Enriching Your Application with ArcGIS Online Content and Services

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Agenda

Overview
World Geocoder
Routing & Directions
ArcGIS Online Layers
In the works
Enriching Your Application with Platform Services
Reach Mobile and Web Users

It's easy with Web Maps!
Content Powers the ArcGIS System

• Build, Manage, and Analyze Geographic Information

• Rich Set of Ready-to-Use Geographic Content
  - Maps, Data, and Tasks designed for use with ArcGIS
Provide a New Experience with Your GIS Services
Accessible to the non-GIS user

Web Maps

- ArcGIS for Server
  - Your Business Data
- Map Galleries
- Embedded Maps
- Website
- SharePoint
- Microsoft Office
- Mobile Devices
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Overview

**World Geocoder**

Routing & Directions

ArcGIS Online Layers

In the works
Geocoding Services

- ArcGIS Online hosts a set of services with **geocoding** and **geosearch** capabilities
- Integrated in ArcGIS products and applications
- Available for use in APIs and SDKs
Geosearch
- Search – Find - Lookup
- Result is not stored for later use
- Requires no fee

Geocoding
- Primary purpose is to store results for use again later
  - In a database
  - In a map
- Requires a subscription
Geocoding is in transition

Two separate systems

Legacy

- http://tasks.arcgisonline.com
- http://premiumtasks.arcgisonline.com

ArcGIS Online

- Geosearch
  - Available now
  - http://geocode.arcgis.com
- Geocoding
  - Part of ArcGIS Online subscriptions
  - Coming soon
ArcGIS Online World Geocoding Service

Worldwide in scope
ArcGIS For Developers (developers.arcgis.com)

- Great place to **start**!
- **Geocoding**
- **Directions/Routing**
JavaScript API Geocoder Widget

- **Geocoder Options**
  - Autocomplete
  - Locator URL
  - Multiple locators
  - Unique style

```javascript
var geocoder = new esri.dijit.Geocoder({
  map: map,
}, "searchDiv");
geocoder.startup();
```
Geocoder Widget Samples

- Simple
- Styled
- Redlands Locations
- Points of Interest
Flex API Geocoder Component

- Multiple Sources
- Search Map Services (layers and tables)
- Geocoder/Placefinder
  - By default, ArcGIS Online World Geocoder
- Predictive text
- Skinnable
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In the works
Network Analysis Services - current
Tools to solve common transportation problems

• Routing Services
  - Available for North America & Europe
  - Multi-point routing, optimized routes, and barriers
  - Driving directions in multiple languages
  - Available for ArcGIS Desktop, Web, and Mobile
Global Network Analysis Services in 2012
Expanding our current offering with new network analysis capabilities

- Routing
- Service Area (drive time)
- Closest Facility
- Vehicle Routing Problem (VRP)
- Historic and live traffic (where available)
Routing on ArcGIS Online

- Organizational accounts
  - Directions Panel/Widget
JavaScript API Directions Widget

- **Widget Options**
  - Dragging points
  - Geocoder options
  - Symbols
  - Routing parameters
  - Printing

```javascript
var directions = new esri.dijit.Directions({
    map: map,
  },"directionsDiv");
directions.startup();
```
Directions Widget Samples

- Simple Example
- Different Style
- Mobile Mockup
Flex API Directions Component

- Embeds geocoder for destinations
- Can click on map to add destination
  - reverse geocoding
- Skinnable
- By default: AGOL World Routing Service
Service Areas (Drive Times)

- Synchronous or Asynchronous services
Traffic (Real-Time and Derived)

- Global service visualization of historic and real-time traffic
  - Real-time Incidents/Construction information
- Updates every 5 min.
- World Traffic Map
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Basemaps and Reference Maps

Suite of basemaps to support your web maps and applications

- Great Web Maps Start with a Great Basemap
- Variety of Basemaps are Required for Different Maps
  - ArcGIS now includes a diverse set of basemaps
LandSat Imagery Services
Dynamic and time aware imagery services for visualization and analysis

- **Global Land Survey Landsat Services**
  - Multiple maps presenting different views of earth
    - Natural color, false color, vegetation, agriculture, etc.
  - Help to illustrate and understand global change over time
    - LandSat imagery from multi-epochs (e.g. 1975, 1990, 2000)

- **Update with Recent Imagery and Better Image Quality**
  - New Imagery from 2010 added to epochs
  - Image services upgraded to 10.1, improving imagery display

Elevation Data

Used by a large percentage of GIS users

- **Traditional workflow:**
  - Search for data
  - Download, Manage, & Process large data files
  - Visualize, Analyze data locally

- **With World Elevations Services:**
  - **Directly** Access & Use
  - Visualize
  - Use Analysis Tools

- **Utilizes ArcGIS Server and Mosaic Datasets**
- Shows best practice for management of elevation data
World Elevation Data Sources

Public domain elevation data – 1,300 GB

1km GEBCO Bathymetry
250m GMTED
90 m SRTM
60 m NED (Alaska)
30 m NED (USA & Mexico)
10 m NED (USA)
3 m NED (partial USA)

As of March 2013
More data will be added over time

Coverage Map
Uses of World Elevation Services

• Visual Interpretation
  - Including Metadata

• Analytics on Server
  - Viewshed (April 2013)
  - More to come soon

• Get Data Values
  - Orthorectification
  - Local analysis
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Location Analysis

ArcGIS includes a variety of demographic maps focused on specific themes

- USA Demographic Maps
  - Maps with essential variables of recent Esri data
GeoEnrichment
Overview of the Spatial Analysis service

ArcGIS Online is a collaborative, cloud-based platform that lets members of an organization create, share, and access maps, applications, and data, including authoritative basemaps published by Esri. Through ArcGIS Online, you get access to Esri’s secure cloud, where you can manage, create, store, and access hosted web services.

ArcGIS Online includes the Spatial Analysis service. The Spatial Analysis service contains a number of tasks, listed below, that you can access and use in your applications.

- **Beta**: The analysis service is in beta release. This means a few things to you. The service is available to all ArcGIS Online users with organizational accounts. They are stable components of the site that may have incomplete functionality or documentation and may contain some minor issues.
- **Beta credits**: There is no credit cost for using the analysis service during the beta period. However, credits are charged for the hosting of the feature services that are the result of an analysis. For more information on credits, see the Service credits overview which includes access to an interactive Service Credits Estimator.
- **Stability**: When the beta program ends, analysis tools will consume credits. There will be announcements about the transition from free use to credit-based use.
- **Beta support**: If you have issues or are experiencing problems with any of the beta functionality, please contact Esri Technical Support or visit the Esri Online forums.

Aggregate Points

Find Hot Spots
Analysis Tools
Geotrigger overview
• Julie Powell (@JuliePowellGIS)
• Matt Driscoll (@driskull)
• Scott Moore (@ScottMooreInOly)

http://esriurl.com/survey

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