



**Introduction to  
ArcGIS API for Microsoft Silverlight & WPF  
PUBLIC BETA**

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# Agenda

- **Overview**
- **Getting Started**
- **Building your first Application**

# Features

- **Designed for the Silverlight and WPF Platform**
- **Integrate ArcGIS Server and Microsoft Virtual Earth Services and capabilities**
- **Create rich, interactive and expressive web applications**
  - Use Maps, Locators, and Geoprocessing models
  - Use with Silverlight components
    - Standard in the box components
    - Silverlight Control Toolkit
    - Any Silverlight library
- **WPF supports native 64 bit (x64) platforms**
  - Pure managed code

# Requirements

- **Microsoft Silverlight Platform**
- **Tooling**
  - Microsoft Visual Studio 2008 SP1
    - Any version, Express on up to Team Suite
    - .NET 3.5 SP1
  - Silverlight Tools for Visual Studio 2008 SP1 (add-on)
  - Silverlight Toolkit (CodePlex)
- **Other Products**
  - Expression Blend 2 SP1

# Libraries

- **ESRI.ArcGIS.dll**
  - Core Library.
  - Contains map, ArcGIS Service Layers, Graphics, Geometry, and Symbol components
- **ESRI.ArcGIS.VirtualEarth.dll**
  - Virtual Earth Library
  - Adds support for using Virtual Earth layers and services
- **ESRI.ArcGIS.Widgets.dll\***
  - Common set of controls for navigating and interacting with the map
    - Navigation Control, Scalebar, toolbar, etc.

**\*Widget source code to be made available soon**

- CodePlex or Code Gallery – we need you to tell us!

# Roadmap

- **V1 - Public Beta – NOW!**
  - <http://resources.esri.com/arcgisserver/apis/silverlight/>
  - Download libraries and begin building your web sites today
- **Snapshots every 4-6 weeks or sooner**
- **Final Target: July, 2009**
  
- **Silverlight 3 beta support now**
  - We are actively working with Microsoft on Silverlight 3 support
  
- **V.Next**
  - Would like your feedback

# Getting Started

- **Demo**
  - Resource Center
  - Interactive SDK
  - Documentation
  - Samples

## Building an Application

- **Step 0: Learn Silverlight Programming**
- **Step 1: Add Project References**
- **Step 2: Add a Map**
- **Step 3: Add Application specific content**
- **Step 4: Add UX Animations and other elements**



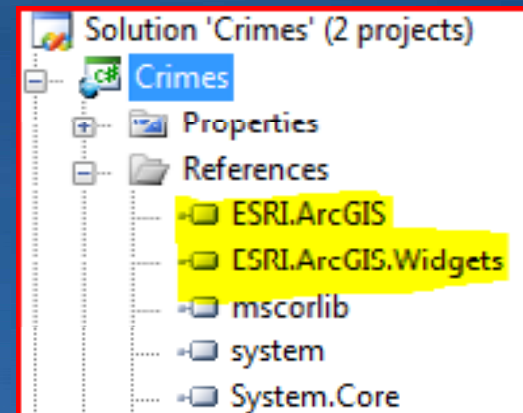
# Building an Application

- **Step 0: Learn Silverlight programming**
- **Understanding XAML**
  - **Extensible Application Markup Language**
  - **a.k.a. Declarative programming**
- **Visual State Manager**
  - **States and Parts model**
- **.NET Programming**
- ***Optional*: Expression Blend**

# Build an Application

- **Step 1: Add Project References**

1. Download Zip files containing libraries and unzip them onto your system
2. Create a new Silverlight Application in Visual Studio 2008 SP1 and add the references to the ArcGIS Silverlight API



# Building an Application

- Step 2: Add a map

1. Define the namespace in the Silverlight User Control
2. Add the Map XAML to the page within the root element and specify the layer you want to work with

```
<UserControl x:Class="ArcGISSilverlightSDK.Map"
  xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
  xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
  xmlns:esri="clr-namespace:ESRI.ArcGIS;assembly=ESRI.ArcGIS">
  <Grid x:Name="LayoutRoot" >
    <esri:Map x:Name="MyMap" >
      <esri:Map.Layers>
        <esri:ArcGISTiledMapServiceLayer ID="StreetMapLayer"
          Url="http://server.arcgisonline.com/ArcGIS/rest/services/ESRI_StreetMap_World_2D/MapServer"/>
      </esri:Map.Layers>
    </esri:Map>
  </Grid>
</UserControl>
```

# Building an Application

- Step 3: Add Application specific content

```
<esri:FeatureLayer ID="MyFeatureLayer"
  Url="http://sampleserver1.arcgisonline.com/ArcGIS/rest/services/Specialty/ESRI_StatesCitiesRivers_USA/MapServer/0"
  Where="POP1990 > 75000" ClusterFeatures="True" FlareBackground="#99FF0000" FlareForeground="White" MaximumFlareCount="19" >
  <esri:FeatureLayer.OutFields>
    <sys:String>CITY_NAME</sys:String>
    <sys:String>POP1990</sys:String>
  </esri:FeatureLayer.OutFields>
  <esri:FeatureLayer.MapTip>
    <Grid Background="LightYellow">
      <StackPanel Margin="5">
        <TextBlock Text="{Binding Converter={StaticResource MyDictionaryConverter},
          ConverterParameter=CITY_NAME, Mode=OneWay}" FontWeight="Bold" />
        <StackPanel Orientation="Horizontal">
          <TextBlock Text="Population (1990): " />
          <TextBlock Text="{Binding Converter={StaticResource MyDictionaryConverter},
            ConverterParameter=POP1990, Mode=OneWay}" />
        </StackPanel>
      </StackPanel>
    </Grid>
  </esri:FeatureLayer.MapTip>
</esri:FeatureLayer>
```

# Building an Application

- Step 4: Add UX Animations and other elements

```
<StackPanel Orientation="Horizontal" HorizontalAlignment="Left" Grid.Row="2">  
    <esriWidgets:Navigation x:Name="MyNavigation" Margin="5" />  
</StackPanel>  
  
<StackPanel Orientation="Horizontal" HorizontalAlignment="Left" VerticalAlignment="Bottom" Grid.Row="2">  
    <esri:ScaleBar x:Name="scalebar" Margin="5" MapUnit="DecimalDegrees" Foreground="Black" DisplayUnit="Miles" />  
</StackPanel>
```

# ArcGIS API for Microsoft Silverlight 101

- Let's build our first Silverlight application
- Let's do the same in WPF



## Other Sessions that you Want to Attend

- **Meet the teams**
  - Wednesday, 6:00 PM
- **Best Practices and Patterns for ArcGIS API for Microsoft Silverlight and WPF**
  - Thursday, 10:30 AM

## Let's Review

- **ArcGIS API for Microsoft Silverlight and WPF**
  - Public Beta available now at the Resource Center
- **Build rich, interactive internet applications**
- **Support for ArcGIS Server and Virtual Earth Services**
- **We are looking for feedback**
  - The more you tell us during public beta, the better the product will be



# Questions ??

- Thank you.