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APRIL 7-9, 2014

What's Happening in the Apache Flex Project

Presented For The Apache Foundation By
LINUX FOUNDATION

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Flex Code is not just ActionScript

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Agenda

- Brief Introduction to Me
- Brief Introduction to Flex
- Overview of other Flex projects
 - Next Generation Compiler
 - Next Generation SDK
 - Apache Ant with Graphical UI
 - Maven Integration
 - Font Transcoding



Who am I?

- Alex Harui
- Apache Flex Committer and PMC Member
- 30+ years development experience
- Adobe Systems Inc. (almost 12 years!)
 - Flash MX components
 - Macromedia Flex 1.0
 - All Flex since then
- Current Apache Flex PMC Chair



Intro To Flex

- Flex SDK is a framework for developing Rich Internet Applications
 - MXML – Declarative language (XML) not just for UI but for other objects and classes
 - ActionScript – EcmaScript-based, but enhanced to support classes and interfaces
 - Compiled into a SWF and executed in Adobe Flash Player or Adobe AIR
 - Runtime enforces class definitions
 - Code is verified before execution



Intro To Flex

- Flex was/is very popular for enterprise-class applications
 - Eclipse-based IDE (also IDEA, and others)
 - Classes prevent certain kinds of scripting errors
 - Supported distributed development
 - Verifier catches integration issues



Intro To Flex - Demo

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Apache Flex

- At Apache, Flex releases more often
 - 4.9.0, 4.9.1, 4.10, 4.11, 4.12 in 15 months
 - Lots of bugs fixed and improvements made.
- Active Community
 - New features like Mobile Grid
 - Problems solved like scrolling StageText
 - IOS7 status bar support
 - Support for low-res (120dpi) and hi-res (480, 640 dpi devices)
 - CSS Media Queries for OS version and device dimensions



Apache Flex

- Other related technologies are in the repo
 - FlexUnit – unit testing framework inspired by JUnit
 - TLF – Text Layout Framework written by ex-Adobe InDesign engineers
 - BlazeDS – Server data access libraries



Apache Flex

- Flex Committers are not just writing ActionScript
 - Next Generation Compiler written in Java
 - Next Generation Framework written in JavaScript
 - Installers are Ant Scripts
 - But can be run via Adobe AIR
 - Maven plug-in
 - Font Transcoder (someday)



Apache Flex

- Next-Generation MXML and ActionScript Compiler
 - Output: SWF
 - Code name: Falcon
 - Based on Adobe ASC 2.0
 - Java
 - Jburg BURM
- Next-generation MXML and ActionScript Cross-Compiler
 - Output: JavaScript
 - Code name FalconJX



Apache Flex

- Next-Generation SDK Framework
 - Output: SWF or HTML/JS/CSS
 - Code name: FlexJS
 - ActionScript
 - JavaScript
- Use MXML and ActionScript to develop and test in Flash
 - Better compile-time checking
 - Better runtime checking
- Cross-compile and deploy without Flash
 - Can also deploy Flash version where possible



Apache Flex

- Next-Generation SDK Framework
 - Can output to Apache Cordova as well
- More details in next session



Apache Flex

- Apache Flex Installer
 - Flex supports Windows, Mac and Linux
 - Adobe AIR is at version 4.0 on Windows and Mac
 - Stopped at version 2.7 on Linux
 - Many Linux users don't want Adobe AIR
 - Used to console/command-line
 - Windows and Mac users may already have Adobe AIR
 - Not used to console/command-line
 - May not have Apache Ant.



Apache Flex



- Apache Flex Installer
 - Write an Apache Ant script to install Flex SDK
 - And eventually, “Falcon” compiler and FlexJS
 - Linux users run the Ant script
 - Wrote a partial Apache Ant implementation in ActionScript
 - a.k.a: ant_on_air
 - Did not port Ant code to ActionScript
 - Lots of OS-dependencies are already abstracted by Adobe AIR APIs
 - Installer is now a Graphical UI for Apache Ant

Flex & Maven

- Flex's most-wanted feature
- Third-party solution (FlexMojos) works ok
 - Had to work with the Adobe Flex SDK
 - Adobe didn't want to make changes to make FlexMojos work better
- Changes to Flex can now be made to make the new Mojo work better
- Folks are working on it
- Adobe SDKs are still an issue
 - Adobe still wants a license to be accepted

Flex and Fonts

- Adobe Flash and Adobe AIR support “embedded” fonts.
- Adobe did not donate font technology to Apache
 - Libraries remain under Adobe license
 - Therefore, font embedding is an optional feature
- Apache Flex should someday replicate the functionality of these libraries:
 - Read TTF/OTF and output legacy SWF font data
 - Read TTF/OTF and transcode to CFF



Summary

- Apache Flex development is more than just MXML and ActionScript code
- Volunteers welcome
 - Java enthusiasts for the compiler
 - JavaScript (and CSS) enthusiasts for FlexJS
 - Maven enthusiasts for Flex/Maven integration
 - Ant enthusiasts for ant_on_air
 - Font enthusiasts for Font Transcoder
- dev@flex.apache.org



Q&A

- <http://flex.apache.org>
- <mailto:dev@flex.apache.org>



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