Agenda

- Background
- Product overview
- Getting started and installation
- Viewer application builder
- Extensibility kit
- Summary
ArcGIS 10 — A Complete System

Easier
More Powerful
and Everywhere

- Discover
- Create
- Manage
- Visualize
- Analyze
- Collaborate

Cloud
Enterprise
Local

Web
Mobile
Desktop
Review: Data Content in a Web Map

*Common design pattern*

- **Base Maps**
  - Geographic frame of reference
  - Contain static data

- **Operational layers**
  - Information overlays that end users interact with
  - Contain dynamic data

- Operational layers display on top of Base Maps
Review: ArcGIS Server – Web protocols

Support industry standards

- Its GIS services can be accessed via
  - Representational State Transfer (REST)
  - Simple Object Access Protocol (SOAP)
  - Keyhole Markup Language (KML)
  - Open Geospatial Consortium (OGC)
Review: ArcGIS Server – Services Directory

View of ArcGIS Server REST endpoint

- ArcGIS Services Directory exposes REST API
  - http://localhost/ArcGIS/rest
Building Web clients

• **Web Mapping APIs**
  - ArcGIS API for JavaScript
  - ArcGIS API for Flex
  - ArcGIS API for Silverlight

• Provide a comprehensive framework for creating GIS enabled Web mapping applications

• Primarily geared towards developers

• **ArcGIS Server Manager - Application Builder**
  - Deprecated post ArcGIS 10
ArcGIS Viewer for Microsoft Silverlight

Currently Beta 2 release

- Configurable ready-to-deploy Web client
  - Built with ArcGIS API for Silverlight
- Easily and quickly create and implement GIS Web mapping applications

- Complete set of core GIS tools and functionality
- No programming or editing configuration files
  - Ideal for novice Web application creators
ArcGIS Viewer for Silverlight overview

• Web browser-based application
  - Hosted on-premise

• Consists of 3 components:
  1. Configurable Viewer
  2. Application Builder
  3. Extensibility Kit

• 32-bit and 64-bit OS versions available

• Localized versions available:
  - Chinese, French, German, Japanese, and Spanish
Esri Beta Community site

http://betacommunity.esri.com

- Download package, documentation, user forums
Easy installation and setup

1. Welcome to the ArcGIS Viewer for Microsoft Silverlight 1.0 Setup program.
   It is strongly recommended that you exit all Windows programs before running the setup program. Do not cancel the setup and after exiting all programs you have running. Click Next to continue the installation.

2. Choose the installation location. If you want to change the location, click the Browse button to select a new location.

3. Accept the license agreement. Click Next to continue the installation.

4. Choose the components to install. Click Next to continue the installation.

5. Choose the end user license agreement. Click Finish to complete the installation.

6. Run the ArcGIS Viewer for Microsoft Silverlight to begin using it.
Demo

Installation and set-up
Viewer installation files

- 2 folders created
  - **Builder** → contains software
  - **Apps** → contains deployed Web applications

*Located in IIS Web resources directory*

- Contains configurations for “add-ins”, base maps, and list of deployed sites
- Contains images used by Builder
- Contains default Viewer
Working with Application Builder

• Create new Web mapping application based on:
  1. New map (from scratch)
  2. Existing Web Map (from ArcGIS.com)
     - ArcGIS.com login supported

• Configure
  - Data content
  - Functionality
  - Look and feel
Application Builder User Interface

**WYSIWYG user experience**

- Ribbon controls
- Settings
- Toggle
- Home
- Deploy
- Getting started help panel (interactive)

Map display
Application Builder contains Web App
Application Builder workflow

- Interactively create Web apps → WYSIWYG experience
  - Map content
  - Tools
  - Look and feel

- Deploy configured Viewer applications
Map tab

- Specify the data content in the Web application
Map tab functionality

• Browse for data (base maps and operational layers)
• Add GeoRSS feeds
• Layer configuration properties
  - Symbology, transparency
  - Pop-ups with identify
  - Generate heat maps
  - Cluster data
• Map contents with legend
Demo
Add and configure map content
Tools tab

- Specify the functionality of the application
Tools functionality list

- Interactive feature selection options
- Feature editing and attachments
- Geoprocessing
- Print
- Filter layers
- View service properties
Demo
Define functionality in application
Layout tab

- Specify the “look and feel” of the Web application
Demo
Define look and feel, deploy site
1. New map or Web Map
2. Configure:
   - Data content
   - Functionality
   - Look & feel
3. Deploy Application
Application Builder supports dynamic workflows

- Deployed Web applications can be easily modified
- All properties can be changed
- **Save As** and **copy site** functionality
Application Builder settings

- Set custom basemaps
- Add “add-ins” to enable new functionality
- Deactivate *Getting Started* window
Viewer Application Builder summary

- Configure custom Web applications
  - Set properties to meet business requirements
  - WYSIWYG UI
  - Flexible workflow
  - Multiple layouts

- Easy to deploy new sites

- Modify an existing published site
  - Make configuration changes with Builder

- Optional “Getting started” help
Extending the Silverlight Viewer

- "Add-ins" → modular code enables new functionality
  - Delivered as Silverlight packages (.xap files)

- Developers can create custom add-ins
  - Requires ArcGIS API for Silverlight
  - Viewer extensibility API (beta 2)
    - Visual Studio 2010 template provided

- Same add-in will work in both the Silverlight Viewer and ArcGIS for SharePoint
Viewer extensibility kit

- Develop custom add-ins using the Extensibility API
- `ESRI.ArcGIS.Client.Extensibility assembly`
  - Lightweight API for Viewer
  - Provides access to Map & Selected Layer
  - Methods to show UI in dialogs
  - Ability to store and load configuration data
- Leverage any Silverlight library within the add-in
Viewer extensibility points

• Pieces of extra functionality that you plug in:
  1. **Tools** → custom functions
  2. **Behaviors** → custom non-UI logic
  3. **Layouts** → custom application “look and feel”
  4. **Layers** → custom data layer types
Requirements for development

- Microsoft Visual Studio 2010 or Microsoft Visual Web Developer 2010 Express
- **Microsoft Silverlight 4 Tools for Visual Studio 2010**
  - Included in VS2010 SP1
- Microsoft Silverlight 4 Toolkit
  - To customize the layout template
- **Microsoft Expression Blend 4**
- ArcGIS API for Microsoft Silverlight
Demo
Extending the Viewer with an Add-in
Summary

• Configurable *ready-to-deploy* Web client
  - Complete set of core GIS tools and functionality
• Interactively create Web apps → **WYSIWYG experience**, easy to deploy
• **No programming or editing configuration files**
• Can be extended with ArcGIS API for Silverlight development

• Online evaluations
  [www.esri.com/sessionevals](http://www.esri.com/sessionevals)
Related Demo Theater presentations

- **Introduction to Add-ins for the ArcGIS Viewer for Silverlight**
  - Wed 11:00 AM  Exhibit Hall C

- **Creating Custom Tools for the ArcGIS Viewer for Silverlight**
  - Wed 11:30 AM  Exhibit Hall C

- **Creating Custom Layouts for the ArcGIS Viewer for Silverlight**
  - Wed 12:00 noon  Exhibit Hall C

- **Building Extensions for the ArcGIS Viewer for Silverlight and SharePoint**
  - Wed 4:00 PM  Exhibit Hall C
Related UC sessions

• **ArcGIS API for Silverlight/WPF – An Introduction**
  - Wed  10:15 AM  Room 6E
  - Thurs 10:15 AM  Room 8

• **ArcGIS API for Silverlight/WPF – Advanced Topics**
  - Wed  1:30 PM  Room 8
  - Thurs 3:15 PM  Room 32B

• **Road Ahead – Silverlight**
  - Wed  3:15 PM  Room 6A