OpenMapTiles: Vector tiles from OpenStreetMap

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About OpenMapTiles

- Open-source tools for vector maps
- [https://openmaptiles.org/](https://openmaptiles.org/)
- [https://github.com/openmaptiles](https://github.com/openmaptiles)
- Successor of OSM2VectorTiles
- Launched January 2017
Map tiles
- Open Vector Tile Schema
  - Description of thematic data layers and attributes
  - Documented and extensible
- Tools for generating vector tiles
  - Creates MBTiles containing PBFs (MVT)
- Open Map Styles
  - Prepared styles for the tile schema
  - Easy to customize
Using OpenMapTiles

www.openmaptiles.org
Choose your favourite server

- OpenMapTiles Server (vectors, rasters, WM(T)S, custom styles & data, …)
- TileServer GL Light (vectors only, pure JavaScript, node.js)
- TileServer GL (vectors + rasters using Mapbox GL Native, node.js/C++)
- TileServer PHP (vectors only)
- Tessera (powered by Tilelive)
- Postserve (on demand using ST_AsMVT)
Choose your favourite client API / SDK

• JavaScript API: OpenLayers, MB GL JS, Leaflet, WebGL Earth, …
• Mobile SDKs: MB GL for iOS / Android, Carto SDKs, … *OpenMapTiles app.*
• Desktop: QT Location, VectorTileRender .Net/C#, MapSui, …
• Games: Unity, …
• QGIS native plugin, ArcGIS compatibility
OpenLayers Native Vector Tile Rendering
with OpenMapTiles Vector Tiles and Style
Custom Coordinate Systems
openmaptiles.com/coordinate-systems/

WGS84
Modifying OpenMapTiles

• Anybody can generate OpenMapTiles
• Tutorials https://openmaptiles.org/docs/
• Requires Docker and Docker Compose
• Large areas can take some time
• Don’t have to do that (downloads available)
How to turn OSM into vector tiles

- Import OSM data into database (imposm3)
- Spatial database to integrate, preprocess, query (PostGIS)
- Encode a query for each tile as vector tile (Tilelive Mapnik)
Modifying OpenMapTiles

www.openmaptiles.org
The vector tile schema describes how the vector data is organized into different thematic layers and which attribute and values each layer contains. This is useful for writing a map style and allows for alternative implementations of a schema.

The OpenMapTiles schema is open (CC-BY) and you are free to use, extend or build upon the existing implementation (BSD license). Please reference OpenMapTiles if you build upon the schema.

The vector tile schema has been developed by Klokantech GmbH and was initially modelled after the cartography of the Carto Basemap Positron. The vector tile schema has been refined and improved in cooperation with the Wikimedia Foundation and is heavily influenced by the many years Paul Norman’s experience of creating maps from OpenStreetMap.

Schema updates and changelog.

Definition of layers

- aerodrome_label

Aerodrome labels

Fields

- name
Community

• Fork the project on GitHub (as others did)
• Use it for your subset of tags
• Make pull-request with new layers of fixes
• Talk to us, please!
OpenMapTiles.com

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