Adobe Flex 4: Developing Rich Internet Applications
Course Outline

Digital Training & Designs, Inc.

Prerequisites:

Be familiar with an object oriented programming language such as Java, C++, or ActionScript 3. Be familiar with XML terminology.

Who Should Attend:

This course is designed for application developers who want to bring the power of Rich Internet Applications to their web applications. This three day course introduces developers to all the primary features of Flex they'll need to know in order to build a fully functional, well architected front end for a Rich Internet Application (RIA).

Course Duration:

4 days. Class time is 9:00 am – 4:30 pm.

There is an hour for lunch, and two scheduled breaks during the day. Students provide their own lunch.

Related Training:

FC Adobe Flash Catalyst CS5:

Adobe Flex 4: Developing Rich Internet Applications

Flex 4: Developing Rich Internet Applications provides experienced application developers with hands-on, practical experience using Flex. This four day course introduces developers to all the primary features of Flex they'll need to know in order to build a fully functional, well architected front end for a Rich Internet Application (RIA).

Instructor

Our instructor, Tom Edgar, has a Bachelor of Science degree in Advertising Art Direction. With over ten years of Flash instruction behind him, Tom has unmatched expertise in Adobe Flash. In June of 2008 Tom was ranked as the number one Adobe trainer worldwide based on student evaluations. Tom has been with us for ten years, His uncommon and oft-praised rapport with students helps to put them at ease with subject material that otherwise might be imposing. Tom is certified by Adobe to teach any and all Flash, Flex, Fireworks, and Captivate classes currently on our schedule.

This outline is flexible and may change to accommodate student skills and interests.

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Introducing Adobe Flex 4

- Introducing the Adobe Flash Platform
- Understanding Flex development technologies
- Understanding Flex Application deployment
- Exploring the Flash Builder Interface
- Creating a Flex Project

Understanding Flex 4 Fundamentals

- Understanding Adobe Flex namespace
- Understanding Flex components
- Laying out and styling with Flash Builder
- Compiling and running an application
- Creating custom components
- Introducing Skinning
- Accessing and using structured data within a custom component
- Introducing data binding
- Updating visual controls using dynamic data

Introducing Object Oriented Programming

- Introducing OOP terminology
- Understanding MXML classes
- Creating class properties
- Writing a class definition in ActionScript
- Creating instances of an ActionScript class
- Creating class methods

Understanding Components and Layouts

- Introducing visual components
- Introducing Spark layout classes
- Introducing the Spark container classes
- Using constraints to control component layout
- Adding scrollbars to containers

Handling Events

- Understanding events
- Implementing event handlers
- Creating ActionScript event handler functions
- Understanding the event object
- Understanding event bubbling
- Adding event listeners with ActionScript

Validating and Formatting data

- Using the Form container
- Using formatters
- Validating form data
- Triggering validation with events
- Triggering validation with ActionScript

Controlling Navigation

- Understanding MX navigator containers
- Using the ViewStack container
- Using a Spark container inside MX navigator containers
- Creating custom navigation for the ViewStack container
- Using the TabNavigator
- Using the Accordion container

Controlling Application State

- Understanding view states
- Controlling view states

Animating Components and States

- Applying effects to components
- Creating composite effects
- Applying transitions to application state changes
- Adding and removing components during animations

Controlling Visual Display with Styling

- Creating global application styles
- Defining styles and skins for components
- Introducing Advanced CSS Selectors

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Skinning Spark Components

- Introducing skinning
- Incorporating visual elements from other programs
- Changing the default display of skin parts

Implementing Advanced Skinning Techniques

- Implementing different visual states for a skin
- Accessing custom component properties from a skin
- Adding scrollbars to skins

Accessing Remote Data

- Using HTTPService to load remote data
- Handling returned data and faults
- Making HTTP requests with parameters
- Using the wizards

Creating a Typed Data Model

- Understanding the need for a typed data model
- Creating an ActionScript class for typed data
- Populating an ArrayCollection with value objects
- Understanding data binding with value objects
- Refactoring value objects

Extending Events

- Understanding the problem with bindings
- Defining the event type
- Handling the event in the main application
- Extending the event class
- Using the extended event class
- Dispatching a value object with the extended event
- Overriding the clone method

Rendering Content with the DataGroup Container

- Displaying String data in an item renderer
- Passing UI components in the data provider
- Creating a custom item renderer
- Using the SkinnableDataContainer

Displaying Data using the DataGrid

- Using the DataGrid control
- Specifying DataGrid control columns
- Formatting DataGrid control columns
- Using item renderers and item editors
- Inline item renderers and item editors
- Item renderer and item editor components
- Using events and selected items with a DataGrid component

Deploying Flex and AIR applications

- Compiling the Flex application
- Creating a Flex application production build
- Creating a desktop application

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