Guide to the new GTFS reporting requirements.

New reporting requirements are here.

There are major changes coming to standard NTD reporting for agencies: for the first time, starting in Reporting Year 2023, all U.S. transit agencies will be required to publish and maintain GTFS information. What does this mean for your agency? And how can you adapt to this change without straining current resources?

If you need a primer on GTFS and what it does for public transit, read on. If you're already up to speed on GTFS and just want to know what's changing, how to prepare, and how the right software can make a difference for your agency, **feel free to skip ahead to page 5.**
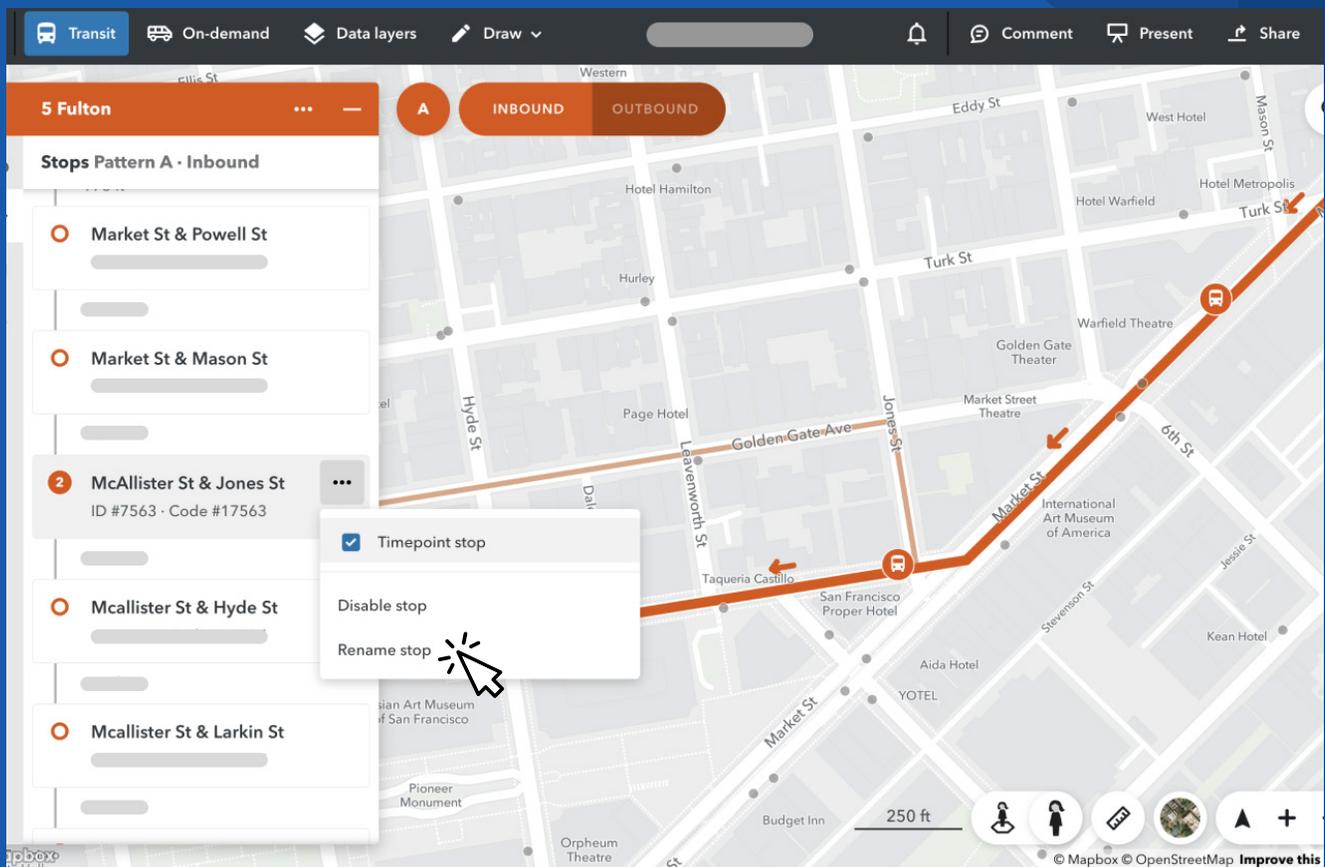
Renaming a stop to keep GTFS current is simple in Remix's map-based interface.

What is GTFS?

GTFS, or the General Transit Feed Specification, is a standardized data format that transit agencies can use to publish information about their services. Because it's standardized, third-party applications can easily import this information and make it available to their users. So when people plan a bus trip with Google Maps, or check a train's arrival time in a mobile schedule app, they're likely leveraging the power of GTFS.

There are currently two kinds of GTFS feed:

1 **GTFS Schedule**, which includes static information that forms the backbone of your transit service, like stop locations and timetables.

2 **GTFS Realtime**, which is an extension that allows agencies to provide live updates to bus locations.

In this guide, we're going to be focusing on the GTFS Schedule feed, also known as "static GTFS." This GTFS feed takes the form of a collection of .txt files — some required, some optional — that specify agency information ("agency.txt"), stop geography ("stops.txt"), bus arrival and departure times ("stop_times.txt"), and more.
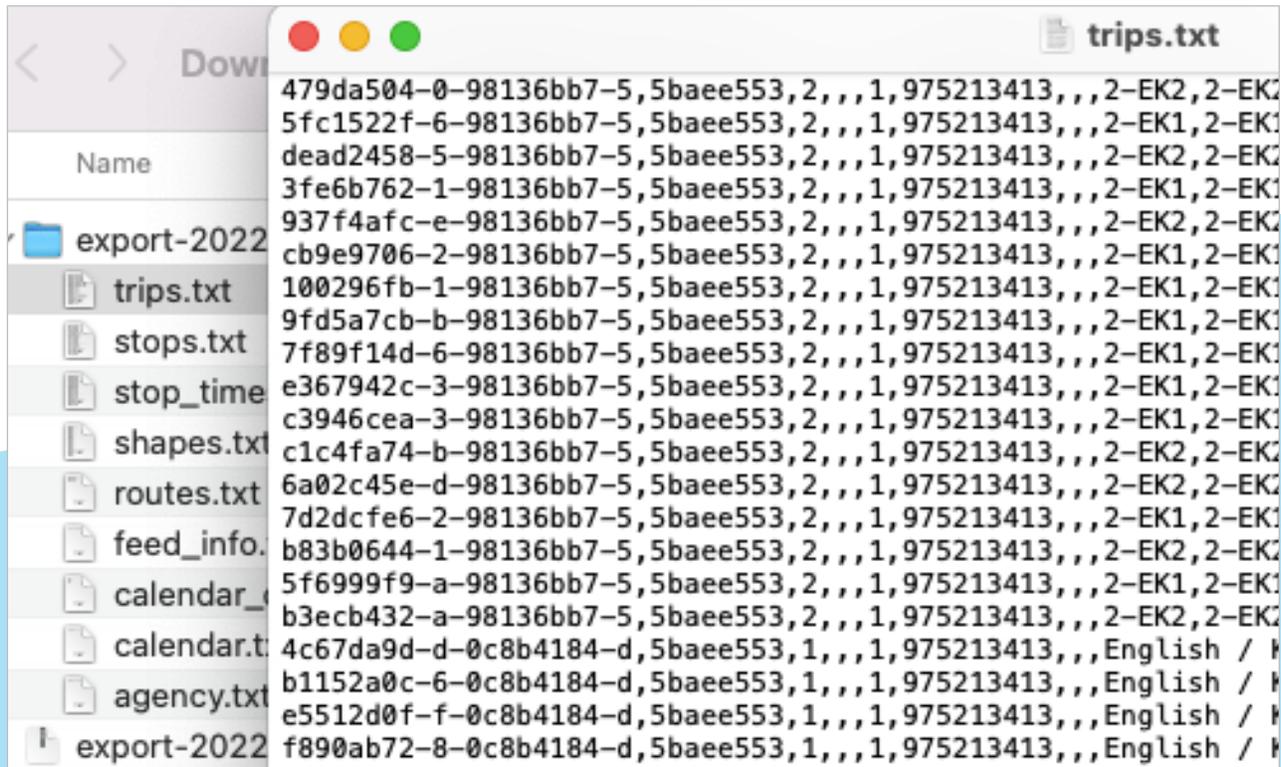
Why is GTFS important?

GTFS is the **most commonly-used data format in the United States** for expressing information about transit services. Approximately 35% of all transit agencies currently maintain GTFS feeds, and these tend to be agencies serving large numbers of passengers with complex, multimodal service networks.

GTFS is powerful because of its standardization and wide adoption. When software engineers set out to build programs and algorithms that power trip planners, live-updating bus signage, or train delay notifications, they know their product will be able to be widely used, with minimal adaptation, if it "talks" to GTFS-based transit information.

And reaching potential passengers through these programs, or just through your own website, is important because it helps build trust. When passengers know when the bus is coming — even if it's a holiday, even if a road accident is blocking traffic — they are more likely to trust your transit network, and ride more frequently.
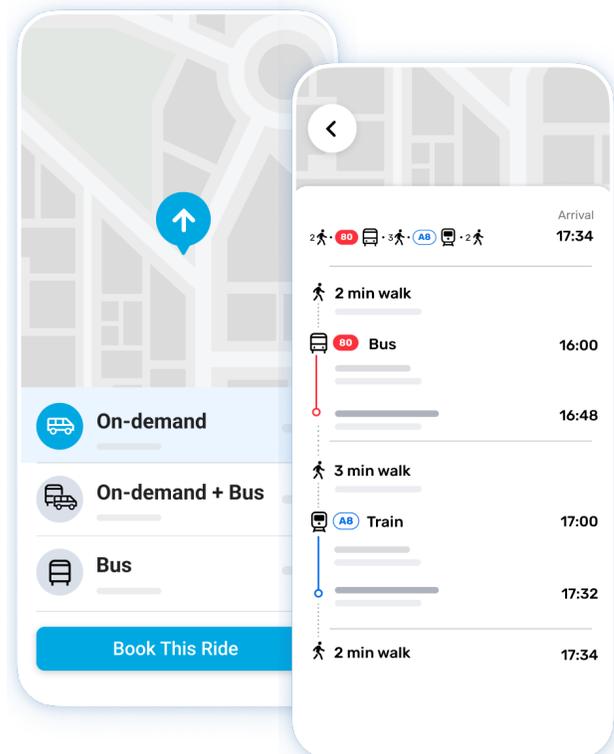
GTFS helps riders plan multimodal journeys.

What's changing?

When the Infrastructure Investment and Jobs Act passed in November 2021, headlines focused on the unprecedented scale of the new transit investment. Here at Via, we were also excited by its widened scope, and the inclusion of microtransit services and TransitTech as eligible expenses. But the Act did far more than lay out new frameworks for distributing funding: **it also laid out new requirements for agencies, particularly around data collection**, intended to strengthen the nation's digital transit infrastructure alongside its roads, rails, and bridges.

What does the Act require with regard to GTFS?

The IIJA does not specifically require anything to do with GTFS — but it does require the Federal Transit Administration (FTA) to collect "geographic service area coverage" data through the National Transit Database (NTD). This data will supplement and enhance the information already collected from agencies, creating a more comprehensive portrait of each agency for the purposes of funding, analysis, and planning.

Because GTFS is already a widely-adopted standard for geographic (and other) information about transit services, the **FTA has chosen to require agencies to maintain GTFS feeds** as a way of fulfilling its new obligations under the IIJA. As an added benefit, transit riders across the country will be able to access transit network information and trust its accuracy — leading to a better transit experience and greater transit use.

What exactly are agencies required to do?

Agencies will need to **create static GTFS feeds for their fixed-route services and publish this documentation** as a part of their annual NTD reporting activities. In most cases, agencies will need to host this information on the web in a machine-readable, non-password-protected format. Any changes to fixed-route services must be reflected in the published GTFS feeds.

Mark your calendar!

When will agencies need to comply?

Agencies will first face this new requirement starting in **Reporting Year (RY) 2023.** By **RY 2024**, agencies must annually attest that their documentation is up to date.

How to prepare.

If you're one of the 65% of agencies that do not currently maintain GTFS documentation to the FTA'S new standards, you may be worried about the resources required to get up to speed. Particularly for small agencies, any new reporting requirement can seem daunting — especially one that requires so much carefully-formatted information.

Depending on an agency's resources and needs, staff typically take one of three approaches to creating and maintainingstatic GTFS documentation:

- **Manual approach,** using standard computer applications to directly edit .txt files.
- **Outsourced approach,** engaging a company to produce, edit, and update GTFS on the agency's behalf.
- **Standard software approach,** licensing software enabling in-house GTFS maintenance.
- **Integrated software approach,** licensing planning and/or scheduling software that automatically creates and maintains GTFS.

We'll walk through each approach, and lay out the benefits and drawbacks of each.

Manual approach.

In some ways, preparing a static GTFS feed is simple: creating .txt files requires no special software. Smaller agencies can and do prepare this information using simple spreadsheets, though it can still take up excessive staff time.

But if you introduce any form of complexity — routes that vary by day of week, or time of day, for example — or grow your network, **the amount of time spent manually updating GTFS can increase exponentially.** And it can be very difficult to check whether the GTFS files you produce are accurate, or whether they contain errors that would render them unusable to your passengers.

Pros	Cons
• No specialized software required	• Time-consuming, even for small networks
	• Difficult to scale as networks grow
	• Difficult to check for accuracy

Outsourced approach.

Some agencies choose to simply outsource the entire GTFS creation and maintenance process to a specialist software company. The company takes care of creating the initial feed, making necessary updates, and critically, validating the resulting GTFS feeds so they can be easily imported and displayed. This approach takes up nearly no staff time, but can be expensive — and agencies have little insight into or control over the process, making any errors or issues time-consuming to identify and correct.

Pros

- Takes little-to-no staff time
- Results are validated by powerful specialist software

Cons

- Typically the most expensive option
- No control of process

Standard software approach.

A middle ground between completely manual and completely outsourced approaches is a software-based approach, in which agency staff maintain GTFS feeds in-house using licensed software. Companies that offer outsourcing will also license their software for agency use, so staff can access the same product while maintaining more control of the process. But these platforms can be less than intuitive to use, and are not easily integrated into an agency's typical planning and scheduling activities.

Pros

- Saves significant time when compared to manual approach
- Allows complete control over GTFS process and final result

Cons

- Requires more staff time than the outsourced approach.
- Licensing GTFS-specific software increases an agency's overall software costs.
- GTFS creation is a separate workstream, requiring staff time beyond typical activities.

Integrated software approach.

Some of the downsides of standard software can be mitigated by taking an integrated approach. These software platforms treat planning, scheduling, and GTFS maintenance as components of the same process — and critically, the cost of GTFS maintenance is usually included in the cost of the planning and scheduling software.

Pros

- Saves significant time when compared to manual approach
- Allows complete control over GTFS process and final result
- Intuitive, graphic interface that can be used by inexperienced staff
- GTFS is created and updated within existing planning and scheduling workstreams
- Included in planning and/ or scheduling software at no additional cost

Cons

- Requires agencies to use planning or scheduling software, an additional cost to agencies who currently plan and schedule manually.
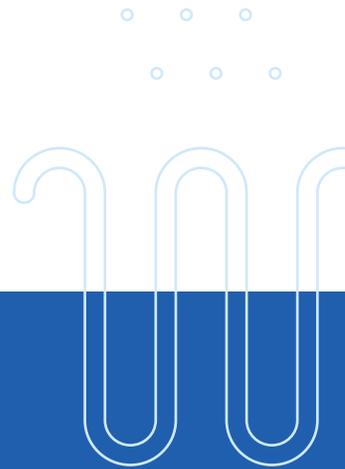
What next?

Curious to learn more about the new GTFS requirements and how your agency can prepare?

Don't be a stranger! Reach out to Joshua Panter, Remix Partnerships.

Josh Panter
Remix Partnerships

✉ joshua.panter@ridewithvia.com
☎ (845) 521 -5836