Agenda

- ArcGIS and WebMaps
- The APIs
- ArcGIS for Flex Viewer
- ArcGIS for Silverlight Builder
- ArcGIS for Sharepoint
- ArcGIS Application Templates
- ArcGIS Runtime
ARCGIS ONLINE
ArcGIS Online is a cloud-based system
An emerging platform for mapping and geospatial content management
Applications for individuals, departments, and the enterprise
Online and on premise
Integrating Services (Data, Maps, Models . . . )

Supporting

- Information Pop-Ups
- Dynamic Web Services
- Temporal Data
- Spreadsheets
- Spatial Analysis
- Annotation and Sketching

Services and Data

Easily Created and Shared

Accessible
WEB MAPS
ArcGIS Online Web maps

Can be used in many ways, in many applications, on many devices
Map ID
A unique identifier
Working with the ArcGIS Portal REST API

- Authent.
- Portal
- Search
- Users Groups Community
- Items Content
"operationalLayers": [{
    "url": "http://sampleserver5a.arcgis.com/ArcGIS/rest/services/Events/FeatureServer/0",
    "visibility": true,
    "opacity": 1,
    "mode": 1,
    "title": "SS5_Events - Events"
}],
"baseMap": {
    "baseMapLayers": [{
        "opacity": 1,
        "visibility": true,
        "url": "http://services.arcgis.com/ArcGIS/rest/services/World_Topos_Map/MapServer"
    },
    "title": "World_Topos_Map"
},
"widgets": null,
"version": "1.1"
Groups

- Collections of items in groups can be embedded or displayed in configurable galleries
Group IDs

ArcGIS Online Group ID Finder

Find group ids based on search term. Sign-in to search for private groups.

Featured Maps and Apps for United States

Featured Maps and Apps for United States (Esri_cy_US)
This group contains a variety of maps and apps for the United States or of general interest to people in the United States.

b8787a74b4d74f7fb9b8f9c918735153
Esri Maps and Data

The Esri Maps and Data group provides access to online basemap and reference map services, map layers and documents, and tools to use in your GIS work.

Search maps

Description

The content includes various map services such as multi-scale imagery, street maps, topographic maps, shaded relief, and demographics. It also includes layer packages containing data that you can download for local use in ArcGIS Desktop (9.3.1 or more recent) or ArcGIS Explorer (Build 1200 or more recent). (For the full set of data found on the Esri Data & Maps DVD, go to the separate Esri Data & Maps group).

Featured Content

The Esri Maps and Data group focuses on providing general purpose basemaps and reference layers, such as imagery, streets, topography, and boundaries, as well as useful thematic layers, such as demographics, which can support a wide variety of applications. Below are links to some featured content that is available in this group.

Imagery
Streets
Topography

Which basemaps should I use in ArcGIS?
My Groups

Create a Group  Invitations (0)

Show

All My Groups
Owned by Me
Owned by Others
With New Membership Requests

You are a member of 23 groups

CT DECD Executive Web Maps (demo)
created by samuelberg on August 20, 2012
Details

CT DECD Public Web Maps
created by samuelberg on August 8, 2012
Details

CT Emergency Management Demo (Executives)
A Site for Improved Communication for State and Local Officials and Utilities
created by samuelberg on July 6, 2012
Details

CT Emergency Management Demo (Municipalities and Utilities)
Sharing and collaboration for towns, government agencies, utilities, and the State of Connecticut.
created by samuelberg on June 21, 2012
Details

CT Emergency Management Demo (Public)
Public access to shared Emergency Management information.
created by samuelberg on June 20, 2012
Details
APIS
A Platform for Building Custom Apps

- API’s and SDK’s
- Web and mobile apps
- Sharing and collaboration tools
- App Templates
- www.arcgis.com/apidocs/rest/
Web Mapping APIs

Building web clients

- Allow developers to easily build custom Web applications
  - ArcGIS API for JavaScript
  - ArcGIS API for Flex
  - ArcGIS API for Silverlight
- Built on a simple architecture
  - Use REST services endpoint
  - Web services based
- Choice depends on developer experience and style preference
ArcGIS Online Architecture for Developers

ArcGIS Server REST API
ArcGIS Online Map Services
ArcGIS Portal REST API
ArcGIS Online Repository
Search
Community
Content
Using WebMaps to power Viewers
Tasks

- Place Finding
- Geocoding and Location analysis
- Routing and network analysis
Adding Items

- addItem
  - /sharing/rest/content/users/<userid>/addItem

- Synchronous
- Asynchronous
- Multi-Part

Add a zipped shapefile to the map.

Visit the About Shapefiles help topic for information and limitations.
Turn web maps into Web apps

1. Author Map
2. Choose a Template
3. Share
4. Publish
Used Everywhere

Any Device

Smart Phones

Tablets

Desktop

Social Media

Web Sites

Browsers

One Map

ArcGIS Online
ARCGIS VIEWER FOR FLEX
Web Applications

Make a map online
An easy way to make a web map is to build it and share it online. Esri provides two options for doing this: the ArcGIS.com Map Viewer and ArcGIS Explorer Online.

Read more

Quick Links

Configurable Viewers
- ArcGIS Viewer for Flex
- ArcGIS Viewer for Silverlight
- ArcGIS for SharePoint

Web APIs
- ArcGIS API for JavaScript
- ArcGIS API for Flex
- ArcGIS API for Silverlight
Viewer and ArcGIS.com

- Viewer can take advantage of ArcGIS.com functionality
  - Handle authentication
    - Groups, roles, access
  - Maps
    - Base maps
    - Demographics maps
  - Services:
    - Geocoding
    - Routing
    - ... and more
<table>
<thead>
<tr>
<th>Application Name</th>
<th>Date Modified</th>
</tr>
</thead>
<tbody>
<tr>
<td>DeerTracking</td>
<td>Monday, November 12, 2012 10:44:38 AM</td>
</tr>
<tr>
<td>Nashua</td>
<td>Tuesday, November 13, 2012 1:02:36 PM</td>
</tr>
<tr>
<td>RITRE</td>
<td>Tuesday, December 11, 2012 9:44:22 AM</td>
</tr>
<tr>
<td>Workspace1</td>
<td>Wednesday, January 23, 2013 9:46:24 AM</td>
</tr>
</tbody>
</table>
Creating a new application.
No web map currently selected. Please select a web map to use in your application.
No web map currently selected. Please select a web map to use in your application.
Below is an interactive preview of your application. Select other tabs to make changes. Any changes, such as to the map extent or to widgets, will not be saved as part of the application.

Application Name: MA1
Application URL: http://localhost/flexviewers/MA1
Widgets
Below is an interactive preview of your application. Select other tabs to make changes. Any changes, such as to the map extent or to widgets, will not be saved as part of the application.

Application Name: MA1
Application URL: http://localhost/flexviewers/MA1
Building a Multipurpose Viewer

1. Basemaps
   - Select an Esri Basemap or use an ArcGIS Server
   - Featured Basemaps
     - Imagery
     - Imagery with Labels
     - Streets
     - Topographic
     - Terrain with Labels
     - Light Gray Canvas
     - National Geographic
     - Oceans
     - OpenStreetMap

2. Operational Layers
   - Switch

3. Map Extent
Access Viewer source
ARCGIS VIEWER FOR SILVERLIGHT
Web Applications

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- ArcGIS Viewer for Flex
- ArcGIS Viewer for Silverlight
- ArcGIS for SharePoint

Web APIs
- ArcGIS API for JavaScript
- ArcGIS API for Flex
- ArcGIS API for Silverlight
Application Builder contains Viewer App

App Builder
layer management

Web App
table of contents

Web App preview
Add-Ins – Extensibility Points

Several ways to customize:
1. **Tools** → functionality initiated by tool on toolbar
2. **Behaviors** → non-UI logic
3. **Layouts** → custom application “look and feel”
4. **Controls** → UI integrated into application
Tools
Behaviors
## Current Viewer Applications

<table>
<thead>
<tr>
<th>Name</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>VermontAndRouting1</td>
<td><a href="http://ATTITASH:80/Apps/VermontAndRouting1">http://ATTITASH:80/Apps/VermontAndRouting1</a></td>
</tr>
<tr>
<td>DECD Viewer</td>
<td><a href="http://ATTITASH:80/Apps/DECD">http://ATTITASH:80/Apps/DECD</a> Viewer</td>
</tr>
<tr>
<td>CityView Love Your...</td>
<td><a href="http://ATTITASH:80/Apps/CityView">http://ATTITASH:80/Apps/CityView</a> Love Your Block Suggestions</td>
</tr>
<tr>
<td>Watershed</td>
<td><a href="http://ATTITASH:80/Apps/Watershed">http://ATTITASH:80/Apps/Watershed</a></td>
</tr>
<tr>
<td>Naperville Parcels</td>
<td><a href="http://ATTITASH:80/Apps/Naperville">http://ATTITASH:80/Apps/Naperville</a> Parcels</td>
</tr>
<tr>
<td>NYSBridges</td>
<td><a href="http://ATTITASH:80/Apps/NYSBridges">http://ATTITASH:80/Apps/NYSBridges</a></td>
</tr>
</tbody>
</table>
Web Maps

New Map
Topographic map which includes boundaries, cities, water features, physiographic features, parks, landmarks, transportation, and buildings.

Open

Web Maps

Featured Maps

USA Median Household Income
Web Map by esri (last modified: March 21, 2013)
This web map combines the USA median household income for the United States in 2010 with a reference overlay. The darker the green color, the higher the median household income.

Details Open

USA Weather Warnings
Web Map by user_community (last modified: June 6, 2012)
This map features the NOAA/National Weather Service current weather warnings/watches for the USA provided as a map service by the USGS Natural Hazards Support System (NHSS).

Details Open

Landsat Time Enabled Imagery
Web Map by esri (last modified: June 15, 2012)
This is a map of the time enabled Landsat services and can be used to explore change over time in web browsers.

Details Open

USA Imagery Map
Web Map by esri (last modified: June 15, 2012)
This map presents nationwide imagery for the United States down to 1m or better resolution assembled from a variety of governmental and commercial sources.

Details Open

FEMA 100 Year Flood Zones in the U.S.A

Recent Featured Maps Search
Signing in
Map configuration for this application is linked to a web map. To edit the map configuration, unlink the application from the web map.
Map configuration for this application is linked to a web map. To edit the map configuration, unlink the application from the web map.

ArcGIS Viewer for Silverlight

Adirondack Park Land Class:

<table>
<thead>
<tr>
<th>Area ID</th>
<th>15116</th>
</tr>
</thead>
<tbody>
<tr>
<td>Town Village ID</td>
<td>61</td>
</tr>
<tr>
<td>LCCD</td>
<td>10</td>
</tr>
</tbody>
</table>
Existing WebMap
Custom Layouts and Behaviors
ARCGIS FOR SHAREPOINT
Web Applications

Make a map online
An easy way to make a web map is to build it and share it online. Esri provides two options for doing this: the ArcGIS.com Map Viewer and ArcGIS Explorer Online.

Quick Links

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- ArcGIS Viewer for Silverlight
- ArcGIS for SharePoint

Web APIs
- ArcGIS API for JavaScript
- ArcGIS API for Flex
- ArcGIS API for Silverlight
<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADKMap</td>
<td>Identifiable Adirondack Land and Water Areas plus NDVI Imagery overlays. Embedded from ArcGIS Online.</td>
</tr>
<tr>
<td>People Map</td>
<td>A Geocoded Sharepoint List of Random People in an ArcGIS map.</td>
</tr>
<tr>
<td>RouteMe</td>
<td>Provides provides basic geocoding and routing capabilities.</td>
</tr>
<tr>
<td>NYS DOT Bridge Viewer</td>
<td>Example of embedding a full ArcGIS for Silverlight Viewer within a Sharepoint page.</td>
</tr>
</tbody>
</table>
<iframe width="500" height="400" frameborder="0" scrolling="no" marginheight="0" marginwidth="0" src="http://esrinortheast.maps.arcgis.com/home/webmap/embedViewer.html?webmap=24fd21016f2846ee9f78aacc12935da8&amp;extent=-71.1224,42.3738,-71.1028,42.3825"></iframe><br />
<small><a href="http://esrinortheast.maps.arcgis.com/home/webmap/viewer.html?webmap=24fd21016f2846ee9f78aacc12935da8&amp;extent=-71.1224,42.3738,-71.1028,42.3825" style="color:#0000FF;text-align:left" target="_blank">View Larger Map</a></small>
Sharepoint for simple content management
<table>
<thead>
<tr>
<th>Title</th>
<th>Street</th>
<th>City</th>
<th>Zip</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adolphus Busch Hall</td>
<td>27 Kirkland Street</td>
<td>Cambridge</td>
<td></td>
<td><a href="http://en.wikipedia.org/wiki/Adolphus_Busch_Hall">http://en.wikipedia.org/wiki/Adolphus_Busch_Hall</a></td>
</tr>
</tbody>
</table>
ArcGIS Location

Name: ArcGIS for Sharepoint-Harvard
Title: ArcGIS for Sharepoint
Place: Redlands, CA

ShapeX: -117.182537217
ShapeY: 34.055566969
Description: Basic Overview

Created at 5/16/2012 12:27 PM by i0#.f[sqmembers]samberg

ArcGIS Location Map

Redlands Mall
Redlands Bowl
US Post Office

N 35 St
Redlands Ave

Council Chambers
Civic Center
Parking Structure

Krikorian Premier Theatres

Redlands

Shoppers Ln
A.K. Smiley
Public Library

Lincoln Shrine

Sacred Heart Elementary
Title: University Hall
Street: 1815 Massachusetts Avenue
City: Cambridge
State: MA
Information: http://en.wikipedia.org/wiki/University_Hall_(Harvard_University)
ArcGIS Location:

Latitude: -71.119183943
Longitude: 42.387352036
ARCGIS APPLICATION TEMPLATES
Application templates
Choose from Make a Web Application gallery

More templates can be found by searching ArcGIS Online
Preview, publish, or download

Click thumbnail to preview

Download source to customize and host on your own

Gear indicates template is configurable when hosted

Click publish to couple and host your map with the application templates
Configure and publish from your account
Save and share like any other item in My Contents
Pittsburgh Love Your Block Project Gallery

Love Your Block is a program created by Mayor Luke Ravenstahl and The Home Depot Foundation to revitalize our City - block by block!

Morningside Area Community Council

Morningside Area Community Council constructed a popup cafe on October 15 to inspire investors by demonstrating potential for the vacant storefront at 1743 Chislett St.
Meet Your County Representatives
A Map of Your Representative Districts.

Duties of the Board of Supervisors
The five-member Board of Supervisors is both the executive and legislative branch of county government, setting policy, overseeing departments, and controlling the budget.

The Board of Supervisors oversees the county’s $130 million budget and over 900 employees. Managers of the following county departments report directly to John and the other board members: Finance and Budget, Human Resources, Information Technology, Risk Management, CSRU, Engineer, LIFTS, Soil Conservation, Medical Examiner, the weed commissioner and historic preservation.

The Board of Supervisors appoints members to the Board of Adjustment, Board of Health, Building Board of Appeals, Conservation Board, Electrical Board of Appeals, General Assistance Board, Linn County Community Services Advisory Board, Linn County Veterans Commission Board, Mechanical Board of Appeals, Plumbing Board of Appeals, Services for People with Disabilities Board, Youth Services Advisory Board and Zoning Commission.

To better serve the people of Linn County, the individual members of the Board of Supervisors serve as liaison to specific city councils within their districts, organizations and Linn County departments.

Click on a tour arrow or a thumbnail below to get started.
WebMap IDs driving applications
dojo.require("esri.arcgis.utils");
dojo.require("esri.IdentityManager");
dojo.require("dijit.form.Form");
dojo.require("dijit.form.TextBox");

dojo.declare("AGOLSearchTaskUI", null, {
    constructor: function (AGOLSearchTask, AGOLRouteTaskUI, map, searchBoxDivId, progressDivID) {
        this.AGOLSearchTask = AGOLSearchTask;
        this.AGOLRouteTaskUI = AGOLRouteTaskUI;
        this.searchBoxDiv = dojo.byId(searchBoxDivId);
        this.workingDiv = dojo.byId(progressDivID);
        this.map = map;
        this.defaultMarkerURL = "http://static.arcgis.com/images/Symbols/Basic/BlueShinyPin.png";
        this.defaultSymbol = new esri.symbol.PictureMarkerSymbol(this.defaultMarkerURL, 24, 24);
        this.graphicsLayerLocations = new esri.layers.GraphicsLayer();

        this.map.addLayer(this.graphicsLayerLocations);

        dojo.connect(this.AGOLSearchTask, 'onAddressFound', this, function (res) {
            this.showLocation(res);
        });

        dojo.connect(this.AGOLSearchTask, 'onAddressesFound', this, function (res) {
            this.showLocations(res);
        });
    }
});
Please add at least two stops to your itinerary...
ARCGIS FOR SMARTPHONES AND TABLETS
ArcGIS for Smartphones & Tablets

Tools to build focused solutions
ArcGIS Can Now Be Embedded Anywhere

New Lightweight Runtime Platform

- Easy to Deploy
- Fast
- Small Footprint
- Windows/Linux

Provides Complete Geospatial Functionality
Lightweight Applications and Runtime SDKs

Configurable COTS applications and Native ArcGIS Runtime SDKs

<table>
<thead>
<tr>
<th>Platform</th>
<th>Applications</th>
<th>Runtime SDK</th>
</tr>
</thead>
<tbody>
<tr>
<td>iOS</td>
<td>ArcGIS</td>
<td>Objective C</td>
</tr>
<tr>
<td>Android</td>
<td>ArcGIS</td>
<td>Java</td>
</tr>
<tr>
<td>Windows Phone</td>
<td>ArcGIS</td>
<td>Silverlight</td>
</tr>
<tr>
<td>Windows Mobile</td>
<td>ArcGIS</td>
<td>.NET</td>
</tr>
<tr>
<td>Windows</td>
<td>ArcGIS Explorer*</td>
<td>WPF, Java</td>
</tr>
<tr>
<td>Linux</td>
<td>ArcGIS Runtime</td>
<td>Qt, Java</td>
</tr>
</tbody>
</table>
Sharing as a Package

Professional to Professional

ArcGIS Online

ArcGIS for Desktop

Map and Layer Packages

Sharing Tradecraft

New at 10.1
Tile, Geoprocessing & Locator Packages
Map Package
Create a map package containing this map and all the data it references zipped up into one convenient file, and either upload it to ArcGIS Online or save it to disk.
Unable to cast object of type
Thank You.

Questions and Comments?
Summary

- Online WebMaps can power many applications
- Choice of viewers and environments for mapping
- Scalable environment
Understanding our world.