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# Remix Transit

## Documentation of Software Features and Unique Functionality

**Executive Summary:** Remix Transit is the only cloud-based transit planning software that provides quick route design and analysis capabilities designed for team collaboration, including: map-based route and stop planning, stop-based demographic analysis, operating cost calculations based on both frequencies and timetables, customizable accessibility visualizations, and flexible data visualization with analytics through a complementary product experience with Remix Explore. Remix Transit is uniquely designed for community outreach: external stakeholders can comment electronically on publicly-shareable Remix projects through read-only links. Remix Transit is also uniquely designed for collaboration and cohesive planning: maps are easy to share across an organization and users can analyze neighboring transit datasets for additional regional context and collaboration. The Remix software is designed to work within existing transit planning processes, including the ability to import routes through General Transit Feed Specification (GTFS) and shapefile, and to export data for use in existing transit tools. As a Software-as-a-Service (SaaS) product, Remix Transit is available to an unlimited number of users under one organizational license, includes an unlimited number of custom shapefile imports, exports, and technical customer support, and is ready for immediate deployment.

# Key Distinguishing Features

- **Browser-based, interactive, and dynamic:** Remix Transit is the only transit planning software platform to use an internet browser to provide a drag-and-drop interface for designing and modifying routes. By using cloud-based software, the agency avoids being encumbered by the cost and time of on-premise installation or updates, and users are provided the flexibility of accessing the software anywhere, whether that be at their home office or at a public engagement meeting.

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- **Designed for collaboration and communication:** Remix Transit is designed to assist the planning process. Plans created in Remix can be shared easily with internal and external stakeholders via a hyperlink. Remix Transit includes several collaborative tools, including text annotations, the ability to drag and drop transit routes across maps, and shared organization-wide settings that are customizable per agency. Projects made in Remix Transit are easy to export into presentation-ready visuals for public outreach or marketing.

- **Intuitive and easy-to-use:** Due to the intuitive design of Remix Transit, most new users can start planning in Remix after a single two-hour training. The software's ease-of-use allows multiple departments within an agency to leverage Remix as a shared language across teams.

- **Champions open data standards and is data-agnostic:** Remix champions open data standards to minimize the agencies' cost of transforming data and to ensure interoperability with other systems. Over the years, the Remix team has made significant contributions to leading transportation data standards so that a broader ecosystem of technology and tooling exists to help the transportation industry. The Remix platform is also data-agnostic, which means it is able to ingest data from both proprietary and public sources for visualization and analysis. Remix's fully-integrated pipelines and dedicated data team support over 3,000 datasets to date, including ridership, origin-destination data, collisions, and more.

- **Increased data discoverability with a complementary product experience, Remix Explore:** Remix Explore is a product experience that adds additional value to Remix Transit by helping agencies discover transportation data insights quickly. With Remix Explore, agencies can rapidly pull relevant statistics and combine and analyze datasets to uncover multimodal insights, allowing agencies to plan transit in the context of community demographics and as part of the complete transportation picture.

- **Immediate setup:** Upon completing a fully executed contract, Remix can implement and provide agency access to accounts right away. There is no on-premise installation or download required, and trainings are flexibly-scheduled based on the availability of agency staff.

- **(US Agencies) Default data layers:** Remix provides immediate value to agencies with out-of-the-box data layers for rapid demographic and equity analysis. Default data layers include demographic data from the American Community Survey (ACS), jobs data from the Longitudinal Employer-Household Dynamics (LEHD) and Census Transportation Planning Product (CTPP), origin-destination data from Origin-Destination Employment Statistics (LODES), essential services data with Homeland Infrastructure Foundation-Level Data (HIFLD), infrastructure data with the Bureau of Transportation Statistics (BTS), and political boundaries data with Community Development Financial Institutions Fund (CDFI Fund) and Census.

- **Unlimited users and technical support:** One agency license includes access for an unlimited number of users without the worry of maintenance, hosting, or software updates. Users access Remix via a username/password with no installation or downloads necessary. Remix Software, Inc. maintains the technology infrastructure and releases new features for Remix Transit, available immediately to active customers. Remix also provides unlimited customer support for no additional charge.

- **Wide range of imports and exports to promote interoperability:** As a SaaS product, Remix Transit is designed to work with existing agency tools and processes, and the licensing is designed to support maximum collaboration. Users can import and export existing information to GTFS. Other exports include Microsoft Excel, KML, shapefile, PNG images, as well as print-ready visuals in PDF.
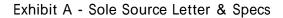
# Detailed Specifications

Remix Software, Inc warrants that it is the manufacturer and sole provider of the Remix software platform. Furthermore, Remix Software, Inc. warrants that they are the only source for setup and customization, training, and customer support services for the Remix software.  In summary, Remix Transit provides the following features:

- **Fast and accurate sketch planning using existing stop infrastructure, including:**
    - Stops database built on latitude and longitude of existing stops, stop IDs, stop names

- ○ Routes served at each stop
- ○ Quickdraw, which detects stops on the correct side of the road at the appropriate spacing
- ○ Exportable stops in: shapefile, Microsoft Excel, KML (Google Earth), and GTFS formats
- **Instant demographic impact analysis using the latest US Census data from the American Community Survey:**
  - ○ Minority (people who are non-White or of Hispanic origin), Population (people living per square mile), Poverty (people falling below the nationwide poverty level), Car-free (households with no vehicle available), Senior (people 65 or older), Youth (people 18 years or younger), Disabled (people who have a disability) and Limited English (household with limited English speaking status)
  - ○ Jobs data provided from the Longitudinal Employer-Household Dynamics (LEHD) with specific Origin/Destination data from LEHD Origin-Destination Employment Statistics (LODES)
  - ○ Unlimited custom data layers in shapefile format (upon request), such as: stop amenities, historical ridership aggregated, origin/destination overview, flex zones, and jurisdictional/political boundaries.
- **Instant origin-destination analysis using Longitudinal Employer-Household Dynamics (LEHD) and Census Transportation Planning Product (CTPP):**
  - ○ Interactive jobs and commuters data to display origin-destination patterns
- **Instant analysis and modification of transit routes with interactive bus graphs, including:**
  - ○ Run time, headways, average speed traveled, number of buses required for route
  - ○ Annual cost of operation, annual revenue hours, annual revenue miles
  - ○ Length of route, layover, efficiency analysis
  - ○ Historical ridership sorted by line, direction, activity, day type and time of day (upon request)
  - ○ Exportable turn-by-turn instructions
- **Generate, customize, and visualize timetables for route scenarios:**
  - ○ Define trips within service windows for route scenarios with exact timepoints and pattern variants
  - ○ Ability to modify single or multiple timepoints

- Edit multiple trips by customizing segment level runtimes based on historical information
- Shift all trips in a service window by modifying the inbound and outbound start times
- Clearly model routes with varying termini, irregular stop structures, and non-standard headways (for example, commuter routes and "trippers")
- Easily export timetables to Excel for quick sharing with other teams (i.e. Scheduling, Marketing) and share maps via hyperlink to ensure accuracy and ease
- **(US-agencies) Title VI Service Equity Analysis, involving:**
  - Before and after census-based Title VI service equity analysis completed in 10-15 minutes via 4 outputs: 3 visual maps, and a spreadsheet with key data including:
    - Total population served (within .25 mile radius of all stops), including a breakdown of low-income and minority populations by census block group
    - Raw data provided for breakdown
    - Change in percentage of people-trips for low Income and minority populations from before and after scenarios
  - In-depth Title VI methodology found here: http://remix.com/title-vi, approved and co-developed with multiple transit agencies
- **Instant "Jane" Isochrone Mobility Visualization and Analysis, which allows agencies to:**
  - Analyze ability to travel to and from any point on the map using the transit and pedestrian network and visually represent data on the map
  - Analyze ability to travel in adjustable time bands between 20 minutes and 3 hours
  - Customize time of travel based on frequency/availability of transit options at any time of day or day of the week
  - Can instantly show a rider's access to resources like jobs, schools, grocery stores, etc.
- **Shareable maps for internal and external use:**
  - Maps created in Remix can be shared via hyperlink to both Remix users and also non users
  - Recipients of hyperlinked maps can submit electronic comments to original map creators

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- ○ Since Remix is internet browser accessible, users can also use and display Remix maps in live meeting settings (such as board presentations, public workshops, and internal meetings)
- ○ Remix data can also be exported in a variety of formats including: Microsoft Excel, KML (Google Earth); shapefile (GIS/ArcMap); frequency-based GTFS; PNG image, and print (hard copy and PDF)
- **Designed for collaboration with features that include:**
  - ○ In map text annotations allow map creators to bring attention to project areas with additional context that helps teammates or members of the community better understand the motivation or the neighborhood context behind a proposed project
  - ○ Shared projects that are easy to access in each user's project list
  - ○ Specific settings (e.g. cost settings) that can be set organization-wide to streamline collaboration and ensure users are using Remix as a shared language
- **Access to Remix Explore for rapid and flexible data analysis:**
  - ○ Instant statistics on the community (e.g. demographics, travel patterns) and points of interest for predefined areas (census tracts, city boundaries, etc) and custom geographies created with drawing and a multi-selection tool
  - ○ Easily filter data across multiple dimensions and legend breaks
  - ○ Calculating change over time for data with multiple versions with "delta layers"
  - ○ Custom data uploads available upon request

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# REMIX PLANNING: DOCUMENTATION OF SOFTWARE FEATURES AND FUNCTIONALITY

**EXECUTIVE SUMMARY:** Remix Planning is the only cloud-based transit planning software that provides quick bus route design and analysis capacities through an internet browser interface, including: map-based route and stop planning, stop-based demographic analysis, operating cost calculations based on both frequencies and timetables, and customizable accessibility visualizations and analytics. External stakeholders can comment electronically on Remix plans through globally accessible hyperlinks, and Remix users can analyze neighboring transit datasets for additional collaboration. Remix Planning is designed to work within existing transit planning processes, including the ability to import routes through existing sources such as General Transit Feed Specification (GTFS) and shapefile, and to export data for use in existing transit tools. As an open data, Software-as-a-Service (SaaS) product, Remix Planning is available to an unlimited number of users under one organizational license, includes an unlimited number of custom data layer uploads, exports, and technical customer support, and is ready for immediate deployment.

## KEY DISTINGUISHING FEATURES

- **Browser-based, interactive, and dynamic:** Remix Planning is the only transit planning software platform to use an internet browser to provide a drag-and-drop interface for designing and modifying routes.
  - Routes are imported from either GTFS or shapefile formats, and can also be created from scratch.
  - Remix Planning dynamically updates in real time. When users modify transit scenarios via the map interface, they simultaneously observe the effects of changes on demographics and operating costs.
  - Remix enables fast and accurate sketch planning by importing the existing physical stop infrastructure. These stops can then be used for demographic and travel time analyses.
  - Remix provides a customizable accessibility visualization tool ("Jane" isochrone) which illustrates a transit rider's ability to travel at any given time of day or day of the week from any point on the map. Can instantly show a rider's access to resources such as jobs, schools, and grocery stores (from custom data).
  - For American transit agencies, Remix comes pre-loaded with the US American Community Survey census, and includes a built-in Title VI service equity analysis engine which provides in-depth calculations on the impact of changes for low-income and minority riders. For other countries, Remix can import an unlimited number of polygon-based, custom data layers for demographic analysis.
- **Designed for collaboration and communication:** Remix Planning is designed to assist the planning process, so plans created in Remix can be shared easily both internally and externally via hyperlink.
  - Scenarios created in Remix can be shared with other Remix users via hyperlink to facilitate collaboration. Remix users can quickly copy existing maps to their individual accounts to ensure accurate handoffs.
  - Users can also share Remix maps externally with non-Remix users, such as decision-makers, board or council members, or even the public. With a read-only view, the public version of Remix includes the ability for viewers to leave electronic comments on specific scenarios.
  - Since Remix can be accessed anywhere via internet browser and log-in, users can also use Remix "live" in internal consensus meetings, public workshops, and stakeholder engagements.
  - Agencies can view a neighboring transit agency's public route information (provided it is available via GTFS) as well, to ensure a more regional approach to transit planning.
- **Unlimited imports, exports, users, and technical support:** As a SaaS product, Remix Planning is designed to work with existing agency tools and processes, and the licensing is designed to support maximum collaboration.
  - Users can import existing information from GTFS and shapefile formats.
  - Exports include: Microsoft Excel, KML (Google Earth); shapefile (GIS or ArcMap); frequency-based GTFS; and PNG image, as well as print (hard copy and PDF)
  - One agency license includes access for an unlimited number of users without the worry of maintenance, hosting, or software updates. Users access Remix via a username/password with no installation or downloads necessary. Remix Software, Inc. maintains the technology infrastructure and releases new features for the planning platform over time and allows agencies the access to it. Remix also provides unlimited customer support for no additional charge.

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## DETAILED SPECIFICATIONS

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- **Fast and accurate sketch planning using existing stop infrastructure, including:**
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  - Routes served at each stop;
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  - Exportable stops in: shapefile, Microsoft Excel, KML (Google Earth), and GTFS formats

- **Instant demographic impact analysis using the latest US Census data from the American Community Survey**
  - Minority (people who are non-White or of Hispanic origin), Population (people living per square mile), Poverty (people falling below the nationwide poverty level), Car free (households with no vehicle available), Senior (people 65 or older), Youth (people 18 years or younger), Disabled (people who have a disability) and Limited English (household with limited English speaking status)
  - Jobs data provided from the Longitudinal Employer-Household Dynamics (LEHD) with specific Origin/Destination data from LEHD Origin-Destination Employment Statistics (LODES)
  - Unlimited custom data layers in shapefile format (upon request), such as: stop amenities, historical ridership aggregated, origin/destination overview, flex zones, and jurisdictional/political boundaries.

- **Instant analysis and modification of transit routes with interactive bus graphs, including:**
  - Run time; Headways; Average speed travelled; Number of buses required for route
  - Annual cost of operation; annual revenue hours; annual revenue miles
  - Length of route; Layover; efficiency analysis
  - Historical ridership sorted by line, direction, activity, day type and time of day (upon request)

- **Generate, customize, and visualize timetables for route scenarios**
  - Define trips within service windows for route scenarios with exact timepoints and pattern variants
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  - ○ Since Remix is internet browser accessible, users can also use and display Remix maps in live meeting settings (such as board presentations, public workshops, and internal meetings)
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**CLOUD-BASED SOFTWARE**

# Every Remix solution comes with:

### No installation

Remix is entirely cloud-based and requires only a computer and an internet connection.

### Continuous improvements

New releases delivered automatically at no additional cost.

### Unlimited seats

An annual license covers everyone at your organization.

### Unwavering support

We support you through your entire Remix journey. Meet Ray!

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**TRUSTED SOFTWARE**

# Data privacy & security of the highest standard

### Only Mobility Data Platform to be SOC-2 Compliant

Modern information security practices: data segregation, role-based access control, full data encryption both at rest and in transit, and logging / auditing of data access.

### Trusted by 13 SMD operators

Relationships and data sharing agreements with many major SMD operators in the space.

### Anonymized Mobility Data

We only display and export maps, reports, and analyses that contain data sufficiently aggregated to prevent individuals from being re-identified.

### No Personally Identifiable Information (PII) at risk

Work only with anonymized mobility data that does not contain individual rider information. Use data structures and APIs that do not store or transmit names, addresses, or other individual identifiers.

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GLOBAL COMMUNITY RESOURCE

# A direct line to the transportation and mobility community.

### Ongoing digital events

Remix has a history of providing content in response to current needs. Recently we've launched five webinars for pandemic-specific support, and we'll continue to host more events dedicated to your needs and questions.

### Transpo Talk

We've launched a new Slack community to connect transportation professionals around the world to share best practices, resources, and form connections.

### Mobility ecosystem

Remix actively participates and supports furthering the ecosystem's open data standards like MDS, GBFS, and GFTS.

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DIFFERENTIATORS

# Why Remix?

### Reputation & experience
A trusted name in the industry with over five years of experience delivering transportation solutions.

### Customer breadth & depth
Partnered with nearly 350 local government organizations worldwide in 17 countries.

### Data insights with Explore
Quick access to stats to support grant writing and COVID recovery.

### Privacy & security
Only mobility data analytics platform to be SOC-2 compliant.

### Enterprise customer service
Dedicated transportation professionals will support you through your entire Remix experience.

### Hit the ground running
Zero ramp-up time for users and data pipelines.

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