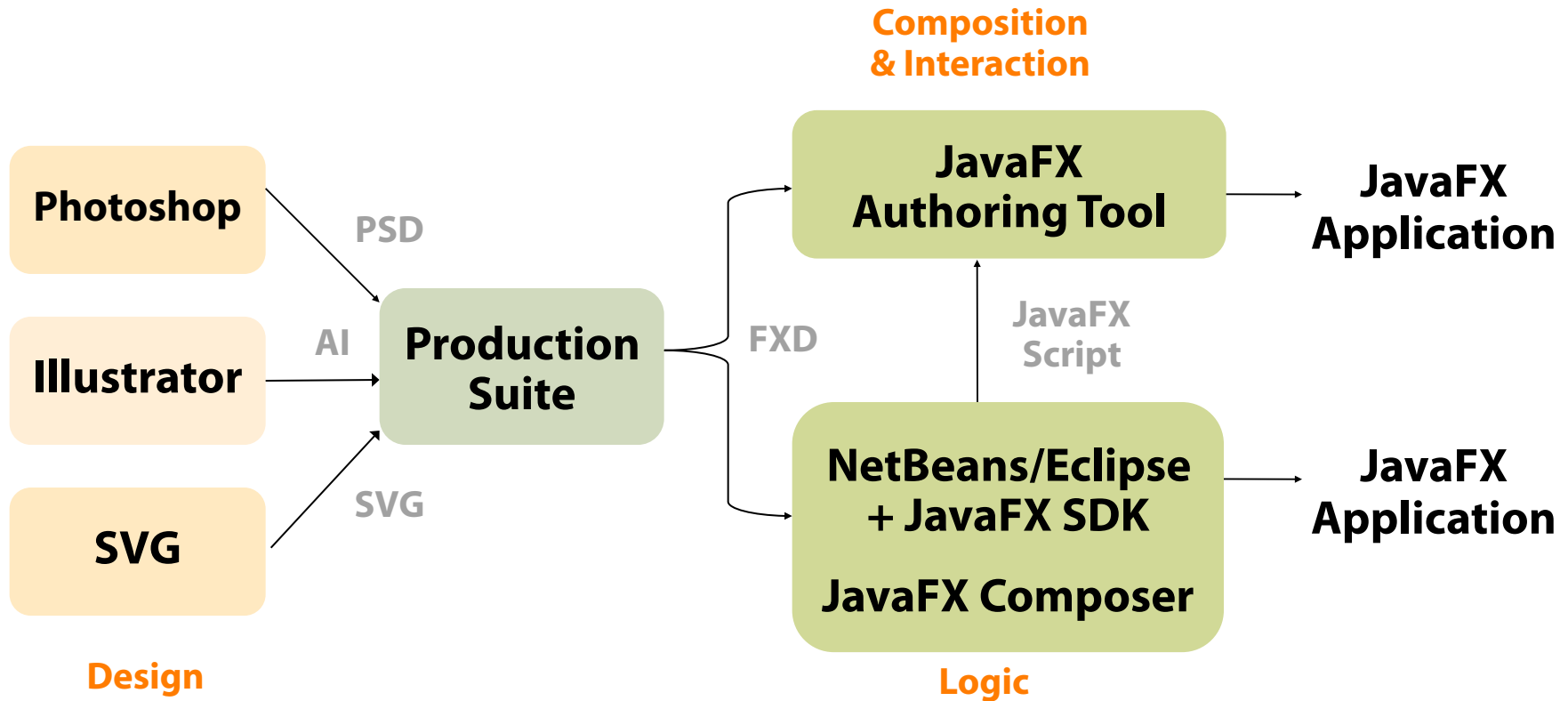
Visual layout and development of JavaFX GUI using JavaFX Composer

• **Flexibility to re-import modified graphics and media assets using JavaFX Production Suite**

• **IDEs allows creation of effects, behaviors and services for use in JavaFX Authoring Tool**

• **JavaFX Composer allows visual application development**

• **IDEs, JavaFX Composer, and Authoring Tool support end-to-end creation and deployment of JavaFX applications to different device platforms**

* Certain graphics & media formats can be directly used in tools without the need for conversion

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Simplified JavaFX Development Workflow

Composition & Interaction

Photoshop → PSD
Illustrator → AI → Production Suite
SVG → SVG

Production Suite → FXD → JavaFX Authoring Tool → JavaFX Application

JavaFX Script

NetBeans/Eclipse + JavaFX SDK

JavaFX Composer → JavaFX Application

Design

Logic

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JavaFX Production Suite:
Incorporate Visual Assets from popular design tools

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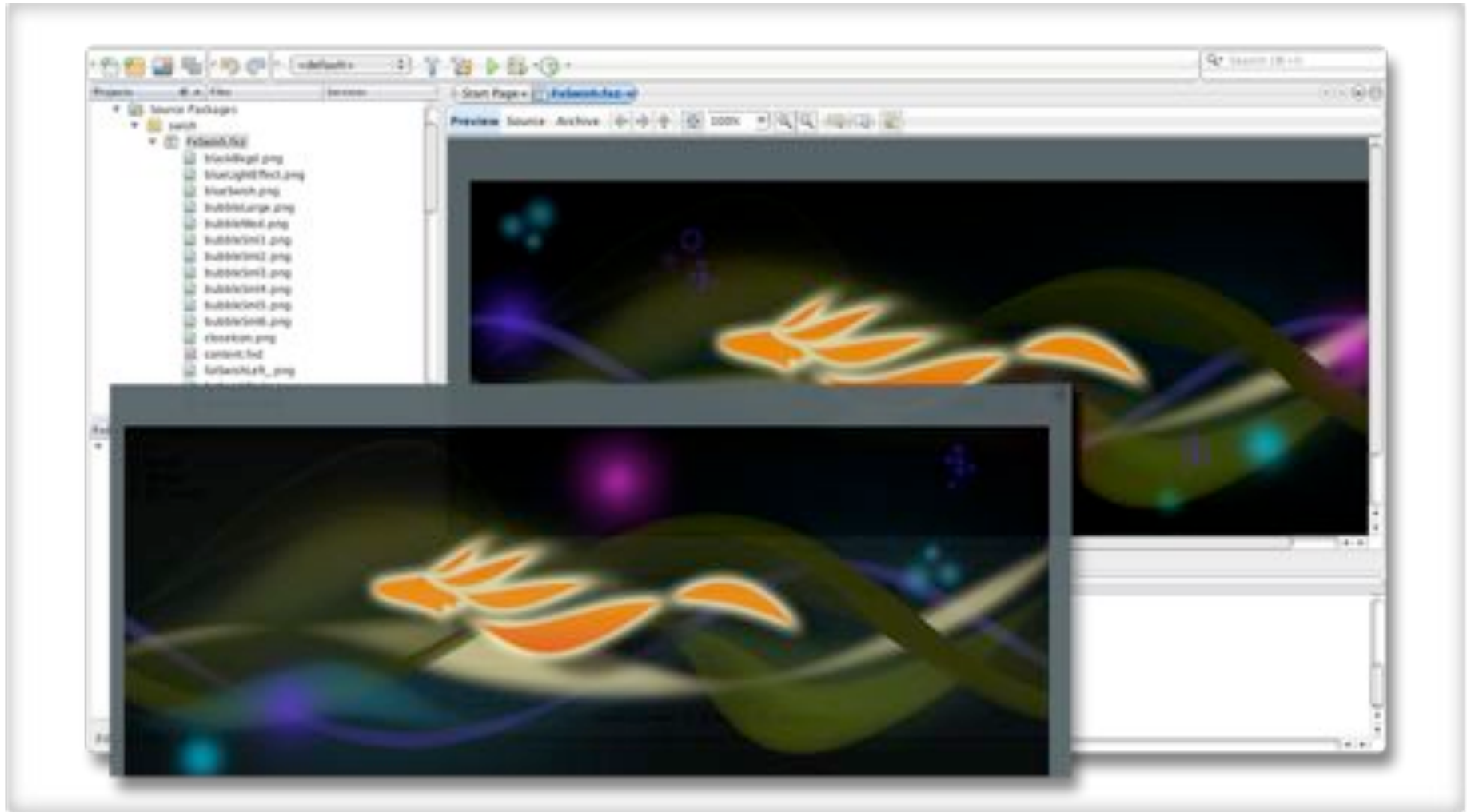
JavaFX SDK with NetBeans or Eclipse: Traditional Java Developers & Web Scripters

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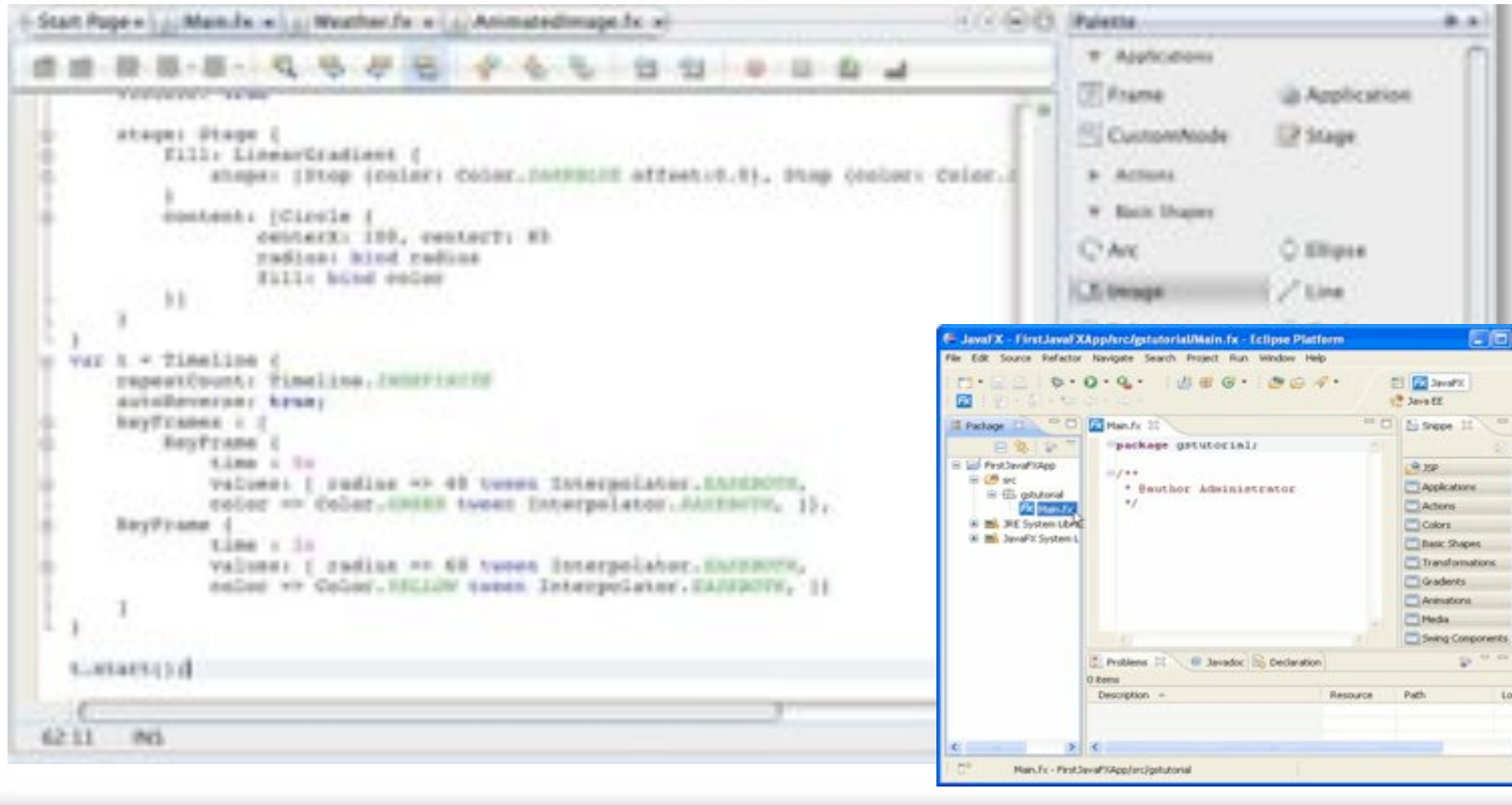
JavaFX Composer (NetBeans)
Visual Application Development

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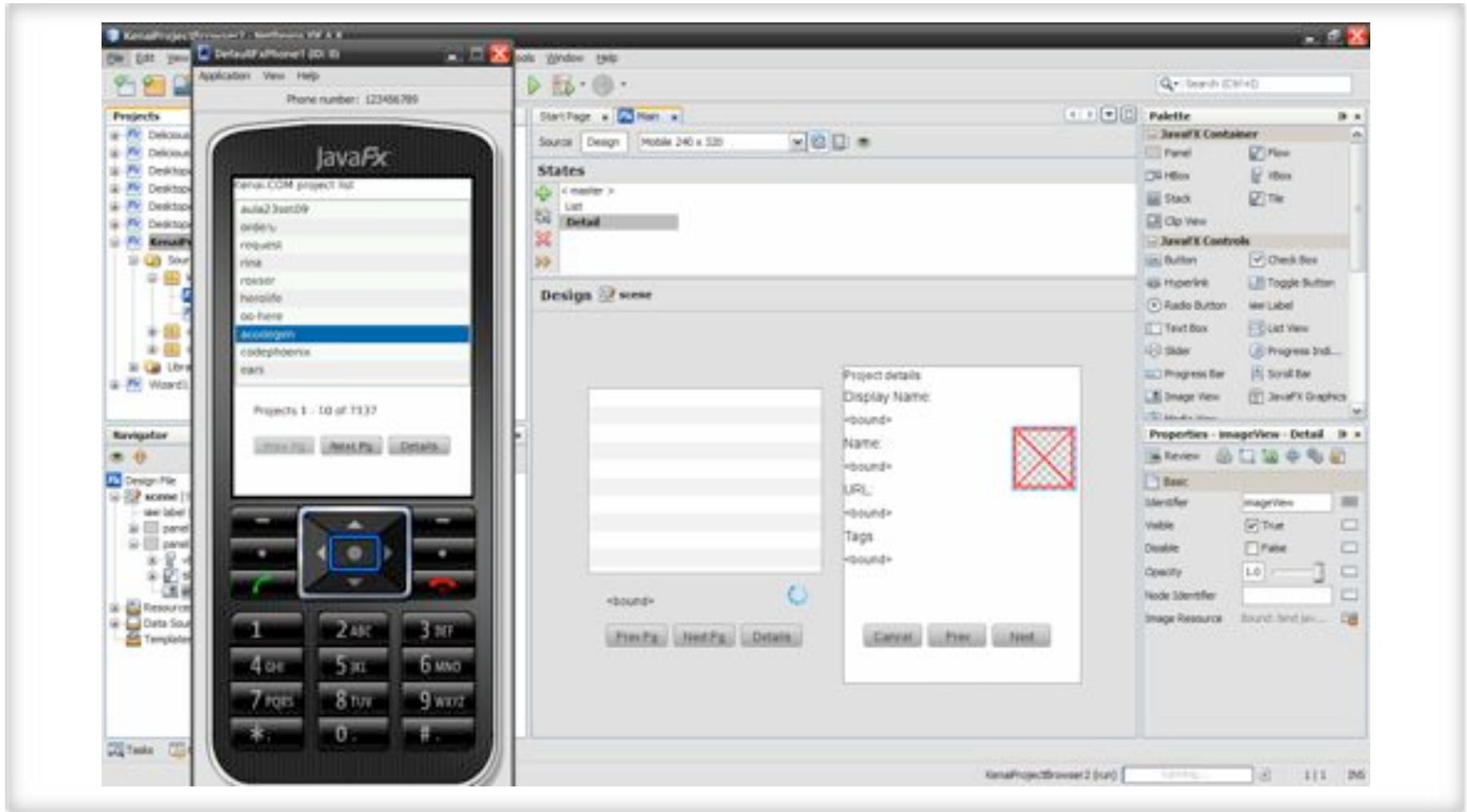
Demo #4

- Java FX Composer

JavaFX Authoring Tool
Creative Design & Application Prototyping

Create and deploy expressive and interactive applications for desktop, mobile and TV

Features Highlight

• **Simple and easy-to-learn tool that provides creative freedom**

• **Create custom animations with imported media assets**

• **Live editing environment saves you time - no more build and deploy to test**

• **Drag-n-drop effects and behaviors to add complexity to your application**

• **Add interactivity via our intuitive states interface**

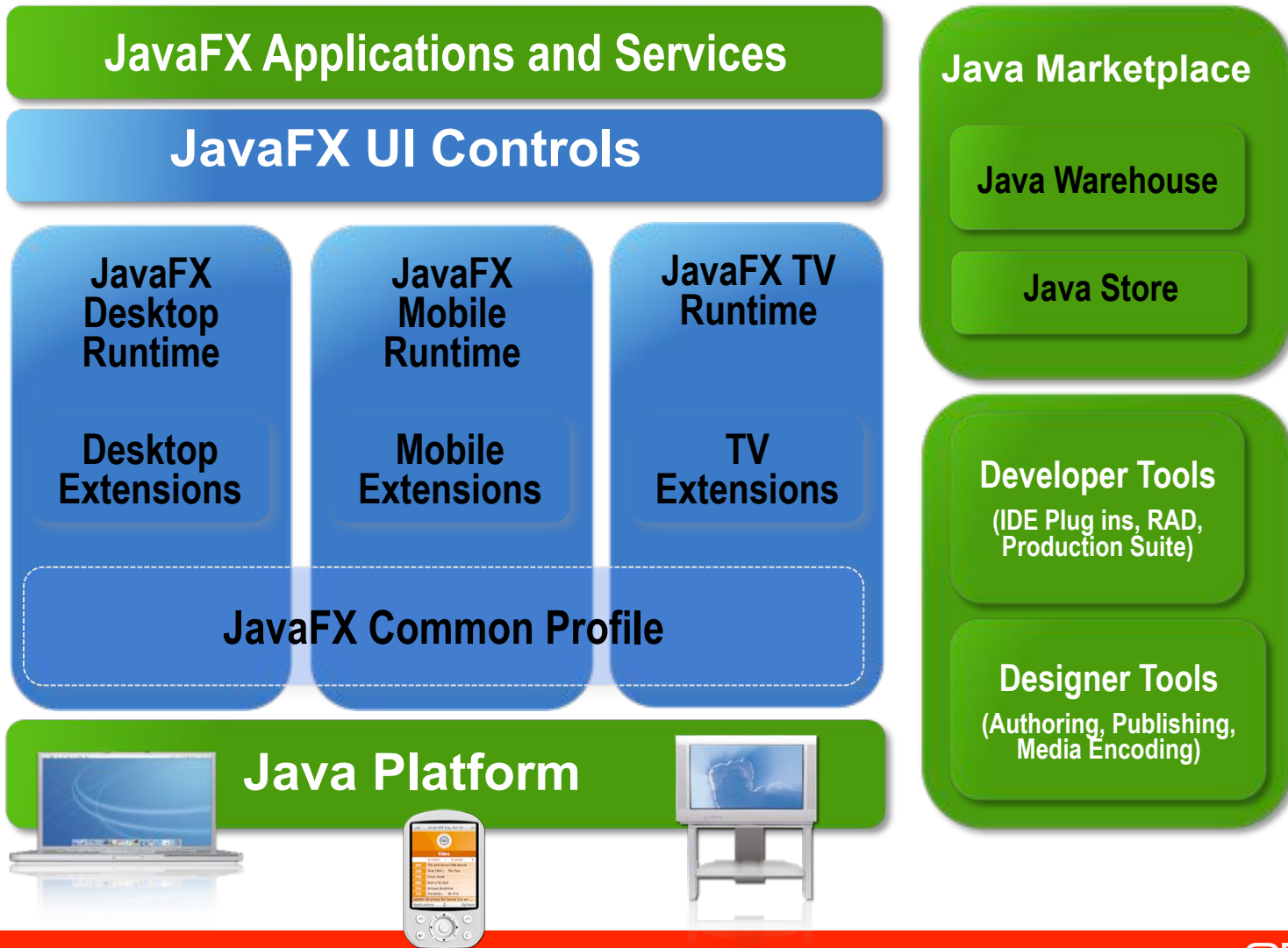• **Deploy to devices and emulators directly from the Authoring Tool**

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Demo #5

- Java FX Authoring Tool

The JavaFX Solution

JavaFX Applications and Services

JavaFX UI Controls

JavaFX Desktop Runtime

Desktop Extensions

JavaFX Mobile Runtime

Mobile Extensions

JavaFX TV Runtime

TV Extensions

JavaFX Common Profile

Java Platform

Java Marketplace

Java Warehouse

Java Store

Developer Tools
(IDE Plug ins, RAD, Production Suite)

Designer Tools
(Authoring, Publishing, Media Encoding)
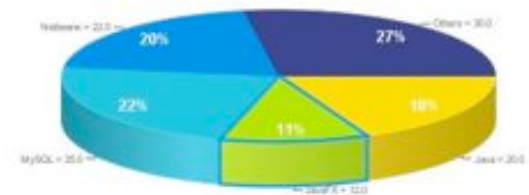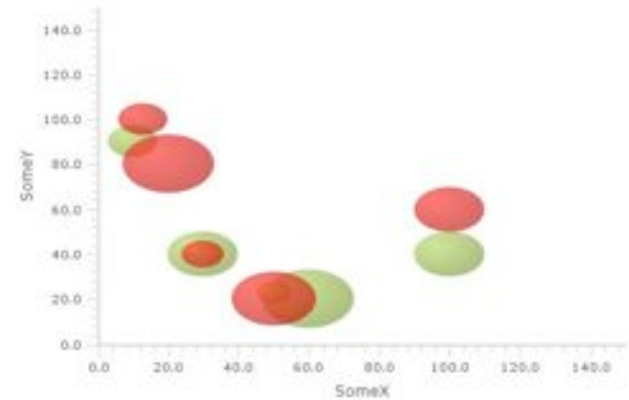
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JavaFX Evolution

JavaFX 1.0
Dec '08

JavaFX 1.1
Feb '09

- Mobile Support
- Performance & Language Improvements

JavaFX 1.2
June '09

- UI Controls
- Further Performance Improvements

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Widget Library in Java FX 1.2

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Demo #6

- Widget Library

JavaFX 1.3

- Release targeted for Q2 CY2010
- Additional cross screen platform support with JavaFX TV
- Significant startup and runtime performance improvements
- Large number of new cross screen UI controls
- Enhanced user experience on the desktop
- New visual development tool (JavaFX Composer)

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JavaFX Futures
Functionality being investigated for future releases

- Enterprise RIA
  - Data / server integration (e.g. remote data binding, server-side push)
  - Advanced UI controls
  - Support for offline deployment (desktop)
  - Performance improvements
  - Java bindings for JavaFX APIs
- Web integration:
  - HTML rendering, CSS, JavaScript support
- TV and Mobile specific extensions
- Other
  - New browser plug-in (desktop)
  - Improved media support (including video streaming and HD)
  - Graphics (incl. hardware acceleration, 3D transformations)

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JavaFX Momentum as of March 2010

- Increased developer activity
    - JavaFX Desktop runtime installed base: 350 Million
    - JavaFX SDK installed base: 40,000
    - NetBeans with JavaFX SDK installed base: 80,000
    - JavaFX Mobile 1.2 developer stack installed base: 20,000
    - Over 2000 developers participated in a JavaFX survey ran in the Summer. Results overview: http://bit.ly/3U6v2n
    - JavaFX Script ranking on the Tiobe Index* is rising
    - Social networking activity (e.g. Twitter) shows JavaFX increasing developer engagement
- Java Warehouse open to developers in 21 countries

* Tiobe Index: http://bit.ly/6ofQ9B

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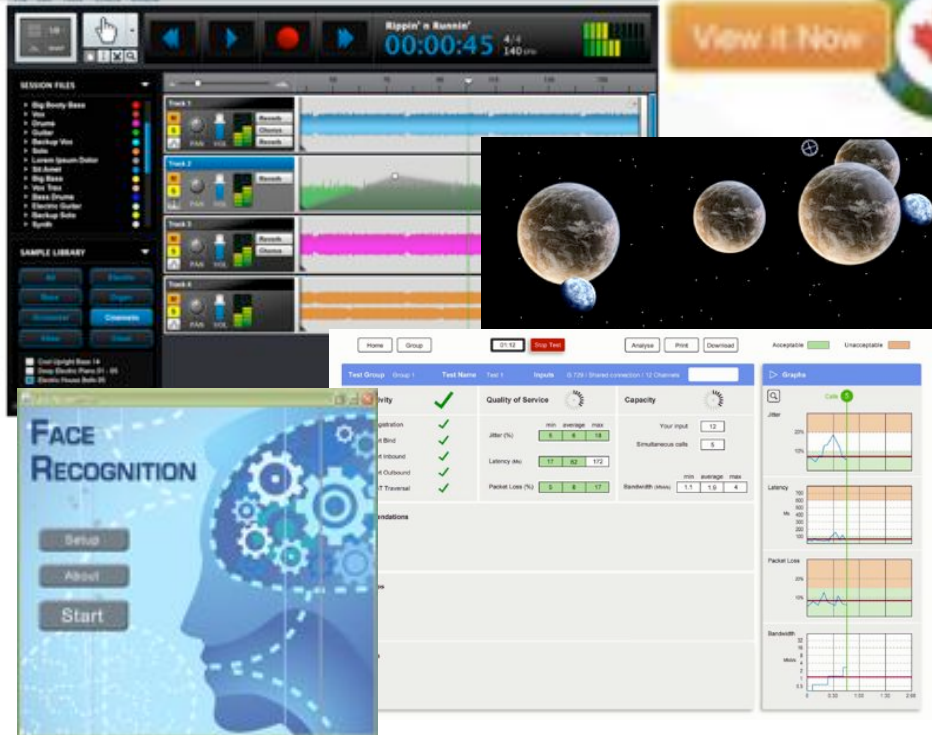
Java Partner Program

- Comprehensive Java Partner Program targeted at ISVs
  - JavaFX applications for mobile, desktop and TV
  - Java ME applications optimized for OJWC*
- Program Benefits and Offerings
  - Application development support
  - Early access to pre-release software and tools
  - Multiple distribution opportunities (bundled with OJWC, through Java Warehouse)
- Adoption and Interest in ISV community
  - Major content brands have begun deploying JavaFX applications and content, including: Vancouver2010.com, MLB.com
  - Over 45 JavaFX registered partners since October 2009
  - Exciting growth in new OJWC bundled apps program

* OJWC: Oracle Java Wireless Client (formerly SJWC)

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Third Party JavaFX Applications

MLB.com

Vancouver2010.com

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