Available Vector Tile Basemaps
Json code properties to be discussed

- Order of layers in the json code
- "fill-color", "fill-outline-color", "fill-opacity"
- "line-color", "line-opacity", "line-width"
- "minzoom", "maxzoom"
- "visibility"
- "stops", "base"
- Disputed boundaries: "filter", "line-dasharray"
- "text-font", "text-field", "text-size", "text-padding", "text-letter-spacing"
## Vector Tile Levels of Detail (LODs)

<table>
<thead>
<tr>
<th>LOD</th>
<th>Scale 1:</th>
<th>(MinZoom)</th>
<th>LOD</th>
<th>Scale 1:</th>
<th>(MaxZoom)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>296 million</td>
<td></td>
<td>17</td>
<td>2 thousand</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>148 million</td>
<td></td>
<td>18</td>
<td>1 thousand</td>
<td></td>
</tr>
</tbody>
</table>
How the “base” property works

- **Base = 1**: The line width increases linearly with LOD.
- **Base > 1**: The line width increases non-linearly with LOD.

**Freeway Motorway line symbol**

- **Line width** vs **LOD**
- **Base = 1** graph shows a linear increase.
- **Base > 1** graph shows a non-linear increase.
Disputed Boundaries depiction

- To exclude Disputed boundaries:
  - Go to “Boundary line/Disputed admin0” layer
  - “filter” : [“all”, [“==”, “_symbol”, 6], [“in”, “DisputeID”, 8, 16, 96, 0, add values here]]

- To include them as regular Admin boundaries:
  - Go to “Boundary line/Admin0/0” and “Boundary line/Admin0/1” layers
  - “filter” : [“any”, [“==”, “_symbol”, 0], [“in”, “DisputeID”, add values here]]
Some useful websites

- **Esri Vector Basemaps Reference document**
  - esriurl.com/VectorRefDoc

- **Mapbox GL Style Reference**
  - https://www.mapbox.com/mapbox-gl-style-spec/

- **Brackets**
  - http://brackets.io/

- **Notepad ++**
  - https://notepad-plus-plus.org/

- **JSON Validator**
  - http://jsonlint.com/
Esri Vector Basemaps available fonts

- Arial
- Arial Unicode
- AvenirNext
- Belleza Regular
- Cabin Sketch
- Josefin Slab
- Just Another Hand

- Noto Sans
- Noto Serif
- Palatino Linotype
- Playfair Display
- Redressed
- Special Elite
- Syncopate
- Ubuntu
Two esri style editors

- **Vector Tile Style Editor**
  - created by Rene Rubalcava

- **Vector Basemap Style Editor**
  - [https://maps.esri.com/jg/VectorBasemapStyleEditor/index.html](https://maps.esri.com/jg/VectorBasemapStyleEditor/index.html)
  - created by John Grayson
Other presentations on Vector Basemaps

• Leveraging Vector Tile Layers in Web Apps
  - Today! 5:30pm – 6:15pm Demo Theater 10 - Online

• Styling Vector Basemaps
  - Tomorrow 10:15am -11:30am Room 08

• Styling Vector Tiles *(same presentation as this one!)*
  - Tomorrow 10:30am – 11:15am Demo Theater 10 - Online

• Caching Maps and Vector Tile Layers: Best Practices
  - Tomorrow 1:30pm – 2:45pm Hilton Sapphire Ballroom M

• Desktop Mapping: Creating Vector Tiles
  - Tomorrow 3:15pm – 4:30pm Ballroom 06F
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