ArcGIS API for Silverlight – An Introduction

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Agenda

• Silverlight platform
• API Overview
• Building Apps
• Road Ahead
ArcGIS is a Complete System
Managing and working with geographic information

- Online (public or private cloud)
- Server (on premises or private cloud)
- Desktop
- Mobile/devices
- Content

Many deployment options
Microsoft’s Silverlight Platform

- Premier Web client for desktop browsers
- Backed by Microsoft and Esri
- Silverlight 5 - Microsoft Support Lifecycle
- Support on future systems
  - Windows 8, IE10, desktop
ArcGIS API for Silverlight

- Powerful Web Mapping API
- Use ArcGIS Server, ArcGIS Online, Bing Maps & other data services
- Integrates with Microsoft development environments
- Common, rich development experience
- Version 3.0 released June 2012
Requirements

• Tooling
  - Microsoft Visual Studio 2010 SP1
  - Expression Blend 4
  - Expression Blend Preview for Silverlight 5

• Platforms
  - Silverlight 4
  - Silverlight 5
Libraries

- **ESRI.ArcGIS.Client.dll**  
  - Map, ArcGIS Layers, Graphics, Geometry, Symbols
- **ESRI.ArcGIS.Client.Bing.dll**
- **ESRI.ArcGIS.Client.Behaviors.dll**
- **ESRI.ArcGIS.Client.Portal.dll**
- **ESRI.ArcGIS.Client.Printing.dll**
- **ESRI.ArcGIS.Client.Toolkit.dll***  
  - Common set of controls for map interaction
- **ESRI.ArcGIS.Client.Toolkit.DataSources.dll***  
  - Common set of data sources

* CodePlex URL: [http://esrisilverlight.codeplex.com](http://esrisilverlight.codeplex.com)
API Highlights
Core Capabilities

- Visualization with touch enabled Map control
- Toolkit to support use of map and data
- Consume geospatial services
  - ArcGIS Server \ArcGIS Online
- Graphics and Editing
- Tasks
  - Query, Find, Identify, Address Locator, Geometry, Geoprocessing, Route
- Support for Portals\Organizations
  - Search and use web maps
What’s New in 3.0

- New ArcGIS Server 10.1 functionality
  - Map services
    - Dynamic layers
    - Group and statistics
    - Generate renderer
  - Feature services
    - Editor tracking
    - Ownership based editing
    - Versioned editing
  - Print service
  - IdentityManager
What’s New in 3.0 (cont.)

• New ArcGIS Server 10.1 functionality (cont.)
  - Image services
  - Geometry with M and Z
  - Uploads
• ArcGIS Online hosted services
• New Portal library and API
Building Apps
XAML and Code Behind

- UserControl has container class to layout elements
- xmlns declarations ≡ using statement in C# and Imports in VB.NET

```xml
<UserControl x:Class="MyUserControl"
    xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
    xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml">
    <Grid x:Name="LayoutRoot">
        ...
    </Grid>
</UserControl>
```
XAML: Creating a Map 101

```xml
<UserControl x:Class="ArcGISSilverlightSDK.Map"
    xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
    xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
    <Grid x:Name="LayoutRoot" >
        <esri:Map x:Name="MyMap">
            <esri:ArcGISTiledMapServiceLayer ID="MyLayer"
                Url="http://domain/.../MapServer" />
        </esri:Map>
    </Grid>
</UserControl>
```

VB.NET:
```
Dim layer As ArcGISTiledMapServiceLayer = New ArcGISTiledMapServiceLayer()
layer.ID = "MyLayer"
layer.Url = "http://domain/.../MapServer"
MyMap.Layers.Add(layer)

Dim MyMap As MyMap = New MyMap()
LayoutRoot.Children.Add(MyMap)
```
Getting Started

• Demos
  • A simple application
• Resource Center
  • Interactive SDK
  • Documentation
  • Samples
  • CodePlex
Silverlight Viewer

• Configurable *ready-to-deploy* Web client
  - Built with *ArcGIS API for Silverlight*

• **Easily and quickly** create Web mapping applications
  - Complete set of core GIS tools and functionality

• **No programming required**
  - Ideal for novice Web application creators

• **Extend with Add-Ins**
  - Tools, Behaviors, Layouts, Layers, Controls
Road Ahead

• v 3.1 – Fall 2012
• v 3.2 - Q1 2013

• ArcGIS Viewer 3.0 for Silverlight - Sept 2012
  - Built with ArcGIS API 3.0 for Silverlight
  - Silverlight 5

• ArcGIS Viewer 3.1 for Silverlight - Fall 2012
  - Built with ArcGIS API 3.1 for Silverlight
More Silverlight sessions!

• Silverlight API - Advanced
  - Wed 1:30 PM - 2:45 PM  Room 32 B
  - Thu 1:30 PM - 2:45 PM  Room 31 A

• Silverlight Viewer - Intro
  - Thu 10:15 AM – 11:30 AM Room 6 D
  - Fri 9:00 AM – 10:15 AM  Room 6 D

• Silverlight Viewer – Advanced
  - Thu 1:30 PM – 2:45 PM  Room 6 E
• Thank you for attending
• Have fun at UC2012
• Open for Questions

• Please fill out the evaluation:
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  *First Offering ID:  653*
  
  *Second Offering ID:  1935*