ArcGIS Online: What’s New with ArcGIS Online World Geocoding

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What’s New Resources

Major Enhancements to Esri World Geocoding service (June 2017)

The ArcGIS Online World Geocoding service update that was released last night to not just another regular data update. It’s a major release with significant improvements. This blog will guide you through some of the new enhancements and improvements you can expect to see in the service. You can find a complete list of changes and detailed information about available functionality in the World Geocoding service documentation.

1. Geocoding in more countries – You can now search for addresses in more countries than before. Previously the World Geocoding service provided support for international geocoding in 100 countries. This list has expanded to all even more impressive 155 countries. We’ve also updated the reference data for most countries and added new authoritative address data sources for Australia (GHAP) and Andorra (AAS).

Enhanced reverse geocoding – More types of features can be returned by the reverse geocoding operation, including POI, postal boundaries, and administrative boundaries.

Improved interaction search – Interactions can now be found between disconnected streets, such as at cul-de-sacs and highway overpasses, and at roundabouts.

Improved coordinates search – Coordinate search has been improved with more supported input formats such as Military Grid Reference System (MGRS), United States National Grid (USNG), and degree-minute-second (DMS).

Stream-level geocoding is supported for many additional countries: ABR, AIZ, BOC, BOL, COC, CUB, CRI, CYP, DOM, ECU, FJI, GEO, LBY, UGA, MDV, MNP, NAG, NTV, NPL, PHL, PRT, SEN, SI, SVN, and TUR. See the complete list of supported countries for details.

Improved POI search – You can now search for POI names with addresses and postal codes using the FindPlacesNearby() operation.

Batch geocoding of POIs is now supported with the geocodeaddresses() operation.

Various geocoding quality improvements for some geographic regions.

Enhanced Reverse Geocoding

- Results now include POI, Postal and Localities (includes Countries)
- Returns the most confident answer based on all the information
- Considers hierarchy of features, feature type and distance
Demo

Reverse Geocoding results now include POI, Postal and Localities
Enhanced Reverse Geocoding
Reverse Geocoding with Feature Types

Developer API:
• More control over the type of features that are returned with the new `featureTypes` parameter
• Possible `featureTypes` include: StreetInt, PointAddress, StreetAddress, Postal, Locality and POI

Enhanced Reverse Geocoding
Setting Location Type for Reverse Geocoding

Developer API:

- More control over the type of location that are returned with the new `locationType` parameter
- The default value is street
- Rooftop returns the rooftop or parcel location when available in the data

```javascript
location=-116.537026,33.825858
```

Enhanced Intersection Matching
Intersection geocoding finds more types of intersections

- Roads that are close to each other
- Roads that pass over but don’t intersect
- Roads entering roundabouts

Now faster and with even more flexibility, you can enter intersections without street types
Enhanced Suggestions
Find the location you are looking for even faster

- Address is verified against the data at the time of suggestion

9999 New York St, Redlands, CA, 92374, USA
New York St, Redlands, CA, 92373, USA
999 New York St, Longview, WA, 98632, USA
999 New York St, Chinook, MT, 59523, USA
999 New York St NW, Chinook, MT, 59523, USA
999 New York St, Bryan, TX, 7780

- Support for intersection suggestions allows for even more flexibility

New York and Re

New York St & Redlands Pines, Redlands, CA, 92373, USA
New York St & W Redlands Blvd, Redlands, CA, 92373, USA
New York Ct & Regatta Way, Dana Point, CA, 92629, USA
New York St, Redlands, CA, 92374, USA
New York St, Renfrow, OK, 73759, USA
New York Ct, Rextord, NY, 12148, USA

9999 Does not exist as a house number for this street in the data
Demo

Address is verified against the data at the time of suggestion

Suggestions for intersections
Additional flexibility for geocoding

Match using multiple address fields

Developer API:
- Address components can be submitted in multiple fields (up to three fields)

**Address=Esri&Address2=380&Address3=New York St**

<table>
<thead>
<tr>
<th>Place</th>
<th>Number</th>
<th>Street</th>
</tr>
</thead>
<tbody>
<tr>
<td>Esri</td>
<td>380</td>
<td>New York St</td>
</tr>
</tbody>
</table>

**Address=380&Address2=New York St&Address3=Apt 1**

<table>
<thead>
<tr>
<th>Number</th>
<th>Street</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>380</td>
<td>New York St</td>
<td>Apt 1</td>
</tr>
</tbody>
</table>
Additional flexibility for geocoding

Match out of Range

Developer API:

- A new parameter to allow matches at the end of a range when they are slightly out of range
- Records matched with `matchOutOfRange=true` can be `Addr_Type=StreetAddressExt`
- `matchOutOfRange=true` is default for World Geocoding Service

https://developers.arcgis.com/rest/geocode/api-reference/geocoding-find-address-candidates.htm
Additional flexibility for geocoding

Developer API:

- Output can be returned in a preferred language (where supported in the data)
  - If the data has the language or has a transliterated version that is similar to the language
- `langCode` parameter works with `findAddressCandidates` and `reverseGeocode`

```
findAddressCandidates?SingleLine=東京都
```
Default result is in the input language

```
findAddressCandidates?SingleLine=東京都&langCode=EN
```

Supported Language Codes:
Improved POI Search and Geocoding

- Geocode tables that contain POI and address information
- Find POI names that also include the address or postal code associated with it
- Exact match requires enough information to disambiguate tied candidates

<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
<th>City</th>
<th>State</th>
<th>Postal</th>
<th>Country</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palm Springs Convention Center</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Match</td>
</tr>
<tr>
<td>Starbucks</td>
<td>101 S Palm Canyon Dr</td>
<td>Palm Springs</td>
<td>CA</td>
<td>92262</td>
<td>USA</td>
<td>Match</td>
</tr>
<tr>
<td>Starbucks</td>
<td>101 Palm Canyon</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Match</td>
</tr>
<tr>
<td>Starbucks</td>
<td></td>
<td></td>
<td></td>
<td>92262</td>
<td></td>
<td>Tied</td>
</tr>
</tbody>
</table>

![Map of Starbucks locations in Palm Springs](image.png)
Enhanced Coordinate Geocoding
MGRS, USNG and DMS Geosearch is built in...

MGRS: 07VEH3258214688

findAddressCandidates?SingleLine=07VEH3258214688

DMS: 147° 52' 23" E, 14° 21' 19" N
DMS: 147d 52m 23s E, 14d 21m 19s N

findAddressCandidates?SingleLine=147d 52m 23s E, 14d 21m 19s N

https://developers.arcgis.com/rest/geocode/api-reference/geocoding-find-address-candidates.htm
Enhanced World Geocoding Coverage

- 25 additional countries where street addresses can be located

Now 135 Countries with Address Data

Locator Views for ArcGIS.com
Customize your ArcGIS Online Geocoding experience with Locator Views

• “Esri’s World Geocoding can find many things but I just want to see results specific to my application”

Results for an area

Results for defined countries

Results for types of features

https://blogs.esri.com/esri/arcgis/2017/10/02/customize-your-geocoding-experience-withlocator-views/
USA Airport Locator View

1. Create Locator View
2. Define Locator View Parameters
3. Share
4. Add Locator as Portal Utility service
5. Use in Client Apps
Demo
Locator views for ArcGIS Online
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Scroll down to the “Feedback” section

Complete Answers, add a Comment, and Select “Submit”
Questions?