



JSR 290 & Its Relation to “Mobile AJAX”

Nandini Ramani

Jerry Evans

Vincent Hardy

Sun Microsystems Inc.

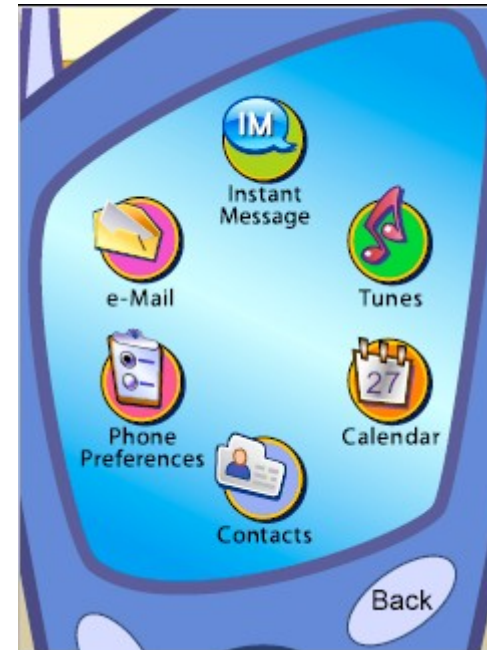


Motivation for JSR 290

- **New Java ME development model**
 - Broader developer outreach
 - Enable collaboration between graphics designers and code developers
 - Tooling conventions to facilitate a tool chain for diverse developer types
 - Richer UI (“Consumer UI”)
 - Animation, new UI types, different look than typical widget-based UIs
 - Data-centric UI (browser-like capabilities)

“Consumer UI” Example

Screens developed using an SVG authoring tool – courtesy of Tim Dunn



Example of JSR 290 Capabilities

Mockups – courtesy of Tim Dunn



What is JSR 290?

- **Java Language and XML UI Markup Integration**
 - Leverage W3C CDF (WICD MP)
 - Integration with Web technologies
 - XHTML Basic
 - ECMAScript MP
 - CSS Basic
 - SVG T 1.2
 - Binding between markup and Java code
 - Connection between ECMAScript and Java

* SVG = Scalable Vector Graphics, an XML syntax for rich, animated, interactive and structured 2D graphics

* ESMP = ECMA Script Mobile Profile, a subsetted version of ECMA Script used in Mobile phone, offering simple scripting features to Web developers

* CSS Basic = Cascading Style Sheets, a popular styling language helping separate the content of XHTML pages from their appearance

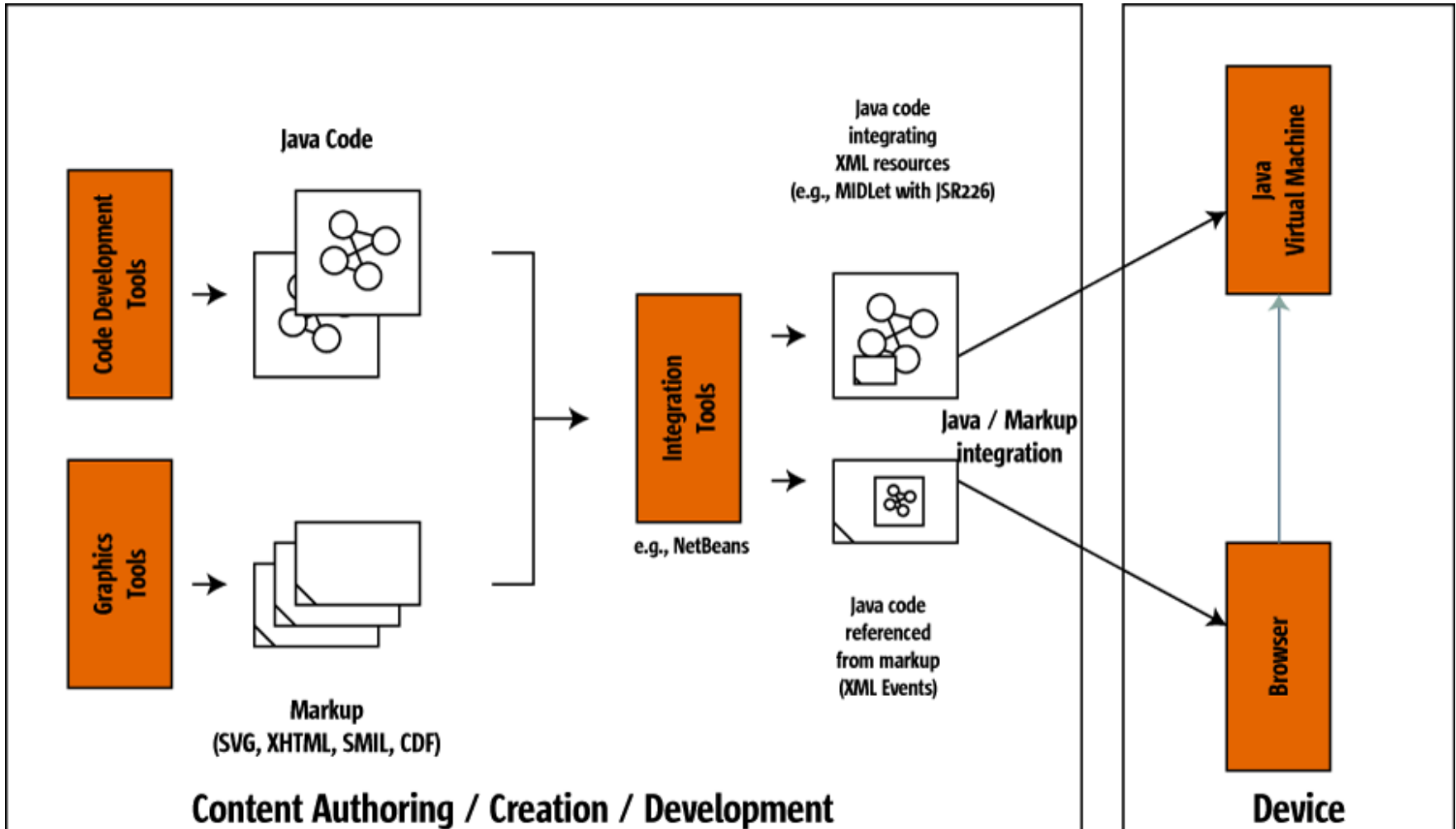
What is CDF?

- Compound Document Format
- W3C Working Group
 - IBM, Vodafone, Sun, Nokia, France Telecom, Sony Ericsson, RIM, Adobe, Opera, Iikivo, Fuchsia Design, Infraware, Streamezzo, Mozilla, Justsystem, Helsinki University of Technology, Volantis, Expway, Infraware
- Defining rules for combining XML UI markups
 - XHTML Basic, SVG, CSS Basic, ESMP
- Goal is to facilitate rich multimedia content defined using multiple markup languages (+ ECMAScript)

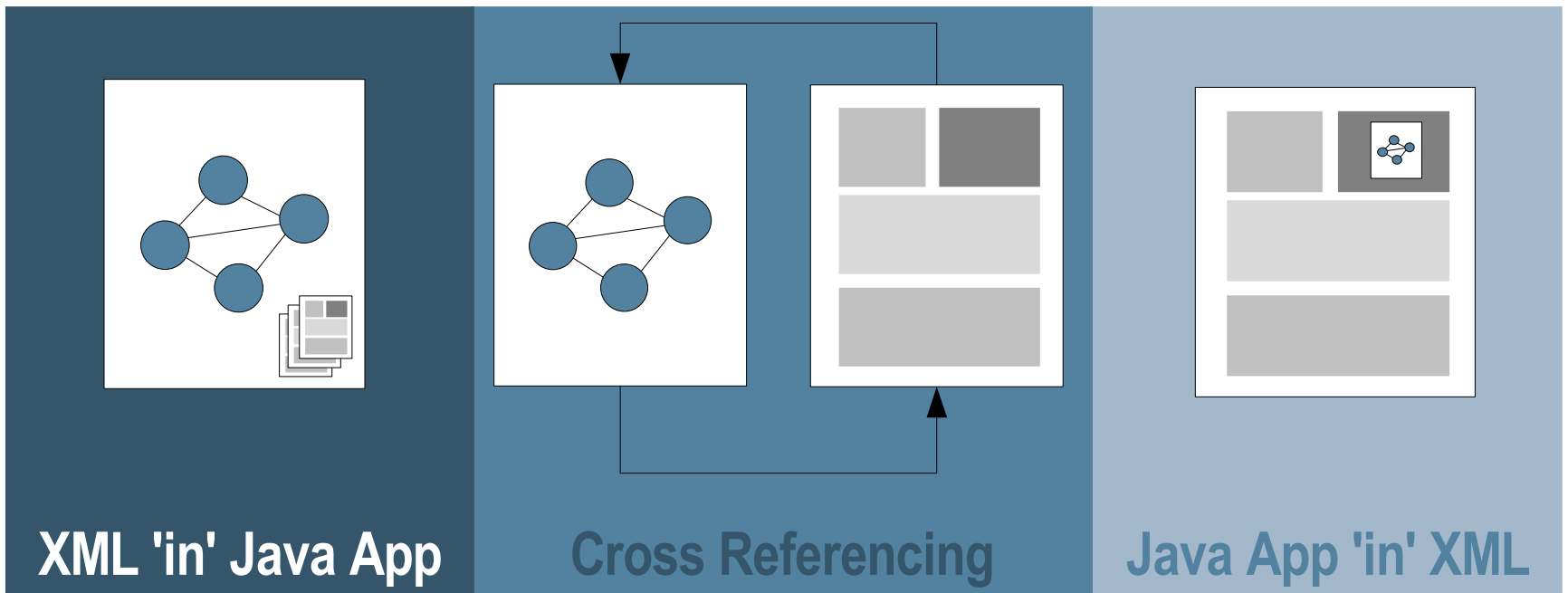
Value Proposition of CDF

- Adds layout capabilities to combined markup
- Adaptability to screen size and form factor
- Mixed content
 - Interaction rules for combined markup
- Unified and consistent DOM API model, animation model and event model – simple
- Leverages body of experience, content & tools

Architecture



JSR 290



Tooling Requirements

- Support simple workflow between developers and graphic artists, web designers and animators
- Java usage of XML Formats:
 - Conventions to ease binding Java code with XML markup (e.g, focusable items, structural conventions, names and types...)

“Mobile AJAX”

- AJAX the concept vs. AJAX the acronym
 - Asynchronous execution on the client is required in Mobile
 - Javascript alone is too limiting on phones, but useful and has a large developer base
 - Java provides robust, secure execution environment with access to most phone features
 - XML is important, but other formats as well
- JSR 290 fits into the realm of “Mobile Ajax”
 - Leverage Web technology without necessarily requiring a browser
 - We can construct applications that do not execute in the context of a browser



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