



Top 10 How-tos for the ArcGIS Server .NET ADF

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Introduction

- **75 minute session**
 - 60 – 65 minute lecture
 - 10 – 15 minutes Q & A following the lecture

- **Who are we?**
 - Jian Huang
 - Undral Batsukh

- **Who are you?**

- **We will answer questions at the end**

Please!
*Turn OFF cell phones
and paging devices*



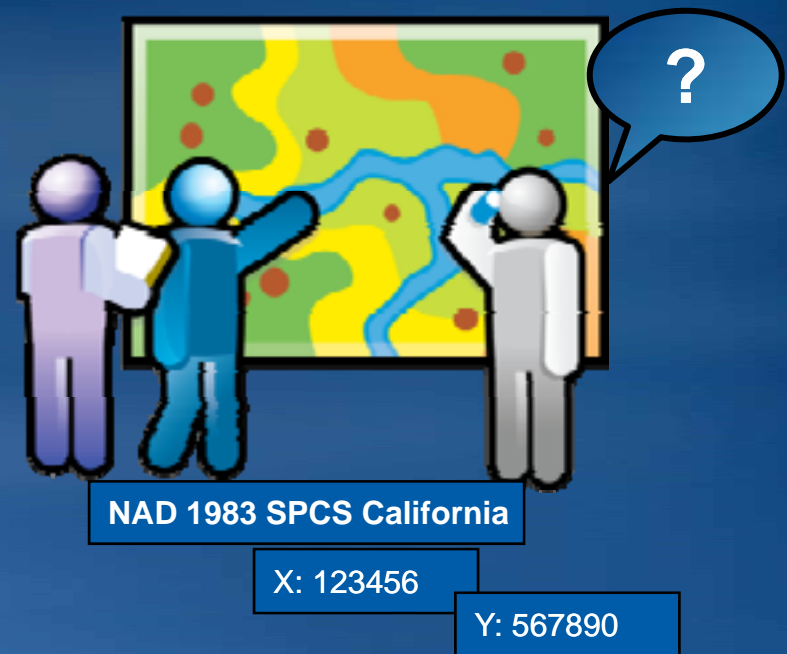
Please complete the session survey!

Agenda

- **Samples driven from real world use cases**
 - Resolve your questions
 - Inspire your ideas
- **Patterns, tips and tricks**
 - AJAX
 - SOAP API
 - ArcObjects API
 - Web ADF JavaScript
 - GraphicsLayer
- **Enhanced functionalities**
 - Print

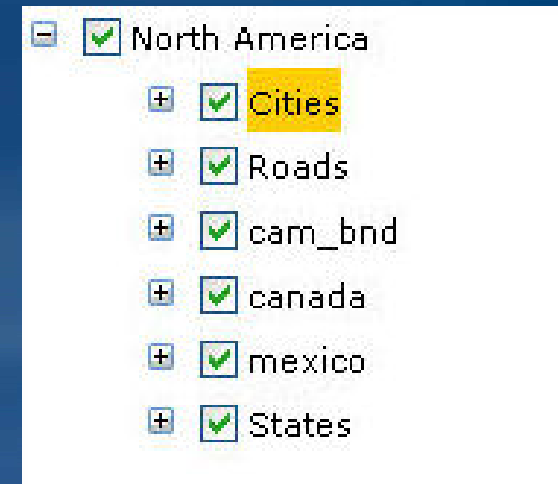
1. Current mouse location in Longitude/Latitude

- Coordinate values under current spatial reference
- Convert to Long/Lat
- **Technique:** Geometry service, ASP.NET AJAX, Web ADF JavaScript Library



2. Modifying Toc content at runtime

- **Toc Nodes are populated during**
 - The initial call to PreRender
 - Call to Refresh or RenderLegendHtml
- **Technique:**
 - Handle Toc.NodesPopulated event
 - Triggered after the nodes are populated.
 - Add, modify or remove content from the Toc
 - Changes must be applied each time Toc nodes are populated
 - Need to explicitly manage changes you make to Toc content

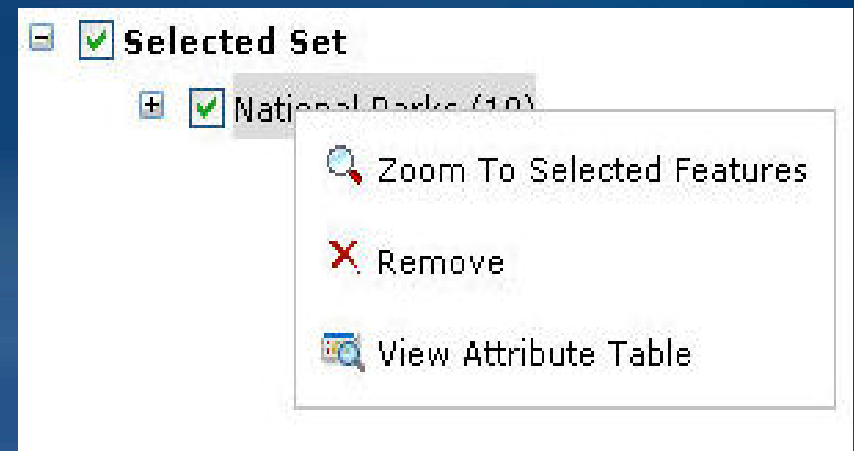


3. Creating and modifying TaskResults contents

- Can explicitly define parent-child node content in TaskResults

- **Technique:**

- Three different result types are available:
 - SimpleTaskResult
 - DataSet
 - TaskResultNode
- Use TaskResults.DisplayResults to add results
- Can use context menus in a TaskResults control



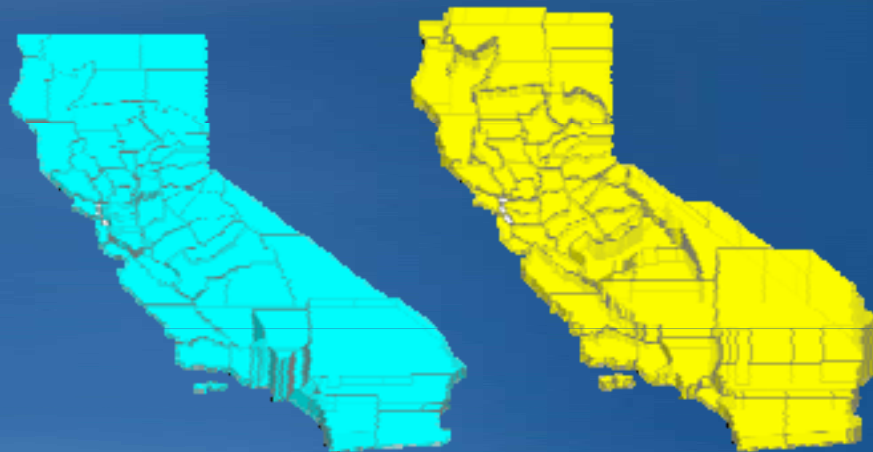
4. Best practice for thematic mapping

- **Classify and render features**
- **Pre-computed layers solution**
 - Best performance solution
 - Predefined, which cannot be changed by users' definition
 - **Technique:** Change perspective



4. Best practice for thematic mapping *continued*

- **Graphicslayer solution**
 - User interaction
 - Custom renderer
 - Only supports simple classification
- **Technique:** FeatureGraphics, Custom renderer



4. Best practice for thematic mapping

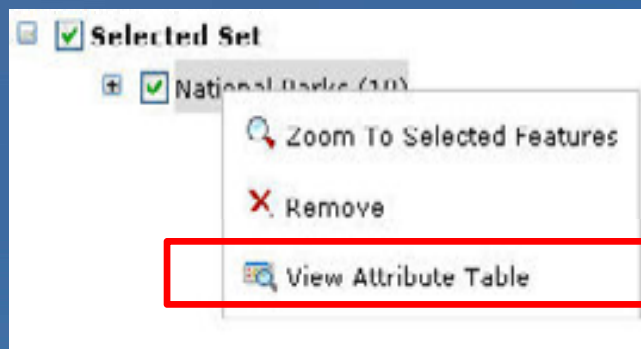
continued

- **ArcObjects solution**
 - Fully supports complicated algorithm
 - Requires much more coding efforts
 - Needs to take care of shallowly stateful changes
- **Technique:** shallowly stateful change management



5. Showing a progress bar whenever a Web ADF request is issued

- Indicate to a user that user action is being processed.
- **Technique:**
 - Use PostbackManager
 - Utility control
 - Provides a simple way to issue asynchronous requests
 - Use client tier invokingRequest and requestProcessed events to show a progress bar



6. Converters

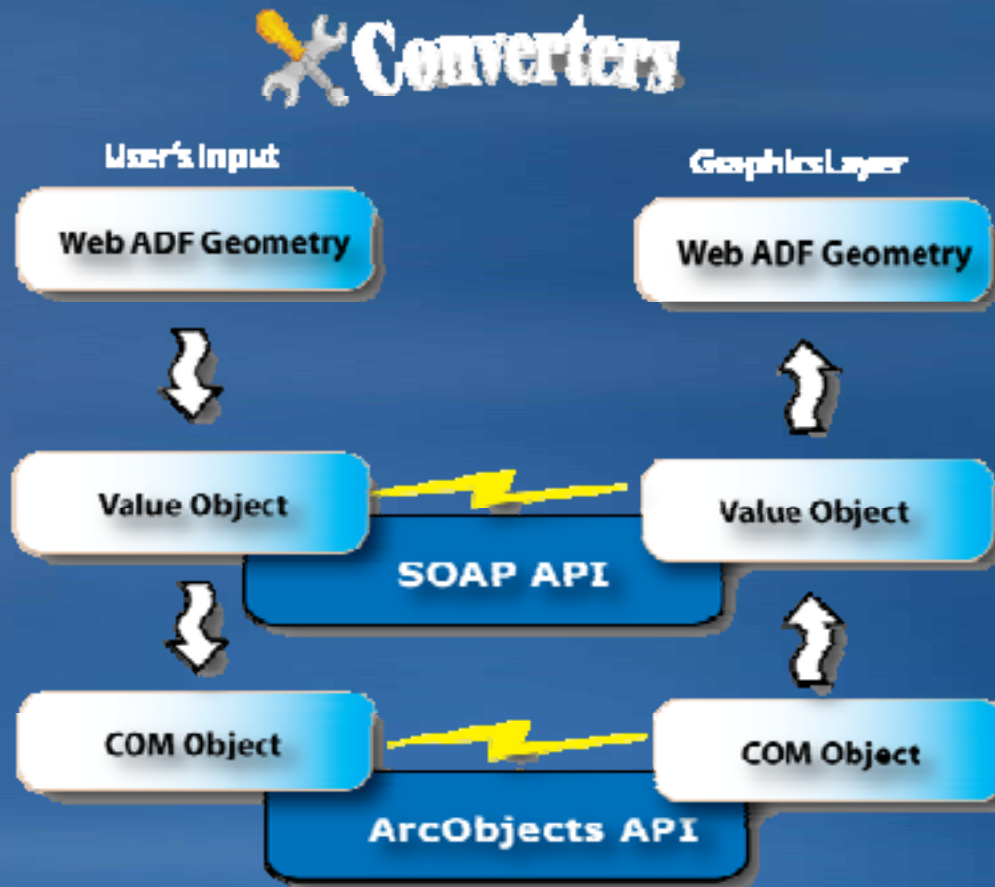
- Link Web Geometry, SOAP Value Objects and ArcObjects COM Objects
- The most useful ones are:
 - `ESRI.ArcGIS.ADF.Web.DataSources.ArcGISServer.Converter.FromAdfGeometry`
 - `ESRI.ArcGIS.ADF.Web.DataSources.ArcGISServer.Converter.ToAdfGeometry`

 - `ESRI.ArcGIS.ADF.ArcGISServer.Converter.ValueObjectToComObject`
 - `ESRI.ArcGIS.ADF.ArcGISServer.Converter.ComObjectToValueObject`

6. Converters

continued

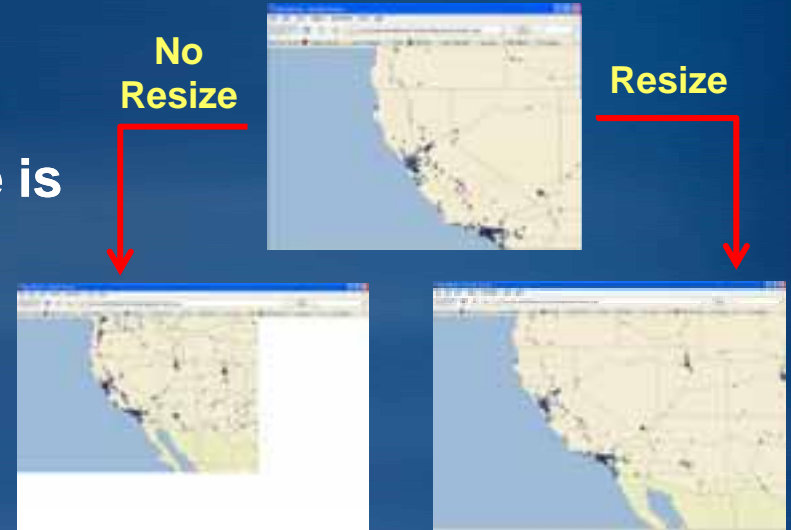
- **Technique:** How to perform geometry operation via Geometry service, how to convert among different data types



7. Resizing a map when window resizes

- **The ADF JavaScript Map class**

- When window is resized, map size is checked via `checkMapsize`

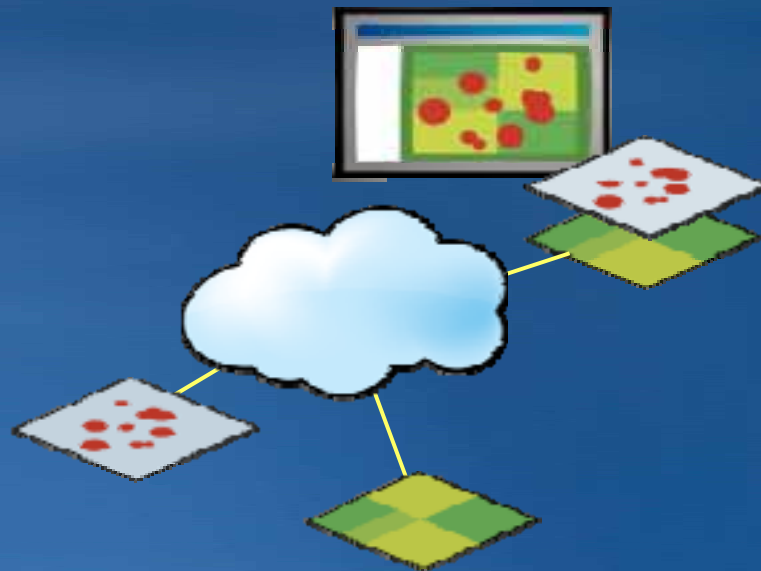


- **Technique:**

- Handle window resize event to adjust map size
- By default map maintains scale when resized
- To maintain extent
 - Handle `mapResized` event and set the extent explicitly

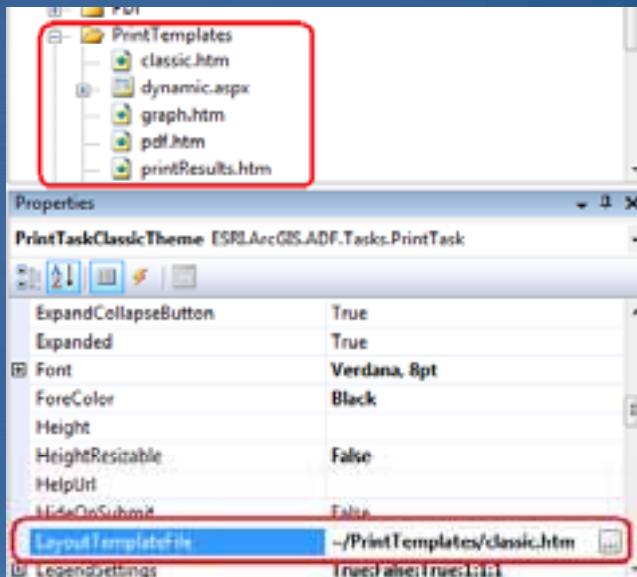
8. Adding REST layers through JavaScript

- Overlay REST layers in Map control
- **Technique:** Web ADF JavaScript, ArcGIS Server REST Services



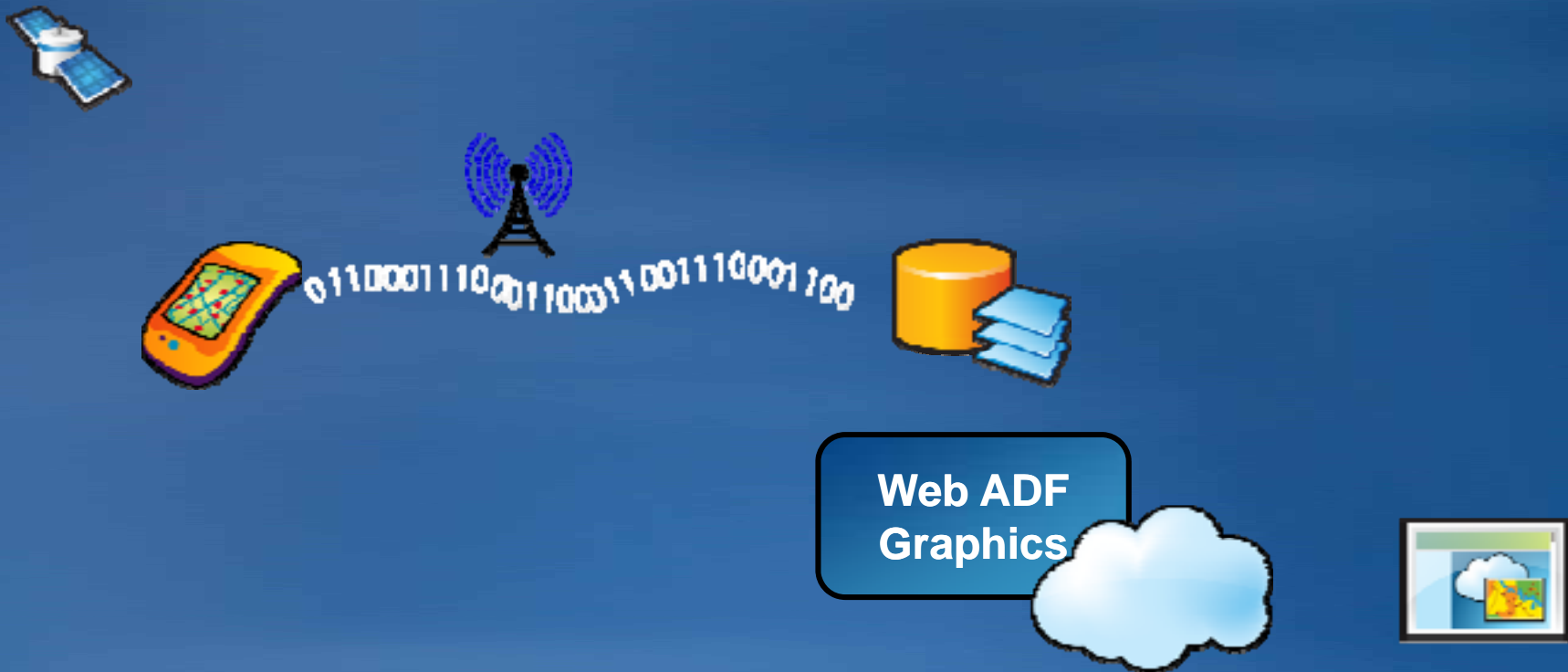
9. Layout template for the Print Task

- Customize the layout and rendering of the print task
 - Using template files, CSS and JavaScript
 - A new property `LayoutTemplateFile` is introduced at 9.3.1 to define the template file



10. Creative use cases of Graphicslayer

- Dynamic real time GPS position display
- **Technique:** Client Callback, Web-Tier Graphicslayer

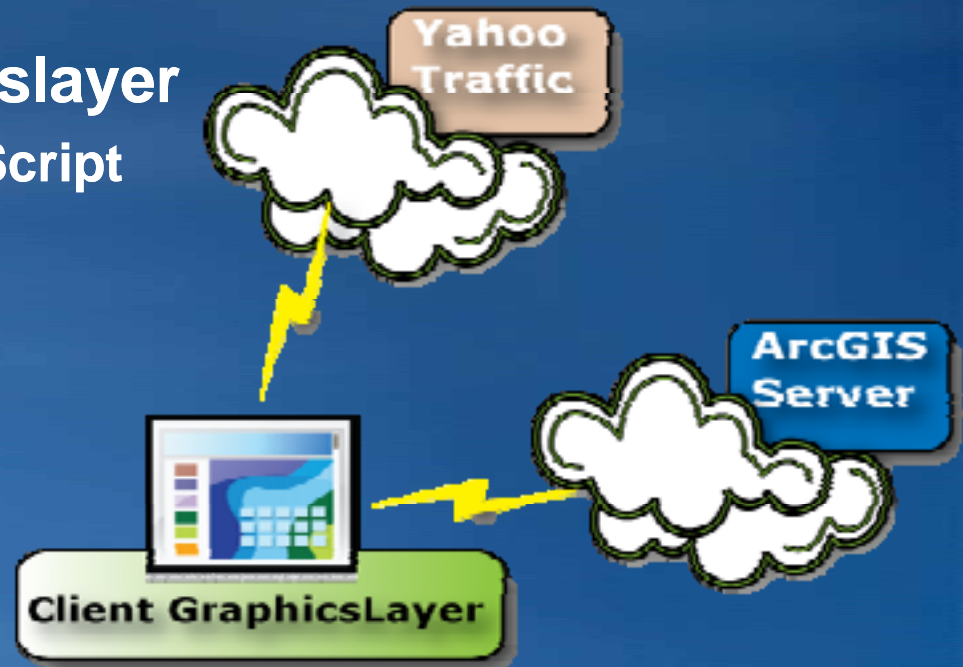


10. Creative use cases of Graphicslayer

continued

- Consume third party web services
 - Consume Yahoo traffic web service showing real time traffic info
 - Manipulate client graphics by Web ADF JavaScript

- **Technique:** Client Graphicslayer
Web ADF JavaScript



Summary

- **Most commonly asked questions from user community**
- **Patterns, techniques and new functionalities**
- **ESRI Resources center**

Additional Resources

Questions, answers and information...

- **Tech Talk**

- *Outside this room right now!*

- **Meet the Team**

- *Support Island*

- **Other sessions**

- *Customizing Graphics and MapTips with the .NET Web ADF (8:30AM 3/26)*
 - *Building Custom Tasks for ArcGIS Server .NET Web Applications (4:30PM)*

- **ESRI Resource Centers**

- PPTs, code and video



resources.esri.com

- **Social Networking**



[www.twitter.com/
ESRIDevSummit](http://www.twitter.com/ESRIDevSummit)



[tinyurl.com/
ESRIDevSummitFB](http://tinyurl.com/ESRIDevSummitFB)

Q & A

Help and SDK samples links

- Mouse location under current spatial reference
 - http://resources.esri.com/help/9.3/arcgisserver/adf/dotnet/developer/ADF/adfjs_mapping.htm
- Custom graphics renderer
 - http://resources.esri.com/help/9.3/arcgisserver/adf/dotnet/developer/samples/Web_Applications/Common_CustomRenderers/3F695142-13AE-48f5-938A-ECC03480F016.htm
- Shallowly stateful changes
 - http://resources.esri.com/help/9.3/arcgisserver/adf/dotnet/developer/samples/Web_Applications/ArcGIS_AddDynamicData/f90cedfd-ad48-4c81-ba00-5a17e1a09c5c.htm
- Client Graphicslayer and callout
 - http://resources.esri.com/help/9.3/arcgisserver/adf/dotnet/developer/ADF/adfjs_graphics.htm

Help and SDK samples links

- **Modifying Toc content at runtime**
 - http://resources.esri.com/help/9.3/arcgisserver/adf/dotnet/developer/ADF/control_toc.htm
- **SimpleToc page shows how to add ContextMenu to each layer in Toc.**
 - http://resources.esri.com/help/9.3/arcgisserver/adf/dotnet/developer/samples/Web_Applications/common_contextmenu/1802a1ff-6c28-62f0-ad8d-6f9f30368f66.htm
- **SelectionSet page illustrates how to set selectable layers in TOC**
 - http://resources.esri.com/help/9.3/arcgisserver/adf/dotnet/developer/samples/Web_Applications/common_taskresults/2235D48E-D97A-4dd9-A0B5-0C8AF869197F.htm

Help and SDK samples links

- **Creating and modifying contents of a TaskResults control**

- http://resources.esri.com/help/9.3/arcgisserver/adf/dotnet/developer/ADF/control_taskresults.htm

- **Working with layer formats**

- <http://resources.esri.com/help/9.3/arcgisserver/adf/dotnet/developer/ADF/layerformats.htm>

- **Common TaskResults sample**

- http://resources.esri.com/help/9.3/arcgisserver/adf/dotnet/developer/samples/Web_Applications/common_taskresults/2235D48E-D97A-4dd9-A0B5-0C8AF869197F.htm

Help and SDK samples links

- Common PostbackManager sample

- http://resources.esri.com/help/9.3/arcgisserver/adf/dotnet/developer/samples/Web_Applications/Common_PostbackManager/C44D61CF-2311-48ad-BBC9-D2A3A289AC84.htm

- ArcGIS Server blog article

- <http://blogs.esri.com/Dev/blogs/arcgisserver/archive/2007/05/01/How-to-track-pending-tiles-and-display-a-busy-indicator-in-a-Web-mapping-application.aspx>

- Accurate buffer with Geometry Service

- http://resources.esri.com/help/9.3/arcgisserver/adf/dotnet/developer/samples/Web_Applications/ArcGIS_SelectBufferTool/82d0933f-4398-4b8d-a039-048dc9ced4aa.htm

Help and SDK samples links

- **Common Custom JavaScript**

- **MapResizeToWindow.aspx**

- **http://resources.esri.com/help/9.3/arcgisserver/adf/dotnet/developer/samples/Web_Applications/Common_CustomJavaScript/171FD15A-20B1-4B8E-BE8E-A8781F5B659F.htm**