

# What's New in Geocoding and the Road Ahead

Jeff Rogers and Brad Niemand

# Overview

Subhead Here

- A quick review of ArcGIS Geocoding
- World Geocoding Enhancements
- New Batch Geocoding Tool for the Portal Map Viewer

# Intro

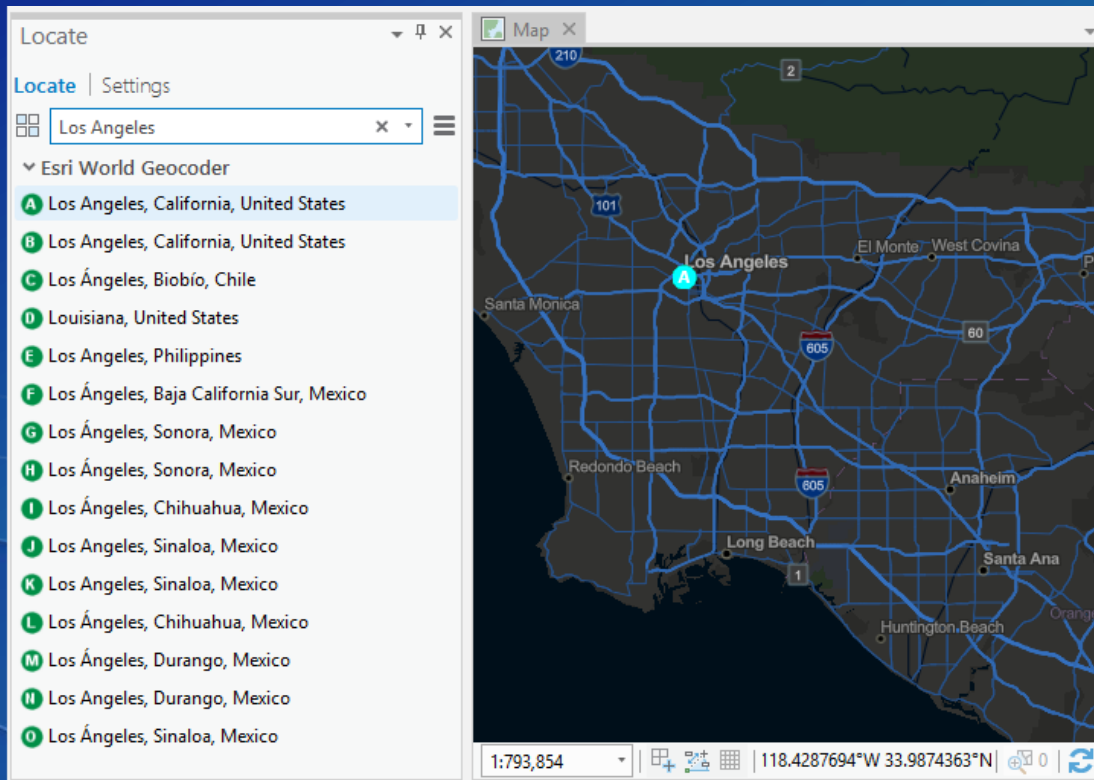
ArcGIS Geocoding



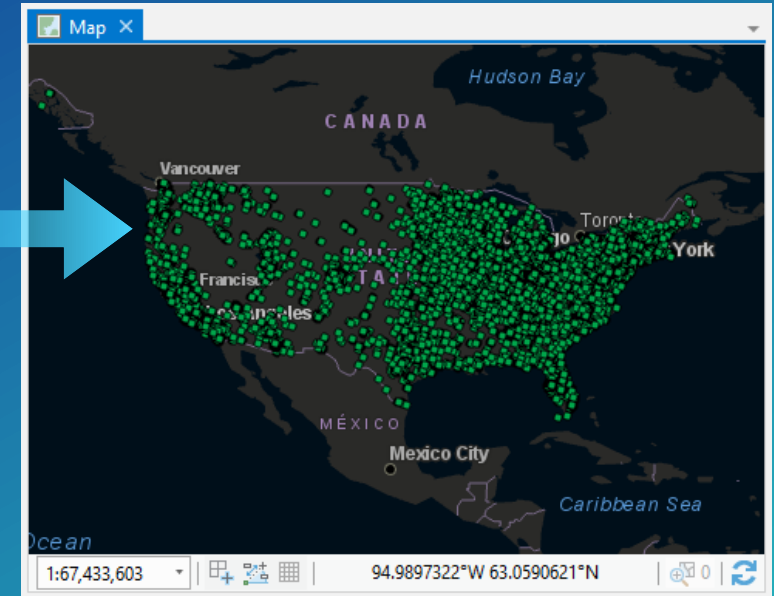


# Geocoding

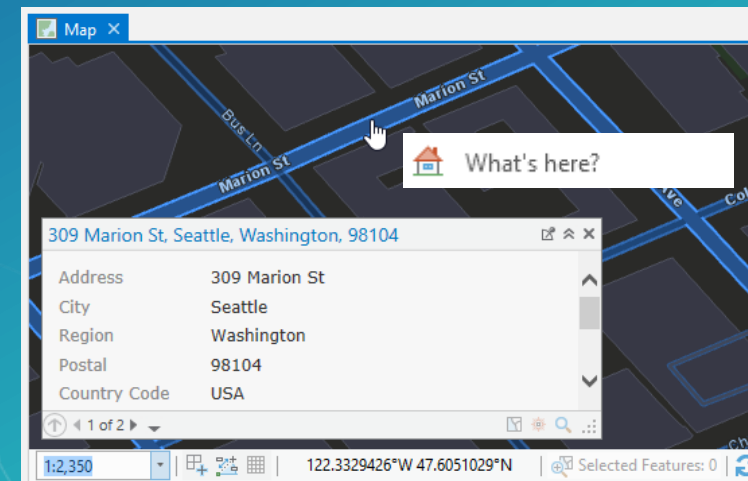
## Geosearch



## Batch Geocoding



## Reverse Geocoding



# ArcGIS is a complete system for Geocoding

and Geocoding is an essential capability of ArcGIS



## World Geocoding Online

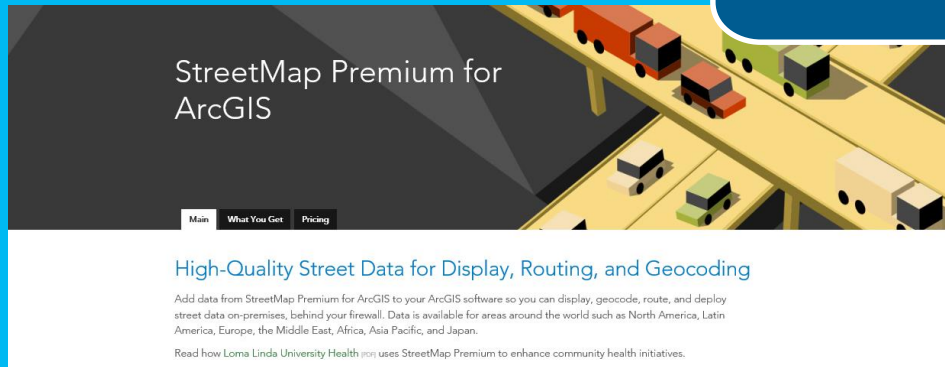


## World Geocoding On-Premises

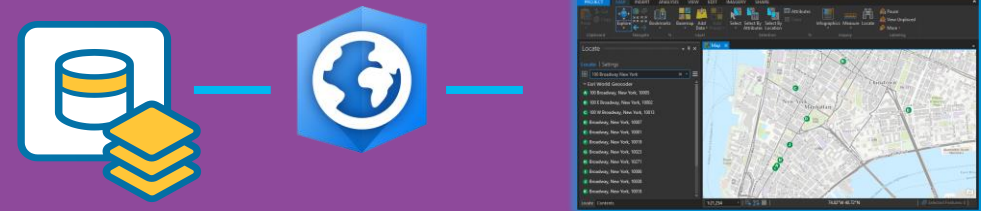


# Products

## StreetMap Premium for ArcGIS



## Country Geocoding On-Premises



## Build your own with ArcGIS



# What's New

for World Geocoding Online



# What's New Resources

esri Industries Products Support & Services About Community Sign In

## ARCGIS BLOG

Search posts

### Major Enhancements to Esri World Geocoding service! (June 2017)

by [patel\\_nick](#) on June 28, 2017

The ArcGIS Online World Geocoding service update that was released last night is not just another regular data update. It's a major release with significant enhancements. This blog will guide you through some of the new features 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 boasted support for address-level geocoding in 109 countries. The list has expanded to an even more impressive 135 countries. We've also updated the reference data for most countries and added new authoritative address data sources for Australia (G-NAF) and Austria (BEV).

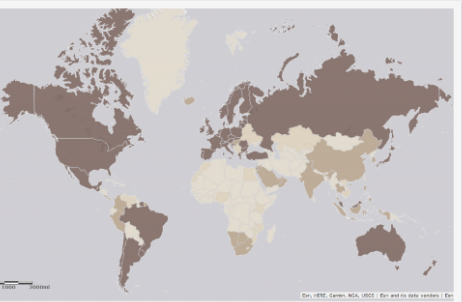


Figure 1: This Geocoding Coverage map demonstrates the countries for which there is address coverage in the World Geocoding Service and the languages they support, grouped by relative geocoding quality. The darker the shade, the higher the quality of geocoding. Complete coverage information and languages supported are available in the [developer documentation](#).

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- Editing (203)
- Geodata (256)
- Imagery (450)
- Mapping (902)
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- Services (694)

<https://blogs.esri.com/esri/arcgis/2017/06/28/big-enhancements-geocoding/>

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## ArcGIS REST API: World Geocoding Service

> Get Started  
> Operations  
v Reference  
What's new  
Geocode coverage  
Service output  
Category filtering  
Foreign-language field names

### What's new in the World Geocoding Service

#### May 2017

#### Quality Improvements

- Enhanced [reverse geocoding](#)—More types of features can be returned by the `reverseGeocode` operation, including POIs, postal boundaries, and administrative boundaries.
- Improved [intersection search](#)—Intersections can now be found between disconnected streets, such as at cul-de-sacs and highway overpasses, and at roundabouts.
- Improved [coordinate search](#)—Coordinate search has been improved with more supported input formats such as Military Grid Reference System (MGRS), United States National Grid (USNG), and degrees-minutes-seconds (DMS).
- Street-level geocoding is supported for many additional countries: ABW, AZE, BGD, BOL, CCK, CIV, CUB, CXR, CYP, DOM, ECU, FJI, GEO, LBY, LKA, MDV, MNP, MUS, MYT, NCY, NFK, NPL, PRY, SEN, SLV, and TUN. 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 `findAddressCandidates` operation.
- [Batch geocoding of POIs](#) is now supported with the `geocodeAddresses` operation.
- Various geocoding quality improvements for some geographic regions.

In this topic

- May 2017
- July 2016
- March 2016
- July 2015
- December 2014
- July 2014
- March 2014
- December 2013
- September 2013
- July 2013
- April 2013

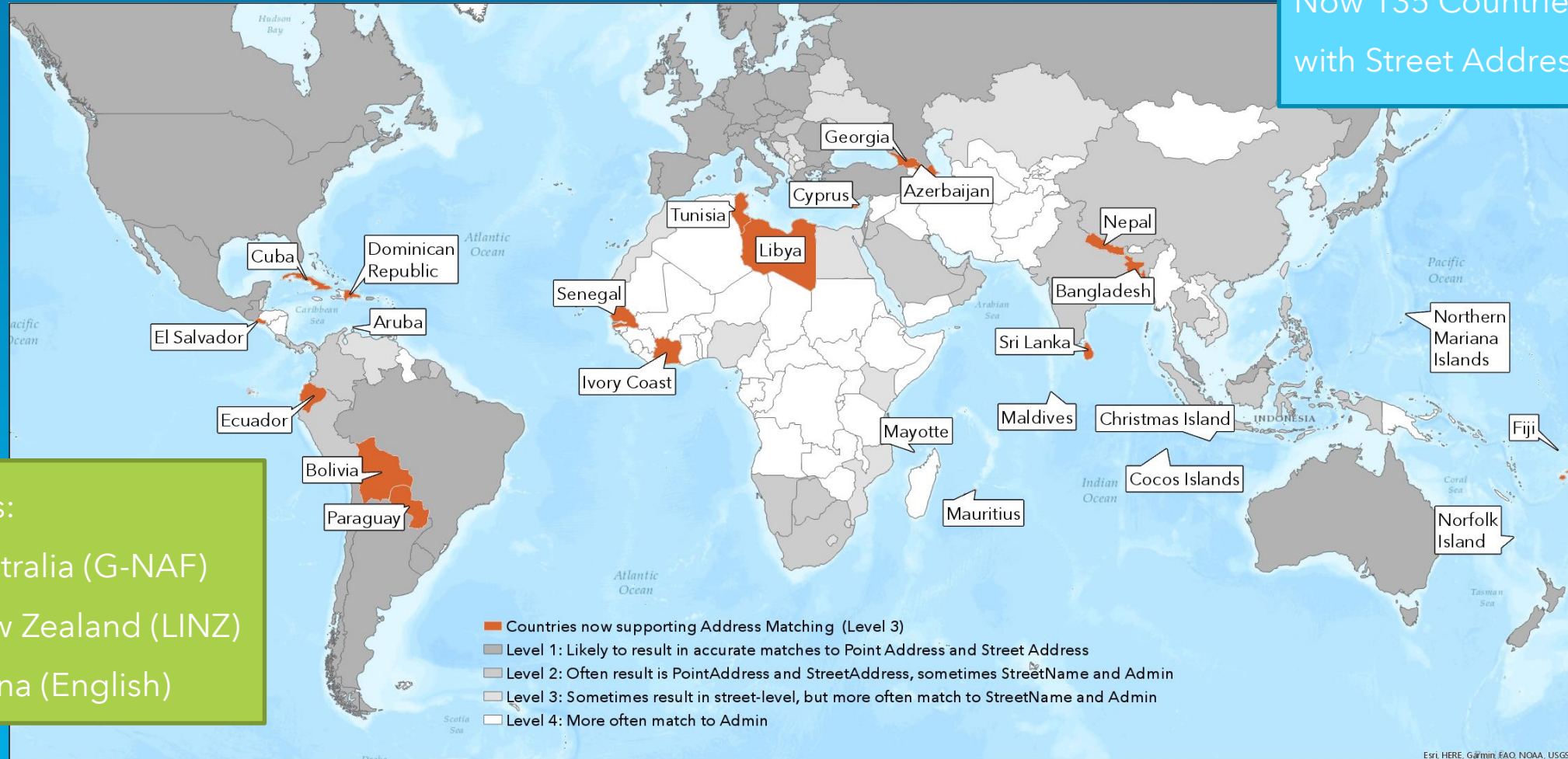
<https://developers.arcgis.com/rest/geocode/api-reference/whats-new-world-geocoding-service.htm>



# Enhanced World Geocoding Coverage

25 additional countries where street addresses can be located

Now 135 Countries  
with Street Addresses



Plus:

Australia (G-NAF)

New Zealand (LINZ)

China (English)

# Enhanced Address and Place Matching

The Geocoding Algorithm is better at locating addresses and places

Algorithm is better at resolving poor quality addresses

**Re:** 30853 Loma Linda Rd **(NA)**, Temecula, CA, 92592

10408 S 198th West Ave, **Bill Jones**, Sapulpa, OK

Batch Geocode POIs

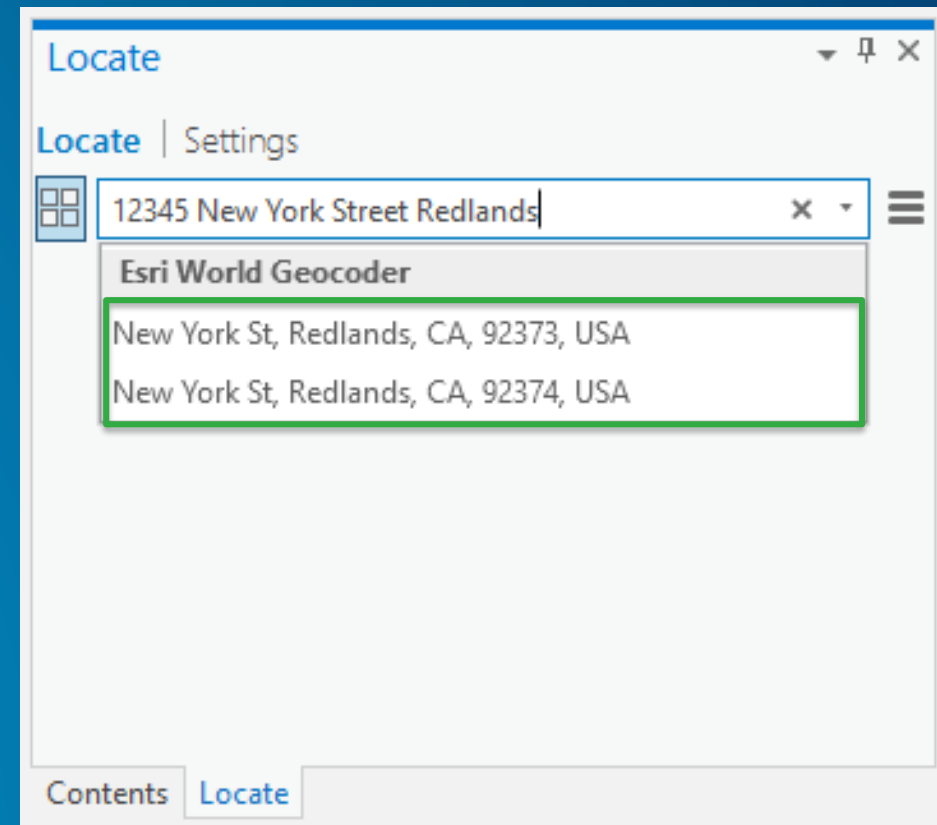
Esri New York St

Esri Vienna VA

Prospect Park Redlands

Marina Park San Diego

Suggestions match only valid house numbers as you type

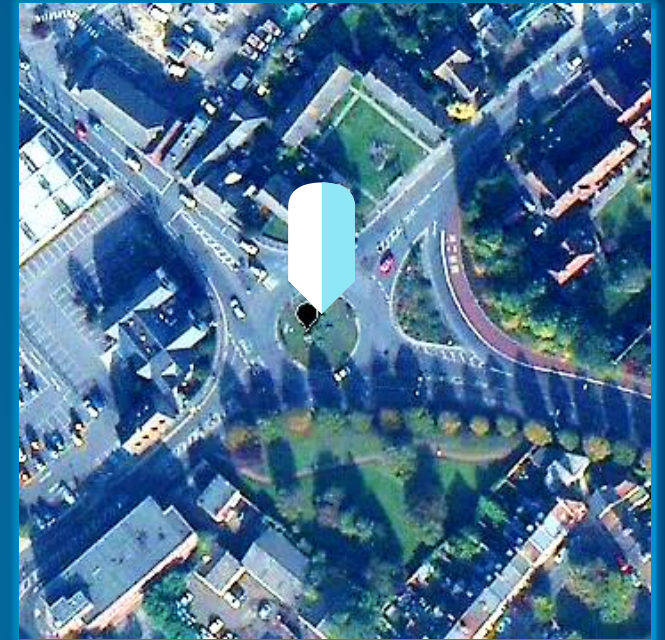
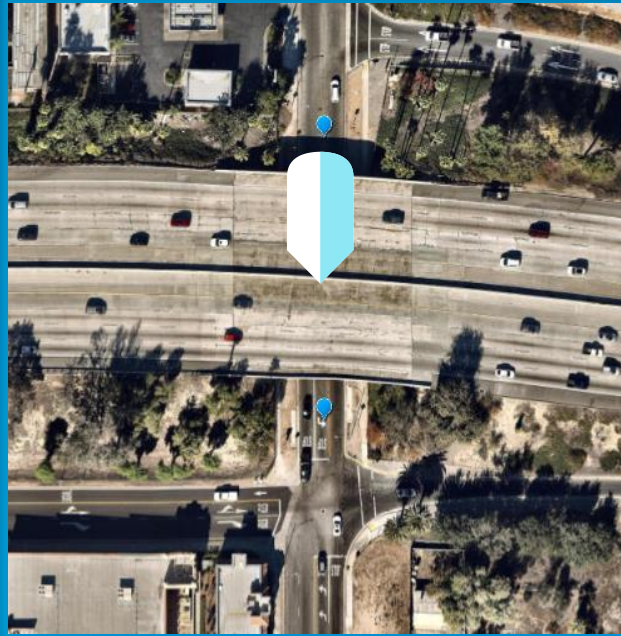
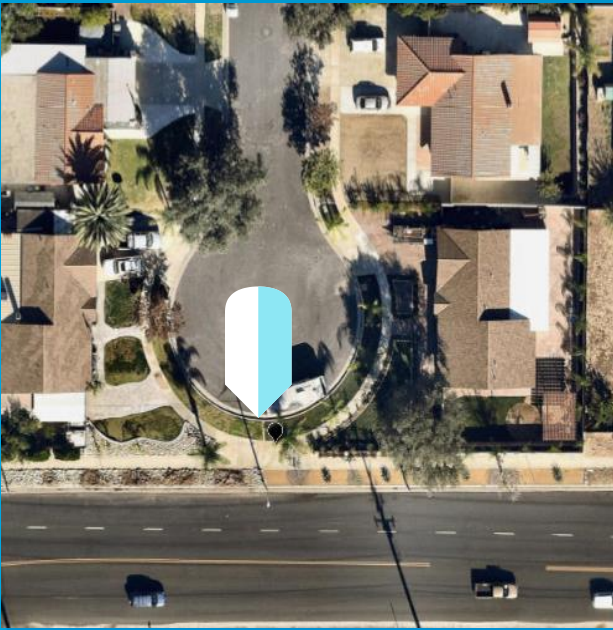




# Enhanced Intersection Matching

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





# Enhanced Reverse Geocoding

Results now include POI, Postal, Admin Areas as well as Countries - where the data is available

 What's here?

Petco Park

Match\_addr

Petco Park

LongLabel

Petco Park, 100 Park Blvd, San Diego, CA, 92101, USA

ShortLabel

Petco Park

Addr\_type

POI

Type

Sports Center

PlaceName

Petco Park

AddNum

100

Address

100 Park Blvd

Neighborhood

Gaslamp

City

San Diego

MetroArea

San Diego Metro Area

Subregion

San Diego

Region

California

Postal

92101

Country Code

USA

x:

-117.156578

y:

32.707483

Spatial Reference

GCS\_WGS\_1984



Feature Type	Search Tolerance
Street Intersection	10 meters
Street Address (near)	7 meters
POI centroid	25 meters
Point Address	25 meters
Street Address (distant)	100 meters
POI area	within boundary
Postal or Locality area	within boundary

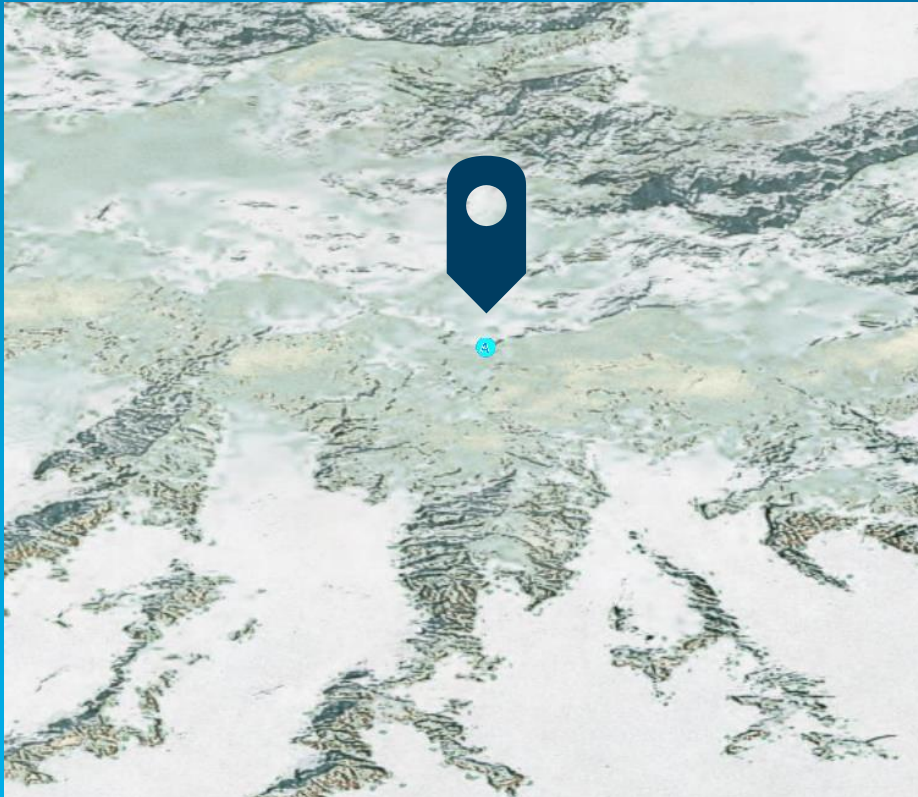
Developer API - more control over the features that are returned with the new featureTypes parameter

# Enhanced Coordinate Geocoding

MGRS, USNG and DMS Geosearch is built in....

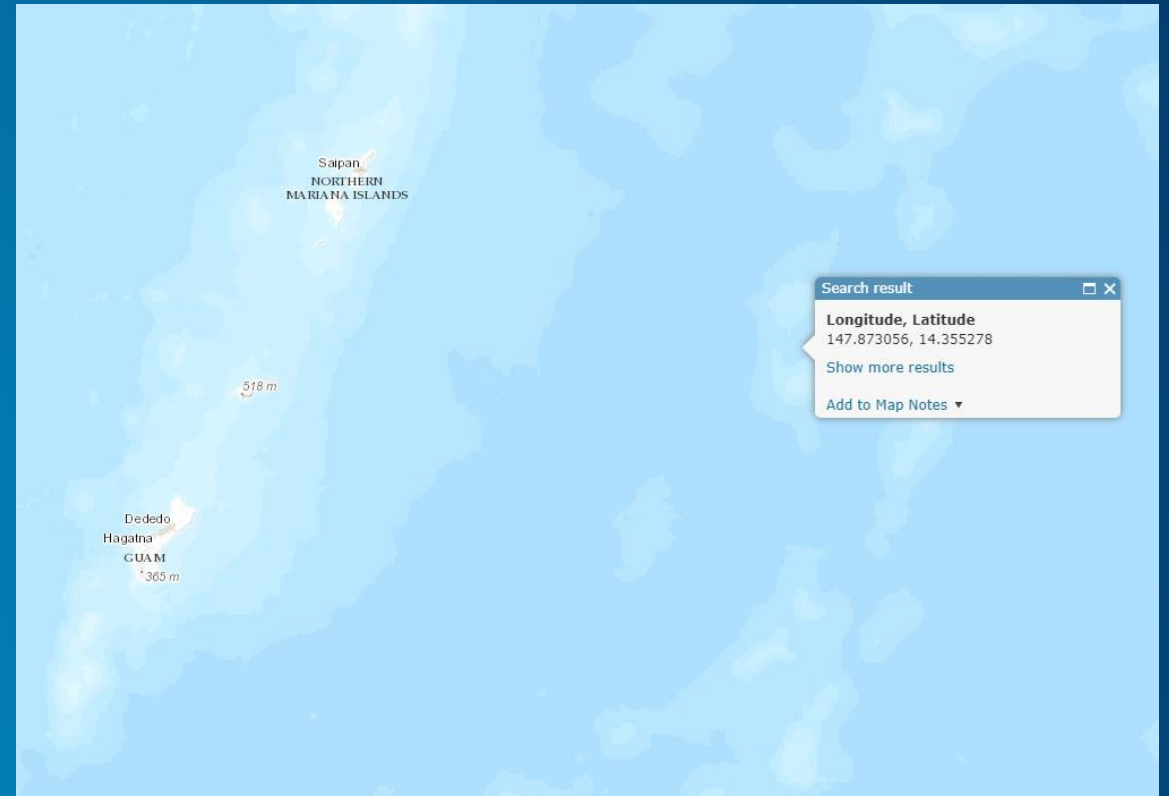
GeoSearch coordinates

MGRS: 07VEH3258214688



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

DMS: 147° 52' 23" E, 14° 21' 19" N



# New Enhancements Timeline (2017-18)

World Geocoding Service  
ArcGIS Online  
Now

World Geocoder  
Following 10.5.1 Release  
Early Q3 2017

StreetMap Premium

Custom Locators

Customers on maintenance  
receive the update



# What's New

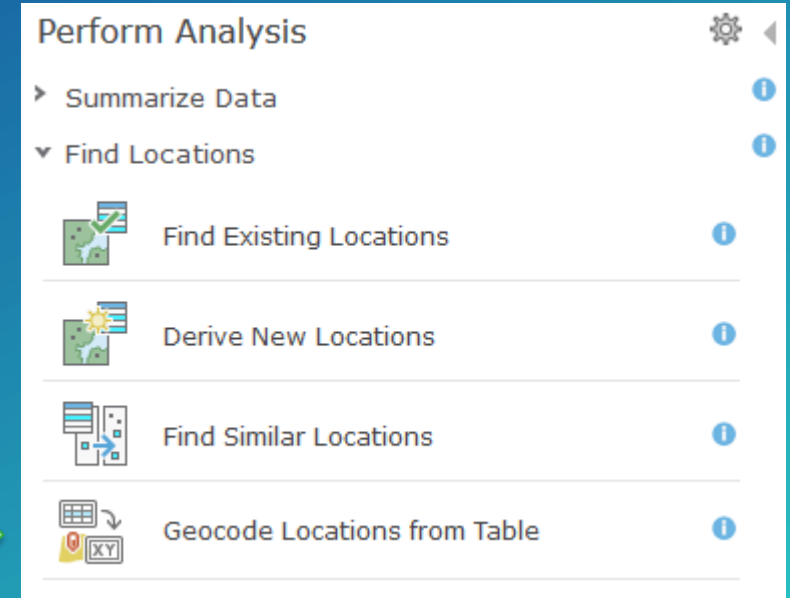
Batch Geocoding Analysis Tool for On-Premises



# Geocode Locations from Table

## On-Premises Map Viewer

- A new Map Viewer Analysis tool for geocoding large tables located on your Portal
  - Recommended way to geocode large tables quickly
  - Returns all output fields from the geocoding service
- Works using geocoding services that are federated with your portal
  - Including Esri's World Geocoding Service and Locator Services hosted by your organization
- Allows your administrator to optimize geocoding
  - Administrators can configure the system to deliver performance and manage load



# Geocode Locations from Table

Choose the Table from Portal →

Choose the Locator →

Select Single or Multi Line Fields →

Review and adjust the input fields →

Set the Output format  
(XLS, CSV or feature service) →

Set the Output name and location →

Geocode Locations from Table

1 Choose an input table  
Address380-Address380

2 Choose a locator  
Esri World Batch Geocoder  
Country: World

Select Data Fields  
Single Field Multiple Fields

Locator Inputs	Data Fields
Address	address
Neighborhood	Not Used
City	city
Subregion	Not Used
Region	state

3 Choose an output format  
CSV

4 Result layer name  
Geocoded Results for Address380-Address380  
Save result in: publisher

RUN ANALYSIS



## More About Geocode Locations from Table

- **Configuration for Administrators**

- <http://server.arcgis.com/en/portal/latest/administer/linux/configure-portal-to-geocode-addresses.htm>



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