Working with ArcGIS Online
Bern Szukalski, Deane Kensok
Topics for this Session

- ArcGIS Online Overview
- ArcGIS Online Content
  - Demo: Tour of Online Content
- Using ArcGIS Online
  - Demo: Tour of ArcGIS Online (ArcGIS.com)
- Road Ahead
  - Enhanced Maps & Tools
  - ArcGIS Online for Organizations
    - Demo: Online Account & Hosted Services
- Q & A
ArcGIS Online Overview

Bern Szukalski
ArcGIS is a Complete System

A Complete and Integrated Geographic Information System

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

Cloud
Enterprise
Local

Web
Mobile
Desktop
ArcGIS Is An Online System

A Complete and Integrated Geographic Information System

Web

Mobile

Desktop

ArcGIS Online
ArcGIS Online Is Built-in To ArcGIS

An integrated part of the user experience

• Basemap galleries
• Searching and sharing
• Built-in tools and capabilities
  • Geocoding, gazetteer, etc…
ArcGIS Online

Open data platform for maps and geographic information

• Easily create and share maps
• Delivered as intelligent maps
• Access on virtually any device – anyone, anywhere
• Compliments and extends the value of your GIS
• Use within an organization or share with larger communities and the public

Extend the value and reach of your GIS
ArcGIS Online Content

Deane Kensok
ArcGIS Online includes an Ecosystem of Resources
ArcGIS Online Maps Summary

- **Imagery**
  - World Imagery
  - Bing Maps Aerial
- **Streets**
  - World Street Map
  - Bing Maps Roads
- **Topographic**
  - World Topographic Map
  - USA Topo Maps
- **Thematic**
  - Demographic maps
  - Sciences maps

*From Esri and the ArcGIS Community*
World Imagery

Imagery mosaic built from best available commercial and public sources

- USA Imagery Mosaic of 1m or Better Imagery
  - USDA NAIP, USGS Cities, and Commercial Imagery
  - Imagery from User Community (States, Counties, Cities)

- International Areas at 1m or Better Imagery
  - GeoEye IKONOS Imagery for Major Metro Areas
  - Contributed Imagery for Several Other Countries
    - Portugal, Great Britain, Belgium, Netherlands, France, …
World Street Map

Street map built from commercial street data and other local sources

- World Street Map down to ~1:150k Scale
- Detailed Street Map to ~1:10k for Many Regions
  - Updated Coverage for North America and Europe
  - New Coverage for South America and Australia!
  - Contributed Street Maps for Several Other Countries
World Topographic Map

Topographic style basemap built from best available data sources

- **Same Coverage as World Street Map PLUS**
  - Worldwide Map down to ~1:150k
  - N. America & Europe down to ~1:10k
  - S. America and Australia down to ~1:10k

- **Great Momentum with Community Participation**
  - 4x more maps published since last year
  - 250+ more community maps in production
  - Hundreds of active participants

- **Ongoing Monthly Updates**
  with New Coverage & Detail
Ocean Basemap

*Base map for Ocean GIS*

- Bathymetry, surface & subsurface names, depth values
- Initial Release down to 1:1m worldwide
- Plans Forward
  - Expand as New Community Map
    - National & local contributors
  - U.S. Waters, downs to 1:36k
  - Operational Overlays
  - Task Services
    - Elevation
New Imagery Services

• From serving tiles to serving information to users
  - Not only a nice looking basemap
  - Introduction of dynamic and analytical services

• New Global Land Survey Landsat Services
  - Multiple maps presenting different views of earth
  - Help to illustrate and understand global change over time

• Serving Near Real-Time Imagery for Major Events
  - Japan Tsunami, Southern Storms, …
Thematic Maps

Variety of demographic and sciences maps focused on specific themes

- **USA Demographic Maps**
  - Maps for 20 Essential Variables of Latest Esri Data

<table>
<thead>
<tr>
<th>Population</th>
<th>People</th>
<th>Economics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population Density</td>
<td>Median Age</td>
<td>Household Income</td>
</tr>
<tr>
<td>Daytime Population</td>
<td>Diversity</td>
<td>Home Value</td>
</tr>
<tr>
<td>1990-2000 Change</td>
<td>Household Size</td>
<td>Unemployment</td>
</tr>
<tr>
<td>2000-2010 Change</td>
<td>Social Vulnerability</td>
<td>Labor Force Participation</td>
</tr>
<tr>
<td>2010-2015 Change</td>
<td>Tapestry</td>
<td>Retail Spending</td>
</tr>
</tbody>
</table>

- **USA National Maps**
  - Nationwide maps featuring data from Federal sources

- **Global Maps**
ArcGIS Online Maps

Review of Current Maps
Recent Updates
ArcGIS Data Appliance

ArcGIS Online Maps “in a box” for deployment on private network

- Ready-to-use maps for publishing with ArcGIS Server
ArcGIS Online Maps System Architecture

Users

Web / ArcGIS Servers

Data Appliances

Akamai
Community Maps Program

www.esri.com/communitymaps

- Method to Improve Community Maps that Esri Hosts and Provides Freely to our ArcGIS Users

World Topo Map  World Imagery  World Street Map

Canada  Portugal  Hong Kong

- **Goal**: Add Coverage and Detail to our Online Maps using Rich, Local Data Sources
ArcGIS Online Task Services (Tools)

Functional capabilities available online

• Geocoding Services
  - Multi-national geocoding for North America & Europe
    - Supports both Interactive and Batch Geocoding
    - New ArcGIS 10 Locators support Single-Line Geocoding
    - World Places Locator

• Routing Services
  - Multi-national routing for North America & Europe
    - Supports multi-point routing, optimized routes, barriers

• Geometry Service
  - Project coordinates, buffer features, calculate size, ...
Using ArcGIS Online

Bern Szukalski
Using ArcGIS Online You Can …

- Publish and manage maps and geographic information
- Upload and style your data
- Create web maps for apps, web sites, mobile
- Share information with defined groups
- Leverage Ready-to-use
  - Maps
  - Apps
  - Tools
ArcGIS Online – Available to Everyone

Enabling everyone to make, share, use, and organize geographic information

- **Anonymous**
  - Discover and use maps and apps

- **With Free Account**
  - Upload and store data
  - Create web maps (mashups)
  - Participate in groups, share items, embed maps in web applications

- **New capabilities**
  - Add CSV, WMS, KML, GPX
  - Style data and save in web maps
  - Create Groups of Favorite Items
Interact with Intelligent Maps Anywhere

Any Device
- Smart Phones
- Tablets
- Desktop

One Map
ArcGIS Online

Apps
Browsers
Using ArcGIS Online
Bern Szukalski
Road Ahead

What’s Next for ArcGIS Online
More and Better Basemaps

- Ongoing effort to enhance basemaps for ArcGIS Online
- Organized in three categories:

**Reference maps**
- Stand-alone or with point, line overlays

**Background maps**
- Attractive, neutral foundation for overlays

**Top maps**
- Labels, lines etc. to put overlays in context
National Geographic World Map (Coming Soon)

Distinctive and Detailed Reference Map of the World

- Useful and Authoritative Reference Map to Support Education, Conservation, and General Map Narratives
Expanded World Imagery

Expanding with high-res imagery from commercial and public sources

Adding 50+ million sq. km. of imagery by early next year
Global Geocoding Services

Expanding coverage of geocoding services globally

- Building ArcGIS 10 Locators for Dozens of Countries

- Expansion Completed in Phases
  - Now Available for U.S. and Canada
  - Expanding in North America, Europe, South America, and Australia / NZ

- To be Provided through Global Geocoding Service
  - REST service supporting single-line geocoding
New Routing Services

Intelligent Network Analysis Services for Optimized Routes and More

- Expansion of Existing Routing Services
  - New routing services for South America and Australia

- Introduce New Drive Time Service
  - High-performance Network Analyst service using 10.1
  - Available by subscription for use in maps and apps
  - Coverage for North America, Europe, South America, Australia initially
  - Coming as part of 10.1 Release
ArcGIS Online for Organizations

Additional tools and capabilities that allow organizations to collaborate

- Organizational look-and-feel
  - Branding
  - Galleries
- Hosting for your Maps and Data
  - No need for your own servers
- Management
  - Users/roles
  - Content, groups, galleries
  - Sharing (public/private)
- Usage Reporting
Hosted Map Services

• Publish from ArcMap 10.1
  - Create feature and/or tile services
  - Define the tiling scheme and other parameters
  - Tiles are generated in the cloud

• Publish feature services from web clients
  - ArcGIS.com
  - ArcGIS Explorer Online
  - Feature services from
    - CSV’s, GPX’s
    - Shapefiles
ArcGIS Online for Organizations
Bern Szukalski and Deane Kensok
ArcGIS Portal

On-premises platform for mapping and geographic information

- **Solution for**
  - Organizations with additional security demands
  - Organizations who are prohibited from leveraging the public cloud

- **Allows for**
  - Integration with authentication system
  - Extensive customization

- **Requires**
  - Installation, maintenance
  - Infrastructure
Summary: How Can You Use ArcGIS Online?

- A free account – available today
- Subscriptions with hosting – Coming Soon!
- On-premises – Portal for ArcGIS
Additional Resources

Learn more while you are at the UC

• Related Tech Workshops
  - Road Ahead – ArcGIS Online
    - Tue @ 3:15pm in 10
  - Introduction to ArcGIS Portal
    - Wed @ 10:15am in 15 B
  - Introducing Online Community Maps
    - Thu @ 1:30pm in 24 C

• Visit us at Online GIS and Content Islands
  - Talk with Community Maps Team at Content Island