ArcGIS Client Applications

- Or -

What I Wish I Had Known About ArcGIS Before I Started Working With It

Patrick King
June 6 2012
Agenda

• About ArcGIS
• Code Samples
• Resources
ArcGIS

A large family of software

• ArcGIS for Desktop – The MS Office of maps
• ArcGIS for Server
• ArcGIS for Mobile / for Web – For viewing and light editing
ArcGIS Clients

Lots of client APIs:
• WPF, Silverlight, and Windows Phone
• iOS
• Android
• Javascript

All the APIs structured in the same way
Why ArcGIS?

• Well maintained, professional product
• Good quantity of documentation
• Large developer community, easy to find answers and get help
• Large number of features (most of which you won’t use ... )
# Licensing

## Pricing

<table>
<thead>
<tr>
<th>Web Mapping APIs Annual License Fees</th>
<th>License Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development and Evaluations</td>
<td>License Fee = $0</td>
</tr>
<tr>
<td>Non-commercial external use</td>
<td></td>
</tr>
<tr>
<td>Education (teaching purposes only)</td>
<td></td>
</tr>
<tr>
<td>NGO or not-for-profit business</td>
<td></td>
</tr>
<tr>
<td>When used in conjunction with ArcGIS for Server license</td>
<td></td>
</tr>
<tr>
<td>When used in conjunction with ArcGIS Online Task Services totaling $4,000 per year or more</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Web Application Deployment License (per domain) for internal use only</th>
<th>Contact us for pricing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desktop Application Deployment License (per organization) for internal use only</td>
<td>800-447-9778</td>
</tr>
<tr>
<td>Web Applications Deployment License (per domain) for ASP/commercial use</td>
<td>U.S. Customers Only</td>
</tr>
<tr>
<td></td>
<td>Contact your local Esri office.</td>
</tr>
<tr>
<td></td>
<td>Worldwide</td>
</tr>
</tbody>
</table>
WPF Walkthrough: Maps

```xml
<Window x:Class="EsriWpfDemos.MainWindow"


    >

    <Grid>

        <esri:Map/>

    </Grid>

</Window>
```
WPF Walkthrough: Layers

<Window ...
/Grid>
  <esri:Map>
    <esri:ArcGISDynamicMapServiceLayer Url="http://services.arcgisonline.com/ArcGIS/rest/services/Ocean_Basemap/MapServer">
      </esri:ArcGISDynamicMapServiceLayer>
    </esri:Map>
  </esri:Map>
</Grid>
</Window>
WPF Walkthrough: Extent

<Window ...
 <Grid>
  <esri:Map>
   <esri:Map.Extent>
    <esri:Envelope
     XMax="-13886270"
     XMin="-14441780"
     YMax="6399601"
     YMin="6059092">
    </esri:Envelope>
   </esri:Map.Extent>
  </esri:Map>
  <esri:ArcGISDynamicMapServiceLayer
   Url="http://services.arcgisonline.com/ArcGIS/rest/services/Ocean_Basemap/MapServer">
   </esri:ArcGISDynamicMapServiceLayer>

...
WPF Walkthrough: Graphics

...<Grid>
  <Grid.Resources>
    <esri:SimpleMarkerSymbol x:Key="RedMarkerSymbol"
      Color="Red" Size="12" Style="Circle"/>
  </Grid.Resources>
  <esri:Map>

  <esri:GraphicsLayer>
    <esri:GraphicsLayer.Graphics>
      <esri:Graphic Symbol="{StaticResource RedMarkerSymbol}" >
        <esri:MapPoint X="-14000000" Y="6200000">
          <esri:Geometry.SpatialReference>
            <esri:SpatialReference WKID="102100" />
          </esri:Geometry.SpatialReference>
        </esri:MapPoint>
      </esri:Graphic>
    </esri:GraphicsLayer.Graphics>
  </esri:GraphicsLayer>

  </esri:Map>
</Grid>
Compatibility

• There are standards for web mapping:
  – Keyhole Markup Language (KML)
  – Web Map Service (WMS)
  – Web Feature Service (WFS)

• ArcGIS Server can host maps with these formats

• ArcGIS clients will display layers with these formats

• Mix and match – but beware licensing
Resources

- **ESRI’s Basemap Collection** – Background maps for your app
- **Silverlight Interactive SDK** – See API features live
- **resources.arcgis.com** – Home of ESRI’s developer resources
- **WPF 4 Applications on Surface** – Enables touch for non-surface applications on the Surface 1.0
- **spatialreference.org** – List of spatial references with IDs used by ESRI software