

Silverlight 3: Client Fundamentals

RIA, CLR+C# in-browser, Startup, Unit Testing, Html Integration, Deployment, XAML, UI, Graphics

The goal of Rich Internet Applications (RIA) is to deliver the UI richness of desktop apps along with the many advantages of browser-based solutions. Silverlight, Microsoft's RIA offering, allows developers write browser-based functionality in C#/CLR (instead of, or in addition to, Javascript+[D]HTML+AJAX) and have it run on many (though not all) web browsers and platforms. .NET developers should be particularly interested in Silverlight as it allows them to leverage their existing skills for client-side coding. Standard .NET features such as generics, collections, threading, delegates, reflection, XAML, LINQ, sockets work pretty much the same in Silverlight 3 as in .NET.

There are some modifications to existing APIs, a very small number of new APIs and some .NET namespaces are not supported, but in general .NET developers will be pleasantly surprised at how much is available in Silverlight 3. There are also architectural issues concerning how a Silverlight app integrates with HTML in the browser and data services/web services in the server that developers need to clearly understand. The focus of this course is to cover what developers / architects need to learn in order to start programming in Silverlight 3. We offer additional Silverlight 3 courses that target specific feature areas. If you need to kickstart your next-generation browser-based RIA project, then this course is ideal.

<i>Learning Topics</i>			
<p>Target Audience: Software engineers who wish to build up the requisite skillset needed in order to design and develop Silverlight 3 apps.</p> <p>Prerequisites: Attendees require some development experience with .NET/CLR/Visual Studio/C#.</p> <p>An understanding of general web development concepts is required.</p> <p>No previous WPF or XAML experience is necessary.</p>	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p style="text-align: center;">Rich Internet Applications (RIA)</p> <p>Where is RIA needed/ueful? How Silverlight 3 delivers a RIA platform Alternatives: Flash, Java, AJAX, ... Advantages & disadvantages of Silverlight</p> <p style="text-align: center;">Solution Structure & Compilation</p> <p>Visual Studio 2008 Silverlight 3 solution Development environment Host web app/html page to contain the SL The .xap file Importance of the manifest</p> <p style="text-align: center;">Tour of Silverlight Features</p> <p>Base class libraries, data access, network access, user interface, XML, storage, video How it all fits together</p> <p style="text-align: center;">Simple Silverlight Apps</p> <p>“Hello, World” in Silverlight Getting started with programming apps Debugging</p> <p style="text-align: center;">Unit Testing a Silverlight App</p> <p>How to unit test Silverlight code SL Unit Testing Framework Creating unit tests Unit testing strategies Arrange-Act-Assert</p> <p style="text-align: center;">Deployment & Startup</p> <p>System.Windows.Application Out-of-browser Assembly deployment on-demand Deployment issues SDK assemblies NetworkInformation namespace Analytics class</p> </td> <td style="width: 50%; vertical-align: top;"> <p style="text-align: center;">ASP.NET/html/Javascript Integration</p> <p>Javascript and Silverlight 3 AJAX and Silverlight 3 Working with HTML DOM Use from ASP.NET without Server Controls Silverlight app as part of a larger ASP.NET 3.5 solution</p> <p style="text-align: center;">XAML in Silverlight</p> <p>Specifying UI layout with XAML Client-side event-handling Designing rich user interaction Markup extensions XAML Namescopes Type Converters</p> <p style="text-align: center;">UI Overview</p> <p>Introduction to UI programming in Silverlight 3 What functionality is/is not available How to create UI apps Difference between WPF and SL UI Sharing source code with WPF app Silverlight 3 Toolkit</p> <p style="text-align: center;">Graphics</p> <p>Drawing with the canvas & animation Missing features – e.g. rich 3D API Shapes & geometries 2D Animation Video as a data type Showing/processing video</p> <p style="text-align: center;">Moving to Silverlight</p> <p>How to enhance existing apps to use Silverlight</p> </td> </tr> </table>	<p style="text-align: center;">Rich Internet Applications (RIA)</p> <p>Where is RIA needed/ueful? How Silverlight 3 delivers a RIA platform Alternatives: Flash, Java, AJAX, ... Advantages & disadvantages of Silverlight</p> <p style="text-align: center;">Solution Structure & Compilation</p> <p>Visual Studio 2008 Silverlight 3 solution Development environment Host web app/html page to contain the SL The .xap file Importance of the manifest</p> <p style="text-align: center;">Tour of Silverlight Features</p> <p>Base class libraries, data access, network access, user interface, XML, storage, video How it all fits together</p> <p style="text-align: center;">Simple Silverlight Apps</p> <p>“Hello, World” in Silverlight Getting started with programming apps Debugging</p> <p style="text-align: center;">Unit Testing a Silverlight App</p> <p>How to unit test Silverlight code SL Unit Testing Framework Creating unit tests Unit testing strategies Arrange-Act-Assert</p> <p style="text-align: center;">Deployment & Startup</p> <p>System.Windows.Application Out-of-browser Assembly deployment on-demand Deployment issues SDK assemblies NetworkInformation namespace Analytics class</p>	<p style="text-align: center;">ASP.NET/html/Javascript Integration</p> <p>Javascript and Silverlight 3 AJAX and Silverlight 3 Working with HTML DOM Use from ASP.NET without Server Controls Silverlight app as part of a larger ASP.NET 3.5 solution</p> <p style="text-align: center;">XAML in Silverlight</p> <p>Specifying UI layout with XAML Client-side event-handling Designing rich user interaction Markup extensions XAML Namescopes Type Converters</p> <p style="text-align: center;">UI Overview</p> <p>Introduction to UI programming in Silverlight 3 What functionality is/is not available How to create UI apps Difference between WPF and SL UI Sharing source code with WPF app Silverlight 3 Toolkit</p> <p style="text-align: center;">Graphics</p> <p>Drawing with the canvas & animation Missing features – e.g. rich 3D API Shapes & geometries 2D Animation Video as a data type Showing/processing video</p> <p style="text-align: center;">Moving to Silverlight</p> <p>How to enhance existing apps to use Silverlight</p>
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