

Comprehensive Flex Training Course Overview

In this Adobe Flex training class, students will learn to create rich internet applications with Flex. This Flex course includes all the topics covered in our Introduction to Flex course and our Advanced Flex course except for the lessons on data services. The course can be customized to include those lessons, especially for groups with previous Flex experience.

Comprehensive Flex Training Course Goals

- Understand what is meant by "Rich Internet Application"
- Learn to layout an application in Flex 3
- Learn to use Flex 3 controls
- Learn to handle events and work with data structures
- Learn to work with remote XML data
- Learn to create components with MXML
- Learn to work with data sets
- Learn to declare and use custom events
- Learn to create custom components with ActionScript 3.0
- Learn to use DataGrids and ItemRenderers
- Learn to use drag and drop
- Learn about navigation in Flex 3 applications
- Learn to use Formatters and Validators
- Learn to use the History Manager
- Learn to customize the look and feel of a Flex 3 application
- Learn to work with server-side objects
- Learn to visualize data
- Learn to create transitions and behaviors
- Learn to print from Flex 3 applications (if time allows)
- Learn to use Shared Objects (if time allows)
- Learn to debug Flex 3 applications (if time allows)



Comprehensive Flex Training Course Prerequisites

Experience in the following areas is required:

- Basic XML knowledge

Experience in the following areas would be beneficial.

- Object-oriented programming

Comprehensive Flex Training Course Outline

1. Understanding Rich Internet Applications
 1. Understanding the Evolution of Computer Applications
 2. Breaking Away from Page-Based Architecture
 3. Identifying the Advantages of Rich Internet Applications
 4. RIA Technologies
 5. What You Have Learned
2. Getting Started with Flex 3
 1. Getting Started with Flex 3 Application Development
 2. Creating a Project and an MXML Application
 3. Understanding the Flex Builder 3 Workbench
 4. Running Your Application
 5. Creating a Second Application Page and Working in Design Mode
 6. Getting Ready for the Next Lesson
 7. What You Have Learned
3. Laying Out the Interface
 1. Learning About Containers
 2. Laying Out the E-Commerce Application Using Design Mode
 3. Working with Constraint-Based Layouts
 4. Working with View States
 5. Laying Out an Application in Source Mode
 6. What You Have Learned
4. Using Simple Controls
 1. Introducing Simple Controls
 2. Displaying Images
 3. Building a Detail View
 4. Using Data Binding to Link a Data Structure to a Simple Control
 5. Using a Form Layout Container to Lay Out Simple Controls
 6. Adding Radio Buttons and Date Fields to the Dashboard
 7. What You Have Learned
5. Handling Events and Data Structures
 1. Understanding Event Handling
 2. Building a Data Structure on the creationComplete Event
 3. Using Data from the Event Object
 4. Building a Custom ActionScript Class
 5. Building a Method to Create an Object
 6. Building Shopping Cart Classes
 7. What You Have Learned
6. Using Remote XML Data with Controls
 1. Retrieving XML Data with HTTPService
 2. Retrieving XML Data via HTTPService
 3. Populating an ArrayCollection with HTTPService Data

4. Populating a ComboBox Control and Programmatically Adding an Option
 5. Using XML Data with a Tree Control
 6. Retrieving XML Data and Transforming It into an ArrayCollection of Custom Objects
 7. Using Data Binding with Complex Data Structures
 8. Manipulating Shopping Cart Data
 9. Adding a Remove Button
 10. What You Have Learned
7. Creating Components with MXML
 1. Introducing MXML Components
 2. Creating an Update/Delete Product Component and Instantiating It
 3. Popping Up Product Information When Clicking the Update and Delete Buttons
 4. Creating Another Value Object
 5. Creating a Data Manager Component for All Three Applications
 6. Using the New Data Manager Component
 7. Implementing Add Product Functionality
 8. Creating and Using a Component for the Dashboard Application
 9. What You Have Learned
8. Using Controls and Repeaters with Datasets
 1. Using Datasets
 2. Displaying the Categories Using a HorizontalList and an itemRenderer
 3. Displaying Grocery Products Based on Category Selection
 4. Coding States to Display Detailed Product Information
 5. Placing Products in the Shopping Cart
 6. What You Have Learned
9. Using Custom Events
 1. Understanding the Benefits of Loosely Coupled Architecture
 2. Dispatching Events
 3. Declaring Events for a Component
 4. Identifying the Need for Custom Event Classes
 5. Building and Using the CategoryEvent
 6. Creating and Using the ProductEvent Class
 7. Understanding Event Flow and Event Bubbling
 8. What You Have Learned
10. Creating Custom Components with ActionScript 3.0
 1. Introducing Building a Component with ActionScript 3.0
 2. Creating the Structure of the Class
 3. Overriding the createChildren() Method
 4. Sizing and Positioning in Flex 3
 5. Understanding the measure() Method
 6. Overriding the updateDisplayList() Method
 7. What You Have Learned

11. Using DataGrids and Item Renderers
 1. Introducing DataGrids and Item Renderers
 2. Adding a Generic DataGrid to ChartPod
 3. Adding HTTPService Calls to Dashboard
 4. Displaying the Shopping Cart with a DataGrid
 5. Using the AdvancedDataGrid
 6. What You Have Learned
12. Using Drag and Drop
 1. Introducing the Drag and Drop Manager
 2. Dragging and Dropping Between Two DataGrids
 3. Dragging and Dropping Between a DataGrid and a List
 4. Using a Nondrag-Enabled Component in a Drag-and-Drop Operation
 5. Dragging a Grocery Item to the Shopping Cart
 6. What You Have Learned
13. Implementing Navigation
 1. Introducing Navigation
 2. Using a TabNavigator in the DataEntry Application
 3. Adding a Home Page and Checkout Page in the E-Commerce Application
 4. Creating the First Step of the Checkout Process Displayed by a ViewStack
 5. Completing the Checkout Process Using the ViewStack
 6. What You Have Learned
14. Using Formatters and Validators
 1. Introducing Formatters and Validators
 2. Using a Formatter Class to Display Currency Information in the E-Commerce Application
 3. Using Validator Classes
 4. Using Regular Expressions to Validate Data (Part 1)
 5. Using Regular Expressions to Validate Data (Part 2)
 6. Building a Custom Validator Class
 7. What You Have Learned
15. Implementing History Management and Deep Linking
 1. Introducing History Management
 2. Implementing History Management within a Navigator Container
 3. Building a Custom History Manager
 4. Introducing Deep Linking
 5. What You Have Learned
16. Customizing the Look and Feel of a Flex 3 Application
 1. Applying a Design with Styles and Skins
 2. Applying Styles
 3. Changing CSS at Runtime
 4. Skinning Components
 5. What You Have Learned

17. Accessing Server-Side Objects
 1. Uploading Files to the Server
 2. Using RemoteObject to Save an Order
 3. Mapping ActionScript Objects to Server Objects
 4. The Flex 3 Builder Data Wizards
 5. What You Have Learned
18. Visualizing Data
 1. Exploring Flex 3 Charting Components
 2. Laying Out Initial Charts
 3. Populating Charts
 4. Adding Legends to Charts
 5. Limiting the Labels Shown on an Axis
 6. Interacting with Charts
 7. Adding Chart Events
 8. Adding Animations to Charts
 9. Customizing Chart Appearance with Styles
 10. What You Have Learned
19. Creating Modular Applications
 1. Introducing Modular Applications in Flex 3
 2. Using Flex Modules
 3. Understanding Runtime Shared Libraries (RSLs)
 4. Using the Flex Framework RSL Caching
 5. Creating a Library Project
 6. What You Have Learned
20. Deploying Flex Applications
 1. Compiling a Deployment Version of Your Application
 2. Breaking Out of the Browser with the Adobe Integrated Runtime (AIR)
 3. Creating an AIR Application
 4. What You Have Learned
21. Creating Transitions and Behaviors
 1. Introducing Behaviors and Transitions
 2. Implementing Effects on a Component
 3. Adding Effects to View States
 4. What You Have Learned
22. Printing from Flex (if time allows)
 1. Introducing Flex Printing
 2. Printing for the First Time from Flex
 3. Using the PrintDataGrid in a Nonvisible Container
 4. Building the Printable View in a Separate Component
 5. Scaling the Printed Output
 6. Printing a Receipt from the Checkout Process
 7. What You Have Learned
23. Using Shared Objects (if time allows)
 1. Introducing Shared Objects

2. Building a SharedObject to Store Shopping Cart Data
 3. Reading Data from an Existing Shared Object
 4. What You Have Learned
24. Debugging Flex Applications (if time allows)
1. Introducing Debugging Techniques
 2. Watching Client/Server Data Exchange
 3. Learning More About the Debugger
 4. Handling Errors with try-catch
 5. What You Have Learned
25. Profiling Flex Applications (if time allows)
1. Flash Player Memory Use
 2. Memory Profiling a Flex Application
 3. Performance Profiling a Flex Application
 4. What You Have Learned
 5. Appendix A. Setup Instructions
 6. Installing Flex Builder
 7. Installing Lesson Files
 8. Installing the ColdFusion Server
 9. Starting the ColdFusion Server
 10. Installing Flash Debug Player

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*Course Structure is provided by iBsolution Education & RIA Cell (Adobe User Group)



