



Supporting information for Esri Vector Basemaps (Production v2 service URL):

https://basemaps.arcgis.com/arcgis/rest/services/World_Basemap_v2/VectorTileServer

This document reflects the current **Production v2 vector tile maps** (on ArcGIS.com since December 6, 2017). This information supersedes the previous information related to the v1 tile set which is in [Mature Support](#). Refer to the [Esri blogs](#) for more information on the latest Esri vector basemap information and the ability to customize them for your own web maps and apps.

[Esri Vector Basemaps Release Updates](#) Page 2

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[Difference between v2 and v1 service URLs](#) Page 4

[Feature Names and Label Subtypes](#) Pages 5 – 13

This provides a list of the feature id, subtypes and label information found in the root.JSON file. Knowing what the feature names are from this list is beneficial when editing the JSON code to stylize and customize your vector basemap.

[Min/Max Zoom Levels | Symbols & Labels](#) Pages 14 – 20 & 21 – 25

The list below shows the current full list of feature names (“id”) and their corresponding min and max zoom levels. You can control when features appear on the map by adjusting the “minzoom” and “maxzoom” values in the root.JSON file.

[Disputed Boundaries and Labels with IDs](#) Pages 26 – 30

See [this blog](#) for an example of how to change the JSON code and apply the DisputeID code in the filter for boundary lines.

[Resources\Fonts and Customizing Esri Vector Basemaps \(Including Localization\)](#) Page 31 – 37

See [this blog](#) for an example of how to change the JSON code and apply different fonts to your map style. Follow this step-by-step approach to make a font change. There are 136 fonts available for use in your customized maps.

[Open Street Map data sources](#) Page 38

Esri Vector Basemaps contain commercial data primarily from HERE, community contributions of authoritative data, and a collection of data from open sources including Open Street Map. The spatial extent and method of processing OSM data is detailed in this section.

Esri Vector Basemaps Release Updates

Current v2 Update (Esri Vector Basemaps in General Availability: [WMA](#), [GCS \(WGS84\)](#), [For Export](#))

- **April 27, 2022** Vector tile set data updates & new contributions (HERE, OSM, & Community sources).

Previous v2 Updates:

- **March 16, 2022; February 16, 2022; February 3, 2022; January 13, 2022; December 15, 2021; November 30, 2021** Vector tile set data updates & new contributions (HERE, OSM, & Community sources). **November 2, 2021** Vector tile set data updates & new contributions (HERE & Community sources). New localization styles released: Bosnian, Catalan, Croatian, Hungarian, Indonesian, Serbian, Slovak, Slovenian. **October 14, 2021** Vector tile set data updates & new contributions (HERE & Community sources). **September 23, 2021** Vector tile set data updates & new contributions (HERE & Community sources). Select style updates. **September 1, 2021** Vector tile set data updates & new contributions (HERE & Community sources). WGS84 services/styles available for Export. **August 12, 2021, July 21, 2021** Vector tile set data updates & new contributions (HERE & Community sources) - **July 1, 2021** Vector tile set data updates & new contributions (HERE & Community sources). New Disputed Label Point/Admin0 code 3123 for MYANMAR; Disputed Admin1 3501, 3601 India, Pakistan; & Disputed Admin2 3502 India (see pages 30-31). - **June 8, 2021, May 19, 2021** Vector tile set data updates & new contributions (HERE & Community sources). - **April 28, 2021** Vector tile set data updates & new contributions (HERE & Community sources). Update to India boundary DisputeID values (see pages 26-28). - **April 8, 2021** Vector tile set data updates & new contributions (HERE & Community sources). - **Mar. 17, 2021** Vector tile set data updates & new contributions (HERE & Community sources). New localized language basemaps releases (see page 35). Select style improvements to service roads/parking lot road widths. - **Feb. 24, 2021** Vector tile set data updates & new contributions (HERE & Community sources). **Feb. 3, 2021** Vector tile set data updates & new contributions (HERE & Community sources). New DisputeID values for South Ossetia/Georgia (added Disputed Admin1 value of 60) & Nagorno-Karabakh/Azerbaijan (added Disputed Admin1 value of 43). See chart starting on page 26. - **Jan. 14, 2021** Vector tile set data updates & new contributions (HERE & Community sources). - **Dec. 16, 2020** Vector tile set data updates & new contributions (HERE & Community sources). - **Nov. 19, 2020, Oct. 14, 2020, Sept. 23, 2020; Sept. 2, 2020** Vector tile set data updates & new contributions (HERE & Community sources). - **Aug. 13, 2020; July 22, 2020; July 1, 2020** Vector tile set data updates & new contributions (HERE & Community sources). - **June 10, 2020** Vector tile set data updates & new contributions (HERE & Community sources). Venezuela/Guyana boundary shown as disputed (DisputeID = 260, see page 28). - **May 13, 2020** Vector tile set data updates & new contributions (HERE & Community sources). Resolves English city labels issue at large scale in localization layers. - **April 29, 2020** Vector tile set data updates & new contributions (HERE & Community sources). UAE/Saudi Arabia boundary changed to non-disputed. New localized languages released: Danish, Norwegian, Portuguese (Portugal), Romanian. - **April 9, 2020** Vector tile set data updates & new contributions (HERE & Community sources). Ethiopia & Eritrea boundary changed to non-disputed. Updates to Cyprus admin1 & admin2 disputed boundary & label codes for Turkish vs. Greek view (see this document pages 27 & 30). - **Mar. 18, 2020** Vector tile set data updates & new contributions (HERE & Community sources). Minor JSON improvements across several styles. Released two new languages as localized on Production: [Ukrainian](#) & [Dutch](#). - **Feb. 20, 2020; Jan. 30, ; Jan. 8, 2020; Dec 13, 2019** Vector tile set data updates & new contributions (HERE & Community). - **Nov. 21, 2019** Vector tile set data updates & new contributions (HERE & Community), Improved styles' JSON to re-order road shields in Israel. - **Oct. 30, 2019** Vector tile set data updates. Added fonts. Improved [Arabic localized](#) labels. - **Oct. 09, 2019** Vector tile set data updates. - **Sept 18, 2019** Vector tile set data updates. DisputeID value updates for Gaza Strip & West Bank. See pgs 25-28. - **Aug. 28, 2019** Vector tile set data updates. - **Aug. 7, 2019** Vector tile set data updates. DisputeID value updates for Gaza Strip & West Bank. [Blog posting](#). - **July 17, 2019** Vector tile set data updates. **June 26 2019** Vector tile set data updates. Releases of [Navigation \(Dark Mode\)](#), [National Geographic Style map](#) & [Watercolour](#). Integration of [Vector Tile Style Editor](#) into ArcGIS.com Map Viewer. Expanded Community Maps styles, WGS84/GCS styles. [Blog posting](#). - **June 5, 2019; May 15, 2019** Vector tile set data updates. [Blog posting](#). - **April 24, 2019** Vector tile set data updates. Style improvements: [Navigation style improvement](#) for better use in mobile devices. Street Map (Streets with Relief, at Night), Imagery Hybrid improvements in label settings. - **April 4, 2019** Vector tile set data updates. **Localization:** [Turkish](#) in WMA vector basemap gallery. - **Mar. 14, 2019; Feb. 21, 2019** Vector tile set data updates - **Jan. 31, 2019** Vector tile set data updates, style improvements & new map styles (localization): **Style improvements** *Street, Street w/ Relief, Street at Night, Hybrid vector styles*: MinZoom value for "Special area of interest/Parking" & "Special area of interest/Bike, walk or pedestrian" now 15 (from 14). Added "fill-color" stops for Special area of interest symbol layers: Grass, Field or court exterior, Football field or court, Baseball field or other grounds, Athletic track. "Special area of interest/football field or court" & "Special area of interest/baseball field or other grounds" have fill-outline-color stops. "Special area of interest/Sand" changed to a fill-pattern : "Water area/Playa". "text-justify" : "left" added to all the City small scale layers for stacking purposes. *Terrain with Labels style changes*: added Ocean labels (similar to World Ocean Reference vector basemap). *Topographic, Light & Dark style changes*: re-ordering of JSON code to better present features. *World Ocean Reference*: update of Ocean label "Black text" is now "Landform", "Blue text" is "Waterbody". **Localization:** [Czech](#), [Finnish](#), [Swedish](#) in WMA vector basemap gallery. - **January 9, 2019** Vector tile set data updates & new map styles: Localization: new language in WMA vector basemap gallery style: [Hebrew](#) - **Dec. 13, 2018; Nov. 29, 2018** Vector tile set data updates - **Nov. 7, 2018** Vector tile set data updates & new map styles: Localization: 3 new languages in WMA vector basemap gallery styles: [Arabic](#), [Chinese \(Hong Kong\)](#), [Chinese \(Taiwan\)](#) - **Oct. 17, 2018** Vector tile set data updates & new map styles: New Tile Layer & Web Map ([World Ocean Reference](#), [Ocean Basemap](#)); Localization: 1 new language in WMA vector basemap gallery styles: [Korean](#), additional languages to come at a later release date (Web Mercator only) - **Sept. 26, 2018** Vector tile set data updates & Map style updates: Style refinements ([Street](#), [Hybrid](#), [Streets with Relief](#)); Additional features: Pavement marking (turn arrows, handicapped parking symbol); Localization: 3 languages in WMA vector basemap gallery styles: [Italian](#), [Polish](#), [Portuguese \(Brazilian\)](#); additional languages to come at a later release date (Web Mercator styles only) - **Sept. 6, 2018; Aug. 15, 2018; July 25, 2018** Vector tile set data updates - **June 27, 2018** Vector tile set data updates & Map style updates: New style: [Charted Territory](#); Additional features: graticule & admin0 colormap features; Localization: 6 languages in WMA vector basemap gallery styles: [Spanish](#), [French](#), [German](#), [Japanese](#), [Russian](#), [Chinese \(Modern\)](#); additional languages to come at a later release date (Web Mercator styles only) - **June 6, 2018** Vector tile set data updates & Map style updates: Addition of Landform Labels ([Topo](#) & [Terrain](#)); Style refinements ([Topographic](#)); Additional fonts (see page 31 for full list) - **May 16, 2018, April 25, 2018; April 12, 2018** Vector tile set data updates - **Mar. 27, 2018** Vector tile set data updates & Map style updates: Curved type in water polygons ([all styles](#)); Swamp pattern update ([Topo](#) & [Street](#) maps); Improved spacing of city label from symbol ([Street](#) map) - **Feb. 23, 2018; Jan. 31, 2018; Jan. 17, 2018; Dec. 20, 2017** Vector tile set data updates - **Dec. 6, 2017** Vector tile set data updates & Map style updates: Service URL [update to v2 \(current map set\)](#) [Blog](#) Previous vector basemap releases are now in *Mature Support & no longer updated* [v1 Updates](#)

Additional attribution for data Contributor: Geospatial Information Authority of Japan (GSI)

Description: Fundamental Geospatial Data, Approval Number JYOU-SHI No.1239 2016.

Esri Vector Basemaps Web Maps and Tile Layers

Web maps are available in default Esri Vector Basemap – Tile layers

WMA (Web Mercator Axillary scheme), for Export, and also available in GCS (WGS84)

Group: (WMA): <http://www.arcgis.com/home/group.html?id=30de8da907d240a0bccd5ad3ff25ef4a#overview>

World Topographic Map – designed for use with raster World Hillshade

World Street Map

World Street Map (with Relief) – designed for use with raster World Hillshade

World Street Map (Night)

Navigation

Navigation (Dark Mode)

National Geographic Style – designed for use with raster National Geographic Style Base and World Hillshade

Currently National Geographic Style only available in WMA

Hybrid Reference – designed for use with raster World Imagery

Light Gray Canvas (Light Gray Reference, Light Gray Base)

Dark Gray Canvas (Dark Gray Reference, Dark Gray Base)

Terrain with Labels (Terrain Reference, Terrain Base) – designed for use with raster World Hillshade

Ocean Basemap (World Ocean Reference, Ocean Base Map) – designed for use with raster Ocean Base Map

Currently World Ocean Base only available in WMA and for Export

Additional Esri Vector Basemap Styles

Charted Territory – designed for use with raster World Hillshade

Colored Pencil

Human Geography (Labels, Detail, Base)

Community

Human Geography Dark (Labels, Dark Detail, Dark Base)

Mid-Century – designed for use with raster World Hillshade

Modern Antique

Nova

Watercolour

Name of style (Local Language) = Local language within each country at large scale (where data available)

Name of style (Community Maps) = Contributor authoritative Road and Admin data rather than commercial data

Name of style (WGS84) = uses WGS84 / GCS tiling scheme as opposed to others that are Web Mercator Aux Sphere

Esri vector basemaps are available in the following languages: Arabic, Bosnian, Catalan, Chinese (Hong Kong), Chinese (Simplified), Chinese (Taiwan), Croatian, Czech, Danish, Dutch, English, Estonian, Finnish, French, German, Greek, Hebrew, Hungarian, Indonesian, Italian, Japanese, Korean, Latvian, Lituianian, Norwegian, Polish, Portuguese (Brazil), Portuguese (Portugal), Romanian, Russian, Serbian, Slovenian, Slovak, Spanish, Swedish, Thai, Turkish, Ukrainian, and Vietnamese.

Esri Vector Basemaps Difference between v2 and v1 map versions

There are several differences between the active v2 vector basemaps (Dec. 2017 – present) and the v1 mature support tiles (Dec. 2016 – Dec. 2017) or beta tile sets b1 or b2 (pre-Dec. 2016).

How does this change to v2 affect me?

It depends on how you are consuming the Esri Vector Basemaps.

- If you're using the Web Maps – you will automatically get the v2 tile set seamlessly.
- If you're using the Tile Layers in your own maps or apps – you will need to update that tile layer to the corresponding v2 tile layer. The v1 items are now in Mature Support and will no longer be updated. The v2 items are what will be updated with each release.
- If you've customized an Esri Vector Tile Layer – to take advantage of using the latest vector tiles, update the tile layer in use to the new v2 set and re-apply your customizations.

Commercial or Community Features

New to the v2 version of the vector basemap styles, the roads, administrative lines, and ferries provided by contributors to the Esri Community Maps Program are now included in the tile set available at the new v2 service URL. Other features contributed by the authoritative community data stewards (POI, buildings, etc.) are included in all styles.

The v2 Topographic Map (Web Map, Tile Layer) displays Roads and Road Shields, Administrative lines, and Ferries provided by community contributors. This presents the topographic map as the Community Basemap (similar to the raster version of the Topo map). These features (Roads and Road Shields, Administrative lines, and Ferries) all have a specific JSON filter code to display the community data. In the Topo map, the code is:

```
"filter": ["all", ["=", "_symbol", #], ["!in", "Viz", 2]]
```

The v2 Street, Navigation, Hybrid, Canvas, and other Esri Vector Basemap styles contain the commercial Roads and Road Shields, Admin lines, and Ferries. This use of commercial roads works well with routing and geocoding services. These features (Roads and Road Shields, Administrative lines, and Ferries) all have a specific JSON filter code to display the commercial data. In the Street, Navigation, Hybrid, Canvas and other non-Topographic maps, the code is:

```
"filter": ["all", ["=", "_symbol", #], ["!in", "Viz", 3]]
```

Service URL

The service URL for the tile set has changed. The new v2 Tile Layers are all updated to reference this service URL:

https://basemaps.arcgis.com/arcgis/rest/services/World_Basemap_v2/VectorTileServer

Other Changes

Additionally, there are changes to the map styles, found in the JSON code in the v2 Tile Layers. This continues our improvements to the vector basemaps.

Canvas basemaps (Base and Reference layers) – we've made some style improvements to both the Dark and Light Gray Canvas Base and Reference layers. The main change is all the reference information, all the type and shields, are now found on the Reference Layer. All other features (land, admin lines, water, etc.) except labels are now found on the base layers. Additional changes to the cartographic styles were applied to the Canvas maps for this release.

Road Shield Ordering – we've reordered the display of our road shields for our v2 styles to allow the shields of more prominent roads to display more clearly.

Overall style updates applied to the basemap.

Esri Vector Basemaps Feature Names and Label Subtypes

Features have the ability to be displayed and/or labeled. A feature is identified by its “name” in this document. In the root.JSON it can be found in the first part of the “id” field, e.g. “id” : “Road”. Some features are subdivided by type or label type. The feature subtypes are listed in the “symbols” section in this document. In the root.JSON they can be found in the second part of the “id” field, e.g. “id” : “Road/Local”. The feature labels subtypes are listed in the “labels” section in this document. In the root.JSON they can be found in the “id” field by looking for the feature, label keyword and label descriptor subtype “id” : “Road/label/Local”.

BACKGROUND (controls background color – not a feature but acts like one, background is also the equivalent of Bathymetry depth 1)
name: “background”

LAND AND OCEAN

name : “Colormap/#/1” < new as of June 27, 2018 (Admin0 polygons at small scale, only appears in Charted Territory map style, but code from this map’s root.json can be added to any World_Basemap_v2 vector basemap)

symbols : (random color polygons for Admin0, national level) (There are currently no features symbolized with Colormap/9/1)

“1”	“6”
“2”	“7”
“3”	“8”
“4”	“9”
“5”	

name : “Land”

symbols : “Not ice”, “Ice”, “Inlet” (“Inlet” is no longer a functional symbol value and is not to be used in map styling)

name : “Continent” *label only

labels : “Default”

name : “Bathymetry”

symbols :

“depth 2 (shallow water)”	“depth 5”
“depth 3”	“depth 6”
“depth 4”	“depth 7 (deep water)”

name : “Marine area” (Bathymetry depth 1)

labels : “Default”

name : “Marine waterbody” (labels only small scale sea and ocean)

labels :

“2x large”	“medium”
“x large”	“small”
“large”	

name : “Ocean area” (labels only sea and ocean) << New Oct. 17, 2018 with new World Ocean Reference tile layer

labels : (Oblong labels along a line, Round labels horizontally; black text are landforms, blue text are waterbodies)

“Oblong 2x large black text”	“Round 2x large black text”
“Oblong x large black text”	“Round x large black text”
“Oblong large black text”	“Round large black text”
“Oblong medium black text”	“Round medium black text”
“Oblong small black text”	“Round small black text”
“Oblong 2x large blue text”	“Round 2x large blue text”
“Oblong large blue text”	“Round large blue text”
“Oblong medium blue text”	“Round medium blue text”
“Oblong small blue text”	“Round small blue text”

name : “Ocean point” (labels only sea and ocean landforms and depth values) << New Oct. 17, 2018 with new World Ocean Reference tile layer

labels :

- “Black text”
- “Blue text”
- “Depth”
- “Seamount depression”
- “Seamount rise”

name : “Coastline”

Esri Vector Basemaps Feature Names and Label Subtypes (continued)

INLAND HYDROGRAPHY (Inland water feature and labels)

name : "Water area" *largest local scale

symbols :

"Dam or weir"
 "Lake, river or bay"
 "Inundated area"
 "Playa"
 "Lake or river intermittent"
 "Ice mass"
 "Swamp or marsh"

labels :

"Dam or weir"
 "Playa"
 "Small island"
 "Large island"
 "Canal or ditch"
 "Bay or inlet"
 "Small lake or reservoir"
 "Large lake or reservoir"
 "Large river"
 "Small river"

name : "Water area large scale"

symbols :

"Lake or river"
 "Lake intermittent"

labels :

"Lake or lake intermittent"
 "River"

name : "Water area medium scale"

symbols :

"Lake or river"
 "Lake intermittent"

labels : "Default"

name : "Water area small scale"

labels : "Default"

name : "Water line" *largest local scale

symbols :

"Stream or river"
 "Canal or ditch"
 "Dam or weir"
 "Levee"
 "Stream or river intermittent"
 "Waterfall"

labels : "Default"

name : "Water line large scale"

labels : "Default"

name : "Water line medium scale"

labels : "Default"

name : "Water line small scale"

labels : "Default"

name : "Water point" *label only

labels : "Default"

"Bay or inlet"
 "Canal or ditch"
 "Dam or weir"
 "Island"
 "Lake or reservoir"
 "Playa"
 "Sea or ocean"
 "Stream or river"

URBAN AREA

name : "Urban area" (no labels)

Esri Vector Basemaps Feature Names and Label Subtypes (continued)

LARGE PARKS, FORESTS AND VEGETATION

name : "Vegetation small scale"

symbols :

"High density"

"Low density"

name : "Openspace or forest"

labels : "Default"

name : "Admin0 forest or park"

labels : "Default"

name : "Admin1 forest or park"

labels : "Default"

name : "Marine park" *label only

labels : "Default"

LANDUSE

name : "Military"

labels : "Default"

name : "Transportation"

labels : "Default"

name : "Freight"

labels : "Default"

name : "Port"

labels : "Default"

name : "Industry"

labels : "Default"

name : "Indigenous"

labels : "Default"

name : "Airport"

symbols :

"Airport runway"

"Airport property"

labels : "Airport property"

name : "Emergency"

labels : "Default"

name : "Water and wastewater"

labels : "Default"

name : "Government"

labels : "Default"

name : "Zoo"

labels : "Default"

name : "Landmark"

labels : "Default"

name : "Pedestrian"

labels : "Default"

name : "Park or farming"

labels : "Default"

Esri Vector Basemaps Feature Names and Label Subtypes (continued)

LANDUSE (continued)

name : "Education"

labels : "Default"

name : "Finance"

labels : "Default"

name : "Retail"

labels : "Default"

name : "Cemetery"

labels : "Default"

name : "Golf course"

labels : "Default"

name : "Medical"

labels : "Default"

name : "Beach"

labels : "Default"

name : "Parcel" (no labels – appears in Topo)

labels : "Default"

SPOT ELEVATIONS

name : "Spot Elevation"

labels : "Default"

POINTS OF INTEREST

name : "Point of interest"

labels :

"General"

"Park"

"Bus station"

"Bus or rail station"

"Rail station"

MICRO LOCAL FEATURES

name : "Special area of interest"

symbols :

"Athletic track"

"Curb"

"Football field or court"

"Water"

"Gutter"

"Hardcourt"

"Gutter"

"Hardcourt"

"Garden path"

"Parking"

"Grass"

"Green openspace"

"Baseball field or other grounds"

"Bike, walk or pedestrian"

"Groundcover"

"Field or court exterior"

"Mulch or dirt"

"Sand"

"Rock or gravel"

Esri Vector Basemaps Feature Names and Label Subtypes (continued)

MICRO LOCAL FEATURES (continued)

name : "Special area of interest line"

symbols :

"Dock or pier"
 "Fence (chain link)"
 "Fence (chain link)"
 "Fence (metal)"
 "Fence (wood)"
 "Gate"
 "Parking lot"
 "Sports field"
 "Wall"

name : "Pavement marking" <<< new Sept. 26, 2018

symbols :

"Arrow"
 "Handicapped"
 "Left turn"
 "Right turn"
 "Two-way left turn"
 "U-Turn"

name : "Building"

symbols :

"Special area of interest"
 "General"
 "Government"
 "Medical"
 "Education"
 "Transportation"
 "Commercial"
 "Religious"
 "Recreation"
 "Cultural"
 "Hotel"
 "Airport"
 "Industrial"
 "Community"

labels : "Default"

name : "Tree"

symbols :

"Elm"
 "Eucalyptus"
 "Maple"
 "Oak"
 "Orange"
 "Palm"
 "Pine"
 "Spruce"

name : "Shrub"

name : "Neighborhood"

Esri Vector Basemaps Feature Names and Label Subtypes (continued)

TRANSPORTATION

name : "Railroad"

labels : "Default"

name : "Ferry"

symbols :

"Ferry"

"Rail ferry"

labels :

"Ferry"

"Rail ferry"

name : "Trail or path"

labels : "Default"

name : "Road"

symbols :

"4WD"

"Local"

"Service"

"Pedestrian"

"Minor"

"Minor, ramp or traffic circle"

"Major"

"Major, ramp or traffic circle"

"Freeway Motorway"

"Freeway Motorway Highway, ramp or traffic circle"

"Highway"

labels :

"Freeway Motorway"

"Freeway Motorway, alt name"

"Highway"

"Major"

"Major, alt name"

"Minor"

"Local"

"Pedestrian"

"Rectangle white black"

"Rectangle white black (Alt)"

"Secondary Hwy red white"

"Secondary Hwy red white (Alt)"

"U-shaped yellow black"

"U-shaped yellow black (Alt)"

"U-shaped red white"

"U-shaped red white (Alt)"

"U-shaped blue white"

"U-shaped blue white (Alt)"

"V-shaped white black"

"V-shaped white black (Alt)"

"U-shaped white black"

"U-shaped white black (Alt)"

"U-shaped white green"

"U-shaped white green (Alt)"

"U-shaped green leaf"

"U-shaped green leaf (Alt)"

"Rectangle yellow black"

"Rectangle yellow black (Alt)"

"Rectangle red white"

"Rectangle red white (Alt)"

"Rectangle blue white"

"Rectangle blue white (Alt)"

"Rectangle green white"

"Rectangle green white (Alt)"

Esri Vector Basemaps Feature Names and Label Subtypes (continued)

TRANSPORTATION (continued)

"Rectangle green yellow"
 "Rectangle green yellow (Alt)"
 "Pentagon inverse white black"
 "Pentagon inverse white black (Alt)"
 "Pentagon white black"
 "Pentagon white black (Alt)"
 "Pentagon yellow black"
 "Pentagon yellow black (Alt)"
 "Pentagon green white"
 "Pentagon green white (Alt)"
 "Pentagon green yellow"
 "Pentagon green yellow (Alt)"
 "Pentagon blue white"
 "Pentagon blue white (Alt)"
 "Hexagon white black"
 "Hexagon white black (Alt)"
 "Hexagon blue white"
 "Hexagon blue white (Alt)"
 "Hexagon red white"
 "Hexagon red white (Alt)"
 "Hexagon green white"
 "Hexagon green white (Alt)"
 "Hexagon orange black"
 "Hexagon orange black (Alt)"
 "Rectangle hexagon blue white"
 "Rectangle hexagon blue white (Alt)"
 "Rectangle hexagon red white"
 "Rectangle hexagon red white (Alt)"
 "Rectangle hexagon green white"
 "Rectangle hexagon green white (Alt)"
 "Rectangle hexagon brown white"
 "Rectangle hexagon brown white (Alt)"
 "Octagon green white"
 "Octagon green white (Alt)"
 "Shield white black"
 "Shield white black (Alt)"
 "Secondary Hwy green white"
 "Secondary Hwy green white (Alt)"
 "Secondary Hwy white black"
 "Secondary Hwy white black (Alt)"
 "Shield blue white"
 "Shield blue white (Alt)"

name : "Exit"

labels : "Default"

Esri Vector Basemaps Feature Names and Label Subtypes (continued)

TRANSPORTATION (continued)

name : "Road tunnel"

symbols :

"4WD"

"Local"

"Service"

"Pedestrian"

"Minor"

"Minor, ramp or traffic circle"

"Major"

"Major, ramp or traffic circle"

"Freeway Motorway"

"Freeway Motorway Highway, ramp or traffic circle"

"Highway"

labels :

"Freeway Motorway"

"Freeway Motorway, alt name"

"Highway"

"Major"

"Major, alt name"

"Minor"

"Local"

"Pedestrian"

BOUNDARY LINES

name : "Boundary line"

symbols : * /1 and /0 are ribbons and centerlines

"Admin0"

"Admin1"

"Admin2"

"Admin3"

"Admin4"

"Admin5"

"Disputed admin0"

"Disputed admin1"

"Disputed admin2"

"Disputed admin3"

"Disputed admin4"

"Disputed admin5"

BOUNDARY AREAS

name : "Admin2 area" *label only – at small scale

labels :

"large"

"small"

name : "Admin1 area" *label only – at small scale

labels :

"2x large"

"x large"

"large"

"medium"

"small"

"x small"

BOUNDARY POINT

name : "Admin0 point" *label only – at small scale

labels :

"2x large"

"x large"

"large"

"medium"

"small"

"x small"

Esri Vector Basemaps Feature Names and Label Subtypes (continued)

CITIES

name : "City large scale" *labels only – large scale

labels :

"x large"
 "large"
 "medium"
 "small"
 "town large"
 "town small"

name : "City small scale"

symbols :

"x large admin0 capital"
 "x large admin1 capital"
 "x large admin2 capital"
 "x large non capital"
 "large admin0 capital"
 "large other capital"
 "large non capital"
 "medium admin0 capital"
 "medium other capital"
 "medium non capital"

"small admin0 capital"
 "small other capital"
 "small non capital"
 "town large admin0 capital"
 "town large other capital"
 "town large non capital"
 "town small admin0 capital"
 "town small non capital"
 "other capital"

labels :

"x large"
 "large"
 "medium"
 "small"
 "town large"
 "town small"

Landform labels (Physiographic features) < new as of June 6, 2018 in [Topographic](#), [Terrain w/ Labels](#), and [World Terrain Reference](#)

name : "Landform" *labels only

labels :

"Round small"
 "Round medium"
 "Round large"
 "Round x large"
 "Oblong small"
 "Oblong small point"

"Oblong medium"
 "Oblong medium point"
 "Oblong large"
 "Oblong large point"
 "Oblong x large"
 "Oblong x large point"

Graticule

name : "Graticule" < new as of June 27, 2018 (Graticule only appears in Charted Territory map style, but code from this map's root.json can be added to any using World_Basemap_v2 vector basemap. Filter value determines if 13graticule shows)

symbols :

"Thick Line"
 "Generic"
 "Polar Circles"
 "Equators"
 "International date Line"
 "Prime meridian"
 "Tropic circles"

Disputed Labels

name : "Disputed label point" < see Disputed label and ID on pages 29-30

labels :

"Admin0"
 "Island"
 "Waterbody"

Esri Vector Basemaps Min/Max Zoom Levels | Symbols & Labels

Some features only display at certain map levels. They may first appear at a small- or mid-scale as you zoom in and stay visible on the map down to the largest scale, or they may turn off at a certain scale level. The first scale a map becomes visible is its “minzoom”.

The last scale a map is visible is its “maxzoom”. The smallest map scale is “minzoom” : 0 (or ~1:295million scale). The largest map scale is currently “maxzoom”: 18 (or ~1:1,000 scale). Some clients (ArcGIS.com map viewer, ArcGIS Pro, etc.) will overzoom the map image to 1:70 scale (level 22). The list below shows the current full list of feature names (“id”) and their corresponding min and max zoom levels. As an example, Urban area first appears on the map at Level 5 (“minzoom”: 5 or ~1:9million) and is last seen on the map display at Level 15 (“maxzoom” : 15 or ~1:9,000). You can control when features appear on the map by adjusting the “minzoom” and “maxzoom” values in the root.JSON file.

Esri Vector Basemaps Min/Max Zoom Levels | Symbols

SYMBOL ID (Feature layer name)	minzoom	maxzoom
Background	(displays at all zoom levels)	
Land/Not ice	0	18
Land/Ice	0	18
Coastline	0	9
Marine area/Bathymetry depth 1	0	18
Bathymetry/depth 2 (shallow water)	0	11
Bathymetry/depth 3	0	11
Bathymetry/depth 4	0	11
Bathymetry/depth 5	0	11
Bathymetry/depth 6	0	11
Bathymetry/depth 7 (deep water)	0	11
Water area/Dam or weir	12	18
Water area/Lake, river or bay	11	18
Water area/Inundated area	12	18
Water area/Playa	12	18
Water area/Lake or river intermittent	11	18
Water area/Ice mass	11	18
Water area/Swamp or marsh	11	18
Water area large scale/Lake or river	7	11
Water area large scale/Lake intermittent	7	11
Water area medium scale/Lake or river	5	7

SYMBOL ID (Feature layer name) (continued)	minzoom	maxzoom
Water area medium scale/Lake intermittent	5	7
Water area small scale	1	5
Water line/Stream or river	11	18
Water line/Canal or ditch	11	18
Water line/Dam or weir	11	18
Water line/Levee	11	18
Water line/Stream or river intermittent	11	18
Water line/Waterfall	11	18
Water line large scale	7	11
Water line medium scale	5	7
Water line small scale	1	5
Urban area	5	15
Vegetation small scale/High density	0	10
Vegetation small scale/Low density	0	10
Openspace or forest	9	18
Admin0 forest or park	3	18
Admin1 forest or park	5	18
Military	6	18
Transportation	13	18
Freight	13	18
Port	13	18
Industry	13	18
Indigenous	6	18
Airport/Airport runway	11	18
Airport/Airport property	9	18
Emergency	13	18
Water and wastewater	13	18

SYMBOL ID (Feature layer name) (continued)	minzoom	maxzoom
Government	13	18
Zoo	11	18
Landmark	13	18
Pedestrian	13	18
Park or farming	11	18
Education	11	18
Finance	13	18
Retail	13	18
Cemetery	13	18
Golf course	11	18
Medical	11	18
Beach	13	18
Parcel	17	18
Spot Elevation	8	18
Point of interest/General	9	18
Point of interest/Park	9	18
Point of interest/Bus Station	9	18
Point of interest/Bus or rail station	9	18
Point of interest/Rail station	9	18
Special area of interest/Athletic track	14	18
Special area of interest/Curb	14	18
Special area of interest/Football field or court	14	18
Special area of interest/Water	14	18
Special area of interest/Gutter	14	18
Special area of interest/Hardcourt	14	18
Special area of interest/Garden path	14	18
Special area of interest/Parking	15	18

SYMBOL ID (Feature layer name) (continued)	minzoom	maxzoom
Special area of interest/Grass	14	18
Special area of interest/Green openspace	14	18
Special area of interest/Baseball field or other grounds	14	18
Special area of interest/Bike, walk or pedestrian	15	18
Special area of interest/Groundcover	14	18
Special area of interest/Field or court exterior	14	18
Special area of interest/Mulch or dirt	14	18
Special area of interest/Sand	14	18
Special area of interest/Rock or gravel	14	18
Special area of interest line/Dock or pier	15	18
Special area of interest line/Fence (chain link)	15	18
Special area of interest line/Fence (metal)	15	18
Special area of interest line/Fence (wood)	15	18
Special area of interest line/Gate	15	18
Special area of interest line/Parking lot	15	18
Special area of interest line/Sports field	15	18
Special area of interest line/Wall	15	18
Pavement marking/Arrow	17	18
Pavement marking/Handicapped	17	18
Pavement marking/Left turn	17	18
Pavement marking/Right turn	17	18
Pavement marking/Two-way left turn	17	18
Pavement marking/U-turn	17	18
Building/Special area of interest	15	18
Building/General	15	18
Building/Government	15	18
Building/Medical	15	18

SYMBOL ID (Feature layer name) (continued)	minzoom	maxzoom
Building/Education	15	18
Building/Transportation	15	18
Building/Commercial	15	18
Building/Religious	15	18
Building/Recreation	15	18
Building/Cultural	15	18
Building/Hotel	15	18
Building/Airport	15	18
Building/Industrial	15	18
Building/Community	15	18
Tree/Elm	16	18
Tree/Eucalyptus	16	18
Tree/Maple	16	18
Tree/Oak	16	18
Tree/Orange	16	18
Tree/Palm	16	18
Tree/Pine	16	18
Tree/Spruce	16	18
Shrub	16	18
Railroad	11	18
Ferry/Ferry	11	18
Ferry/Rail ferry	11	18
Trail or path	15	18
Road/4WD	13	18
Road/Local	11	18
Road/Pedestrian	15	18
Road/Minor	9	18

SYMBOL ID (Feature layer name) (continued)	minzoom	maxzoom
Road/Minor, ramp or traffic circle	9	18
Road/Major	9	18
Road/Major, ramp or traffic circle	8	18
Road/Freeway Motorway	4	18
Road/Freeway Motorway Highway, ramp or traffic circle	9	18
Road/Highway	6	18
Road tunnel/4WD	13	18
Road tunnel/Local	11	18
Road tunnel/Service	13	18
Road tunnel/Pedestrian	15	18
Road tunnel/Minor	9	18
Road tunnel/Minor, ramp or traffic circle	9	18
Road tunnel/Major	8	18
Road tunnel/Major, ramp or traffic circle	9	18
Road tunnel/Freeway Motorway	4	18
Road tunnel/Freeway Motorway Highway, ramp or traffic circle	9	18
Road tunnel/Highway	6	18
Boundary line/Disputed admin5	16	18
Boundary line/Disputed admin4	16	18
Boundary line/Disputed admin3	16	18
Boundary line/Disputed admin2	8	18
Boundary line/Disputed admin1	3	18
Boundary line/Disputed admin0	1	18
Boundary line/Admin5	16	18
Boundary line/Admin4	16	18
Boundary line/Admin3	16	18
Boundary line/Admin2	8	18

SYMBOL ID (Feature layer name) (continued)	minzoom	maxzoom
Boundary line/Admin1	3	18
Boundary line/Admin0	1	18
City small scale/x large admin0 capital	1	10
City small scale/x large admin1 capital	1	10
City small scale/x large admin2 capital	1	10
City small scale/x large non capital	1	10
City small scale/large admin0 capital	1	10
City small scale/large other capital	1	10
City small scale/large non capital	1	10
City small scale/medium admin0 capital	1	10
City small scale/medium other capital	1	10
City small scale/medium non capital	1	10
City small scale/small admin0 capital	1	10
City small scale/small other capital	1	10
City small scale/small non capital	1	10
City small scale/town large admin0 capital	1	10
City small scale/town large other capital	1	10
City small scale/town large non capital	1	10
City small scale/town small admin0 capital	1	10
City small scale/town small other capital	1	10
City small scale/town small non capital	1	10
City small scale/other capital	1	10
Colormap (Admin0 polygons)	1	11
Graticule	1	18

Esri Vector Basemaps Min/Max Zoom Levels | Labels

LABEL ID (Feature layer name)	minzoom	maxzoom
Continent/label/Default	0	1
Marine area/label/Default	0	11
Marine waterbody/label/2x large	0	10
Marine waterbody/label/x large	0	10
Marine waterbody/label/ large	0	10
Marine waterbody/label/medium	0	10
Marine waterbody/label/small	0	10
Water area/label /Dam or weir	11	18
Water area/label/Playa	11	18
Water area/label/Small island	11	18
Water area/label/Large island	11	18
Water area/label/Canal or ditch	11	18
Water area/label/Bay or inlet	11	18
Water area/label/Small lake or reservoir	11	18
Water area/label/Large lake or reservoir	11	18
Water area/label/Large river	11	18
Water area/label/Small river	11	18
Water area large scale/label/Lake or river	7	11
Water area large scale/label/Lake or lake intermittent	7	11
Water area medium scale/label/Lake or river	5	7
Water area medium scale/label/Lake or lake intermittent	5	7
Water area small scale/label/Lake or river	1	5
Water area small scale/label/Lake or lake intermittent	1	5
Water line/label/Default	11	18
Water line large scale/label/Default	7	11

LABEL ID (Feature layer name) (continued)	minzoom	maxzoom
Water line medium scale/label/Default	5	7
Water line small scale/label/Default	1	5
Water point	9	18
Openspace or forest/label/Default	9	18
Admin0 forest or park/label/Default	3	18
Admin1 forest or park/label/Default	5	18
Marine park/label/Default	11	18
Military/label/Default	6	18
Transportation/label/Default	13	18
Freight/label/Default	13	18
Port/label/Default	13	18
Industry/label/Default	13	18
Indigenous/label/Default	6	18
Airport/label/Airport property	9	18
Emergency/label/Default	13	18
Water and wastewater/label/Default	13	18
Government/label/Default	11	18
Zoo/label/Default	11	18
Landmark/label/Default	13	18
Pedestrian/label/Default	13	18
Park or farming/label/Default	11	18
Education/label/Default	11	18
Finance/label/Default	13	18
Retail/label/Default	13	18
Cemetery/label/Default	13	18
Golf course/label/Default	11	18
Medical/label/Default	11	18

LABEL ID (Feature layer name) (continued)	minzoom	maxzoom
Beach/label/Default	13	18
Point of interest/label/General	9	18
Point of interest/label/Park	9	18
Point of interest/label/Bus Station	9	18
Point of interest/label/Bus or rail station	9	18
Point of interest/label/Rail station	9	18
Building/label/Default	15	18
Railroad/label/Default	11	18
Ferry/label/Ferry	11	18
Ferry/label/Rail ferry	11	18
Trail or path/label/Default	15	18
Road/label/Freeway Motorway	10	18
Road/label/Major, alt name	10	18
Road/label/Highway	10	18
Road/label/Major	10	18
Road/label/Major, alt name	10	18
Road/label/Minor	10	18
Road/label/Local	12	18
Road/label/Pedestrian	15	18
<i>*All Road Shields*</i>	6	18
Road tunnel/label/Freeway Motorway	10	18
Road tunnel/label/Freeway Motorway, alt name	10	18
Road tunnel/label/Highway	10	18
Road tunnel/label/Major	10	18
Road tunnel/label/Major, alt name	10	18
Road tunnel/label/Minor	10	18
Road tunnel/label/Local	12	18

LABEL ID (Feature layer name) (continued)	minzoom	maxzoom
Road tunnel/label/Pedestrian	15	18
Exit/label/Default	15	18
Admin 2 area/label/large	8	11
Admin 2 area/label/small	8	11
Admin 1 area/label/2x large	3	11
Admin 1 area/label/x large	3	11
Admin 1 area/label/large	3	11
Admin 1 area/label/medium	3	11
Admin 1 area/label/small	3	11
Admin 1 area/label/x small	3	11
Admin 0 area/label/2x large	0	10
Admin 0 area/label/x large	0	10
Admin 0 area/label/large	0	10
Admin 0 area/label/medium	0	10
Admin 0 area/label/small	0	10
Admin 0 area/label/x small	0	10
Admin 0 point/label/2x large	1	18
Admin 0 point /label/x large	1	18
Admin 0 point /label/large	1	18
Admin 0 point /label/medium	1	18
Admin 0 point /label/small	1	18
Admin 0 point /label/x small	1	18
Neighborhood/label/Default	14	16
City large scale/label/2x large	10	16
City large scale/label/x large	10	16
City large scale/label/large	10	16
City large scale/label/medium	10	16

LABEL ID (Feature layer name) (continued)	minzoom	maxzoom
City large scale/label/ small	10	16
City large scale/label/x small	10	16
City small scale/label/2x large	1	10
City small scale/label/ large	1	10
City small scale/label/medium	1	10
City small scale/label/ small	1	10
City small scale/label/town large	1	10
City small scale/label/ town small	1	10
Landform/Round small or medium	1	19
Landform/Round large	1	10
Landform/Round x large	1	7
Landform/Oblong small or medium	1	19
Landform/Oblong small point or medium point	1	19
Landform/Oblong large	1	9
Landform/Oblong large point	1	10
Landform/Oblong x large	1	6
Landform/Oblong x large point	1	6
Ocean point/Black text or Blue text	1	19
Ocean point/Depth	1	19
Ocean point/Seamount depression or Seamount rise	1	19
Ocean area/Oblong or Round, 2x large, Black or Blue text	1	19
Ocean area/Oblong or Round, x large, Black or Blue text	1	19
Ocean area/Oblong or Round, medium, Black or Blue text	1	19
Ocean area/Oblong or Round, small, Black or Blue text	1	19
Ocean area/Oblong or Round, x small, Black or blue text	1	19

Esri Vector Basemaps Disputed Boundaries with IDs

The source Esri Community Map data used to build the vector tiles has disputed boundaries defined for many areas around the world. In the Esri vector basemaps, internationally recognized national boundaries (e.g. United States / Canada border) are typically represented with different types of “solid” lines while **disputed boundaries** (e.g. parts of French Guiana / Suriname border) are typically represented with “dashed” lines. In some cases, a country will want to not render (i.e. make invisible) a disputed boundary that it does not recognize. See [this blog](#) for an example of how to change the JSON code and apply the DisputeID code in the filter for boundary lines. This [web map](#) details all the disputed boundaries, with DisputeID codes, configured in the Esri Vector Basemaps.

Disputed IDs and Boundaries			Display Hints (add DisputeID value to filters to change appearance)		
DisputeID	Admin level	Disputed Boundary	Dashed	Solid for	Invisible for
1	Admin0	China / Russia	(default map view)	Non-disputed display	None
2	Admin0	China / India (north bdy of Arunachal Pradesh)	(default map view)	India	China
3	Admin0	China / India (south bdy of Arunachal Pradesh) (see also DisputeID=97)	(default map view)	China	India
4	Admin0	Bhutan / China	(default map view)	China	Bhutan
5	Admin0	Bhutan / China	(default map view)	Bhutan	China
6	Admin0	China / Tajikistan	(default map view)	Non-disputed display	None
7	Admin0	China / India / Pakistan (west bdy Trans-Karakoram Tract) (see also DisputeID=122 & 133)	(default map view)	China / Pakistan	India
8	Admin0	India / Pakistan (see also DisputeID=108)	None	Pakistan	(default map view)
9	Admin0	India / Nepal (see also DisputeID=11 & 12)	(default map view)	India	Nepal
10	Admin0	India / Pakistan	(default map view)	India	Pakistan (can be added as Admin1 for Pak)
11	Admin0	India / Nepal (see also DisputeID=9 & 12)	(default map view)	Nepal	India
12	Admin0	India / Nepal (see also DisputeID=9 & 11)	(default map view)	Non-disputed display	None
13	Admin0	China / India / Pakistan	(default map view)	Non-disputed display	None
14	Admin0	Bhutan / China	(default map view)	Bhutan	China
15	Admin1	India (see also DisputeID=96)	(default map view)	India (Admin1)	Pakistan / China
17	Admin1	India / Pakistan	(default map view)	India (Admin1)	Pakistan
18	Admin1	Pakistan	(default map view)	Pakistan (Admin1)	India
20	Admin0	Argentina / Chile (see also DisputeID=27)	(default map view)	Non-disputed display	None
21	Admin0	Brazil / Uruguay	(default map view)	Uruguay	Brazil
22	Admin0	Brazil / Uruguay	(default map view)	Brazil	Uruguay
23	Admin0	Guyana / Suriname	(default map view)	Guyana	Suriname
24	Admin0	Suriname / Guyana	(default map view)	Suriname	Guyana
25	Admin0	French Guiana / Suriname	(default map view)	Suriname	French Guiana
26	Admin0	Suriname / French Guiana	(default map view)	French Guiana	Suriname
27	Admin0	Argentina / Chile	(default map view)	None	Non-disputed display
28	Admin1	Argentina	(default map view)	Argentina (admin1)	none
29	Admin0	Cuba / United States (Guantanamo Bay)	(default map view)	Non-disputed display	Cuba
30	Admin0	Malawi / Tanzania	(default map view)	Malawi	Tanzania
32	Admin2	Malawi / Tanzania	(default map view)	Tanzania (admin2)	Malawi
33	Admin2	Malawi / Tanzania	(default map view)	Malawi (admin2)	Tanzania
34	Admin1	Malawi / Tanzania	(default map view)	Tanzania (admin1)	Malawi
35	Admin0	Malawi / Tanzania	(default map view)	Tanzania	Malawi

DisputeID	Admin level	Disputed Boundary	Dashed	Solid for	Invisible for
36	Admin2	Malawi / Tanzania	(default map view)	Malawi (admin2)	Tanzania
37	Admin0	Ethiopia / Somalia	(default map view)	Non-disputed display	None
38	Admin0	South Sudan / Sudan (see also DisputeID=138)	(default map view)	South Sudan	Sudan
39	Admin0	South Sudan / Sudan (see also DisputeID=139)	(default map view)	South Sudan	Sudan
41	Admin0	Egypt / Sudan (Hala'ib Triangle)	(default map view)	Egypt	Sudan
42	Admin0	Egypt / Sudan (Hala'ib Triangle)	(default map view)	Sudan	Egypt
43	Admin1	Azerbaijan / Republic of Artsakh / Nagorno-Karabakh	(default map view)	Azerbaijan	Republic of Artsakh / Nagorno-Karabakh
44	Admin1	Azerbaijan / Republic of Artsakh / Nagorno-Karabakh	(default map view)	Republic of Artsakh / Nagorno-Karabakh	Azerbaijan
45	Admin0	Israel / West Bank / Jordan (see also DisputeID=145, 157)	(default map view)	Non-disputed display	None
46	Admin0	Israel / Lebanon	(default map view)	Non-disputed display	None
47	Admin0	Israel / Syria	(default map view)	Israel	Syria
48	Admin0	Israel / Syria	(default map view)	Syria	Israel
49	Admin0	Israel / Lebanon / Syria	(default map view)	Non-disputed display	None
50	Admin0	Cyprus / United Kingdom	(default map view)	Non-disputed display	None
51	Admin0	Cyprus / Cyprus UN Neutral Zone / United Kingdom	(default map view)	Non-disputed display	None
52	Admin0	Cyprus / Cyprus UN Neutral Zone (see also DisputeID=66, 67, 68, 69)	(default map view)	Non-disputed display	None
53	Admin0	Kenya / South Sudan (Ilemi Triangle)	(default map view)	Kenya	South Sudan
54	Admin0	Kenya / South Sudan (Ilemi Triangle)	(default map view)	None	Non-disputed display
56	Admin0	Kenya / South Sudan (Ilemi Triangle)	(default map view)	South Sudan	Kenya
57	Admin1	Israel / State of Palestine (West Bank)	(default map view)	Non-displayed display	None
58	Admin0	Rep. of Congo / Dem. Rep. of Congo	(default map view)	Dem. Rep. of Congo	Rep. of Congo
59	Admin0	Rep. of Congo / Dem. Rep. of Congo	(default map view)	Rep. of Congo	Dem. Rep. of Congo
60	Admin1	Georgia / South Ossetia (see also DisputeID=62)	(default map view)	South Ossetia (Admin1)	Georgia
61	Admin1	Georgia / Republic of Abkhazia	(default map view)	Rep. of Abkhazia (Admin1)	Georgia
62	Admin1	Georgia / South Ossetia (see also DisputeID=60)	(default map view)	South Ossetia (Admin1)	Georgia
63	Admin2	Georgia / Republic of Abkhazia	(default map view)	Rep. of Abkhazia (Admin2)	Georgia
64	Admin2	Georgia / South Ossetia	(default map view)	South Ossetia (Admin2)	Georgia
65	Admin3	Georgia / South Ossetia	(default map view)	South Ossetia (Admin3)	Georgia
66	Admin1	Northern Cypress, Greece view	(default map view)	Greece (Admin1)	Turkey
67	Admin2	Northern Cypress, Greece view	(default map view)	Greece (Admin2)	Turkey
68	Admin1	Northern Cypress, Turkey view	(default map view)	Turkey (Admin1)	Greece
69	Admin2	Northern Cyprus, Turkey view	(default map view)	Turkey (admin2)	Greece (Admin2)
70	Admin0	Croatia / Slovenia	(default map view)	Non-disputed display	None
71	Admin0	Croatia / Serbia	(default map view)	Croatia	Serbia
72	Admin0	Croatia / Serbia	(default map view)	Serbia	Croatia
73	Admin0	Kosovo / Serbia	(default map view)	Kosovo	Serbia
74	Admin1	Kosovo / Serbia	(default map view)	Kosovo	Serbia
75	Admin2	Kosovo / Serbia	(default map view)	Kosovo	Serbia

DisputeID	Admin level	Disputed Boundary	Dashed	Solid for	Invisible for
80	Admin0	Morocco / Western Sahara	(default map view)	Western Sahara	Morocco
81	Admin1	Morocco / Western Sahara	(default map view)	Morocco (admin1)	Western Sahara
82	Admin2	Morocco / Western Sahara	(default map view)	Morocco (admin2)	Western Sahara
83	Admin3	Morocco / Western Sahara	(default map view)	Morocco (admin3)	Western Sahara
90	Admin0	Hong Kong & Macau	U.S. Department of State (U.S. Gov't)	None	(default map view)
92	Admin2	India (Arunachal Pradesh)	(default map view)	India (admin2)	Non-India view
94	Admin2	India (Jammu and Kashmir) (see also DisputeID=194)	(default map view)	India (admin2)	Non-India view
96	Admin0	India / China (see also DisputeID=15)	None	China / Pakistan	(default map view)
97	Admin1	India (Arunachal Pradesh) (See also DisputeID=3)	(default map view)	India (admin1)	China
98	Admin0	India / Pakistan (southern boundary line Siachen Glacier)	(default map view)	None	India, Pakistan
99	Admin0	India / Pakistan (western boundary line Siachen Glacier)	(default map view)	None	India
100	Admin0	North Korea / South Korea	(default map view)	Non-disputed view	None
101	Admin0	North Korea / South Korea (DMZ)	(default map view)	None	None
102	Admin0	India / China (eastern boundary Aksai Chin)	(default map view)	India	China
103	Admin0	India / China (western boundary Aksai Chin)	(default map view)	China	India
104	Admin0	China / Bhutan	(default map view)	China	Bhutan
105	Admin0	China / Bhutan	(default map view)	Bhutan	China
108	Admin0	India / Pakistan (see also DisputeID=8)	(default map view)	Pakistan	India
122	Admin0	China / India / Pakistan (eastern boundary Trans-Karakoram Tract, Shaksgam) (see also DisputeID=7, 133)	(default map view)	India	China, Pakistan
133	Admin0	China / India / Pakistan (southern boundary of Trans-Karakoram Tract) (see also DisputeID=7, 122)	(default map view)	China / Pakistan	India
138	Admin0	Sudan / South Sudan (see also DisputeID=38)	(default map view)	Sudan	South Sudan
139	Admin0	Sudan / South Sudan (see also DisputeID=39)	(default map view)	Sudan	South Sudan
145	Admin0	Israel / Gaza Strip (see also DisputeID=45, 57, 157, 245)	(default map view)	State of Palestine / Gaza Strip	Israel
157	Admin0	Israel (Jerusalem) (see also DisputeID=45, 145, 57, 245)	(default map view)	State of Palestine / West Bank	Israel
194	Admin2	India (Jammu and Kashmir) (see also DisputeID=94)	(default map view)	India (admin2)	Non-India view
245	Admin0	Israel / West Bank (see also DisputeID=45, 145, 57, 157)	(default map view)	State of Palestine / West Bank	Israel
260	Admin0	Venezuela/Guyana	(default map view)	Guyana	none

Esri Vector Basemaps Disputed Labels with IDs

The source Esri Map data used to build the vector tiles has select disputed or alternate labels defined for many areas around the world. In the Esri vector basemaps, internationally disputed features are typically represented with no label. In some cases, a country will want to render a specific name to the feature. See [this blog](#) for an example of how to change the JSON code and apply the DisputeID code in the filter. A quick example is to apply DisputeID of 1001 in the Disputed Waterbody feature (to the root.json) which would label it as the 'Sea of Japan'

Layer	DisputeID	EsriPolicy	name_lc	name_en	name
Admin0	1021	Global view of Western Sahara (on by default)	ENG	Western Sahara	Western Sahara
Admin0	1100	Alternate label of United States on Hawaii	ENG	United States	United States
Admin0	3122	Alternate name of Myanmar (Burma)	ENG	Burma	Burma
Admin0	3123	Alternate name of Myanmar (Burma)	ENG	Myanmar	Myanmar
Admin0	4226	Alternate Rep of the Congo name for Congo	ENG	Rep of the Congo	Rep of the Congo
Admin0	5023	Alternate name of Czech Republic (Czechia is now default label on the basemap)	ENG	Czechia	Czechia
Admin0	5024	Alternate name for Czechia	ENG	Czech Republic	Czech Republic
Admin0	5124	Allow Kosovo name to display	ENG	Kosovo	Kosovo
Admin0	5225	Alternate Macedonia name to display	ENG	Macedonia	Macedonia
Admin0	5231	Alternate Macedonia name to display (North Macedonia is now default label on basemap)	ENG	North Macedonia	North Macedonia
Admin0	7027	Alternate Swaziland name to display (Eswatini is now default label on the basemap)	ENG	Eswatini	Eswatini
Admin0	7028	Alternate Eswatini name to display	ENG	Swaziland	Swaziland
Waterbody	1001	Global view of Sea of Japan	ENG	Sea of Japan	Sea of Japan
Island	1002	Global view of Liancourt Rocks	ENG	Liancourt Rocks	Liancourt Rocks
Waterbody	1003	Global view of South China Sea	ENG	South China Sea	South China Sea
Island	1004	Global view of Paracel Islands	ENG	Paracel Islands	Paracel Islands
Island	1005	Global view of Spratly Islands	ENG	Spratly Islands	Spratly Islands
Waterbody	1006	Global view of Formosa Strait/Taiwan Strait (on by default)	ENG	Formosa Strait	Formosa Strait
Island	1007	Global view of Pinnacle Islands	ENG	Pinnacle Islands	Pinnacle Islands
Waterbody	1008	Global view of East China Sea	ENG	East China Sea	East China Sea
Waterbody	1020	Global view of Persian Gulf	ENG	Persian Gulf	Persian Gulf
Island	1040	Global view of Falkland Islands	ENG	Falkland Islands	Falkland Islands
Waterbody	1106	Alternate view of Formosa Strait/Taiwan Strait	ENG	Taiwan Strait	Taiwan Strait
Waterbody	1120	Alternate view of The Gulf	ENG	The Gulf	The Gulf
Waterbody	2001	Japan view of Sea of Japan/East Sea	JPN	Sea of Japan	日本海
Island	2002	Japan view of Takeshima (Liancourt Rocks)	JPN	Takeshima	竹島
Waterbody	2003	Japan view of South China Sea	JPN	South China Sea	南支那海
Island	2007	Japan view of Senkaku Islands (Pinnacle Islands)	JPN	Senkaku Islands	尖閣諸島
Island	2008	Japan view of Senkaku Islands (Pinnacle Islands)	JPN	Taisho-Jima	大正島
Island	2009	Japan view of Senkaku Islands (Pinnacle Islands)	JPN	Kita-Kojima Is.	北小島
Waterbody	2101	South Korea view of Sea of Japan/East Sea	KOR	East Sea	동해
Island	2102	South Korea view of Dokdo (Liancourt Rocks)	KOR	Dokdo	독도
Waterbody	2201	North Korea view of Sea of Japan/East Sea	KOR	East Sea	조선동해
Waterbody	2303	China view of South China Sea	CHI	South Sea	南海
Island	2304	China view of Paracel Islands	CHI	Paracel Islands	西沙群岛

Layer	DisputeID	EsriPolicy	name_lc	name_en	name
Island	2305	China view of Spratly Islands	CHI	Spratly Islands	南沙群島
Waterbody	2306	China view of Formosa Strait/Taiwan Strait	CHI	Taiwan Strait	台灣海峽
Island	2307	China view of Diaoyu Islands (Pinnacle Islands)	CHI	Diaoyu Islands	釣魚島及其附屬島嶼
Waterbody	2403	Taiwan view of South China Sea	CHT	South Sea	南海
Island	2404	Taiwan view of Paracel Islands	CHT	Paracel Islands	西沙群島
Island	2405	Taiwan view of Spratly Islands	CHT	Spratly Islands	南沙群島
Waterbody	2406	Taiwan view of Formosa Strait/Taiwan Strait	CHT	Taiwan Strait	台灣海峽
Island	2407	Taiwan view of Diaoyutai Islands (Pinnacle Is)	CHT	Diaoyutai Island	釣魚台列嶼
Waterbody	2503	Vietnam view of South China Sea	VIE	East Sea	Biển Đông
Island	2504	Vietnam view of Paracel Islands	VIE	Paracel Islands	Quần đảo Hoàng Sa
Island	2504	Vietnam view of Paracel Islands	VIE	Paracel Islands	Đảo Hoàng Sa
Island	2504	Vietnam view of Paracel Islands	VIE	Crescent Island	Đảo Lưỡi Liềm
Island	2504	Vietnam view of Paracel Islands	VIE	Paracel Islands	Đảo Hoàng Sa
Island	2504	Vietnam view of Paracel Islands	VIE	Paracel Islands	Đảo Hoàng Sa
Island	2504	Vietnam view of Paracel Islands	VIE	Woody Island	Đảo Phú Lâm
Island	2504	Vietnam view of Paracel Islands	VIE	Lincoln Island	Đảo Linh Côn
Island	2504	Vietnam view of Paracel Islands	VIE	Paracel Islands	Đảo Hoàng Sa
Island	2504	Vietnam view of Paracel Islands	VIE	Bremen Bank	Bãi Châu Nhai
Island	2504	Vietnam view of Paracel Islands	VIE	Pyramid Rock	Hòn Tháp
Island	2504	Vietnam view of Paracel Islands	VIE	Discovery Reef	Đảo Đá Lồi
Island	2504	Vietnam view of Paracel Islands	VIE	North Sand	Bãi Đá Bắc
Island	2504	Vietnam view of Paracel Islands	VIE	Bombay Reef	Đá Bông Bay
Island	2504	Vietnam view of Paracel Islands	VIE	Tree Island	Đảo Cây
Island	2504	Vietnam view of Paracel Islands	VIE	Passu Keah	Đảo Bạch Quy
Island	2504	Vietnam view of Paracel Islands	VIE	Paracel Islands	Đảo Hoàng Sa
Island	2504	Vietnam view of Paracel Islands	VIE	Robert Island	Đảo Hữu Nhật
Island	2504	Vietnam view of Paracel Islands	VIE	South Island	Đảo Nam
Island	2504	Vietnam view of Paracel Islands	VIE	South Sand	Cồn Cát Nam
Island	2504	Vietnam view of Paracel Islands	VIE	All Wealth Island	Đảo Ốc Hoa
Island	2504	Vietnam view of Paracel Islands	VIE	Triton Island	Đảo Tri Tôn
Island	2504	Vietnam view of Paracel Islands	VIE	Paracel Islands	Đảo Hoàng Sa
Island	2504	Vietnam view of Paracel Islands	VIE	Vuladdore Reef	Đá Chim Én
Island	2505	Vietnam view of Spratly Islands	VIE	Spratly Islands	Đảo Trường Sa
Waterbody	2603	Thailand view of South China Sea	THA	South China Sea	ทะเลจีนใต้
Waterbody	2703	Indonesia view of South China Sea	IND	South China Sea	Laut Cina Selatan
Waterbody	2803	Malaysia view of South China Sea	MAY	South China Sea	Laut Cina Selatan
Island	2805	Malaysia view of Spratly Islands	MAY	Spratly Islands	Kepulauan Spratly
Waterbody	2903	Philippines view of South China Sea	FIL	West Philippine Sea	Dagat Kanlurang Pilipinas
Island	2905	Philippines view of Spratly Islands	FIL	Spratly Islands	Kapuluan ng Kalayaan
Waterbody	3001	Russia view of Sea of Japan/East Sea	RUS	Sea of Japan	Японское море
Waterbody	3130	Greece view of Mirtoan Sea	ENG	Mirtoan Sea	Mirtoan Sea
Waterbody	4020	Arab view of Persian Gulf/Arabian Gulf	ARA	Arabian Gulf	الخليج العربي
Waterbody	4120	Iran view of Persian Gulf/Arabian Gulf	ARA	Persian Gulf	خليج فارس
Admin1	5366	Greece view of Northern Cyprus Admin1	GRE	(all admin1 names)	(all admin1 names)
Admin2	5367	Greece view of Northern Cyprus Admin2	GRE	(all admin2 names)	(all admin2 names)
Admin1	5368	Turkey view of Northern Cyprus Admin1	TUR	(all admin1 names)	(all admin1 names)
Admin2	5369	Turkey view of Northern Cyprus Admin2	TUR	(all admin2 names)	(all admin2 names)
Admin1	3601	Pakistan view of Admin1	PAK	Azad Jammu and Kashmir / Gilgit-Balistan	Azad Jammu and Kashmir / Gilgit-Balistan
Admin1	3501	India view of Admin1	IND	Ladakh / Jammu and Kashmir	Ladakh / Jammu and Kashmir
Admin2	3502	India view of Admin2	IND	(all admin2 names)	(all admin2 names)
Island	6040	Argentina view of Islas Malvinas (Falkland Is)	ESP	Falkland Islands	Islas Malvinas

End of Disputed Labels list

Esri Vector Basemaps Resources\Fonts

For each of the [Esri Vector Basemap Tile Layers v2](#), there are a set of fonts available to customize styles of the layers. This lists 136 fonts currently in the directory resources\fonts. The styles\root.json file applies the fonts for map display. These are the current service level fonts possible for display in Esri Vector Basemaps. The exact name (including spaces but excluding footnotes) must be used when changing font names in the tile layer style root.json. Open source fonts and license: https://scripts.sil.org/cms/scripts/page.php?site_id=nrsi&id=OFL

Abril Fatface Regular	AvenirNext LT Pro Regular Bold	Life Savers ExtraBold	Playfair Display Bold
Alegreya Bold	Italic	Loved by the King Regular	Playfair Display Bold Italic
Alegreya Bold Italic	AvenirNext LT Pro Regular Italic	Merriweather Bold Italic	Playfair Display Italic ⁷
Alegreya Italic	AvenirNext LT Pro Regular Regular	Merriweather Bold	Playfair Display Regular
Alegreya Regular	Belleza Regular	Merriweather Italic ⁷	Playfair Display SC Bold
Alegreya Sans Italic	Black Ops One Regular	Merriweather Regular	Playfair Display SC Regular
Alegreya SC Bold	Cabin Sketch Bold	Montserrat Bold	Redressed Regular
Alegreya SC Italic	Cabin Sketch Regular	Montserrat Italic	Risque Regular
Alegreya SC Regular	Caveat Regular	Montserrat Medium Italic	Roboto Condensed Italic
Amarante Regular	Coming Soon Regular	Montserrat Medium	Roboto Condensed Light Italic ³
Amatic SC Bold	Homemade Apple Regular	Montserrat Regular	Rye Regular
Arial Bold ¹	IM FELL DW Pica PRO Italic	Montserrat SemiBold Italic	Special Elite Regular
Arial Bold Italic ²	IM FELL DW Pica PRO Regular	Montserrat SemiBold	Syncopate Bold
Arial Italic ¹	Inknut Antiqua Bold ⁷	Noto Sans Bold ^{3, 6, 7}	Syncopate Regular
Arial Regular ¹	Inknut Antiqua Regular ⁷	Noto Sans Bold Italic	Tangerine Regular
Arial Unicode MS Bold ⁸	Josefin Sans Regular	Noto Sans Italic ^{3, 6, 7}	Timmana Regular ⁷
Arial Unicode MS Regular ⁸	Josefin Sans SemiBold	Noto Sans Regular ^{3, 6, 7}	Ubuntu Bold ^{4, 5}
Atomic Age Regular	Josefin Sans SemiBold Italic	Noto Serif Bold	Ubuntu Bold Italic
Audiowide Regular	Josefin Slab Bold	Noto Serif Bold Italic ⁶	Ubuntu Condensed Regular
Avenir Next LT Pro Bold Italic	Josefin Slab Bold Italic	Noto Serif Italic ⁶	Ubuntu Italic ⁵
Avenir Next LT Pro Bold	Josefin Slab Italic	Noto Serif Regular ³	Ubuntu Light Bold ⁴
Avenir Next LT Pro Demi Italic	Josefin Slab Light	Old Standard TT Bold	Ubuntu Light Bold Italic ⁴
Avenir Next LT Pro Demi	Josefin Slab Light Italic	Old Standard TT Italic	Ubuntu Light Italic
Avenir Next LT Pro Italic	Josefin Slab Regular	Old Standard TT Regular	Ubuntu Light Regular ⁵
Avenir Next LT Pro Light Italic	Josefin Slab SemiBold	Orbitron Bold	Ubuntu Light
Avenir Next LT Pro Regular	Josefin Slab SemiBold Italic	Orbitron Regular	Ubuntu Medium Italic
AvenirNext LT Pro Light Italic	Josefin Slab Thin	Oregano Italic	Ubuntu Medium
AvenirNext LT Pro Light Regular	Josefin Slab Thin Italic	Oregano Regular	Ubuntu Mono Bold
AvenirNext LT Pro Medium Bold	Just Another Hand Regular	Oswald Bold	Ubuntu Mono Bold Italic
AvenirNext LT Pro Medium Bold Italic	Kranky Regular	Oswald Light	Ubuntu Mono Italic
AvenirNext LT Pro Regular Bold	La Belle Aurore Regular	Oswald Regular	Ubuntu Mono Regular
	Libertinus Sans Bold ⁷	Pacifico Regular	Ubuntu Regular ^{4, 5}
	Libertinus Sans Italic	Palatino Linotype Regular	UnifrakturCook Bold
	Libertinus Sans Regular ⁷	Playfair Display Black Regular	Vast Shadow Regular
	Life Savers Bold	Playfair Display Black	Walter Turncoat Regular

For Export layers only include fonts applied through the resources\styles\root.json file. For Export layers not intended to display non-Roman glyphs.

1 – These Arial fonts are the default fonts in the Esri basemap styles: [World Street Map](#), [World Street Map \(with Relief\)](#), [World Street Map \(Night\)](#), [World Navigation Map](#), [World Navigation Map \(Dark Mode\)](#), [World Terrain with Labels](#), [World Terrain Reference](#), [Hybrid Reference](#).

2 – This Arial font is also a default font in the Esri basemap styles: [World Terrain with Labels](#) & [World Terrain Reference](#)

3 – These Noto and Roboto fonts are the default fonts in the Esri basemap style: [Topographic](#)

4 – These Ubuntu fonts are the default fonts in the Esri basemap styles: [Dark Gray Canvas Reference](#) & [Dark Gray Canvas](#)

5 – These Ubuntu fonts are the default fonts in the Esri basemap styles: [Light Gray Canvas Reference](#) & [Light Gray Canvas](#)

6 – These Noto fonts are the default fonts in the Esri basemap style: [World Ocean Reference](#)

7 – These fonts are the default fonts in the Esri basemap style: [National Geographic Style](#)

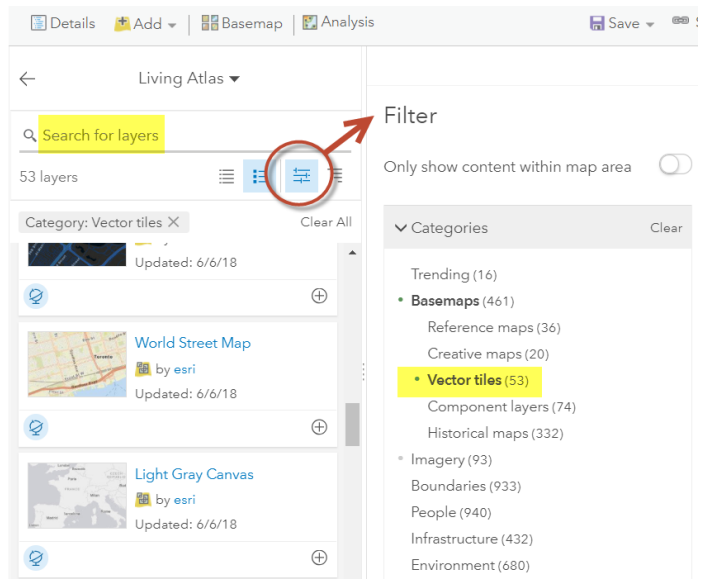
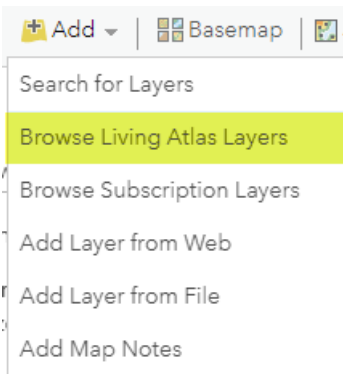
8 – Arial Unicode MS Bold & Regular can be used with fallback fonts (font stacking) because they contain a large set of non-Roman glyphs. Font fallback (font stacking) is not applied in these core map styles at this time. Font stacking can be applied to the root.json if you use the latest Esri clients to view the map.

Customizing JSON for Esri Vector Basemaps

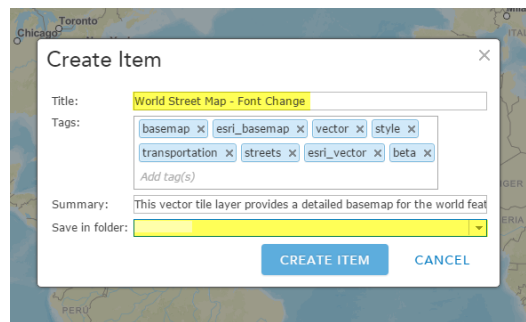
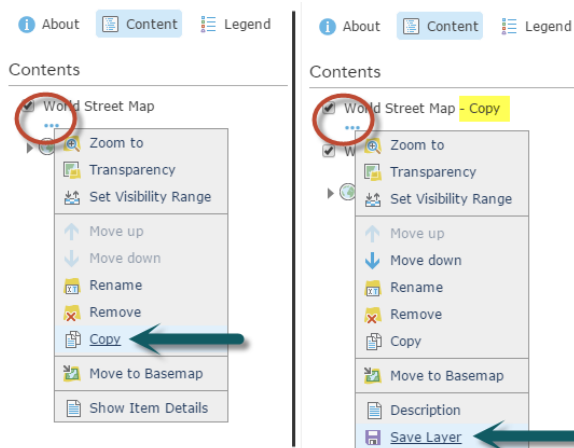
There is now an application for customizing the Esri Vector Basemaps. [ArcGIS Vector Tile Style Editor](#) Details of the app are provided in the description section of the item page.

Additionally, you can edit the json directly through the following steps. Once you decide on the features to edit (change viz value, change font), the next step is user customization of the **root.json** file. A step-by-step set of instructions:

- 1) Sign in to [ArcGIS.com](#)
- 2) Go to a new **Map**
- 3) **Add > Browse Living Atlas Layers**
- 4) **Filter > Categories > Basemaps > Vector tiles**; Add your tile layer by esri (this example adding World Street Map) **(+)** to add



- 5) Under the layer name, pull down the **...** and **Copy** the layer. Under the new layer name (World Street Map – copy) **Save Layer**
- 6) Select a name for this new layer (e.g. **World Street Map – Font Change**) and into your choice of folder in your ArcGIS.com account.



- 7) In **My Content**, navigate to this new item, click on the name to go to the **item page**.
Download style. This saves a root.json file for the style.

The screenshot shows the Esri item page for "World Street Map - Font Change". The page has a blue header with the title and an "Edit" link. Below the header are tabs for "Overview", "Usage", and "Settings". A thumbnail of the map is shown on the left, with an "Add to Favorites" button. The main content area contains a description of the vector tile layer, its creator (robe6923), and creation/updated dates. On the right, a sidebar contains several buttons: "Open in Map Viewer" (with a dropdown arrow), "Open in Scene Viewer", "View style", "Download style" (highlighted with a red circle), "Update", and "Share".

- 8) Open the **root.json** file (any text editor, but suggest using [Brackets](#)). Select all, Copy and Paste into [jsonlint.com](#) to validate and parse the JSON. Copy and paste from the web browser window back into the text editor and save as **root.json** (overwrite your download).

Editing the json. For this example we'll change the font for:

"source-layer": "Admin0 forest or park/label" from Arial Regular to Palatino Linotype Regular

Also, we'll change the text color from green to red for good measure:

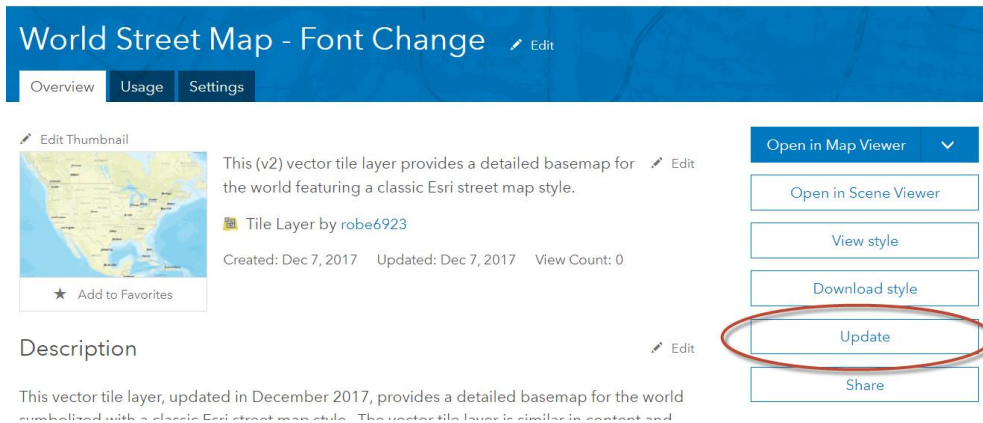
"text-color": "#797859", (existing green) to "text-color": "#ff0000", (red color, so new is easy to see change)

```
{
  "layout": {
    "text-letter-spacing": 0.05,
    "text-font": [
      "Arial Regular"
    ],
    "text-max-width": 8,
    "text-field": "{_name_global}",
    "text-size": 10,
    "symbol-avoid-edges": true,
    "text-padding": 25
  },
  "source-layer": "Admin0 forest or park/label",
  "id": "Admin0 forest or park/label/Default",
  "source": "esri",
  "paint": {
    "text-halo-color": "#DAE0B2",
    "text-color": "#797859",
    "text-halo-width": 0.665
  },
  "minzoom": 6,
  "type": "symbol"
},
```

```
{
  "layout": {
    "text-letter-spacing": 0.05,
    "text-font": [
      "Palatino Linotype Regular"
    ],
    "text-max-width": 8,
    "text-field": "{_name_global}",
    "text-size": 10,
    "symbol-avoid-edges": true,
    "text-padding": 25
  },
  "source-layer": "Admin0 forest or park/label",
  "id": "Admin0 forest or park/label/Default",
  "source": "esri",
  "paint": {
    "text-halo-color": "#DAE0B2",
    "text-color": "#ff0000",
    "text-halo-width": 0.665
  },
  "minzoom": 6,
  "type": "symbol"
},
```

- 9) Save the file (same name: **root.json**).

- On the **Map Item** page, there's an **Update** button. Update the style with the latest **root.json** file you just modified & saved.



- Open the tile layer in a web map browser and zoom to Yellowstone National Park. You should quickly see the park type (**Admin0 forest or park/label**) shows as red and in a different font (**Palatino Linotype Regular**).



Localization of Esri Vector Basemaps

Esri Vector Basemaps supports the ability to localize select map labels in many languages. The default map displays a primarily English global view. Localization is another form of basemap customization. As with other customization, there are two main ways to create a style for customization: add a style to the map in the Map Viewer or copy a root.json style from the USB flash drive. Review the information in the previous section on how to Customize Esri Vector Basemap styles.

Localization changes the labels on the map for many of the small scale features where the data supports it. Localize the map by changing the "text-field" value of the map style's resources\styles\root.json file. Use the corresponding codes for the language you wish to display. It is also recommended to change all "text-font" to an Arial Unicode font ("Arial Unicode MS Regular" or "Arial Unicode MS Bold") to allow all glyphs to display in the map. After the localization changes are applied to your JSON, validate the JSON using <https://www.jsonlint.com> or a similar tool, and then update or upload the new localized map style as previously detailed in this reference document.

Languages and codes supported (39 to date)

Arabic ar	Dutch nl	Italian it	Russian ru
Bosnian bs	English (default)	Japanese ja	Serbian sr
-	Estonian et	Korean ko	Slovenian sl
Catalan ca	Finnish fi	Latvian lv	Slovak sk
Chinese (Hong Kong) zh_h	French fr	Lithuanian lt	Spanish es
Chinese (Modern) zh_s	German de	Norwegian no	Swedish sv
Chinese (Taiwan) zh_t	Greek el	Polish pl	Thai th
Croatian hr	Hebrew he	Portuguese (Brazil) pt_b	Turkish tr
Czech cs	Hungarian hu	Portuguese (Portugal) pt_p	Ukrainian uk
Danish da	Indonesian id	Romanian ro	Vietnamese vi

Features supported for localization

The following features can have their "text-field" values changed to support these languages. The map labels that can be localized are primarily features displayed at small scale. At large scale, the default JSON labels the map in English "{_name_global}" or you can change it to the local language "{_name_local}" within each country where the map data supports it. Apply the Small Scale Feature changes first, before any changes to Large Scale Features. Using a text editor, find each "id" name and change its "text-field" value accordingly.

Small scale features

The default JSON for these features is "text-field": "{_name_global}". Listed below are the 88 "id" fields in the worldtopomap style JSON available for localization where the data supports it at primarily small scales. Other styles may have all or fewer of these features. For example, to display the map in modern Chinese, the JSON for each of these features changes "text-field":

"{_name_global}" to "text-field": "{_name_zh_s}". For French, "text-field": "{_name_fr}", and so on.

Water point/Sea or ocean	City large scale/medium
Water point/Island	City large scale/large
Water point/Dam or weir	City large scale/x large
Water point/Playa	City small scale/town small non capital
Water point/Canal or ditch	City small scale/town large non capital

Water point/Stream or river	City small scale/small non capital
Water point/Lake or reservoir	City small scale/medium non capital
Water point/Bay or inlet	City small scale/other capital
Water line/label/Default	City small scale/town large other capital
Water line large scale/label/Default	City small scale/small other capital
Water line medium scale/label/Default	City small scale/medium other capital
Water line small scale/label/Default	Admin0 point/x small
Water area/label/Dam or weir	Admin0 point/small
Water area/label/Playa	Admin0 point/medium
Water area/label/Canal or ditch	Admin0 point/large
Water area/label/Small river	Admin0 point/x large
Water area/label/Large river	City small scale/town small admin0 capital
Water area/label/Small lake or reservoir	City small scale/town large admin0 capital
Water area/label/Large lake or reservoir	City small scale/small admin0 capital
Water area/label/Bay or inlet	City small scale/medium admin0 capital
Water area/label/Small island	City small scale/large other capital
Water area/label/Large island	City small scale/x large admin2 capital
Water area large scale/label/River	City small scale/large non capital
Water area large scale/label/Lake or lake intermittent	City small scale/large admin0 capital
Water area medium scale/label/Default	City small scale/x large non capital
Water area small scale/label/Default	City small scale/x large admin1 capital
Marine waterbody/label/small	City small scale/x large admin0 capital
Marine waterbody/label/medium	Admin0 point/2x large
Marine waterbody/label/large	Continent
Marine waterbody/label/x large	Disputed label point/Island
Marine waterbody/label/2x large	Disputed label point/Waterbody
Indigenous/label/Default	Landform/label/Round small
Military/label/Default	Landform/label/Round medium
Admin1 forest or park/label/Default	Landform/label/Round large
Admin0 forest or park/label/Default	Landform/label/Round x large
Admin1 area/label/x small	Landform/label/Round small
Admin1 area/label/small	Landform/label/Round small point
Admin1 area/label/medium	Landform/label/Round medium
Admin1 area/label/large	Landform/label/Oblong medium point
Admin1 area/label/x large	Landform/label/Oblong large
Admin1 area/label/2x large	Landform/label/Oblong large point
City large scale/town small	Landform/label/Oblong x large
City large scale/town large	Landform/label/Oblong x large point
City large scale/small	Disputed label point/Admin0

Large scale features

Apply JSON changes to the Small Scale Features first. For Large Scale Features, the default JSON is "text-field":

"{_name_global}" and displays labels in English. If you are changing the map to the local language within each country

where the data supports it, the JSON for these features changes to "text-field": "{_name_local}". Find and replace

"{_name_global}" with "{_name_local}" throughout the JSON file. Listed below are the 47 "id" fields in the streetmap

style JSON available for local language within each country where the data supports it. Other styles may have all or fewer of these features.

For example, "text-field": "{_name_global}" becomes "text-field": "{_name_local}".

Finance/label/Default	Trail or path/label/Default	Landmark/label/Default
Medical/label/Default	Road/label/Highway	Admin2 area/label/large
Marine area/label/Default	Golf course/label/Default	Road tunnel/label/Major
Road/label/Local	Point of interest/Rail station	
Emergency/label/Default	Road tunnel/label/Pedestrian	Water and wastewater/label/Default
Airport/label/Airport property	Road/label/FreewayMotorway	Openspace or forest/label/Default
Ferry/label/Rail ferry	Zoo/label/Default	Neighborhood
Road /label/Minor	Point of interest/General	Road tunnel/label/Highway
Transportation/label/Default	Road tunnel/label/Local	Port/label/Default
Exit/Default	Cemetery/label/Default	Park or farming/label/Default
Railroad/label/Default	Retail/label/Default	Building/label/Default
Road/label/Major	Admin2 area/label/small	Road tunnel/label/Freeway Motorway
Beach/label/Default	Road tunnel/label/Minor	Industry/label/Default
Point of interest/Bus station	Freight/label/Default	Point of interest/Park

There are other features on the map with "text-field": "{_name}" in the JSON file. These features do not support localization; do not change their JSON code.

Changing the font

It is recommended to change the fonts to Arial Unicode MS Regular or Arial Unicode MS Bold. There is no Italic.

Esri Vector Basemap styles can have different default fonts. For example, the default fonts for streetmap style are Arial Bold, Arial Italic, and Arial Regular. For worldtopomap style, the default fonts are Noto Sans Bold, Noto Sans Italic, Noto Serif Regular, and Roboto Condensed Light. See page 31 for full listing of fonts available.

Esri Vector Basemaps Open Street Map data sources

Esri is expanding coverage and content in its publicly available basemap services hosted on ArcGIS Online. To expand coverage at large scales globally, Esri is embracing the OpenStreetMap (OSM) community to supplement content and produce cartographic products in the ArcGIS Online Basemap cartographic styles. An important aspect of being part of the OSM community is abiding by its licensing and use guidelines when working with OSM data. Esri took great care to ensure the process of obtaining and processing the OSM data is a “Trivial Transformation” for “Produced Works” served by Esri through the ArcGIS Online Platform.

In other words, Esri has not changed the source of the data in terms of its geometric representation or attribution but rather adjusted the geographic projection from WGS84 to Web Mercator Auxiliary Sphere and transformed features from the OSM format into the Esri Geodatabase model while preserving the original character values for feature labeling. More details on feature and the procedures Esri used to obtain OSM source, process the content to a rendering database, and produce a cartographic product are provided [at this link](#).

The coverage of OSM data in Esri Vector Basemaps:

