Agenda

• What is Insights for ArcGIS?
• Explore Insights for ArcGIS
• How does Insights for ArcGIS work?
• Best Practices when using Insights for ArcGIS
WHAT IS INSIGHTS FOR ARCGIS?
Insights for ArcGIS: Explore a new world in your data

- Discover the power of exploratory analysis
  - Visual and intuitive
- Combine Analysis and Visualization on cards
  - Linked and responsive
- Drive impactful decisions
  - Learn, record, share and collaborate
Two flavors of Insights

ArcGIS Online

- Hosted by Esri
- Purchase from ArcGIS Marketplace
- Each license of Insights comes with 1000 credits.
- Premium data store offering*

ArcGIS Enterprise

- In your own infrastructure or cloud (Software)
- Install & license files obtained from My Esri
Analytic Projects – Workbook, Pages, and Cards

Workbook: collects or associates all your data and analytical activity for a project.

Pages: contains related content in a workbook. A workbook can contain many pages based on which area of analysis is being worked on.

Cards: a container for visualization contained within a page. This card can be a map, chart, or table.
What data does Insights work with?

- Business Databases
- Geodatabases – **new at 2.1**
- Feature Layers (Web GIS)
  - Registered or hosted
  - Spatiotemporal Big Data Store
  - Living Atlas of the World
- Excel or CSV
Adding Data to Insights

- When adding data to a workbook, each layer, table, or view is added as a separate dataset by default.
Working with Data – Intelligent defaults

Fields, or attributes are defined to a role

• Insights works directly against the fields
• Dimensional model created behind the scenes
  - Geo-Dimension
  - Temporal-Dimension
  - Categorical (Strings)
  - Quantitative (Numbers)
Relationships

Create Relationships

My Data
- well_production
- well_attributes

Choose Relationship Type
Relationship type determines the way data is combined.
- Intersect
- All
- Left
- Right

Choose Fields
Choose the fields you want to base the relationship on.
- API

Cancel Finish
Analysis: Interactivity
Analysis: Action button
Analysis: starts with questions

- How is it distributed?
- How is it related?
- What's nearby?
- How has it changed?
Analysis view and models

• Analysis is recorded
  - Steps can be seen in the analysis view
  - Models can be shared and input data updated
Sharing

- Workbooks, Pages, Models
  - Portal Items
- Share Results throughout the organization
- Embed this analysis on your organizations website
- Insights Pages can be embedded in Story Maps
Explore Insights for ArcGIS
Create your first workbook
Setup your Pages and Cards
Explore Insights for ArcGIS with Tutorials

Get Started with Insights for ArcGIS

Overview

One indicator of a region’s growth is the number of permits issued for new construction. Exploring and analyzing permit activity can help regional planners ensure that development occurs in accordance with the area’s long-term goals. One area that has recently experienced rapid growth is Montgomery County, Maryland, a suburban county near Washington, D.C. County planners want to observe spatial and temporal growth trends, find out why certain areas are growing faster than others, and communicate key information about the county’s growth to the public.

In these lessons, you’ll explore Montgomery County permit data using Insights for ArcGIS, a web-based data analytics application. First, you’ll create a new workbook and add the permit data from ArcGIS Living Atlas of the World. You’ll explore the data and become familiar with exactly what kind of information it contains. Then, you’ll analyze the data to detect patterns and find out why growth is occurring. Once you’ve gathered your findings from your exploration and analysis, you’ll share your work online.

Build skills in these areas:

Analytic Workflows, With Deeper Insight

GeoEnablement
- Geocode address
- Convert X,Y
- Join to boundaries
- Join to demographic variables

Data Preparation
- Format fields
- Calculate new fields

ArcGIS Insights

Choose Relationship Type
Relationship type determines the way data is combined.

Choose Fields
Choose the fields you want to base the relationship on.
Analytic Workflows, With Deeper Insight

**Visualization**
- Interactive data views
- Charts, graphs, tables, and maps
- Dynamic selection & cross filtering
- Context of the largest digital atlas in world

**Statistical Analysis**
- Descriptive stats
- Link analysis
- Regression

**Spatial Analysis**
- How is it distributed?
- How is it related?
- What's nearby?
- How has it changed?
Analytic Workflows, With Deeper Insight

Record & Repeat Analysis
- Share model to analysts
- Document best practices
- Re-run with new data

Share Results
- Share with executives
- Tell your story
- Share with public
When to Use What

Apps with a Purpose

• **Data analytics workbench.** Advanced analytics with drag-n-drop tools, minimal clicks. Visual and interactive results, share and re-run analysis.

• **Real-time data.** Common operating picture for making informed decisions. **Monitor** events, activities, and situations.
HOW DOES INSIGHTS FOR ARCGIS WORK?
Insights “Stack”

Modern Web Browser
- Supports IE11/Edge, Chrome, Safari, Firefox

Insights and Insights Items live here
• Workbooks, Page, Models

Insights Services
• Insights Schema
• Insights Workspace

Web Browser

ArcGIS Online
Insights “Stack”

Web Browser

Portal for ArcGIS

ArcGIS Server

ArcGIS Data Store

Modern Web Browser
- Supports IE11/Edge, Chrome, Safari, Firefox

Insights and Insights Items live here
- Workbooks, Page, Models

Insights Services

Hosted Relational Data Store
- Insights Schema
- Insights Workspace
ArcGIS Enterprise | Base Deployment Overview

Create portal

Portal for ArcGIS

Register

ArcGIS Web Adaptor (portal)

Create ArcGIS Server site

ArcGIS Server

Register

ArcGIS Web Adaptor (server)

Register (Relational & Tile Cache)

ArcGIS Data Store

Federate
#1: 404 Error

<table>
<thead>
<tr>
<th>Page not found</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type:</strong> Status Report</td>
</tr>
<tr>
<td><strong>Message:</strong> /arcgis/apps/insights/index.html</td>
</tr>
<tr>
<td><strong>Description:</strong> <a href="http://404/arcgis/apps/insights/index.html">http://404/arcgis/apps/insights/index.html</a></td>
</tr>
<tr>
<td><strong>Portal for ArcGIS</strong></td>
</tr>
</tbody>
</table>
### Compatibility with ArcGIS Enterprise

**Determining the Appropriate version of Insights for the ArcGIS Enterprise you have:**

<table>
<thead>
<tr>
<th>Insights version</th>
<th>ArcGIS Enterprise 10.5</th>
<th>ArcGIS Enterprise 10.5.1</th>
<th>ArcGIS Enterprise 10.6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2.1</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2.1</td>
<td>❌</td>
<td>✓</td>
<td>❌</td>
</tr>
<tr>
<td>2.2.1 and 2.3</td>
<td>❌</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
Installing Insights in ArcGIS Enterprise

- The setup.exe file for Insights for ArcGIS needs to be installed in:
  
  **Portal for ArcGIS**
  
  **ArcGIS for Server**

  ![Select Features](image1.png)  
  ![Select Features](image2.png)

  **Install to:**
  
  - **Portal for ArcGIS**: `C:\Program Files\ArcGIS\Portal`
  - **ArcGIS for Server**: `C:\Program Files\ArcGIS\Server`
You're about to be redirected to your Organization...

Sorry, you don't have permission to access Insights for ArcGIS. Contact your ArcGIS administrator for access privileges.
Who can use Insights for ArcGIS?

- Level 2 publisher + Insights license
  - to create and edit workbooks

- Level 1 viewer = Read only with shared items
  - For viewing only
Accessing Insights for ArcGIS

• URL
  - ArcGIS Online: arcgis.com/apps/insights
  - ArcGIS Enterprise: https://<portal-URL>/<webadaptorname>/apps/insights

• Apps Launcher
#3: Cannot create workbooks
### ArcGIS Online Health Dashboard

ArcGIS Online publishes our latest information on service availability in the table below. Check back here to get current status information, or subscribe to an RSS feed to be notified of interruptions to each individual service.

<table>
<thead>
<tr>
<th>Service Status</th>
<th>Details</th>
<th>RSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ArcGIS.com Web Site</td>
<td>Service is operating normally</td>
<td>![RSS icon]</td>
</tr>
<tr>
<td>ArcGIS.com REST API</td>
<td>Service is operating normally</td>
<td>![RSS icon]</td>
</tr>
<tr>
<td>Hosted Feature Services</td>
<td>Service is operating normally</td>
<td>![RSS icon]</td>
</tr>
<tr>
<td>Feature Publishing</td>
<td>Service is operating normally</td>
<td>![RSS icon]</td>
</tr>
<tr>
<td>Hosted Tile Services</td>
<td>Service is operating normally</td>
<td>![RSS icon]</td>
</tr>
<tr>
<td>Tile Publishing</td>
<td>Service is operating normally</td>
<td>![RSS icon]</td>
</tr>
<tr>
<td>Esri Basemaps</td>
<td>Service is operating normally</td>
<td>![RSS icon]</td>
</tr>
<tr>
<td>Geocoding</td>
<td>[RESOLVED] Intermittent issues with World Geocoding service. more ![RSS icon]</td>
<td></td>
</tr>
<tr>
<td>Directions and Routing</td>
<td>Service is operating normally</td>
<td>![RSS icon]</td>
</tr>
<tr>
<td>GeoEnrichment and Demographics</td>
<td>Service is operating normally</td>
<td>![RSS icon]</td>
</tr>
<tr>
<td>Spatial Analysis</td>
<td>Service is operating normally</td>
<td>![RSS icon]</td>
</tr>
</tbody>
</table>

- ![Check mark] Service is operating normally
- ![Warning] Performance issues
- ![Error] Service disruption
- ![Information] Informational message

Report an Issue
A valid hosting server

Servers

You can add ArcGIS Server sites to your portal to achieve a single-sign-on experience, share items, and optionally host services. A server that has been added to a portal is called a federated server.

Federated Servers

Add one or more servers to your portal.

VALIDATE SERVERS  ADD SERVER

Servers

✓ https://vtrainuc2.esri.com:6443/arcgis

Hosting Server

 Optionally choose one of your servers to act as your portal’s hosting server. Your portal members will be able to publish services to this server. ArcGIS Server’s Managed Database must be configured on the site before it can be designated as the portal’s hosting server.

vtrainuc2.esri.com/server
#4: Cannot create a new database connection

Create New Connection

New connections are not configured. Please contact your administrator.
Register relational data store types

<table>
<thead>
<tr>
<th>Supported database</th>
<th>Required vendor files</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQL Server</td>
<td>sqljdbc42.jar (JRE8)</td>
</tr>
<tr>
<td>Oracle</td>
<td>ojdbc7.jar, sdoapi.jar, sdoutl.jar</td>
</tr>
<tr>
<td>SAP HANA</td>
<td>ngdbc.jar</td>
</tr>
<tr>
<td>Postgres*</td>
<td>Coming soon</td>
</tr>
</tbody>
</table>

**Tip:** Confirm that these .jar files are available in C:/Program Files/ArcGIS/Server/Framework/lib/ads

ArcGIS Server administrator directory

- SQL Server relational datastore type
- Oracle relational datastore type
- SAP HANA relational datastore type
- Postgres relational datastore type
#5: Running out of credits

Error

You do not have enough credits to perform this operation. Contact your ArcGIS System Administrator for assistance.
What workflow uses credits?

- Create Buffers
- Dissolve
- Travel Mode
- Calculate Density
- Esri World Geocoder
- Enrich Data

What uses Credits?
Manage/Allocate credits

Credits

Manage and control expenditures by crafting a budget that assigns a flexible allocation of credits to some or all organization members. An allocation of any amount can be assigned to your members one at a time or as part of a bulk operation. Allocations for members may be modified at any time.

If this method does not meet your needs you can revert to solely making use of the default organization-wide credit monitoring strategy.

Credit Budgeting and Allocation

Check the checkbox below to budget credits. Once you have enabled the credit budgeting tools you can set allocations for one or more members by clicking the button that will appear below. You can also set the allocations in the Action menu associated with an individual member in the My Organization page Members grid.

- Enable credit budgeting tools

SET DEFAULT ALLOCATION MANAGE BUDGET
Living Atlas & Boundary Layers

Configure Living Atlas Content

- Access Living Atlas content in your portal.

Note: Clicking Configure updates Living Atlas content in your portal and saves configuration changes. Content that is configured is shared with all users in your organization.

Check the box for the additional types of Living Atlas content you would like to enable in your portal, provide ArcGIS Online organizational account credentials for accessing them and click Configure. Using premium content in the portal consumes credits from the specified ArcGIS Online account.

To disable an existing type of content, uncheck the account checkboxes and click Configure.

- Subscriber Update
- Premium (requires credit) Update

<table>
<thead>
<tr>
<th>Name</th>
<th>Date modified</th>
<th>Type</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>deleteboundarylayers</td>
<td>12/4/2017 1:46 PM</td>
<td>Windows Batch File</td>
<td>1 KB</td>
</tr>
<tr>
<td>publishboundarylayers</td>
<td>12/4/2017 1:46 PM</td>
<td>Windows Batch File</td>
<td>1 KB</td>
</tr>
<tr>
<td>PublishBoundaryLayers</td>
<td>12/4/2017 1:46 PM</td>
<td>Python File</td>
<td>26 KB</td>
</tr>
<tr>
<td>updateboundarylayers</td>
<td>12/4/2017 1:46 PM</td>
<td>Windows Batch File</td>
<td>1 KB</td>
</tr>
</tbody>
</table>
Premium content & alternatives

• Address locators for a geocoding service
• Street Map Premium Data
• ArcGIS Business Analyst Server for GeoEnrichment
#6: Something went wrong
Enterprise DEBUG logs

Edit Log Settings

Warning
Executing this operation will automatically restart the portal only when log location is modified.
This restart will take a couple minutes to complete and cause your portal resources to be temporarily unavailable.
To verify that the restart has completed, log in to the Portal Administrator Directory again before continuing.

Log Location: C:\arcgis\arcgisportal\logs
Log level: DEBUG
Maximum log file age in days: 90
Format: HTML
Update
Additional Resources

- Send us sanitized logs and traffic at Esri Technical Support Services or community.esri.com

- Visit the Insights for ArcGIS(Enterprise) and (Online) pages at support.esri.com for Technical Articles
Questions?
Please Take Our Survey on the App

Download the Esri Events app and find your event

Select the session you attended

Scroll down to find the feedback section

Complete answers and select “Submit”
## See Us Here

<table>
<thead>
<tr>
<th>WORKSHOP</th>
<th>LOCATION</th>
<th>TIME FRAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building A Base ArcGIS Enterprise Deployment</td>
<td>Demo Theater 13</td>
<td>Wednesday, July 11&lt;sup&gt;th&lt;/sup&gt;</td>
</tr>
<tr>
<td>Troubleshoot Like an Esri Support Pro: ArcGIS Enterprise</td>
<td>Demo Theater 06</td>
<td>11.15 – 12.00pm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wednesday, July 11&lt;sup&gt;th&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10:00 – 10:45am</td>
</tr>
</tbody>
</table>