

Light Up The MOSS: Silverlight 2 & MOSS

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Welcome

Agenda

- What is Silverlight
- Why Silverlight and SharePoint
- Silverlight BluePrint for SharePoint
- Additional Samples of Silverlight in SharePoint

What is Silverlight

Official Microsoft Silverlight Site : <http://silverlight.net>

The screenshot shows the official Microsoft Silverlight website in a browser window. The browser's address bar displays "The Official Microsoft Silverlight Site". The website features a blue header with the Silverlight logo and navigation links: Home, Get Started, Showcase, Learn, Community, and Forums. A "Sign in" and "Join" link is also present. Below the header, a large blue banner reads "Light up the Web. A showcase of next generation experiences using Silverlight." and "Silverlight Brings You the Gold". This banner includes a video player showing NBC Olympics coverage and text stating: "Offering over 3,600 hours of video coverage, NBCOlympics.com is the largest online media event ever accomplished on the Web. Powered by Microsoft Silverlight, viewers will be able to watch LIVE Olympic events in high-definition and up to 4 events simultaneously. Visit NBCOlympics.com by MSN today!". To the right, a white box titled "Microsoft Silverlight" describes it as a cross-browser, cross-platform, and cross-device plug-in for delivering next-generation .NET based media experiences and rich interactive applications for the Web. It also mentions that designers and developers can collaborate more effectively using Expression Studio and Visual Studio. Below the main banner, there is a row of six small video thumbnails. At the bottom, there are sections for "NEWS" and "LATEST BLOGS". The "NEWS" section features the article "Silverlight Brings You the Gold" dated Friday, August 08, 2008. The "LATEST BLOGS" section features the article "Silverlight at the Olympics" dated 3 hours ago by scorbz » work. On the right side, there is a promotional banner for "Silverlight Data Visualization From Infragistics" with a bar chart and the date "08. 08. 08".

What is Silverlight

Silverlight Examples

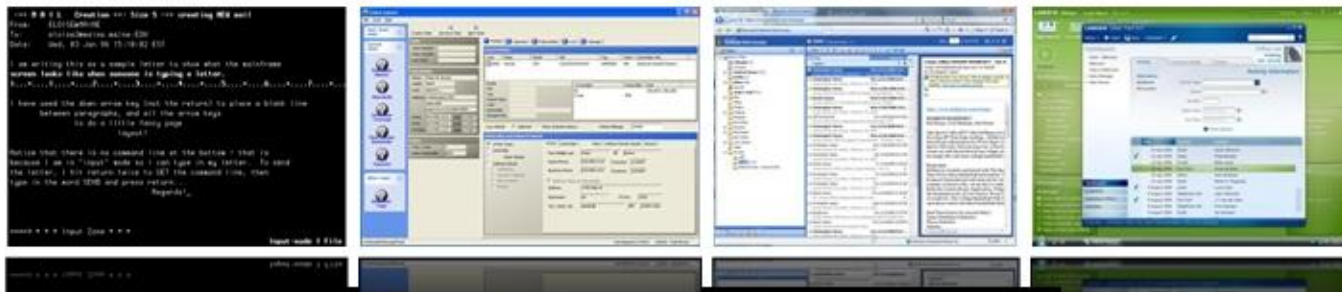
- NBA.com
- NBCOlympics.Com
- Hard Rock : <http://memorabilia.hardrock.com/> (Deep Zoom)
<ctrl>-v - Easter Egg
- Library of Congress :
<http://www.loc.gov/exhibits/earlyamericas/maps/>
- Fox Movie Trailers : <http://silverlight.net/fox/> •

Many, Many More

Showcase on silverlight.net

Rich Internet Applications (RIA)

- RIA brings the best of desktop and client/server applications to the best of web applications
 - Web deployment
 - Enhanced user experience
- Microsoft RIA (WPF and Silverlight)
 - Single skillset, language, and toolset, from the database to the services and sites, through to the client, in the browser or on the desktop
 - ... and in the future, phone and mobile devices



Green
Screen

Client /
Server

Web
HTML

RIA

WPF and Silverlight

WPF - RIA for Windows Desktops

- Windows-only IE Xaml Browser Applications (xbap) • Best choice for Windows-only installations • Requires .NET 3.+ on the desktop

Silverlight 2 - RIA for Browsers

- Cross-platform subset of WPF features
- Best choice for mixed (Windows, Mac and Linux*) installations
- Self-contained browser plug-in

Skillset, XAML, Markup and Application Source Code Can Be Shared Between Both Technologies

* Moonlight project

What is Silverlight

Browser-Hosted Client-Side RIA Technology

- No server-Side requirements (can run from any web server)
- Communicates via services
- All logic executes on the client

Cross-Platform Subset of WPF

- IE, FireFox, Safari
- Windows, Mac
- Linux (Moonlight - <http://www.mono-project.com/Moonlight>)

Media Rich

- Streaming Video/Audio
- Scales video quality from mobile to 720p HDTV
- Rich Graphics support

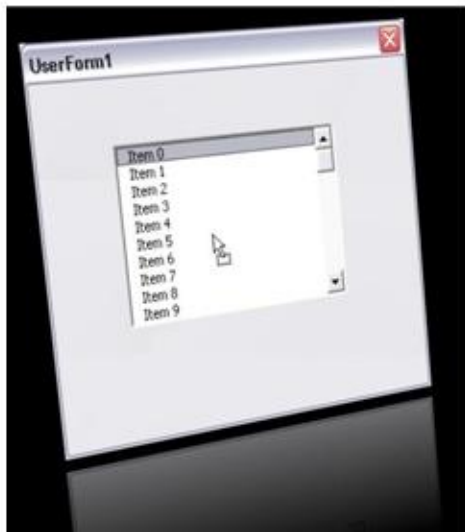
Replacement for HTML, AJAX, Windows Forms, etc?

- In some cases, yes

Why Silverlight?

Use Existing .NET Skills on the Client
Fully Scalable User Interface

- Resolution-independent and accessible **Better Binding and UI Model than Windows Forms Fully Skinnable with Zero Code Changes**
- Fewer controls needed (lowers learning curve)
 - Designer can completely change UI by modifying only the xaml - far more than just colors and fonts:



Listbox:
One Model,
One Control,
Many Views



Why Silverlight?

- **UX Capabilities Like WPF, Minus 3D and Effects**
 - Skinning, binding, styling, etc.
- **Browser-Based**
- WPF has more powerful browser-based Xbap, but Windows-only • Easier deployment than full platform applications • **Complete Control over the User Experience**
 - Not stuck working within limitations of HTML
- **Portable, Cross-Platform**
 - Windows, Mac, Linux, IE, Firefox, Safari
 - Consistent on all Platforms / Browsers
- **Faster Execution than JavaScript / AJAX**
 - Compiled code on the client
 - Self-contained runtime and execution environment

Current State of Silverlight

Silverlight 1.0

- 100% JavaScript-driven applications

Silverlight 1.1 / 2

- Managed applications -> DLLs •
- Small .NET Framework footprint •
- Applications are packaged -> XAP

Current State of Silverlight

What does 2.0 have that 1.0 doesn't have?

- C#, VB.NET
- .NET Framework Support
- ADO.NET
- Isolated Storage
- LINQ for Objects
- Cross Domain Network Access (with Policy Files)
- Stack Panel, Grid and Panel Layout Support •

Managed Control Framework

- Deep Zoom
- Media - Content Protection (DRM)
- XML Reader/Writer
- More (<http://silverlight.net/getstarted/overview.asp>)

Silverlight Designer and Developer Tooling

- **Developers**

- Visual Studio 2008
- Expression Blend 2.5 (optional, but easiest for UI layout)

- **Designers**

- Expression Design for graphics *
- Expression Blend 2.5 for composition
- Expression Media for video

- Deep Zoom Composer for MultiScaleImage creation

Designer and Developer Tools Share Same Source- Controlled Project Files - No Translation Required

- * Also supports vector import from Adobe Illustrator and PNG/JPEG from Photoshop and other raster tools

XAML

- eXtensible Application Markup Language
- Describes .NET Objects
- Used in
 - Silverlight
 - WPF
 - WF
- Toolable
- Human-Editable

Demo: Silverlight 2 in Action

Controls

- **Standard Built-In Controls**
 - Source code for all controls provided by Microsoft
- **Control Skinning**
 - Free designer skins already available
- **Third-Party Controls**
 - Infragistics, Telerik, ComponentOne, and more •
- **Content Controls can have Arbitrary Content**
 - Buttons not limited to text
 - Datagrid cells can have other grids or any presentation
 - etc.
- **Tabbing, Tab Order, Keyboard Support**

Communication and Services

- **Supports Common Protocols**
 - SOAP, REST, POX, RSS, Standard HTTP
- **WCF-Based Client for Services**
 - basicHttpBinding supported
- **Provide Access to Additional Platform Capabilities**
 - Workflow, Biztalk, SharePoint Services ...
- **Sockets**
 - Custom protocols (ports in 4502-4532 range for Beta 1)
- **Cross-Domain Support**
 - Server controls what applications can access its data
 - Same model as Flash
- **All Service Calls are Async**

Security

- **Application-Level Authentication/Authorization**
 - IIS Security Handled at Usual Levels
- Current web security mechanisms still work at hosting page • Silverlight treated like any other page content • Further refinement/changes in future SL2 releases possible • **Platform / Code Security**
 - Sandboxed: no security elevation or unsafe code
 - No code-access security or policies
 - Simple: All user code must be “safe and transparent” code

Silverlight Plug-in Deployment

- **Initial Deployment**

- **On-Demand**

- Requires administrator privileges like any IE plug-in
 - Prompted by plug-in alternate markup (skinnable)
 - 4.5mb download for Windows

- **WSUS / Microsoft Update**

- **Enterprise Deployment Guide Document**

- **Inclusion in base desktop Image**

- Like Flash is today, in most cases

- **Upgrades**

- **Automatic (configurable) once initial install complete**

- No administrator privileges required

Application Packaging - Xap

- **Application Deployment**

- Xap : compressed application package
- Renamed zip file - open and transparent
- Treated like any other browser content (cached, safe)

- **Compression Optimized for Decompress Time**

- Good balance of compression ratio and speed •

- **Contains Manifest, DLLS, Content Resources**

- Additional resources, like video and large images, can be downloaded outside of xap
- Additional DLLs, can be downloaded outside of initial xap

- **Requires IIS Mime Type**

- xap : application/x-silverlight-app •

- **Custom Splash Screens Possible**

- Simple XAML + JavaScript for now

Silverlight and SharePoint

WSS 3.0 Service Pack 1 adds support Prep work still needs to be done in config

Why Silverlight and SharePoint?

- WSS = Dev Platform for IW Solutions • IW experience can be enriched with Silverlight
 - Dynamic interaction with data
 - Better visualization of complex data
 - Multi-media experience
 - More client-driven work with SharePoint • Look and feel of external SharePoint sites

Silverlight and SharePoint

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Silverlight and SharePoint

Silverlight Viewer Web Part

- View Silverlight 2 content – XAPs
- Support Silverlight 2
- Download from Codeplex

Silverlight BluePrint for SharePoint

Project started September 2007

- Released at MS SharePoint Conference 2008 in March
- Built by U2U - Tissegham and Karine Bosche •
- Original built on Silverlight 2 Beta 1 • Transferred to CodePlex
- Updated for Beta 2 in August 2008 (on Codeplex)
Dropped 1 sample, Added additional guidance

Goals

- Jumpstart for SharePoint developers •
- Focus is on how to integrate both worlds •
- Showcase of different techniques
- Show possible usage scenarios of Silverlight in the world of SharePoint

<http://www.codeplex.com/SL4SP>

BluePrint Web Site

Microsoft®

Silverlight™ *Blueprint* for SharePoint™

Software + Services
Blueprints

Welcome to this training kit!

A number of sample applications are part of this kit giving you an overview of various scenarios that can be covered when integrating Silverlight technologies.

Other Resources:

- [Silverlight.net](#)
- [SharePoint Developer Center](#)
- [Office Developer Center](#)
- [S+S Blueprints](#)

Get the full Blueprint

Open Source Source Code and full Blueprint are coming soon.

Sample 1: [Hello Silverlight Web Parts and the SilverlightPart](#)



This is the most basic sample showing how to use Silverlight in a SharePoint web part.

[View](#)

Sample 2: [Silverlight Navigation Controls](#)



This sample shows how to use Silverlight for navigation of a SharePoint site.

[View](#)

Sample 3: [Silverlight Social Networking Web Part](#)



This sample shows a graphical representation of colleagues using information from active directory.

[View](#)

Sample 4: [Visual How-To Center with Silverlight](#)



This sample shows a video carousel where each video will show a preview when you hover the mouse.

[View](#)

Sample 5: [Picture Viewer Sample](#)



SharePoint has picture libraries and this sample brings them to life by showing the pictures in a Silverlight carousel.

[View](#)

Sample 6: [Silverlight Custom Field Types](#)



SharePoint custom lists are a popular SharePoint customization and this sample provides a slider control for data entry for a new item in a custom list.

[View](#)

[Home](#)


Silverlight 2 (Beta 2) Blueprint for SharePoint

The Silverlight Blueprint for Sharepoint is now in Beta 2. Code for the version which works with Silverlight 2 Beta 2 is now available at <http://www.codeplex.com/SL4SP/Release/ProjectReleases.aspx?ReleaseId=16420> .

The updated release of the Silverlight Blueprint for SharePoint is a little different from the original blueprints as with this release we've created a set of self-contained samples that using the blueprint methodology you can deploy to your SharePoint site to test out the Silverlight applications. The goal of the blueprints is to give you some guidance on how to integrate Silverlight applications with SharePoint. There are many possibilities here, and we've put together just a few to get you started.

Note: Make sure you amend the web.config file in the root folder of your SharePoint site to allow for your Silverlight application. We discuss this and provide a link to a sample web.config file, in the FAQ document located on the Releases tab.

I added a couple of screencasts today. I'll add more of them as they are completed. They were uploaded to the Releases tab.

For more information about Software-plus-Services Blueprints please visit our main landing page on Channel9: <http://channel9.msdn.com/blueprints> .

Downloads & Files



[Silverlight Blueprint for SharePoint Beta 2 Guidance](#)
documentation, 98K, uploaded Aug 18 - 1015 downloads



[Sample 1 - Hello World](#)
source code, 898K, uploaded Aug 18 - 774 downloads



[Sample 2 - Media Viewer](#)
source code, 13916K, uploaded Aug 18 - 655 downloads



[Sample 3 - Slider Control](#)
source code, 986K, uploaded Aug 18 - 441 downloads



[Sample 4 - Custom Navigation](#)
source code, 785K, uploaded Aug 18 - 501 downloads



[Sample 5 - Colleague Viewer](#)
source code, 890K, uploaded Aug 18 - 550 downloads



[Beta 2 FAQ](#)
documentation, 15K, uploaded Aug 19 - 479 downloads



[Screencast for Sample 1](#)
documentation, 12214K, uploaded Aug 27 - 307 downloads



[Screencast for Sample 2](#)
documentation, 15362K, uploaded Aug 27 - 221 downloads



[Screencast for Sample 3](#)
documentation, 11845K, uploaded Aug 30 - 106 downloads



[Screencast for Sample 4](#)
documentation, 22614K, uploaded Aug 30 - 120 downloads



[Screencast for Sample 5](#)
documentation, 13412K, uploaded Aug 30 - 141 downloads

Blueprint Samples

Getting Started

- Hello Silverlight Web Part (Only Silverlight 2 in Beta 2 Release)
- SilverlightPart (Not in Beta 2 Release)

Consuming lists.asmx Web Service

- MediaViewer Web Part

Consuming WCF Service exposing SharePoint data

- Social Networking

Enriching the Navigation in Portals

- Navigation Control

Custom Field Type

- Slider

Displaying Info out of Publishing Pages

- Visual How-To Center
- DISCONTINUED IN BETA2 RELEASE!!!

Video: Alvarion Photo Editor

Getting Ready to Build

.NET Framework 3.5 (SP1)

Visual Studio 2008

VS 2008 Tools for Silverlight 2 Beta 2 (June 2008)

- <http://go.microsoft.com/fwlink/?LinkId=120319>
- Includes SDK, which you will see as a separate download

Expression Blend 2.5 June CTP (Optional)

- <http://expression.microsoft.com/en-us/cc643423.aspx>

Silverlight 2 Beta 2 Plug-in

- <http://silverlight.net/GetStarted>
- <http://www.microsoft.com/silverlight/resources/install.aspx?v=2.0>

SQL Server 2008 RTM

- If you install SQL Server 2008 - VS 2008 SP1 required (rel. 8/11)
- Updated VS Tools for SL 2 Beta 2 released 8/11

Getting Ready to Build

Configure SharePoint

- Tissegham Post (includes screencast WMV):
<http://www.u2u.info/Blogs/Patrick/Lists/Posts/Post.aspx?ID=1794>
- WSS/MOSS SP1
- Ensure System.Web.Silverlight is in GAC (installed with VS tools)
- Web.Config (Web Application Inetpub Virtual Root)
 - <sectionGroup name="system.web.extensions" ...>
 - <assemblies>
 - <pages><controls>
 - <httpHandlers>
 - <httpModules>
 - <system.webServer>
 - <assemblyBinding>
- Register .xap MIME type with IIS
 - application/x-silverlight-2-b2

Visual Studio 2008 Demo: Hello Silverlight

Questions?

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Blogs.microsoft.co.il/blogs/adir_ron