



# Flex 2: Developing Rich Client Applications

## (3 days)

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### Description

Flex 2: Developing Rich Internet Client Applications provides experienced application developers with hands-on, practical experience using Flex. 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).

### Audience

This course is designed for application developers who want to bring the power of Rich Internet Applications to their web applications. To gain the most from this class, you should:

- ▶ Be familiar with an object oriented programming language such as Java or C++.
- ▶ Be familiar with XML terminology.

### Course Outline

#### Unit 1: Introducing Adobe Flex 2

- 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
- Exploring the course application 13

#### Unit 2: Getting Started with 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

#### Unit 3: Learning Flex Fundamentals

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

**Unit 4: Handling Events**

- Understanding 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

**Unit 5: Using Simple Controls**

- Getting familiar with Flex controls
- Using the Button control
- Using a CheckBox Control
- Using NumericStepper controls
- Using Text controls
- Displaying images
- Adding simple controls to an application

**Unit 6: Laying Out an Application with 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

**Unit 7: Laying out an Application Using Constraint-Based 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

**Unit 8: Using View States for Application Design**

- 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

**Unit 9: Creating 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

#### **Unit 10: 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

#### **Unit 11: Using MXML and ActionScript Data Models**

Using the MVC design pattern  
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

#### **Unit 12: Exchanging Data Between Components Using Custom Events**

Understanding the problem with bindings  
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

#### **Unit 13: Retrieving XML Data with HTTPService**

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

#### **Unit 14: Looping Through Data Using a Repeater**

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

#### **Unit 15: Displaying Data Using the DataGrid**

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