



Better Transportation through Data

Updates on MobilityData's Current Projects

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We are the global nonprofit organization dedicated to developing the open-source data standards that provide traveler information



We are the maintainer of GTFS and GBFS





Current Public Transit Projects (<https://mobilitydata.org/roadmaps/>)



GTFS extensions (GTFS-Fares v2, GTFS-Flex)



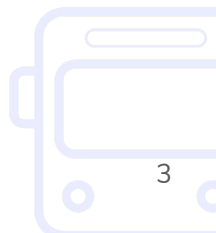
Define GTFS features



Improve GTFS governance process



Tools (Mobility Database, GTFS Validator)





GTFS-Fares v2



Issue - the previous fares features in GTFS (Fares v1) can only represent simple fare structures



Goal - Riders can get accurate pricing information and choose from a comprehensive range of options, including various passes, fare media, and rider categories within different fare systems



GTFS-Fares v2 aims to model more complex fare structures
It is currently being developed iteratively



GTFS-Fares v2

Have adopted:



Simple zone-based fares



Fare media



Time-based fares



Route-based fares
(networks)

Working on:



Priority of matching
rule between a leg
and multiple products



Improve mechanisms
for multi-legs journey.

Next:



Improve zone-based
fares

Future:



Rider category



Fare Capping



Distance-based fares



Inter-agency fares

and more...



GTFS-Flex



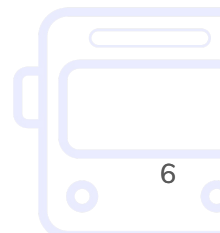
DRT works in standalone app/website/service
Riders are not aware of DRT options



Riders discover DRT services through trip planners
Provide integrated routing options for both fixed-route and DRT services

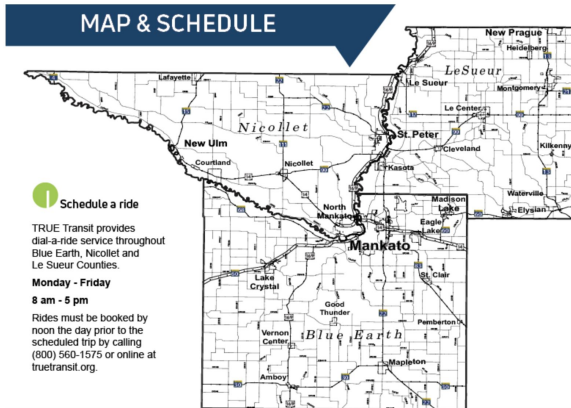


Not include - actual path, realtime info, “accurate” time duration, and transactional info



Zones

The vehicle can pickup/dropoff riders anywhere within a zone or between zones to serve demand-responsive requests



Example: [TURE TRANSIT](#) (MN, US)

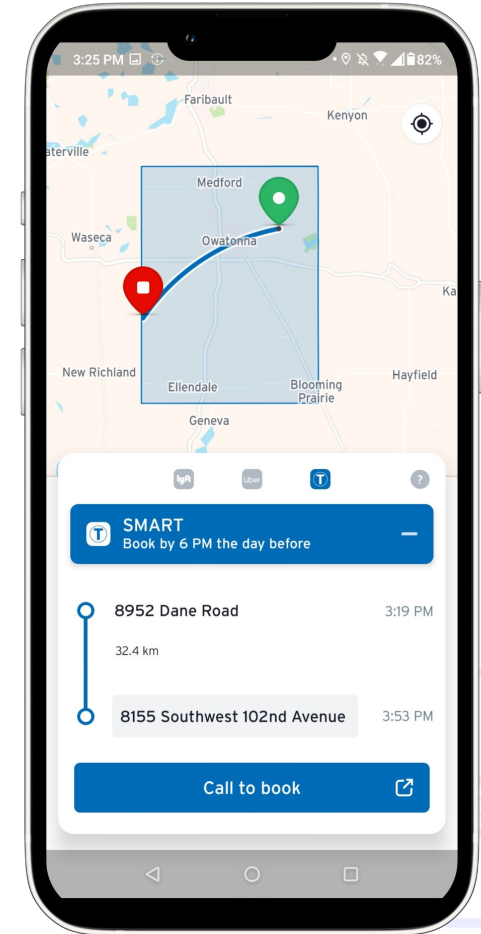
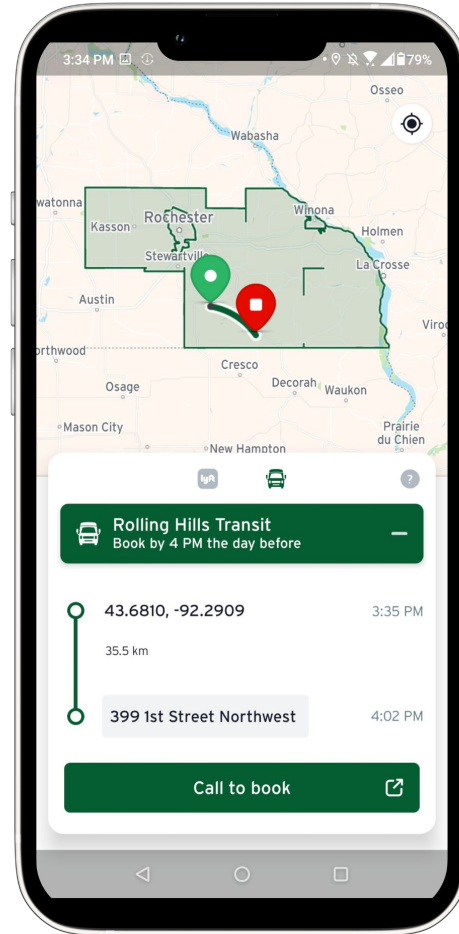


Image source: TransitApp



Point-to-point

The vehicle can pickup/dropoff riders at a certain point(or group of points) to serve demand-responsive requests

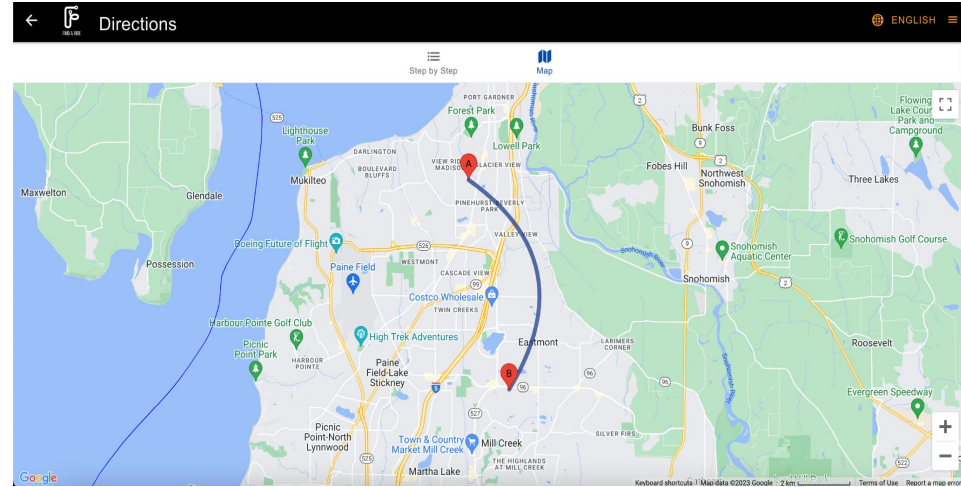
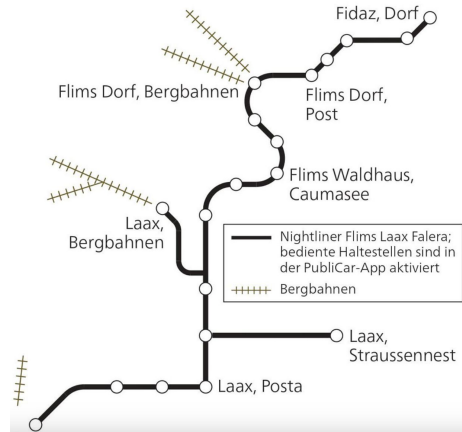


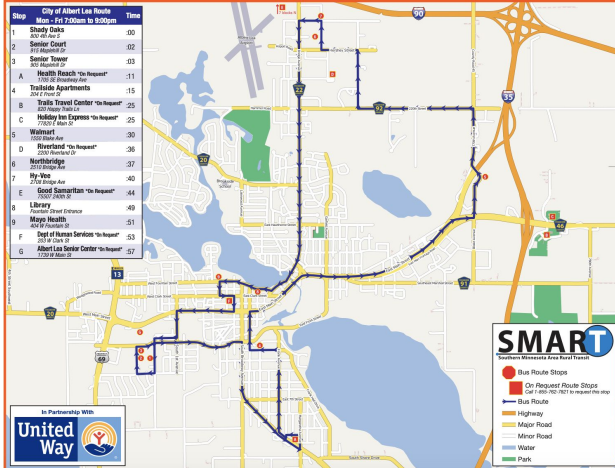
Image source: find-a-ride

Example: [Flims Laax Falera Nightliner](#) (CH)



Route Deviation

Fixed-route services where the vehicle can deviate to serve demand-responsive requests within a zone around the path



Example: [SMART](#) (MN, US)

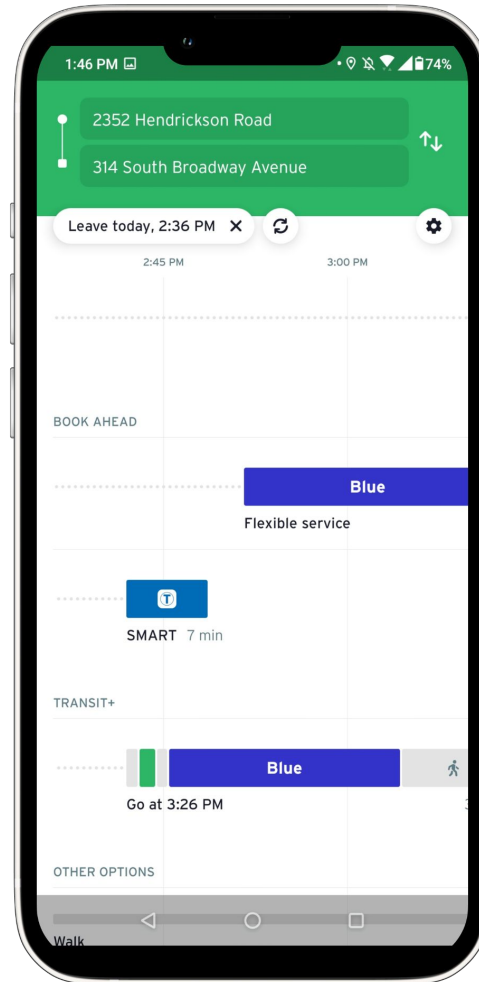
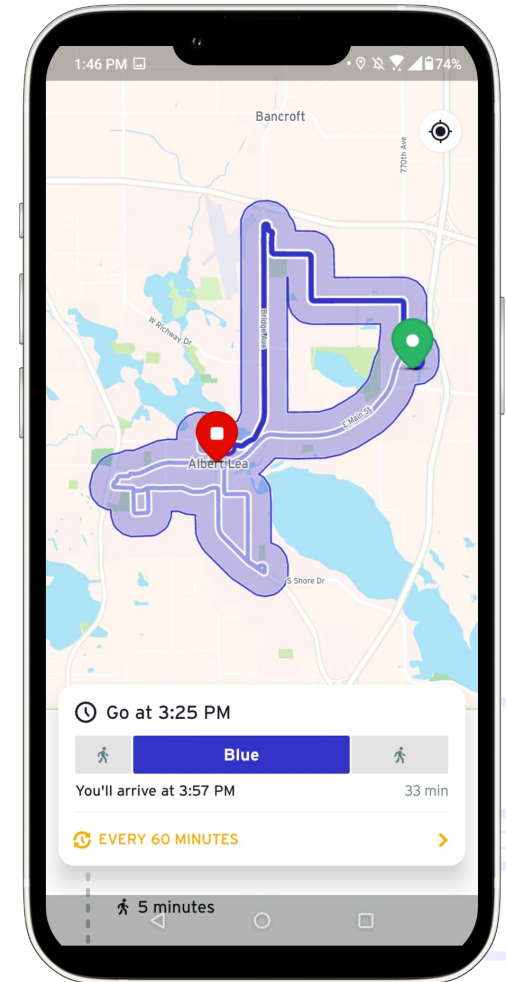


Image source: TransitApp





GTFS-Flex

Working on:



Next:



Improve estimated travel time



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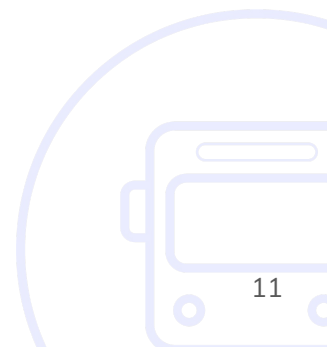
Define GTFS features



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GTFS features



As GTFS is growing, it is becoming increasingly hard to understand what can be represented with GTFS.



- Easier to know what's possible to represent with GTFS
- Consumers and vendors can share with the community the list of features they support in an efficient way
- Tracking the production of feature on the Mobility Database using the Canonical GTFS Validator
- Allow organizations to require certain features



GTFS features



Overview

Search



GitHub
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- Technical Documentation
- Overview
- Schedule ▾
- Features ▸
- Reference
- Best Practices
- Recent additions
- Realtime ▸

Accessibility

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The Accessibility Component of GTFS contains multiple functionalities to provide information that helps end users navigate and access public transit services. Some of these features can be used to communicate the name and color of a route, confirm whether or not a trip and a station are wheelchair accessible, or providing translations in multiple languages.

Text-to-speech

Provide the necessary inputs to convert text for stop names into audio

→ [Learn more about this feature](#)

Wheelchair accessibility

Indicate if a stop and/or vehicle can accommodate users using wheelchairs

→ [Learn more about this feature](#)

Route Colors

Accurately depict and communicate the color scheme assigned to specific routes

→ [Learn more about this feature](#)

Bike Allowed

Communicate if vehicles are able to accommodate bicycles or not

→ [Learn more about this feature](#)

Translations

Communicate service information in multiple languages

→ [Learn more about this feature](#)

Headsigns

Communicate the signage used by vehicles indicating the trip's destination

→ [Learn more about this feature](#)

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- Accessibility
- Fares
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- Flexible services
- Shapes
- Transfers
- Frequency-based services



GTFS features



Fares

Search



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Time-Based Fares

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Time-based Fares is used to assign fares for specific time-of-day or day-of-week, such as peak and off-peak fares and/or weekend fares.

Files included

Fields included

[fare_leg_rules.txt](#)

fare_product_id, from_timeframe_group_id, to_timeframe_group_id

[timeframes.txt](#)

timeframe_group_id, start_time, end_time, service_id

🔍 Sample Data >

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- Fare Media
- [Route-Based Fares](#)
- Time-Based Fares
- Zone-Based Fares
- Fares Transfers
- Fares V1

Zone-Based Fares

Zone-Based Fares is used to represent zone-based systems where a specific fare applies when traveling from one particular zone to another. A zone is defined by a group of stops.

Files included

Fields included

[fare_leg_rules.txt](#)

fare_product_id, from_area_id, to_area_id

[areas.txt](#)

area_id, area_name



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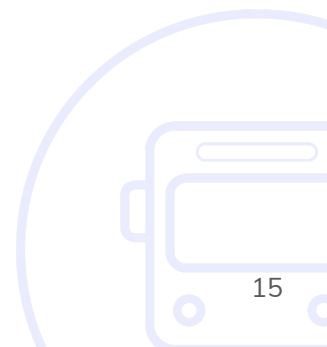
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Tools (Mobility Database, GTFS Validator)





Improve GTFS governance process



- High barrier to entry
- Insufficient engagement in the proposals in the early stages of development.
- First adopters are frequently impacted by last-minute changes to their implementation, leading to an increase in committed resources.





Improve GTFS governance process



Phase 1 - Effective communication and GitHub management

- Publication of a monthly “GTFS Digest”
- Using GitHub issue templates and labels



Phase 2 - Enhancing voting and reviews

- Adding an earlier vote to increase the visibility and potential issues of a proposal early-on
- Incorporating review guidelines



Phase 3 - Fast track process for smaller changes

- Adding a lightweight process for smaller changes
- Other editorial changes on the spec amendment process



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Tools

Vision: Improve the quality of GTFS data internationally through increased **transparency** and **collaboration**.



GTFS Schedule Validator

- Command line, web and desktop tool to use to see if your feed complies with GTFS
- **Transparent, canonical list of data quality issues** according to the spec
- Regularly updated to include new spec extensions and improvements (e.g. Fares v2)
- Includes GTFS features



Canonical GTFS Schedule Validator

Evaluate your dataset against the official [GTFS Reference](#) and [Best Practices](#).

Upload a ZIP file

No file chosen

[Choose a file...](#)

You can also drag a file here

Or load from a URL

Region (optional)

[See Documentation](#)

[Validate](#)

[Help Us by Sharing Feedback](#)

Made with by [Col-ITP](#) and [Jarvus](#). Maintained with by [MobilityData](#). Contribute on [GitHub](#).

For performance optimization reasons, any uploaded GTFS feeds can be stored on MobilityData's servers for 30 days. These feeds are not made publicly available nor shared with any third party, unless required to solve hosting issues. Our servers are located in the United States. If you have any concerns with this, please contact us at hello@mobilitydata.org



Tools

Vision: Improve the quality of GTFS data internationally through increased **transparency** and **collaboration**.



Mobility Database

- Directory of 2000+ GTFS feeds from around the world (11 from Japan)
- Spreadsheet and API
- By end of 2024: include validation reports and user interface
- Improve collaboration between producers and consumers by publicizing feeds and their data quality

Mobility Database

ABOUT FAQ CONTRIBUTE API DOCS CONTACT US LOG IN

The Mobility Database

The Mobility Database catalogs is a repository of 2000+ mobility feeds across the world. It has over 150 updated feeds previously unavailable on TransitFeeds (OpenMobilityData).

We're in the first phase of building a sustainable, central hub for mobility data internationally.

Currently serving data from over 1400 transit providers in 69 countries.

DOWNLOAD THE ENTIRE CATALOG

SIGN UP FOR THE API

What About TransitFeeds?

You'll be able to access transitfeeds.com until a deprecation date is decided

The data on TransitFeeds is becoming increasingly out of date and cannot be updated, which is negatively impacting travelers. That's why we're encouraging users to use the Mobility Database instead, which they can actively contribute to and improve.

We will discuss the transition process in greater depth before committing to a specific date to remove access to transitfeeds.com. No decision has been made yet. If you want to participate in a discussion about the deprecation of transitfeeds.com, let us know in the [catalogs GitHub repo](#). We commit to giving 6 months notice once the decision is finalized.

Help Us by Sharing Feedback



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Membership

Benefits

- Members only events, networking
- Member resource library, newsletter, Free tickets for workshops
- For higher levels: Organizational voting rights, personalized onboarding

New! Members Directory

- Feature your projects and activities
- Browse through our network
- 120 members on all continents

Get in touch with MobilityData
and discover
our membership program



 MobilityData

<https://share.mobilitydata.org/Membership-form>

The 2024 International Mobility Data Summit

Fall 2024 (October 30, 31)

Montréal, Québec, Canada