



Java is a trademark of Sun Microsystems, Inc.

JavaOneSM

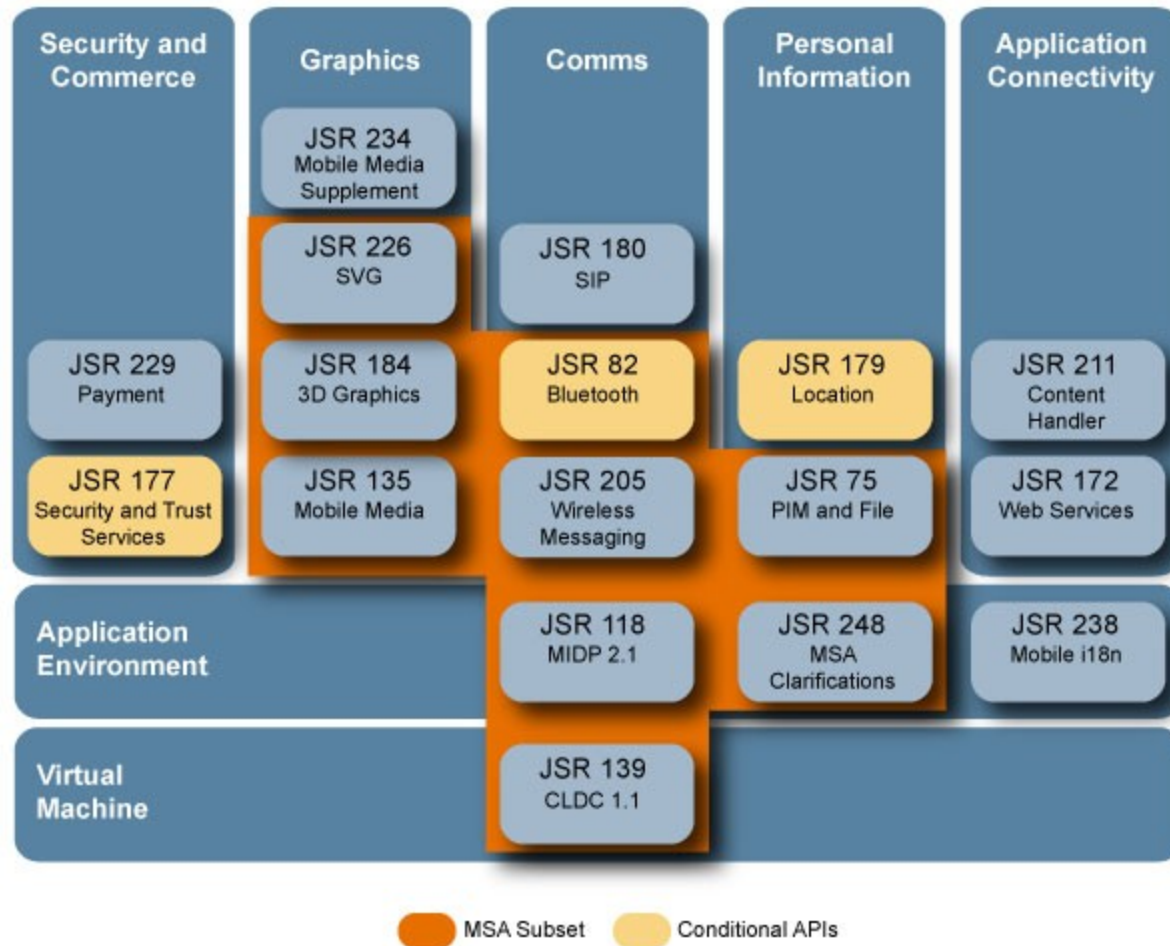
TS-5488 The Mobile Evolution: From JavaTM ME Platform to JavaFXTM Mobile

Petr Suchomel
Adam Sotona
Sun Microsystems, Inc.

Agenda

- > Java ME MSA platform
- > Java FX Mobile
- > Building Interoperable Application
- > Tooling
- > Advanced tips
- > Behind the curtain

Java ME MSA platform



JSR 248: Mobile Service Architecture - Java ME platform umbrella specification

Building application UI in MSA

- > Use High level API (MIDP 2.0 widgets)
 - Easy, fast way
 - Native look and feel
 - UI may not look compelling enough especially for games
- > Using Low level API
 - Using Canvas, MIDP 2.0Game canvas
 - Full control but lot of manual work
 - No real text input

Building application UI in MSA

- > Using specialized MSA API's
 - SVG Tiny 1.1 - JSR 226
 - 3D Graphics API – JSR 184
 - Graphically compelling
 - Powerful solution but still missing text input handling
- > Also possible
 - OpenGL ES - JSR 239
 - Not part of MSA, but part of MSA 2

Sample application using MSA UI API's

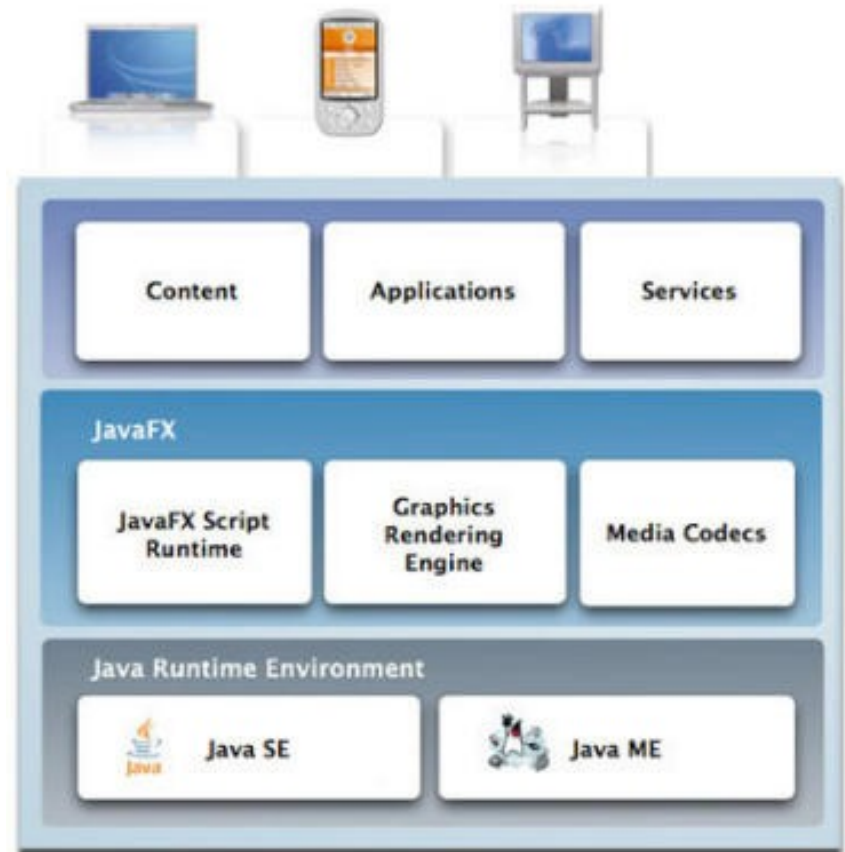
Demo

Java FX Mobile =

> Java ME MSA
+

JavaFX Common:

- > Stage
 - Scene
 - Effects
 - Transitions
 - Nodes
 - Animations
 - Media Codecs

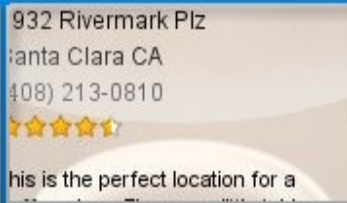




InterestingPhotos



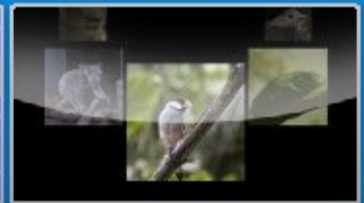
BrickBreaker



LocalSearch



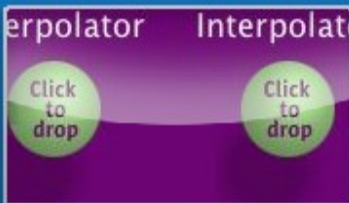
FishSim



Carousel



PrimitiveShapes



SpringAnimation



DragAndDrop



BouncingBall



FractalTree



Magnetism



EffectsPlaygroundMobile



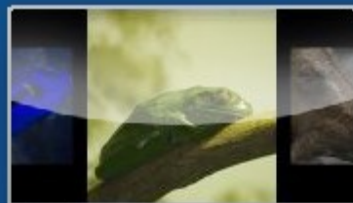
Draw



SimpleVideoPlayerMobile



ImageRollover



DisplayShelfMobile



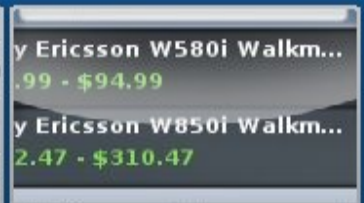
AccelerometerTest



Calculator



Calendar



ShoppingService

Building Application UI in Java FX

- > Three available profiles
 - Common profile
 - Define basic (common) set of API's, including graphical objects such as shapes, texts, transformations, etc.
 - Desktop profile
 - Desktop applications
 - Mobile profile
 - Mobile applications
- > Both Desktop and Mobile profile share Common profile API's

Building Application UI in Java FX

- > Desktop and Mobile profile
- > Additional high level components
 - Button, CheckBox, ComboBox, Label, List, ToggleGroup, RadioButton, Slider, TextField, ScrollPane and others
- > Also possible to use Media Player with support of common codecs

Sample application using Java FX API's

Demo

Building Interoperable Application

Basic Concept

- > Business Logic & Communication
 - Cross-platform Java Libraries
 - Multi-platform Java Libraries
 - Backed by Java SE for Desktop and Web
 - Backed by Java ME MSA for Mobile
- > User Interface, Interaction & Media
 - JavaFX Common Profile
 - FXZ / FXD Resource Format ...

Mobile application with mixed MSA and Java FX code – Designing Interoperability

Demo

Tooling

Overview

- > JavaFX Software Development Kit
 - Basic Command-line Tools
 - Documentation & Samples
- > NetBeans IDE
 - JavaFX Plugin including JavaFX SDK
 - Mobility Plugin
- > JavaFX Production Suite
 - Plugins for Adobe Photoshop and Illustrator
 - Resource Conversion Tools

Tooling

NetBeans IDE

- > Out-of-the-Box Experience
 - Editing, Compilation, Packaging, Emulation, Debugging, Deployment
- > Mobile Class Library Project
 - For your cross-platform or multi-platform business logic
- > JavaFX Script Application Project
 - For your rich graphical application facade

Advanced tips

- > Check our live demonstration...



The Mobile Evolution: From Java™ ME Platform to JavaFX™ Mobile

JavaOne™

Thank You

Petr Suchomel
petr.suchomel@sun.com

Adam Sotona
adam.sotona@sun.com