

DURATION ●●●●● 5 days

List price **£1995** (excl. VAT)

Course code M006

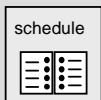
Course Objectives

This five day course gets developers up and running with the primary features of Flex 2 that they will need to know in order to build a fully functional and well-architected Rich Internet Application (RIA). The server-side functionality is written in ColdFusion.

Hands On Exercises

The delegates will have hands-on experience of building Rich Internet Applications, including:

1. Laying out a Flex application with containers
2. Handling Events in Flex
3. Using text controls.
4. Architecting an application with MXML components
5. Managing Application Navigation
6. Entity EJBs for transactional access to relational databases.
- 7 Embedding and Retrieving XML Data
8. Exchanging Data Between Components



Schedule

Freephone 0800 028 6400
for public schedule, or see
www.jbinternational.co.uk



Flex – A Closer Look

Adobe Flex 2 is essentially a J2EE-based application server that compiles on-the-fly Flex mark-up language (MXML) and ActionScript into Flash applications.

Flex allows Web application developers to build Rich Internet Applications (RIAs). In a multi-tiered model, Flex 2 apps serve as the Presentation Tier.



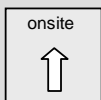
Who Should Attend

This course is designed for experienced web application developers who want to bring the power of Rich Internet Applications to their web applications



Pre Requisite Skills

Experience in a language, such as ColdFusion, ActionScript, JavaScript, etc. Be familiar with XML terminology. Have an understanding of object-oriented programming terminology.



Onsite / Customised

Available as a customised course for your company. Delivered onsite or at our London offices.

FLEX Course Syllabus

Introduction

Understanding rich Internet applications
Introducing the Adobe Flex 2 product line
The foundation of the RIA: Flash Player/Flash Virtual Machine
Understanding the Flex application process flow
Getting help and other resources

Understanding Flex Builder 2

Understanding the relationship between Eclipse and Flex Builder 2
Exploring the Flex Builder 2 interface
Creating a project and your first application
Creating a main application page and running it
Using debugging
Getting help in Adobe Flex Builder 2

Flex 2 Fundamentals

Creating a simple Flex 2 application
Creating your first Flex 2 application
Laying out a Flex 2 application with containers
Adding user interface controls
Creating bindings between components
Architecting an application with MXML components
Creating properties and methods of MXML components

Handling Events in Flex 2

· Understanding events
Demonstration: Viewing system and user events
Creating event handlers using inline ActionScript
Using inline ActionScript
Handling events with ActionScript functions
Placing ActionScript functions in external files
Understanding the event object
Implementing the `addEventListener()` method

Flex 2 Controls

Getting familiar with Flex 2 controls
Using the Button control
Using a CheckBox Control
Using NumericStepper controls
Using Text Controls

Managing your Application's Layout using Containers

Understanding Containers
Using the Application container
Setting an application's layout
Using the Panel container
Using the Form container
Using the Grid container
Using Box Containers
Using the DividedBox container
Using the Tile container
Container best practices
Using the ControlBar container
Component layout and sizing rules

Constraint-Based Application Layout

Understanding absolute positioning
Positioning components within the Canvas container
Positioning components inside a Canvas
Creating a constraint-based layout using Flex Builder 2
Creating a constraint-based layout in MXML
Using constraint-based layouts with nested components

Application Design using View States

Understanding view states
Creating two states for the Contact page
Controlling view states
Reviewing the generated MXML code
Creating view states that include custom components states

Application Navigation

Understanding navigator containers
Using the LinkBar container
Using the TabBar container
Using the ViewStack container
Navigating the Café Townsend application using the ViewStack and TabBar container
Using the TabNavigator container
Using the Accordion container
Using ButtonBar & ToggleButtonBar
Using the ApplicationControlBar container

Customizing the Application

Customizing Flex application look and feel
Using the Styles API to change look-and-feel
Using theme styles
Changing the look and feel of the Café Townsend application
Applying behaviors to components
Applying transitions to view states

Using MXML Data Models

Using MVC
Creating an MXML data model
Using ActionScript classes as a data model
Instantiating an Object in MXML from an ActionScript class
Creating an ActionScript constructor with parameters
Defining class methods

Exchanging Data Between Components Using Custom Events

- Understanding the problem
- Using a binding to get data from a component
- Creating custom events
- Creating, dispatching and handling a custom event
- Sending data with a custom event

Retrieving XML Data with HTTPService

- Retrieving XML data at runtime
- Handling results using data bindings
- Retrieving data at runtime with HTTPService
- Handling results using an event handler
- Handling faults
- Making HTTP requests to different domains

Looping Through Data

- Understanding the Repeater component
- Using dataProvider data in repeated controls
- Dynamically creating components using a Repeater
- Using Repeater data in ActionScript
- Referencing repeated components

Data Sets

- Using the DataGrid control
- Displaying Simple XML Data in a DataGrid
- Specifying DataGrid columns
- Specifying DataGrid columns
- Formatting DataGrid columns
- Using item renderers and item editors
- Using the TileList and HorizontalList
- Using events and selected items with list-based components

Flex 2 Data Services

- Introducing Flex Data Services
- Installing Flex Data Services
- Explore the Flex Data Services Installation
- Creating a Flex application for use with Flex Data Services
- Navigating the Flex Project structure
- Understanding the Server Compilation Process
- Flex Data Services Features
- The Flex Proxy Service
- The Proxy Service Default Destination
- Named Proxy Service Destinations

Formatting and Validating Data

- Validating form data
- Triggering validation with events
- Validating Numeric Input
- Validating with a Model
- Triggering validation with ActionScript
- Using regular expressions
- Formatting Data
- Formatting data in a list based control

- Supplying and Manipulating Complex Data
- Understanding Collection Classes
- Filtering data
- Filtering data
- Creating a data sort
- Using the IViewCursor interface

Accessing Web Services

- Using web services
- Invoking web service methods and using the results
- Consuming a web service
- Handling results using an event handler
- Handling faults
- Calling multiple methods from the same WebService object
- Passing Parameters to Web Services

Using Java Classes as Remote Object Services

- Understanding Remote Object Services
- Calling a Remote Object Service method
- Handling RPC Events
- Complex Remote Method Calls
- Exchanging Data between ActionScript and Java

Using the Flex Message Service

- Introducing the Flex Message Service
- Reviewing Message Destination Configuration
- Understanding Publish-Subscribe Messaging
- Publishing Messages
- Receiving and processing messages
- Sending and Receiving Complex Data

Using the Flex Data Management Service

- What is the Flex Data Management Service?
- Exploring a Data Management Services Destination
- Data Management Service Architecture
- Changing Data
- Managing Pending Changes
- Using Events
- Handling DataService Results
- Advanced Data Management Service Features

Providing XML to Controls with E4X

- Understanding XML structure
- Working with XML data in ActionScript 3.0
- Using the Tree Control
- Retrieving XML data and populating a Tree
- Using XML objects
- Removing XML items from a list

Uploading Files to a Server

- Implementing file transfer basics
- Uploading a file to the server
- Understanding the FileReferenceList class

Best Practises

- Advanced Programming Techniques
- Troubleshooting