

# 360 Flex

CONFERENCES

Spring 2012

Denver, CO

## Session Descriptions

### Sunday

(9:00a - 5:00p) PAID - Brent Arnold - Mobile development with Flash Builder 4.6

In one day you'll learn everything you need to know to compile native apps for iOS and Android using Adobe Flash Builder 4.6. We'll cover the basics and dive into advanced features as we explore mobile app development using ActionScript Mobile projects and Flex Mobile projects. By the end of the day you'll have no less than 4 working apps, a working knowledge of the build processes for iOS and Android, and the know how to submit your apps to the App Store, Android Market, and Amazon Appstore. Seating is limited, so register now!

(9:00a - 5:00p) Jun and Hassoun - Multi-Protocol Streaming Media and P2P Application Development for Devices

During this Sunday Hands-on you will learn the ins and outs of leveraging the power of the Flash Platform for streaming media and multi-user applications. The day will start with a brief dive into the Flash Media Server 4.5 and its capabilities and setup.

Next you will utilize a OSMF video player to stream live and video on demand content. Then we will stream video from a single source file over different protocols and delivery methods to applications running on the browser, desktop, Android, and native or AIR for iOS. You will gain a deeper understanding of what the benefits and drawbacks are for RTMP based and in comparison HDS and HLS HTTP based streaming and we'll conclude this section with a dive into how to configure the Flash Media Server to really take control of the setup, security, and delivery.

From there we will cover advanced real-time multi-user messaging. First we will explore the traditional methods and then dive into the advances that have come into play in recent years with P2P and multicasting. We'll round out the day playing with the P2P APIs to build multi-user application that have use cases for massive scale while reducing or eliminating server infrastructure requirements. Taking this to mobile devices will enable us to build a linked device application in which devices can not only talk to each other across platforms, but also control the user experience from one to another while leveraging native hardware. Utilizing both the power of the Flash Media Server and server-less capabilities for home or private network based applications this session will get you the knowledge to start building amazing experiences.

By the end of the day you will walk away with plenty of code and hands-on work to illustrate the robustness of FMS 4.5 and it's capabilities within this multi-device landscape.

**(9:00a - 5:00p) PAID Justin Mclean-Arduino Hands On**

A hands on course showing how to wire up basic electronic circuits and code on the Arduino open source hardware and software platform. By the end of the day you'll have a basic understanding of electronics components, digital and analog inputs and outputs, how to use the Arduino platform and how it can communicate with Flex. The circuits you wire up up the day vary from simple switches and LEDs to circuits for detecting light, using potentiometers and controlling the colour of RGB LEDs.

All software and hardware will be provided along with working solutions to all exercises. No electronics skills or soldering skills are required. It is assumed that you have some programming experience. For 2/3rds of the day we'll cover the Arduino platform and the remaining 1/3 communicating with Flex.

You be supplied with a Spark Fun Inventor Kit which contains an arduino, breadboard, wires and heaps of components (<http://www.sparkfun.com/products/10339>) which is yours to take away after the course for further exploration of the Arduino platform. You will need to bring your own laptop.

**(9:00a - 12:30p) Joel Hooks - Introduction to Robotlegs**

Hands on Introduction to Robotlegs

**(1:30p - 5:00p) Paul Robertson - Robotlegs 2 hands-on**

Robotlegs provides the glue that your application needs to easily function in a decoupled way. Robotlegs helps you focus on coding your application's unique logic rather than plumbing code. In this workshop, you will learn about the new Robotlegs 2 both from a "new to Robotlegs" and a "I've worked with Robotlegs 1.x" perspectives. We'll walk through building a simple Robotlegs 2 application using the standard Robotlegs implementation. We will then cover some additional "beyond the basics" techniques.

## **Monday (9:30a - 10:40a)**

Opening Keynote - Christophe Coenraets and Alex Harui

## **Monday (10:50a - 12:00p)**

**200-David Woods - Using OAuth APIs**

OAuth is a useful method to authenticate users, but can be challenging to understand and implement. This hands-on session demonstrate basic OAuth implementation by building a simple Flex mobile Twitter client from scratch. Covers how to construct OAuth login, build authenticated API requests, and process response data..

**150-Jeffrey Houser - Building a Game in Flex is Stupid**

This will be a case study presentation, focusing on the mobile game I built from scratch, and will focus on the lessons I learned about when to use Flex and when not to use Flex.

### 100-Leonard Souza - Objective-C for AS3 Programmers - Oh no, he didn't!

Surprisingly, AS3 and Objective-C share many similar qualities, making them both exciting and fun languages to program in. Learn, through the lens of AS3, Objective-C paradigms and all its wonders. While it's great to know AS3, having a solid of understanding of the Objective-C language can be very useful when building out cross-platform Flex apps. Also, if you need more performance, then native is the way to go. We will be covering many aspects of Objective-C, including the basics of Xcode and UIKit, as well as the key fundamentals required to write clean and effective Objective-C apps! This is one is going to be fun!

### Christophe Coenraets - Cross-Platform Mobile Apps with HTML, JavaScript and PhoneGap

HTML has emerged as a powerful alternative to "native" to enable cross-platform mobile application development. But how do you build large, complex, and native-like mobile apps using HTML, JavaScript and CSS? This session covers modern strategies to build large JavaScript projects using JavaScript MVC frameworks, and how to use PhoneGap to leverage the native capabilities of your device in JavaScript and to package your HTML application as a native app for distribution through the different app stores. If you are a Flex developer struggling to find a good approach to building complex apps in using Web Standards, this is the session for you.

## Monday (12:00p - 1:30p) LUNCH

Dan Schultz - Mixbook - Mesh, a Persistence Framework for Flex  
TBA

## Monday (1:30p - 2:40p)

### 300-Aaron Hardy - Backbone.js, Underscore.js, and jQuery for the Flex developer

Getting into JavaScript but love Flex? We'll dig into Backbone.js, Underscore.js, and jQuery to get you started coding JavaScript apps. We'll discuss how features and concepts relate to Flex and how you can make a home away from home.

### 100-Ben Stucki - DAIO Deep Dive

How do you go from developer/designer to CEO? Make an app. In this session Ben will offer a case study of the business, design and development process used to create DAIO, an iPad app for creating and sharing mobile app prototypes.

### 200-Jeff Roberts - How not to suck as a Flex Developer

No matter what your language of choice is that you use to develop software, there are several universal principles and techniques that will help you improve your skills as a software developer. Jeff Roberts has been writing code for over 25 years and he will distill some of the lessons he has learned over those years into an hour of invaluable advice.

This is definitely a session where you will come and learn at least one or two things that can literally change and improve the way you write code. How many of these techniques are you using today? How many are you not using and more importantly, why not?

## 200-Garth Braithwaite - Iterating Design

In this session we'll look at how to use good Flex development practices in the context of HTML 5 applications.

We'll spend time getting up to speed with HTML5, CSS3, and JS to build an MVC application for a REST Backend. In addition to getting the application setup we'll discuss designing and developing for multiple screen resolutions and how to package the app as a native application for use with PhoneGap

## Monday (2:50p - 4:00p)

### Mollie Rusher - Breaking Through the Firewall: Women in Computing

This "firewall" is the glass ceiling of our time, but this time it's rooted more in a self-inflicted bias, than an external prejudice. We'll take a look at the percentage of women in computing, why it's dropping, and how to turn it around.

### 100-Antonio Holguin - Intro to Design, for Devs

Ever wonder what those designers are talking about? Sometimes designers sounds like aliens speaking a language from a distant planet. Hoping to learn some of the fundamentals of design so you can communicate with your designers better?

We will go over many of the fundamentals of design, terminology, and some tips to help you acquire some design skills to complement your already awesome dev skills. From layout to color theory to fonts and text formatting, and more, Antonio will step you through some of the thinking behind design and what it all means.

### 100-Nick Kwiatkowski - Introduction to AIR Native Extensions

ANEs, or AIR Native Extensions are a way to expose additional functionality that was previously not available to AIR developers. They allow the developer to write platform-specific code that then gets exposed to the others in way that the Flash Platform never allowed before.

Nick will walk through the process of creating an ANE and will show how to write simple apps that take advantage of them. Attendees will get an understanding of how ANEs work, and hopefully inspiration to begin creating their own.

### Andy Trice - Data Visualization for Web Standards

Explore various techniques for visualization complex data using web standards. See demonstrations of Highcharts JS, Zingchart, RGraph and more. You'll be amazed at the level of visualization possible using these modern libraries.

## Monday (4:10p - 5:20p)

### 300-Justin J Moses - Maven by example

This session will be a demonstration of increasingly complex examples building Flex, AS3 and AIR projects in Maven. We'll use the Flexmojos plugin to provide the juice and cover unit testing, code coverage, framework RSLs, Nexus and runtime modules.

### 100-Sid Maestre - Commerce on the Flash Platform

Commerce is often associated with shopping carts, but there are many other ways to monetize your apps. These include subscriptions, donations and digital goods. One of the most interesting models is that of a marketplace where the developer receives a piece of each transaction. In this session, we'll review the commerce landscape and how you can integrate PayPal APIs into your Flash based applications.

### 100-Chris Griffith - Choosing the Right Mobile Development Platform

As more and more projects are requiring mobile applications, developers are faced with a wide range of options. AIR for mobile? PhoneGap? Titanium's Appcelerator? Sencha? Native? Which development environment makes sense? This session will explore the advantages and limitations of each of these environments from someone who has been in the mobile application development world for over 4 years. Get a clear picture of what these technologies can offer for your mobile development needs.

Alex Harui - Apache Flex

Session Description

## Monday (5:30p - 6:40p)

### General Session - HTML5 Applications with Sencha

In this session Ted Patrick will walk you through Sencha's frameworks for building mobile and desktop applications using web technologies including HTML5, JavaScript, and CSS. We will cover the framework's foundation (OOP+MVC), standard libraries, containers, components, xtype rendering, and most importantly cross-browser support. Bring an open mind and a laptop, we will be building applications from scratch; feel free to follow along.

Sencha provides frameworks, tools, and services for building professional applications with HTML5. <http://sencha.com>

## Tuesday (9:30a - 10:40a)

General Session - Spoon Project (Flex Open Source Update)

TBA

## Tuesday (10:50a - 12:00p)

100-Zee Yang - UI Design for Developers

You spent months designing a beautiful architecture, why cover it up with an unsightly and difficult interface? In this session, we want to demystify user interface design for the developer crowd - important concepts and practical techniques that developers can use to improve the aesthetics and usability of their software creations.

#### 200-Andrew Powell - Geolocation 201

This session is an in-depth look at Geolocation within RIAs, Mobile Development (Flash Platform and native), and HTML5. We will look to answer the question of “where?”. Topics covered include the history of Geolocation, basic theory, principles, and implementations of geolocation APIs within HTML5, Android, iOS, and the Flash Platform. Special emphasis will be given to the diversity of device implementations of geolocation APIs and when to leverage each option. We will also take a look at implementations across various platforms (iOS, Android, and Flash). This session is lecture and demonstration.

#### 200-Daniel Wanja - Building iPad apps with Flex

Join us for a session on building incredible iPad apps with Flex. Too good to be true? Actually the Flex SDK has a whole set of components and classes suited to easily build iPad apps. I would even say it's the fastest and easiest way to build iPad apps out there. Don't believe me? Then come and see how I unravel the hidden gems of the Flex SDK and build 10 application in less than 60 minutes. You will learn how easy it is to build powerful view navigation with little code. You will explore all the different components that the Flex SDK provides you. Additionally you will learn in this code intense talk how to build effective custom item renders. Wait, there is even more, we'll throw in tips and tricks how to use Swiz to complement the SDKs built in mechanism to pass data among views, how to integrate google maps and Mapquest, and how to communicate effectively with a server using XML and JSON. You will acquire all the secret to build kick-ass applications that can be deployed on Apple App Store.

#### Rob Rusher - Simple is not easy

From an engineer's perspective; the requirements are incomplete and misguided, the design is impossible, and the users are... well, we'll just say PEBKAC. Luckily there are strategies that will help you tackle these problems. This session will describe the common issues involved with the creation of applications and discuss how to make both the software and the process more simple and usable.

## **Tuesday (12:00p - 1:30p) LUNCH**

#### Mike Wells, Gorrilla Logic - Functional Testing with FlexMonkey

FlexMonkey is a free Adobe AIR application used for testing Flex and AIR based applications. Providing the functionality to record, playback and verify Flex UI interactions, our test automation tool also generates ActionScript-based testing scripts that you can easily include within a continuous integration environment. Automate your tests by downloading our open source tool that now has over 15,000 users.

## **Tuesday (1:30p - 2:40p)**

#### 200-Sim Bateman - Like Flex in Javascript

Building reliable and robust applications has been the domain of Flex developers for a number of years. But modern browsers have opened up new possibilities for applications to be built outside of the runtime. But how can you take the knowledge you have amassed

about building applications with Flex back into the browser. With today's technologies like Node.js, Backbone.js and Coffeescript you can be productive building applications that feel much like those we might work with in Robotlegs or Swiz.

Come take a walk on the Javascript side and see what kind of new tech is being used outside the player.

## 200-Andy Trice - Multi-device Deployment Best Practices

Ready to bring the "write once, run everywhere" dream to a wonderful reality? In this session we will focus on multi-device deployment considerations and best practices to help bring your applications to as many platforms, devices, and form factors as possible.

## 400-Roland Zwaga & Christophe Herreman - How to build an AOP framework!

Ok, so there is a lot of buzz these days about AOP in the Flash community. You know what it is, you understand how to use (and when NOT to use it) in your projects, but how does this stuff actually work under the hood?

This session will take a deep dive into the AS3Commons-Bytecode and AS3Commons-AOP projects, tear out their insides and put them on display.

The first half of this session will be presented by Roland Zwaga who is responsible for AS3Commons-Bytecode, he will give an inside look into which problems AS3Commons-Bytecode aims to solve and how classes can be generated at runtime, which is the basis for AOP functionality.

After this Christophe Herreman takes over and shows how the API's of AS3Commons-Bytecode were leveraged in AS3Commons-AOP, which aims to be a general purpose AOP framework that can be adopted by existing application frameworks.

After walking out of this session, hopefully you will have an idea of how to build your own specific AOP implementation, or help out in the AS3Commons projects by contributing code, tests or ideas.

## Brian Rinaldi - Mapping Out the Frontier of HTML5 & JavaScript Development Session Description

## Tuesday (2:50p - 4:00p)

### 200-Drew Bourne -Making Friends with Mockolate

Whether you are doing testing for 'test driven development', 'post crunch time fill in the gaps', or 'exploratory I have no idea what is going on' Mockolate can give your tests some friendly help by providing Mock Objects and Test Spies.

A Mock Object can be used to simulate the behaviour of complex, real (non-mock) objects when using the real object would be impractical or impossible. A Test Spy records which methods are called, which getters are got, which setters are set. Appropriate use of these tools can improve test effectiveness by focussing on the interactions between the class under test and its collaborators.

In this talk I will explain when to use Mock Objects and Test Spies and how to use Mockolate to make friendly collaborators.

### 200-Nate Beck - Going Mobile

Nate Beck will demonstrate how you can take your existing web / Flash games and applications and move them over to mobile to start selling your games and applications on app stores. Nate will also cover in depth common pitfalls that you will experience in the process of moving to mobile devices.

### Mansour Raad - Hadoop - A Quick Introduction.

With BigData looming on us, this presentation will introduce you to core Hadoop, Scoop, Hive and couple of implementations of MapReduce whose output is visualized using Flex

## Tuesday (4:10p - 5:20p)

### 200-Drew Shefman - Decoupling, Refactoring, Testing and Other Improvements to your Craft

"I'm scared of that file, it does EVERYTHING!"

"That file has changed 77 times in the last month, I have no idea about what it is doing"

"This file touches everything, I'm not changing it"

Do you ever feel trepidation about modifying a file? Do you fear that making a change might break something and you'd have no idea? This session is about from-the-trenches-experience refactoring, breaking dependencies, and getting tests in place. This is NOT the idealistic Test-Driven Development (TDD) that we all want to do, but how to add characterization tests after the fact - after the code has decayed, and is reeking of code smells. Learn about the essential resources, plug-ins, frameworks, and methodologies that you need to have to regain control of your code and your sanity.

### 200-Joseph Labrecque - Leveraging BlazeDS, Java, and Flex: Dynamic Data Transfer

Flex developers have it easy when using ColdFusion to transfer data over the Action Message Format (AMF) transfer protocol because these services are built into the core ColdFusion server. What if you aren't using ColdFusion though? Can you get the same benefits of AMF when using Java? Yes - by employing the open source Adobe BlazeDS project!

This talk will include an overview of these technologies, how to configure them to work together, and provide examples of data transfer across systems through a variety of ActionScript/Flex code examples. Additionally we'll examine a use-case for BlazeDS, Java Spring, and Flex in higher-education to aid in the gathering of a variety of media types to perform assessment activities across departments through a unique system of binary and textual submissions by responder groups within certain participating programs.

### Dustin Malik - BlackBerry PlayBook Platform Overview

Learn about the BlackBerry PlayBook development platform and all it has to offer to help you monetize your AIR apps on the PlayBook. We'll go over how to get started with the tools, all of the SDKs available to you, BlackBerry AppWorld and some of the newest features to help build fantastic apps!

### Darin Weakley & Roman Hardgrave - Offline Maps – How to Use MapQuest's Mobile Flex API and See Where You Are Without a Connection

Representatives from MapQuest's Flash Mapping Product and Development Teams will walk through the latest features of the MapQuest Flex Mobile API, including how to easily manage various device resolutions and how to go offline with your maps. MapQuest has a streamlined mobile mapping API for Flash Builder 4.6 to develop native mobile applications on iOS, Android and Blackberry Tablet. The panel will feature a walkthrough of code as well as a demonstration application that can be downloaded from the Apple and Android App Stores for use on your own phone (the full sample code is also available). See more at <http://developer.mapquest.com/web/products/featured/as3-flex-flash-mobile>

## Tuesday (5:30p - 6:40p)

### Kevin Whinnery - Cross-Platform Without Compromise

A cross-platform application is useless unless it competes pound for pound with the best applications on every platform. A cross-platform tool may work to get your application on the most devices, but will it get your app into the top ten on the app store? Will it delight your users with features, performance, and system integration? Will your choice of cross-platform tech be invisible to everyone who picks it up?

Appcelerator is set on allowing developers to answer "yes" to all of those questions. In this presentation, we will explore how the open source Titanium Mobile SDK is solving cross-platform differently. Titanium provides a JavaScript 'meta API' over the top of native APIs for UI, device sensors, user data, and platform-specific features. Fair warning - Titanium isn't "write once, run everywhere", nor is it intended to be. But you'll find out how you can get ~80% code re-use, while providing a platform-specific user experience and integrations where that makes sense.

After a brief architectural overview, we will dive into a JavaScript codebase which produces great native apps with tight platform integration, as well as a rich mobile web application. We will talk about code structure and patterns for code reuse, and situations where it makes sense to write platform-specific code (and how to do it in Titanium). Examples will use the Titanium Studio IDE, an Eclipse-based environment, to run projects using the actual native toolchains. JavaScript experience is useful, but your AS3 skills will serve you in good stead as well :)

## Wednesday (9:30a - 10:00a)

### General Session - John Wilker

John Wilker, Organizer of 360|Flex provides an overview of the conference, the community and lots of other great things. Don't oversleep.

## Wednesday (10:10a - 11:20a)

### 200-Michell Yaiser - Learn the DI Magic, Eat Lunch with the Cool Kids

All of the cool kids carry on about Dependency Injection. Seems it's the promised ingredient in testable code, the core concept of frameworks such as RobotLegs, Swiz,

Mate and Spring ActionScript, a way to decouple code, a way to keep objects focused and, at time, all a little magical.

In this session, we'll reveal the magician's trick. We will separate the concept of DI (dependency injection) from the idea of a DI framework, understand the benefits, acknowledge the problems and generally make you feel comfortable with the technique. By the end you will scoff at the simplicity and revel in your newfound confidence.

### Alan Greenblat - Title: Open Development – the Apache Advantage

Learn what "open source" really means and how the Apache model has worked for nearly 20 years. We'll study the history of successful Apache projects and learn the life-cycle from contribution to successful releases.

### 100-Kevin Korngut - Optimizing Mobile Applications - So Easy a Designer Could Do It

There are numerous tips and tricks which can be employed when developing mobile applications to help you get the most out of your target device(s). In this session we'll explore methods to optimize your applications from an architectural perspective.

### 200-Ryan Campbell - Introducing DeftJS

Essential extensions for enterprise web and mobile application development with Ext JS and Sencha Touch. Consider it the app architecture patterns and tools you've come to expect in a Flex app ported to JS. In this session you'll learn what the current project offers, what's next and I'll walk through an example application so you'll have a great understanding of how to start using DeftJS on your projects.

## **Wednesday (11:20a - 12:20p) LUNCH**

## **Wednesday (12:20p - 1:30p)**

### 200-Andy Mathews - Developing Applications with the Photoshop Touch SDK

New from Adobe is the ability to communicate with Photoshop using AIR on tablets and devices. This session will walk through how to write apps that take advantage of this awesome workflow-improving set of features.

### 401-Michael Labriola - The Why of Performance

Ever hear that you shouldn't access the length property in a loop? That you should use one type of casting or another? That data binding is slow? That int is faster than Number? Ever wonder if they are all true? Ever wonder why it makes a difference? This session will introduce various performance techniques, separate myth from fact, and discuss, in depth, what is actually happening to make one technique superior.

### Ryan Campbell-Developing Applications with the PlayBook AIR SDK 2.0

The PlayBook AIR SDK 2.0 was a major rewrite and this session will get you up to speed with all the latest enhancements and how it compares with building a Flex application. I'll touch on architecting your app, building custom components, understanding the GridLayout system, skinning your components and general tips from experience using the framework myself.

## **Wednesday (1:40p - 2:50p)**

General Session - Garth Braithwaite - HTML for Flex Developers  
Session Description

## **Wednesday (3:00p - 4:10p)**

General Session - Jon Campos - Advanced Mobile Q&A  
You've got questions about Mobile? Jon answers them.

## **Wednesday (4:20p - 5:30p)**

General Session - Labriola Yaiser.  
Think, Human Virtual Machine.. and maybe drinking.