Customizing Graphics and MapTips with the .NET Web ADF

Rex Hansen
Rich Zwaap

Introductions

- Who are we?
  - ArcGIS Server Product Engineers
  - Manage the ArcGIS Server SDK for .NET technologies
- Who are you?
  - ASP.NET developers who want to learn more about graphics and map tips in the Web ADF

Schedule

- Today we will cover
  - Web ADF Graphics on the server and client
  - MapTips on the client
  - What's new in 9.3.1
  - Q & A

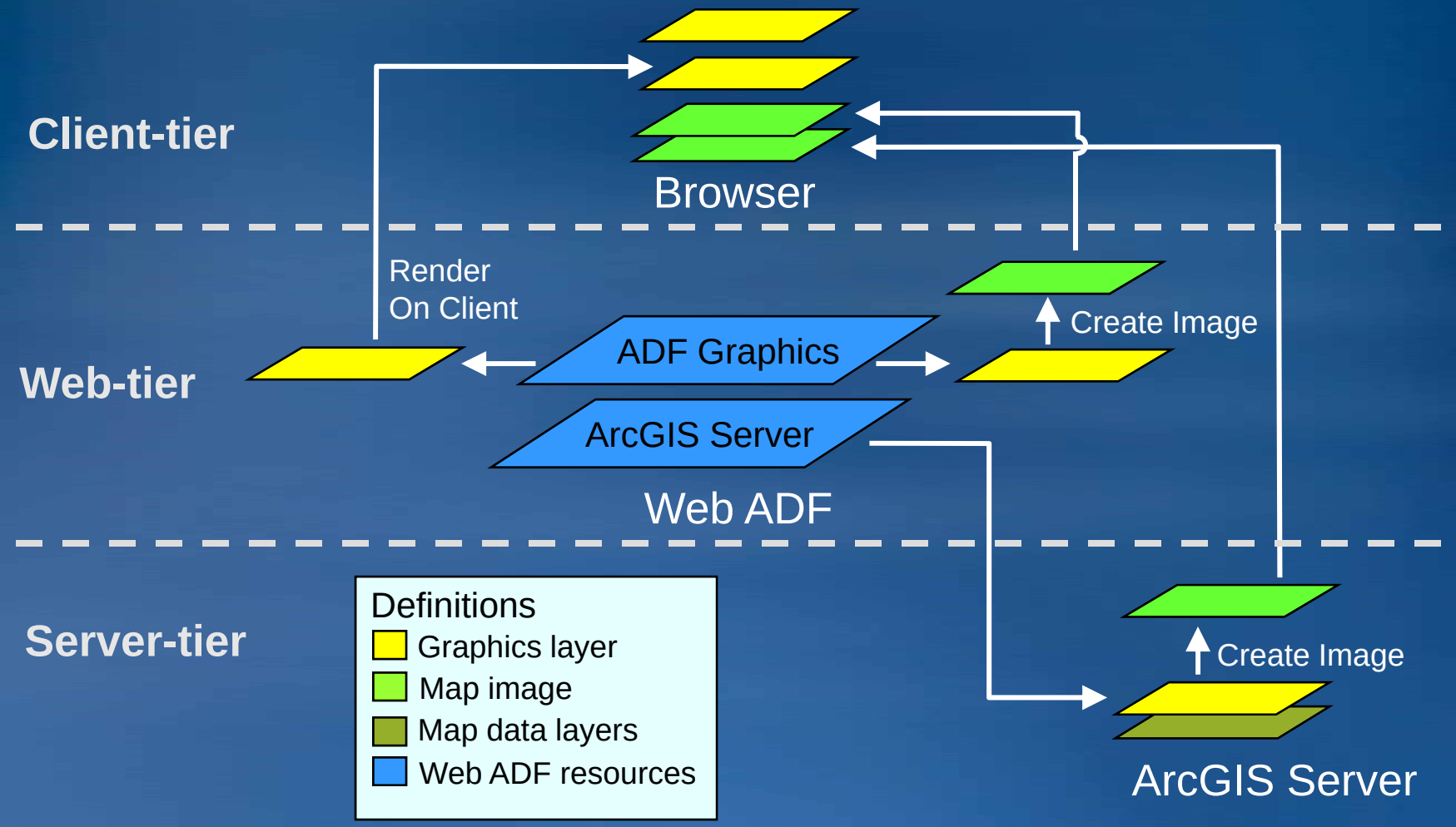
- We will answer questions during session or at the end?
  - Save all questions until the end

Please complete the session survey!

Web ADF Graphics

- **Web-tier .NET**
  - Spatially enabled .NET DataTables
  - Render on the server using GDI+ or the client using JavaScript graphics
- **Client-tier JavaScript**
  - Graphic features and groups
  - Callouts and MapTips
  - Layer formatting defines symbology and attribute display
  - Rendered using browser client technologies - e.g. HTML, SVG, VML

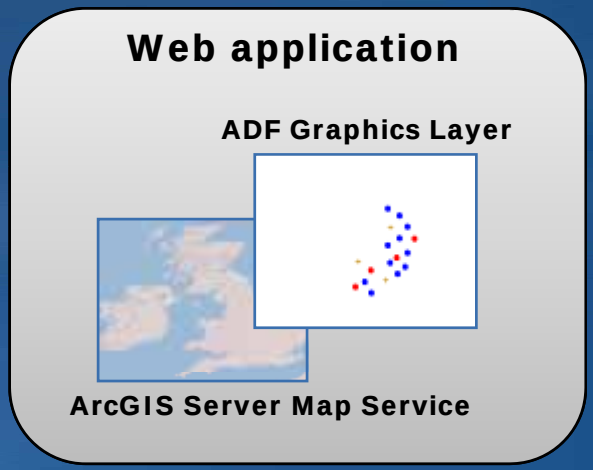
Graphics managed and rendered in multiple tiers



Creating graphics in the Web-tier

- Construct manually
- Query a layer in a resource (QueryFunctionality)
- Generated by ADF Controls (e.g. Tasks)

- Graphics map resources contain graphics layers



Displaying geometry in a graphics layer

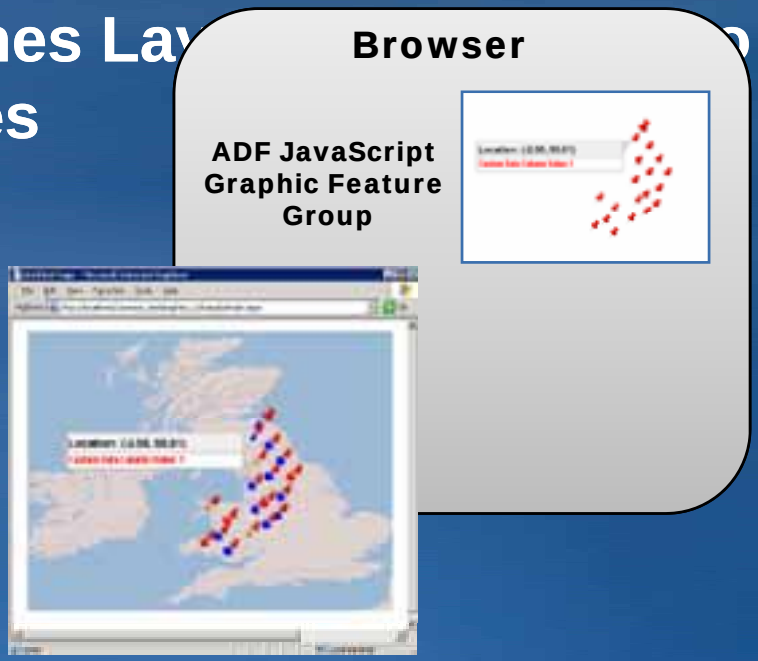
- **Symbols**
  - Based on geometry
  - Each graphic must be associated with a symbol
- **Renderers**
  - Apply to many graphics
  - Based on feature attributes
  - Container for symbols
  - Simple, unique value, and value range renderers available
- **Create custom renderers and symbols!**

Enhance performance

- PostbackManager – SDK sample, manage AJAX requests behind the scenes
- Use generalize features to reduce retrieval time for queried features
- Use separate thread to process query

Render Web-tier graphics on client

- RenderOnClient = true
- Web-tier graphics layer emitted to client, creates graphic feature group with graphic features
- Layer Definition defines Lay… create client graphic features
  - Symbology
  - Map tip content



Client graphics

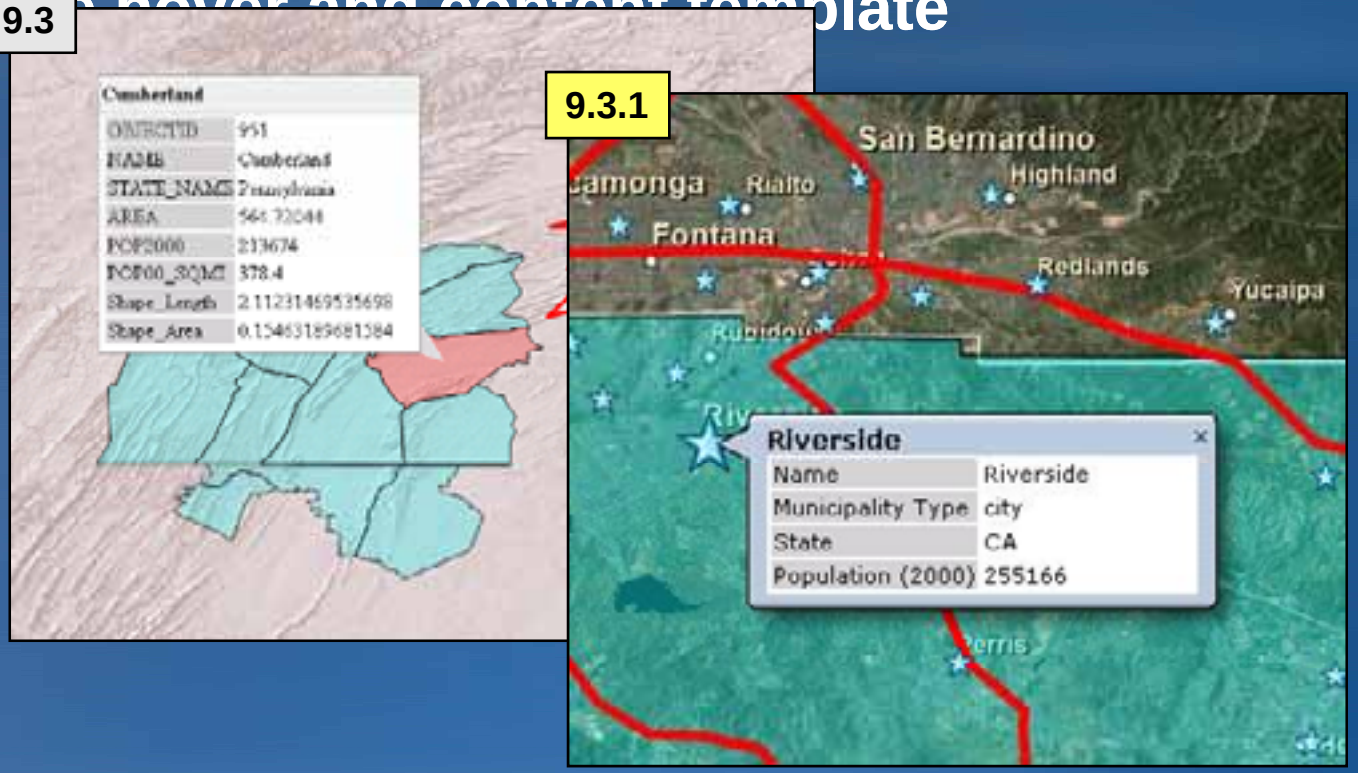
- Create a graphic feature group, add graphic features
- Use graphic features to “mash-up” other services/data
  - GeoRSS feed
- Create a graduated symbol based on attributes

Best practices

- **Limit graphics rendered on the client**
  - **To maintain appropriate performance**
  - **Initial rendering of client graphics may be time-consuming**
- **Create and manage graphics in one tier**
  - **Avoid client manipulation of graphics if created/managed in Web tier**

Client MapTips

- Create MapTips client control (JavaScript)
- Change display based on attribute value
- De[illegible] hover and content template



MapTips templating – New 9.3.1

- Create template
- Apply application's global template
- Apply layer specific template

- MapTip Layout Control
  - Code gallery when 9.3.1 is released

Additional information

- MapTips control discussion
- Common MapTips sample

Summary

- Today we covered
  - Graphics in the ADF, on the client and server
  - MapTips customization on the client
  - New in 9.3.1, MapTips templates

Still have questions?

Additional Resources

Questions, answers and information…

- ***Tech Talk***
  - ***Outside this room right now!***

- ***ESRI Resource Centers***
  - **PPTs, code and video**

resources.esri.com

- ***Social Networking***

www.twitter.com/ESRIDevSummit

tinyurl.com/ESRIDevSummitFB

Want to Learn More?

ESRI Training and Education Resources

- **Instructor-Led Training**
  - **Developing Applications with ArcGIS Server Using the Microsoft .NET Framework**
- **Free Web Training Seminars**
  - **Building Applications with ArcGIS Server Using the Microsoft .NET Framework**
  - **Implementing Security for ArcGIS Server .NET Solutions**
  - **Leveraging OGC Capabilities in ArcGIS Server 9.3**

http://www.esri.com/training