Building .NET Apps with ArcGIS Runtime SDK: Tips and Tricks

Rich Zwaap
Morten Nielsen
This session should be known as...

RICH & MORTEN'S

Top 10 cool things YOU should know about the Runtime SDK for .NET
1. Install the SDK from NuGet
1. Install the SDK from NuGet

```
PM> Install-Package Esri.ArcGISRuntime -Pre
```

```
PM> Install-Package Esri.ArcGISRuntime.Toolkit -Pre
```


**Note:** 10.2.3 beta only includes WinStore and WinPhone. WinDesktop by final...
2. AnyCPU vs x86 vs x64

• Designer only works in x86 or AnyCPU mode.

• Use AnyCPU for Windows Desktop*

• Windows Store and Windows Phone: AnyCPU not supported.
  • Windows RT and Windows Phone hardware: ARM
  • Windows Phone Emulator: x86
  • Windows x64: x64 or x86 will both work
  • Windows x86: x86
3. Shared Project Reference

- Download from http://esriurl.com/SharedProjectRef
- Or install from Visual Studio:

  - VS2014 CTP2 now has this built in.
3. Shared Project Reference

- Add to project by right-clicking References and selecting “Add Shared Project Reference...”
4. Re-use -> code sharing -> MVVM

• MVVM: Model-View-ViewModel
  - Separate data from view via viewmodel
  - Allows unit-testing all your code
  - Reuse viewmodel and model across platforms.
  - Adapt just the view to the device

• Make it easy using “Shared Projects”
  - Windows Phone and Windows store: Known as ‘Universal App’
5. Project templates

• Beta (currently): Separate download + install from beta community

• Final:
  - Built into setup
  - NuGet users: Available in the Visual Studio Gallery
6. XML Namespaces

WPF: One xml namespace to rule them all
xmlns:esri="http://schemas.esri.com/arcgis/runtime/2013"

Windows Store and Windows Phone:
xmlns:esri="using:Esri.ArcGISRuntime.Controls"
xmlns:layers="using:Esri.ArcGISRuntime.Layers"
xmlns:geometry="using:Esri.ArcGISRuntime.Geometry"
xmlns:location="using:Esri.ArcGISRuntime.Location"
xmlns:data="using:Esri.ArcGISRuntime.Data"
7. Local data and operations

- Great advantage of .NET Runtime SDK vs predecessors and web APIs
  - Phenomenal display and computational performance
  - Inherently robust – not dependent on network connectivity

1. Take map services offline, use disconnected, and sync when re-connected
   -and/or-

2. Use offline data – tile packages, geodatabases, locators, network datasets
   -then-

3. Perform query, geometry operations, routing, geocoding locally on the client
8. Jump-zoom

- Navigation events are tasks you can wait for.
- Navigation tasks return false if cancelled. True if completed

```csharp
bool completed = await mapView.SetViewAsync(center, scale);

- String them together:

bool completed = await mapView.SetViewAsync(fullExtent) &&
await mapView.SetViewAsync(center) &&
await mapView.SetViewAsync(center, 10000);
```
9. Windows Store Portal Viewer sample

- The MVVM sample.
- Lots of good tidbits in it. Poke around in it. Take things from it. Learn from it.
  - Almost everything applies to Windows Desktop and Windows Phone as well.
- Rebrand the app for your organization and lock it to your org.

  www.github.com/Esri/arcgis-portalviewer-dotnet

- Install it from the store today! Just search for ‘ArcGIS’.
10. Toolkit source - modify/contribute

- [github.com/Esri/arcgis-toolkit-dotnet](https://github.com/Esri/arcgis-toolkit-dotnet)
- Download source, learn from, modify and rebuild
- Submit issues and suggestion to the toolkit
- Submit pull-requests (please read first guidelines though)
### ArcGIS Runtime SDK Sessions – Wednesday

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Thank you...

• Please fill out the session survey:

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