

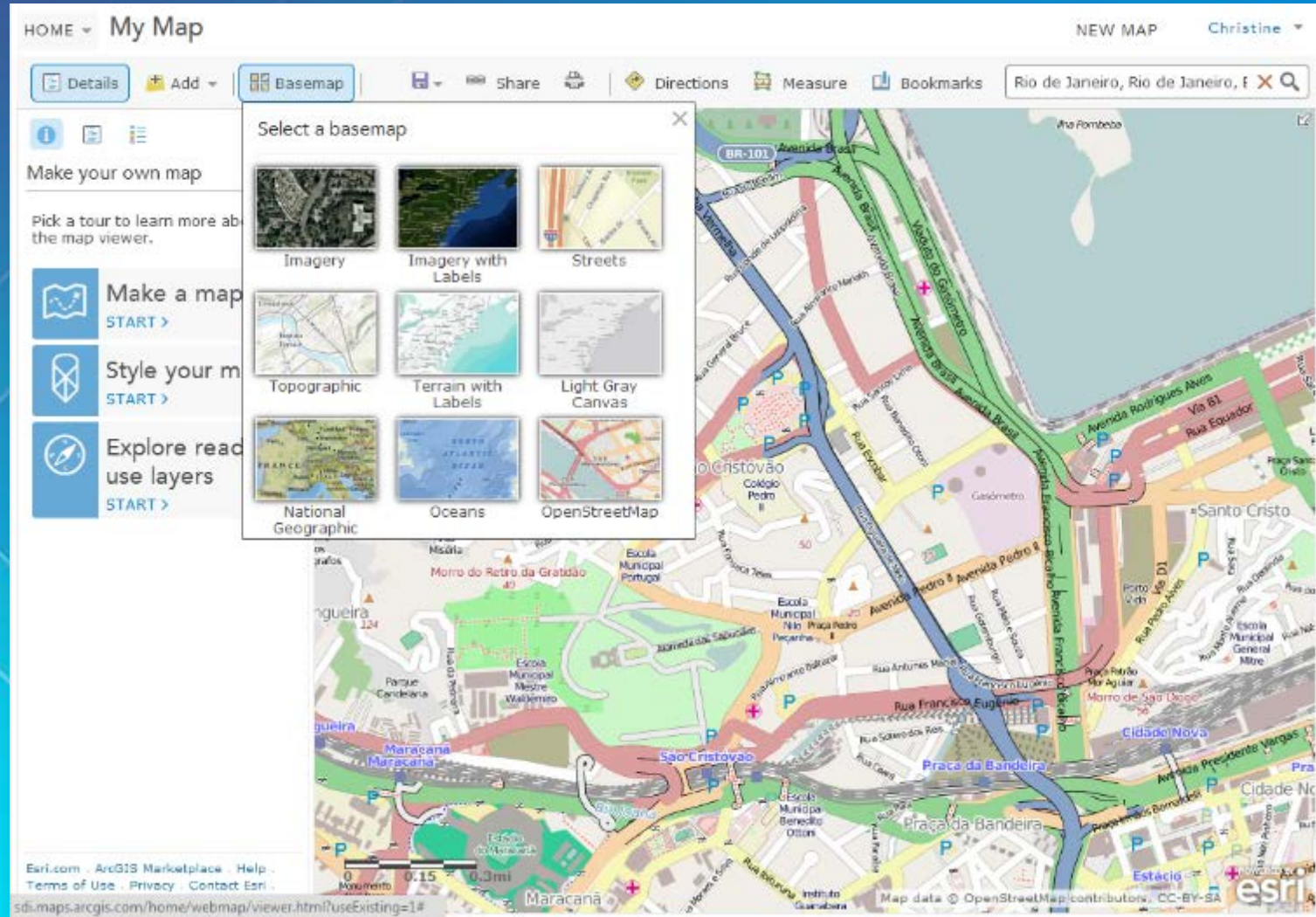


ArcGIS Editor for OpenStreetMap: Contributing Data

Christine White

What is OpenStreetMap?

<http://www.openstreetmap.org>



- Community
- Maps to use freely
- Data to access
- Contributions welcome
 - *we'll show you how*

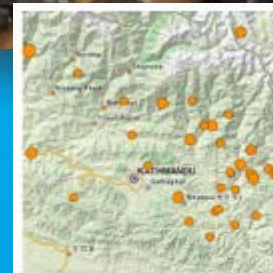
Community

- Join a meetup community - openstreetmap.meetup.com
 - Edit-a-thons! Mappy Hours!



Annual world meeting,
<https://2016.stateofthemap.org>
Brussels, Belgium

- Humanitarian OSM Team (HOT) - hotosm.org/emergency-mapping



Nepal 2015 Earthquake Response



West Africa Ebola Epidemic

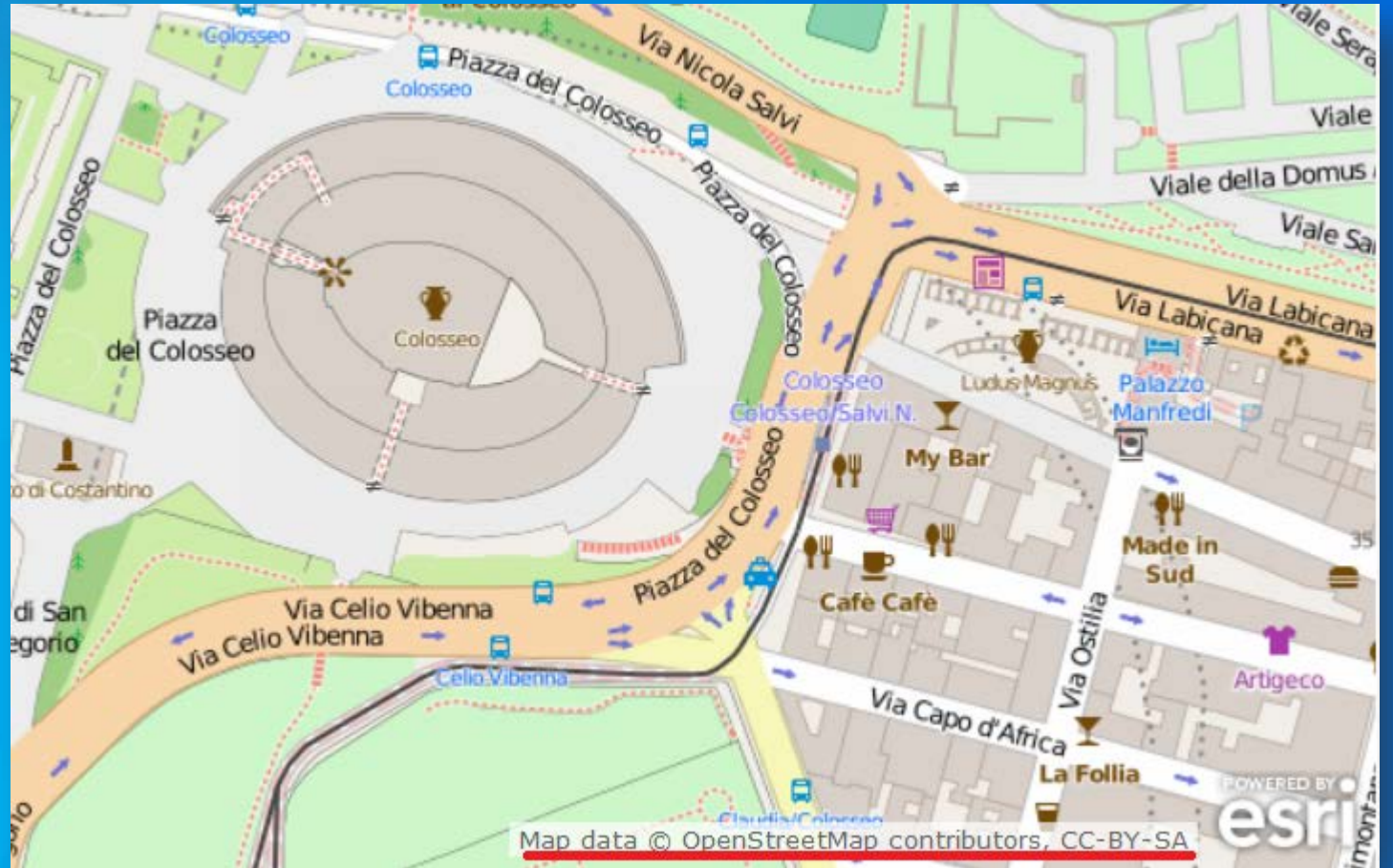


Central African Republic Activation

Maps to use freely

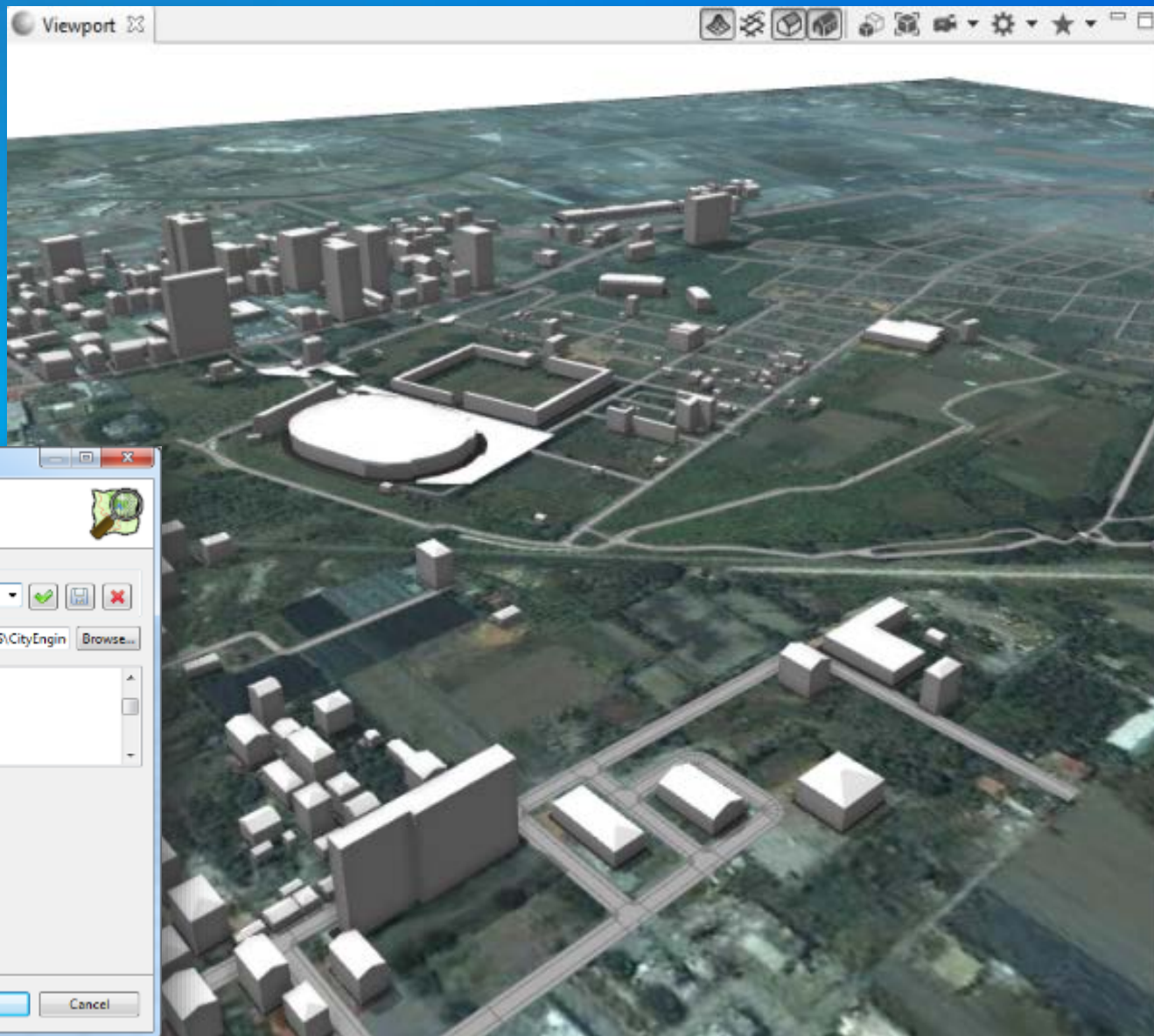
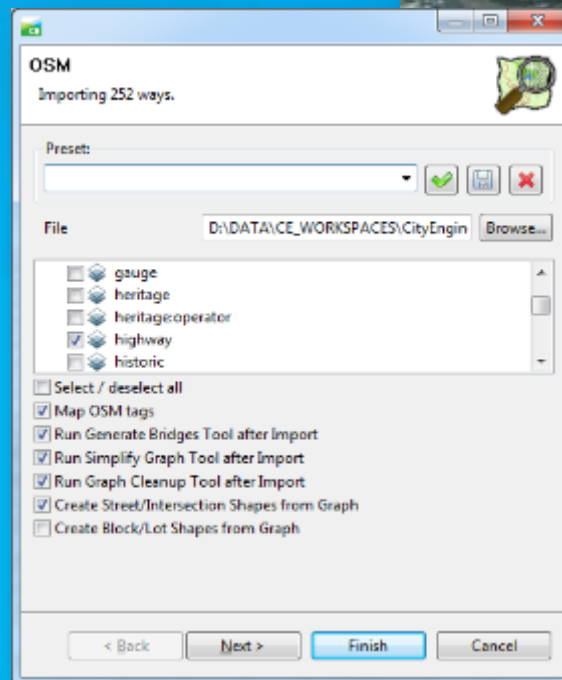
<https://www.openstreetmap.org/copyright>

- Licensed under the Open Data Commons Open Database License (ODbL)
- Copy, distribute, transmit and adapt the data, as long as you credit OpenStreetMap and its contributors
- The cartography in map tiles is licensed under the Creative Commons Attribution-ShareAlike 2.0 license (CC BY-SA).
- “© OpenStreetMap contributors”



Data to access

- City Engine (see <http://resources.arcgis.com/EN/HELP/CITYENGINE/10.2/index.html#//02w1000000r000000>)
- Production Mapping



OSM XML - http://wiki.openstreetmap.org/wiki/OSM_XML

```
<osm version="0.6" generator="Osmosis SNAPSHOT-r26543">
  <bound box="34.01978,-117.22435,34.08958,-117.13878" origin="Osmosis SNAPSHOT-r26543" uid="409545" user="xx" changeset="13076706">
  <node id="1497933542" version="1" timestamp="2011-10-31T22:52:01Z" uid="409545" user="xx" changeset="13076706">
    <tag k="name" v="180 Chiropractic" />
    <tag k="amenity" v="doctors" />
  </node>
  ...
  <way id="138817057" version="1" timestamp="2011-11-29T00:20:18Z" uid="304970" user="xx" changeset="13076706">
    <nd ref="1522479496" />
    <nd ref="1522479499" />
    <nd ref="1522479502" />
    <nd ref="1522479504" />
    <nd ref="1522479496" />
    <tag k="building" v="yes" />
  </way>
  ...
  <relation id="2398185" version="2" timestamp="2012-09-11T23:31:01Z" uid="194231" user="xx" changeset="13076706">
    <member type="way" ref="172434588" role="forward" />
    <member type="way" ref="29001116" role="forward" />
    ...
    <tag k="ref" v="10" />
    <tag k="symbol" v="http://upload.wikimedia.org/wikipedia/commons/c/c3/I-10_%28CA%29.svg" />
    <tag k="direction" v="west" />
    <tag k="route" v="road" />
    <tag k="name" v="I 10 (CA westbound)" />
    <tag k="is_in:state" v="CA" />
    <tag k="wikipedia" v="en:Interstate 10 in California" />
    <tag k="type" v="route" />
    <tag k="network" v="US:I" />
  </relation>
```

version of the API (the features used) and the generator that distilled this file

Node: location, and tags

Way: references to its nodes for each way, and tags

Relation: references to its members for each relation, and tags

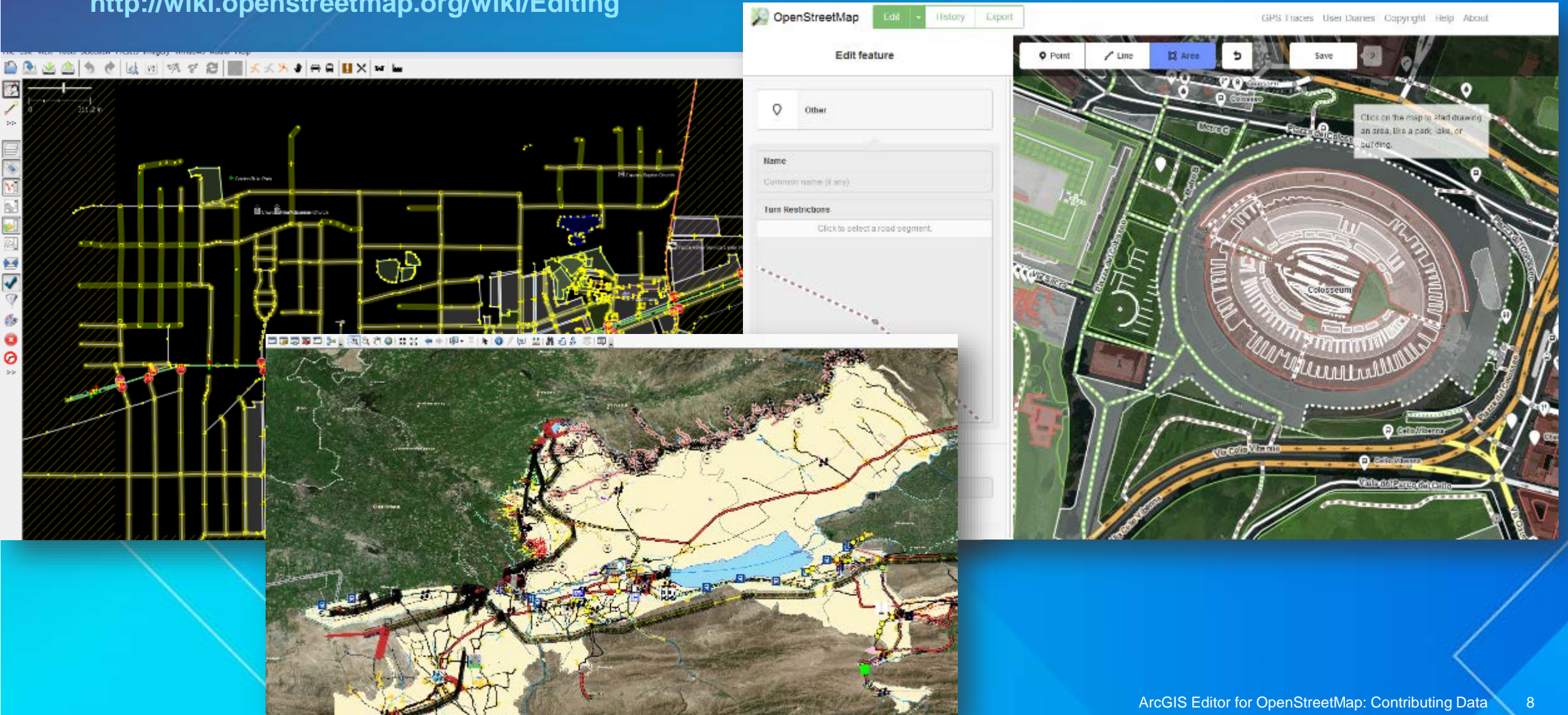
Contributions welcome

https://wiki.openstreetmap.org/wiki/Mapping_projects



Many tools to contribute data to OSM

<http://wiki.openstreetmap.org/wiki/Editing>




ArcGIS Editor for OpenStreetMap

Download free from ArcGIS Online

ArcGIS Editor for OSM, 10.3.x Desktop



ArcGIS for Desktop tools that support using OpenStreetMap data in ArcGIS. Load .osm files, apply symbology, contribute data back to OSM, and create network datasets from OSM data.

 Geoprocessing Sample by ceggars

Last Modified: April 3, 2015

★★★★★ (0 ratings, 3,508 downloads)

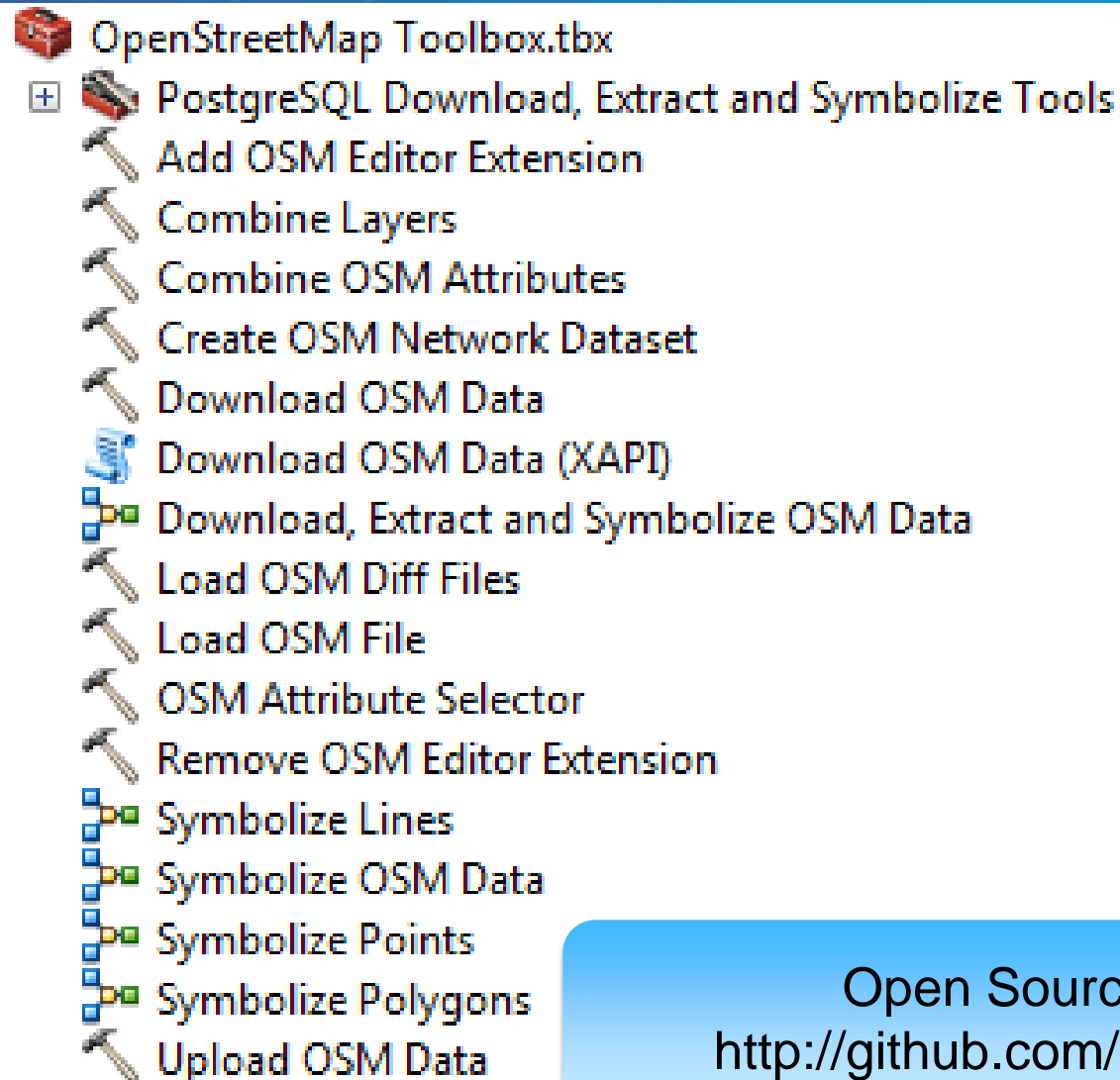
Sign in to rate this item.

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OPEN ▾

- **10.3.x and 10.2.2 update:** <https://github.com/Esri/arctgis-osm-editor/wiki/Release-Notes>

What does ArcGIS Editor for OSM do?



- Translate OSM data into a feature dataset you can use in ArcGIS
- Make a Network Dataset from OSM data
- Support users to contribute data to OSM through ArcMap Editing workflows

Open Source and on github:
<http://github.com/Esri/arctgis-osm-editor>

ArcGIS Editor for OSM Architecture



ArcGIS Editor for OSM
Tools, models, scripts
to translate OSM XML
to file GDB

ArcGIS for Desktop



Desktop



Web



Device



Server



Online Content
and Services

Download OSM Data tool

Download OSM Data

OpenStreetMap base download URL

Extent of data download
Default

Top
Left Right
Bottom

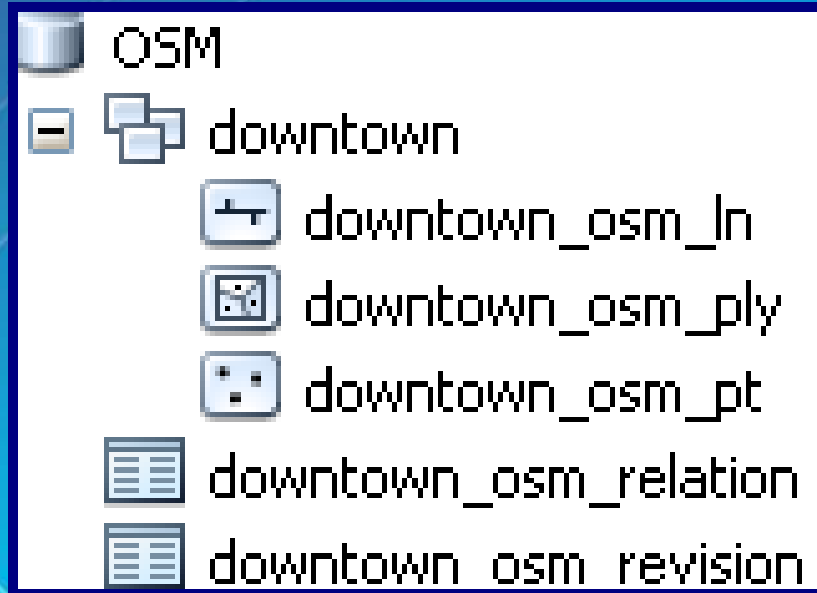
Include all relation references (optional)

Target feature dataset

OpenStreetMap feature classes

OK Cancel Environments... Show Help >>

Resulting feature classes and tables



- **osm_relation**

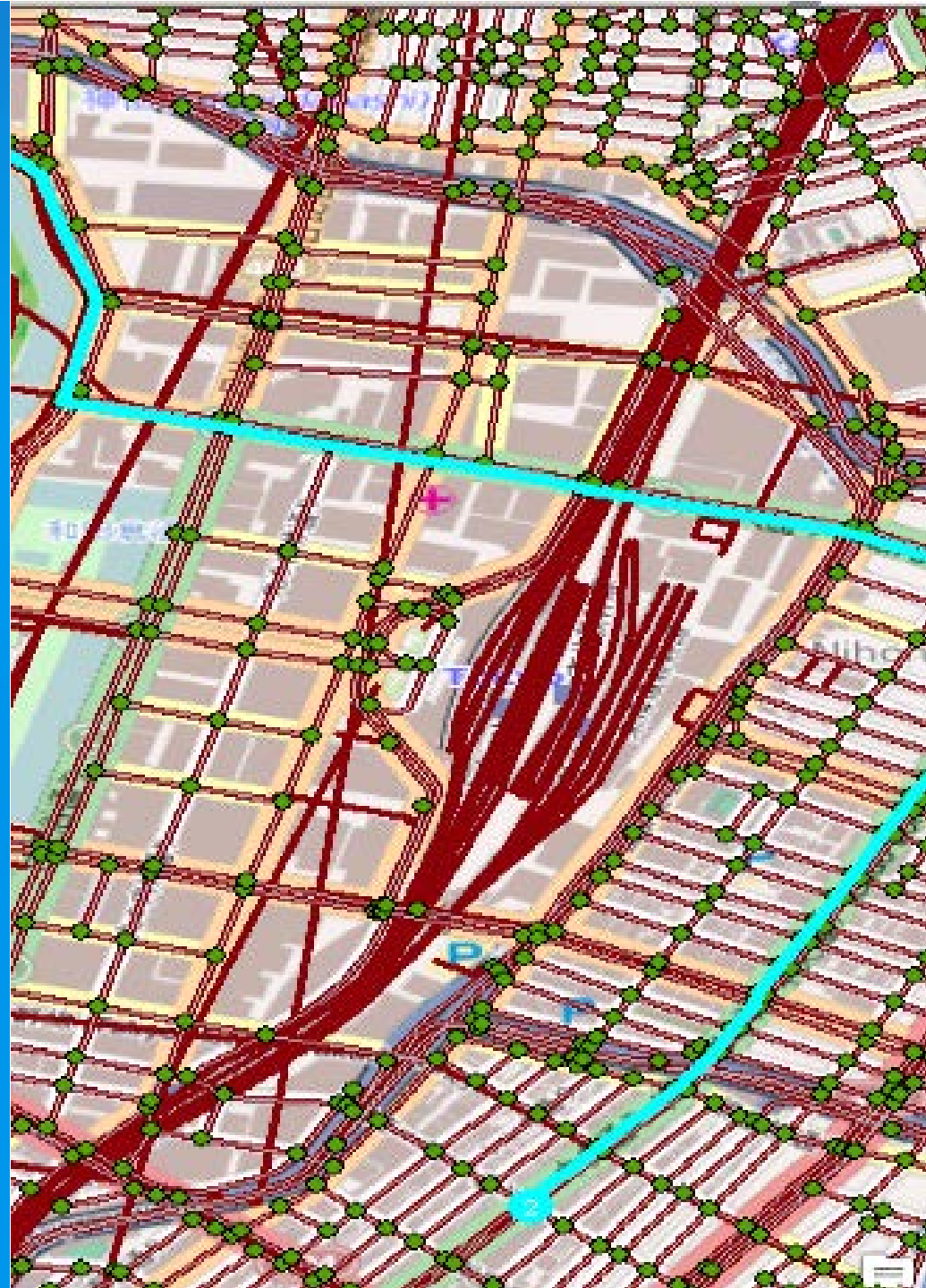
- Maintains relations between features as described in OSM as the user works with the OSM data in ArcGIS
- E.g., primary, secondary, and residential types of road line features may have a relation to describe how these define a bus route

- **osm_revision**

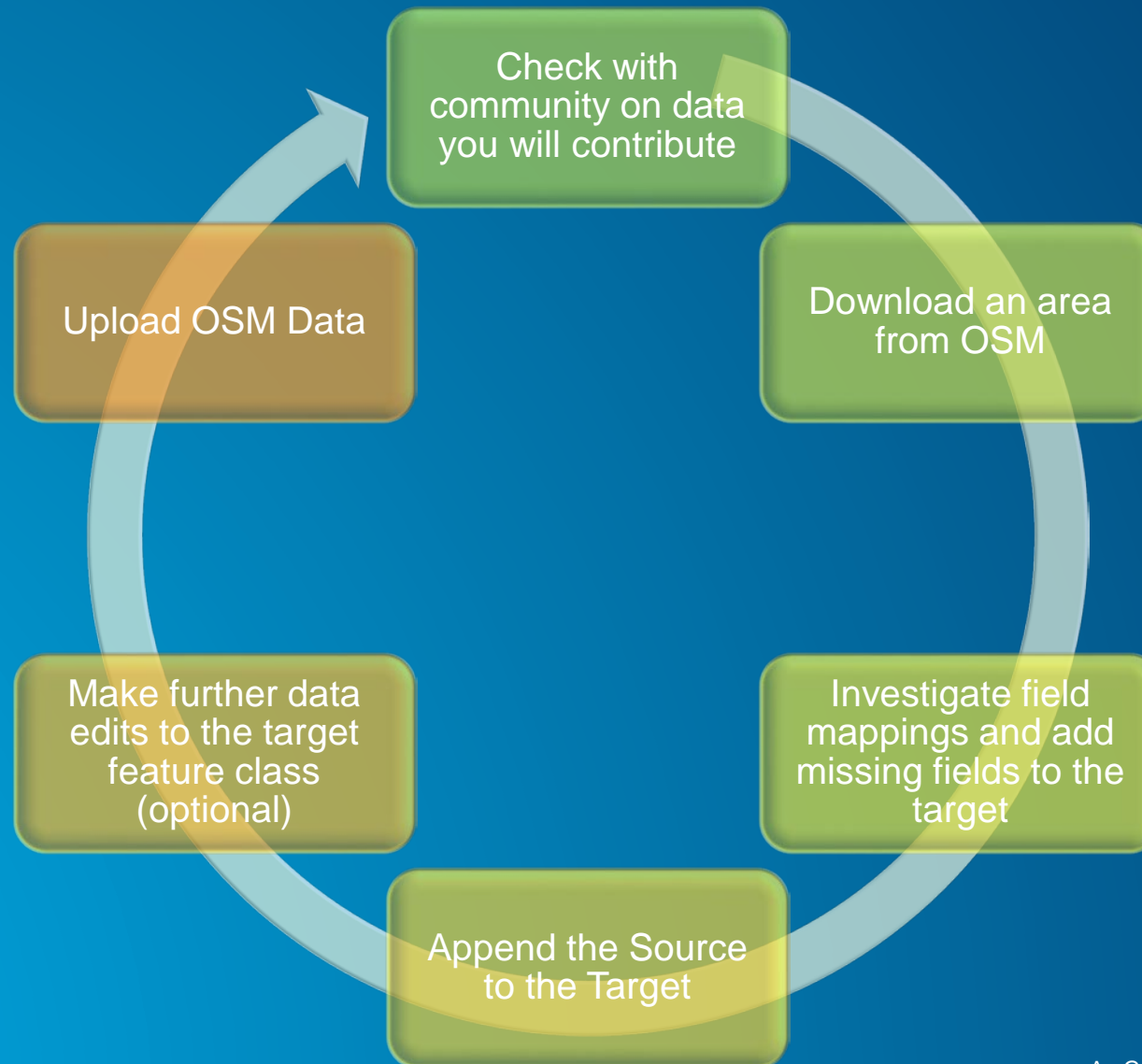
- Track edits to the downloaded OSM dataset that are made by you as you edit it
- Used if you choose to upload data back to OSM

Editing using the ArcGIS OSM Editor

Demo



Contributing an existing dataset to OSM through ArcGIS

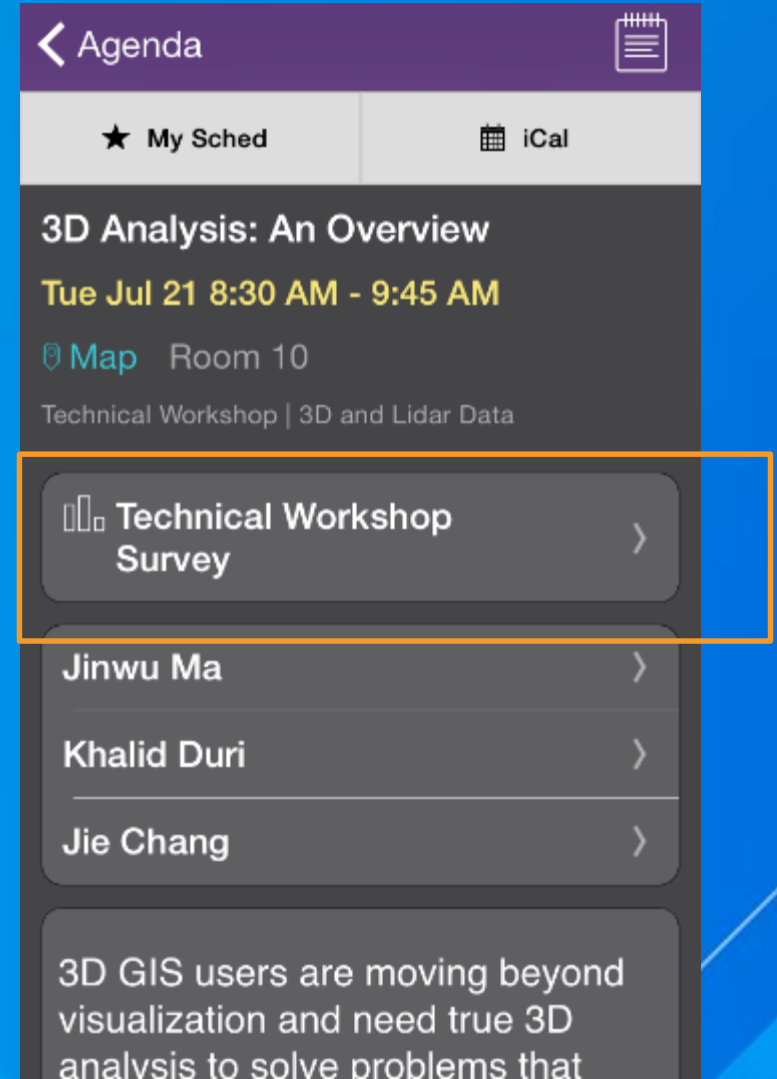


Summary

- Lots of ways to get involved – local mappy hours, State of the Map
- To download the ArcGIS Editor for OSM 10.3.x tools
 - Go here <http://www.esri.com/osmeditor> and click the “Download ArcGIS Editor for OpenStreetMap Now” link
 - Will take you to item in ArcGIS Online
 - Unzip, run installer, launch ArcMap, and you are set
- GitHub documentation and code here: <http://esriurl.com/osmeditor>

Thank you...

- Please fill out the session survey in your mobile app
- Select “ArcGIS Editor for OpenStreetMap: Contributing Data” in the Mobile App
 - Use the Search Feature to quickly find this title
- Click “Technical Workshop Survey”
- Answer a few short questions and enter any comments





Understanding our world.