

Mapping a transport network with OpenStreetMap (OSM) and GTFS



Comparison of 2 possible ways: "OSM then GTFS" or "GTFS then OSM"

Map a large city's transportation network in GTFS or map it in OpenStreetMap? Why wouldn't you blend the best of both worlds? Let's summarize the advantages of each one to help you choose the best methodology for your project.

OpenStreetMap

WHAT TOOLS TO USE?

General Transit Feed Specification



The "Wikipedia of Cartography" is a fast-growing, coordinated global community that creates freely available data.

A file format for public transit schedules and related geographic information.

OSM

GTFS

OpenStreetMap is now considered to be the most exhaustive open geographic database in the world. It allows detailed descriptions of transport networks.

This standard is widely used by mobility stakeholders for route planning and to study the structure of the transport network.

FEATURES



OSM contains additional contextual data (streets, points of interest, etc.)



OSM facilitates collaboration and data exchange (Open Data)



The GTFS is a technical basis for public transport route planning



The GTFS is a de facto standard for transport data

OSM

GTFS

AN ADVANTAGE

A NECESSITY

TWO WAYS TO COMBINE THE TWO TOOLS

OSM then GTFS

OSM

GTFS

GTFS then OSM

First map the network in OSM, then extract a GTFS file from it

Innovative approach for co-construction and co-maintenance of a database with a community. Good choice to stimulate collaboration and maintenance over time

Create a GTFS file and then reintegrate the stop and route details into OSM

Good choice in order to move quickly with a small group of people

CHARACTERISTICS OF THE TWO WAYS



DATA COLLECTION



Produced by an open group and enhanced by external contributions from the community.

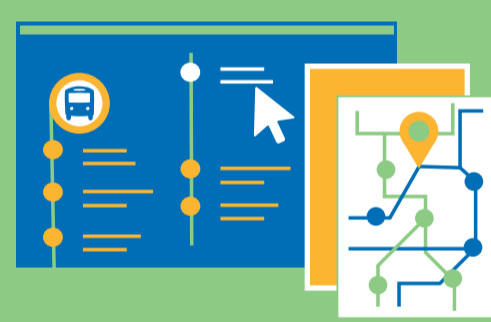


Production controlled by a small group.

OSM then GTFS

GTFS puis OSM

DATA INFRASTRUCTURE



Provides a complete infrastructure that can be used immediately for all geographic data. However the schedules and other temporal data are more complex to manage.

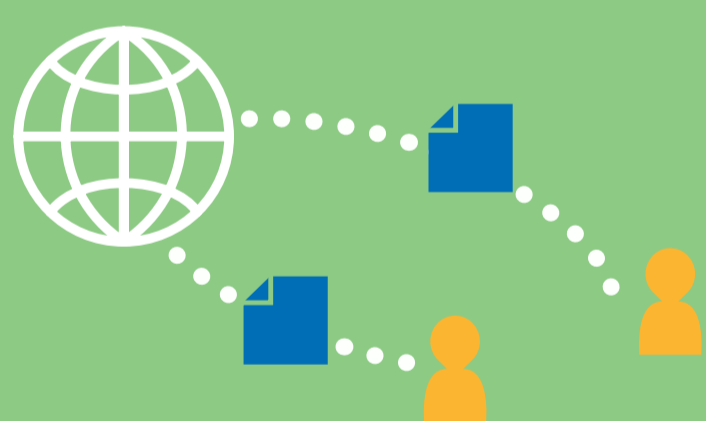


The GTFS is a data format for public transport. Where to store, how to share the data and how to allow collaboration to produce the data must be individually planned and tackled for each project.

OSM then GTFS

GTFS then OSM

DATA UPDATE



The data can be continuously updated by a core group together with the wider community.



Updates of the data must be planned in advance and conducted actively. This generally relies on a small group of people.

OSM then GTFS

GTFS then OSM

DATA OPENING AND REUSES



Open by default. Freely accessible platform and open data license for all produced data.



It depends on the policy of each project. Most of the time, the usage of data is then limited to project partners.

OSM then GTFS

GTFS then OSM

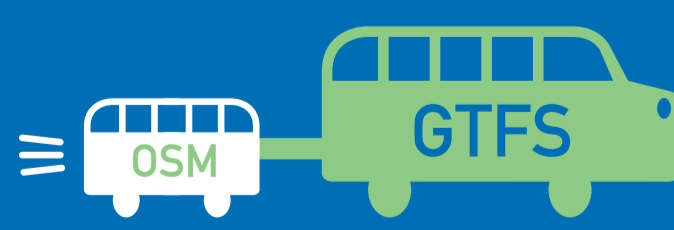
ECOSYSTEM



A large number of applications, APIs, thousands of contributors and companies support the ecosystem. Not transport oriented by default, it can take time to dive into it for beginners.



Very active industrial ecosystem but few tools freely usable in open source.



Open collaboration leads to more sustainable cities and fair development. Open Data and the OpenStreetMap ecosystem are essential components to achieve long lasting digital public transport solutions.

Need help to choose and implement an appropriate strategy for your project?

www.wayswemove.net

Already convinced? Discover how Jungle Bus uses the "OSM then GTFS" approach for more resilience and opportunities of collaboration with the OSM community.

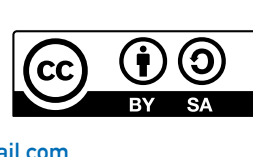
www.junglebus.io/osm-then-gtfs



WAYS WE MOVE



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