



ENTERPRISE FLEX APPLICATIONS: USING FLEX 3 WITH LIVECYCLE DATA SERVICES AND J2EE (Java EE)

OVERVIEW

Flex 3 is the application server of Adobe for the development of complex Enterprise applications with high added value and interactivity. By definition, Enterprise applications are multi-tiered, and every level brings particular benefits to the final design of the application itself. A “tiered” type architecture provides for a natural access for the integration with existing and future systems. Flex 3 is positioned on this range of Enterprise applications, which, therefore, encompass numerous J2EE infrastructures (BEA Web Logic, Tomcat, JBoss, JRun) and frameworks (Jakarta Struts, Cocoon, Spring, Hibernate). The installation phases, set up, tuning and deployment of Flex 3, often represent the most delicate and important phase for the optimal development of an enterprise project with this technology. The use of the Design Patterns and of Cairngorm 2, the Open Source framework of Adobe, studied in order to neatly extract the Presentation part from the Logic part, are essential aspects for enterprise projects. During the learning path, we will use the View Controller Model and the Data Transfer Object design pattern, for the development on Cairngorm 2.

Training objectives

The final workshop of this course will allow the participants to create a complex prototype of a “cashier-desk” for a hypothetical bank.

Prerequisites

The course is aimed at those who possess knowledge of the notions provided by the course in “Developing Rich Internet Applications with Flex 2 and Flex Builder 2”.

Teaching material

The course will provide each student the following text book:
Flex Solutions: Essential Techniques for Flex 2 and 3 Developers
Editor: Friends of Ed
Pages: 904

PROGRAMME

- Installing Flex 3 with integrated JRun
- Installing and Deploying Flex 3 under BEA Web Logic
- Installing and Deploying Flex 3 under Tomcat
- Flex Builder 3 and CVS with JUnit
- Further study of the Server Compilation Process
- The characteristics of Lifecycle Data Services (Flex Data Services)
- The Flex Proxy Service

Using Web Services

- The WebService class
- Result and fault events
- Using a web service
- Invoking multiple methods from the same WebService
- Assigning parameters to the WebService



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Using the RemoteObject to access public methods in Java

- DTO and DAO Design Pattern for the exchange of remote data
- Mapping DTO ActionScript 3 with DTO Java
- Serialization and deserialization between Java and ActionScript
- Data Typed values between Java and ActionScript

Advanced use of Flex 3

- The States of Flex 3
- Using the mxmcl and compc command-line compilers
- Drag and Drop Manager
- Flex 3 Printing Class

Flex 3 for Enterprise applications

- The View Controller Model in Flex 3 and ActionScript 3
- The Cairngorn 3 framework
- Integration with Ant and Maven

Using Data Services

- LiveCycle Data Services
- Deploying Livecycle Data Service applications
- Messaging with the Publisher/Consumer
- Data sending in PUSH
- RPC events
- Remote Object Services

Managing complex data

- Data filtering
- Cursor Management
- IView Cursor interface
- XML management with E4X
- XML data in ActionScript 3
- Data persistence, Occasionally Connected Application

Using Messaging Services

- Understanding LiveCycle Message Services
- Destination configuration
- Using Publish-Subscribe Messaging
- Publishing Messages
- Receiving and processing messages