



PROGRAMMING ACTIONSCRIPT 3 FOR FLEX3

OVERVIEW

ActionScript 3 is the new version of the programming language used for Flex 3 and Flash CS3 applications, as well as a powerful language for objects, introducing an important evolutionary step for the capacity of Flash Player 9 at runtime. Already from the first versions of ActionScript, the language offered developers power and flexibility for the creation of rich and interactive user experiences.

With ActionScript 3, the language reaches a full maturity notably increasing the performance and the ease of the development of contents and applications used with Flash Player 9. The ActionScript 3 code is executed by the ActionScript Virtual Machine 2 (AVM2) inserted in Flash Player 9 that dramatically increases the performance and renders the rich internet applications up to 10 times faster compared to the previous version (AVM1).

ActionScript 3 is a language that bases itself on the standard international ECMAScript 262, Third edition, and contains functions that are based on Proposal 4 of the ECMAScript; it was designed to comply with the following programming requirements:

- **Security:** ActionScript 3 supports the security of types of data to permit developers to easily maintain the code
- **Simplicity:** ActionScript 3 is intuitive, and easy to write for programmers who have experience in languages such as Javascript, C# and Java
- **Performance:** ActionScript 3 allows you to write complex functions keeping the performance of the application high
- **Compatibility:** the language is based on standard ECMAScript and adds the capacity of ECMAScript for XML (E4X) evolving version 2 of ActionScript.

Training objectives

The course Programming ActionScript 3 for Flex 3 provides a deep knowledge of the language of ActionScript in its latest version used by Flex 3 for the programming side of rich internet applications.

Prerequisites

Knowledge of a programming language and of the concepts of programming objects.

Teaching material

The course will provide each student the following text book:

Flex Solutions: Essential Techniques for Flex 2 and 3 Developers

Editore: Friends of Ed

Pagine: 904



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PROGRAMME

Introduction to ActionScript 3.0

- Variables and the Arrays
- The new Primitives of ActionScript 3
- Runtime exceptions and Runtime types
- Expressions and operators
- Boolean logic
- Conditional and iterative instructions
- Functions
- Regular expressions

Programming by objects with ActionScript 3

- Programming the classes
- Namespaces and packages
- Sealed classes
- Variables and statistical functions
- Heredity and polymorphism
- The MVC design pattern with ActionScript 3

Managing events in ActionScript 3

- Introduction to Events in ActionScript 3
- Event Listeners
- Dispatching Events
- Button and Mouse events
- Timers
- DOM3 event model
- Custom events

Managing Errors

- Structure of error management
- The flash.errors class
- Error bubbling

Flash Player 9 and AVM2

- Flash Player API features
- Garbage collection
- Security Restrictions

DisplayList and Display Object

- Display List API
- Programming the Stage
- The Sound object
- Flash Video (FLV) format

Working with the Components and data

- Visualizing and editing data with ActionScript 3 and the Datagrid component
- The Package mx.charts for Flex 2
- The Collection Class of ActionScript 3 in Flex 3
- Sorting and Filtering Data

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The IViewCursor interface
ActionScript 3 and the connection to Web Services

Data Models and Value Object

Data Models with ActionScript 3
ActionScript3 Data Models
Using Data Providers
Loading remote external data

Using Flex Builder 3

The Flex Builder 3 environment
Writing ActionScript 3 code
Filling in applications
Debugging code

