



ATSIM 7.0

User's Guide



**PUBLIC
TRANSIT**



**FLORIDA
INTERNATIONAL
UNIVERSITY**

ACKNOWLEDGEMENTS

The Automated Transit Stop Inventory Management (ATSIM) system has been developed by Florida International University (FIU) with financial support from the Transit Office of the Florida Department of Transportation (FDOT). The key FIU development team members have included:

- Dr. Albert Gan, Professor of Transportation Engineering
- Mr. Haifeng Wang, Senior Programmer
- Dr. Fabian Cevallos, formerly Transit Program Director
- Ms. Thalia Pickering, formerly Web Designer

The development of ATSIM has been under the guidance of the following FDOT project managers:

- Mr. Chris A. Wigglesworth, Transit Planning Administrator
- Ms. Gabrielle Matthews, State Rail and Transit Manager
- Ms. Diane Quigley, formerly Transit Planning Administrator
- Mr. Ike Ubaka, formerly Transit Program Manager

ATSIM is provided as an “as is” and it is free to any transit agency in Florida that wishes to use it.

DISCLAIMER

While every effort was made to ensure that this software is of the best quality and free of defects, some errors may be unavoidable. No warranty, expressed or implied, and no warranty of merchantability or fitness, is given. Neither the Florida Department of Transportation, nor Florida International University, will assume any liability for results obtained or losses incurred from the use of this software.

TABLE OF CONTENTS

1	Introduction	1
1.1	Why Transit Stop Inventories?	1
1.2	What is ATSIM?.....	1
1.3	Who Do I Contact?.....	2
2	Getting Started	3
2.1	System Access.....	3
2.2	User Account Management.....	4
2.3	GTFS Data Import	6
3	Data Collection.....	9
3.1	Data Attributes	9
3.2	Toolbar and Jumper Link Bar	9
3.3	Profile Attribute Section	11
3.4	Location Attribute Section.....	11
3.5	Amenity Attribute Section	14
3.5.1	Shelter Attributes	14
3.5.2	Bench Attributes	15
3.5.3	Other Amenity Attributes.....	16
3.6	ADA Compliance Attribute Section.....	16
3.7	Miscellaneous Attribute Section	17
3.8	Custom Attribute Section	18
3.9	Image Section	19
4	Data Management.....	22
4.1	Export	22
4.2	Queries	23
4.3	Charts.....	26
4.4	Reports	27
4.4.1	Full Report	27
4.4.2	Summary Report	28
5	Maps.....	30
6	Work Orders	32
6.1	Form.....	33
6.1.1	Profile Form Section	34
6.1.2	Request Form Section	35
6.1.3	Assignment Form Section.....	36

6.1.4 Status Form Section	37
6.1.5 Image Form Section.....	37
6.1.6 Work Order Field Management	38
6.2 Queries	39
6.3 Maps	39
6.4 Reports	41
6.4.1 Full Report	41
6.4.2 Field Report	43
7 Field Guidelines.....	45
7.1 Data Collection Plan	45
7.1.1 Initial Field Survey	45
7.1.2 Date and Time	45
7.1.3 Crew Assignment.....	45
7.1.4 Mode of Travel	45
7.1.5 Safety Accessories	46
7.1.6 Miscellaneous Items.....	47
7.1.7 Crew Training	47
7.2 Data Collection Procedure.....	47
7.2.1 Equipment Setup.....	47
7.2.2 Pictures.....	48
7.3 Data Quality Assurance	48

1 INTRODUCTION

This guide provides detailed instructions on how to use the Automated Transit Stop Inventory Management (ATSIM) system effectively. Users are assumed to have familiarity with the general operation of computers, internet browsers, and tablets.

1.1 Why Transit Stop Inventories?

Transit stop inventories are needed for a variety of applications, including tracking the locations of stops, identifying the type and conditions of amenities, determining how well areas of interest are served by transit services, assessing the accessibility for disabled persons and Americans with Disabilities Act (ADA) compliance, and upgrading the right-of-way infrastructure. Transit stop inventories are especially useful tools for asset management in that they assist transit agencies with keeping a detailed inventory of valuable assets. Furthermore, the advent of Advanced Public Transportation Systems (APTS) makes it even more important for transit agencies to keep an up-to-date inventory of transit stop data. An accurate transit stop inventory is essential to implementing APTS projects, such as automatic passenger counters (APC), automatic vehicle locators (AVL), computerized trip planners, and real-time information systems.

1.2 What is ATSIM?

ATSIM is a completely web-based system designed for the collection, update, and management of transit stop inventories for transit agencies in Florida. The system can also be used by agencies outside Florida. The data collection module of ATSIM consists of a web interface and a tablet that can be accessed wirelessly. When run on a device that has a camera, internet access, and a Global Positioning System (GPS), the system can collect and store transit stop attributes, GPS coordinates, and digital images. The system is equipped with a complete user management system that allows the administrator to create user accounts with different access privilege levels. Agencies with General Transit Feed Specification (GTFS) datasets can get started quickly with the system by importing GTFS data into ATSIM. The system further provides tools for easy data retrieval via user-friendly queries and data visualization via maps and charts. Agencies can also use the system to generate and manage work orders for transit stop maintenance tasks.

Figure 1-1 shows the data flow of ATSIM. Users can access ATSIM through a web browser using a laptop, smartphone, tablet, or desktop. In the field, a crew member can collect data for new transit stops or update data for existing stops in the database. In the office, the system can be used to query, edit, analyze, and visualize the data. All data updates are recorded and tracked. The system also allows data to be exported in different file formats.

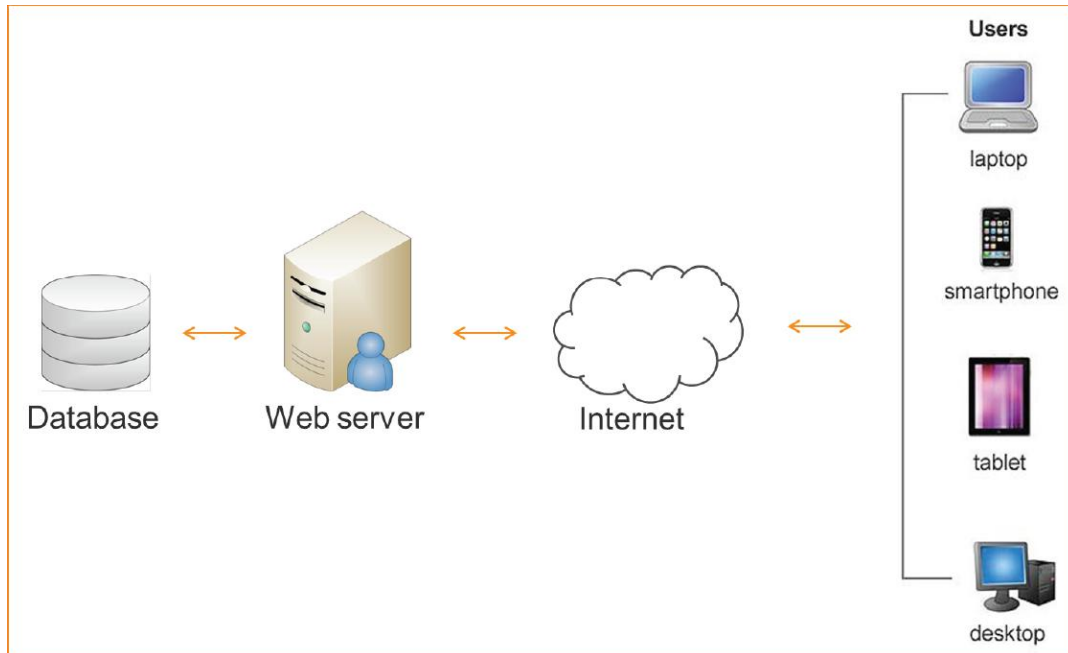


Figure 1-1. ATSIM Process and Data Flow

The current version of ATSIM (7.0) supports the following major features:

- Access through a web browser with no software installations.
- Collection of over 100 standard transit stop attributes, including GPS locations, and digital images.
- Customizable fields and selection items.
- Easy GTFS import of stop IDs, stop locations, stop names, routes, time points, etc., with regular update and rollback capabilities.
- Complete user account management with privileged access control.
- Google Maps visualization of stop locations, stop attributes, and transit routes.
- Generating stop maintenance work orders and tracking fieldwork progress.
- Easy updates of existing stop and work order records in the field or in the office.
- Tracking data update history.
- Export data to CSV, GTFS, GIS, and ZIP files.
- Create, view, and print work orders and reports.
- User-friendly queries and charts.

1.3 Who Do I Contact?

Use of ATSIM and technical support are provided to Florida transit agencies at no cost to agencies. Agencies outside Florida may also use ATSIM at no cost, but no technical support will be provided. Agencies interested in trying out ATSIM can email Dr. Albert Gan at gana@fiu.edu. The requester must be affiliated with a U.S. transit agency.

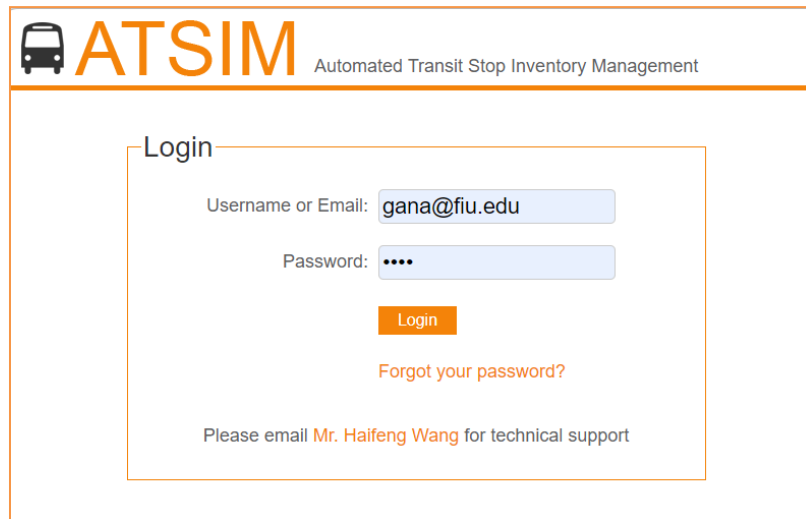
For ATSIM technical support, contact Mr. Haifeng Wang at haifeng.wang@fiu.edu.

2 GETTING STARTED

This section provides guidance on how to get started using the ATSIM system. It includes the system access, user account setup and management, and GTFS data import.

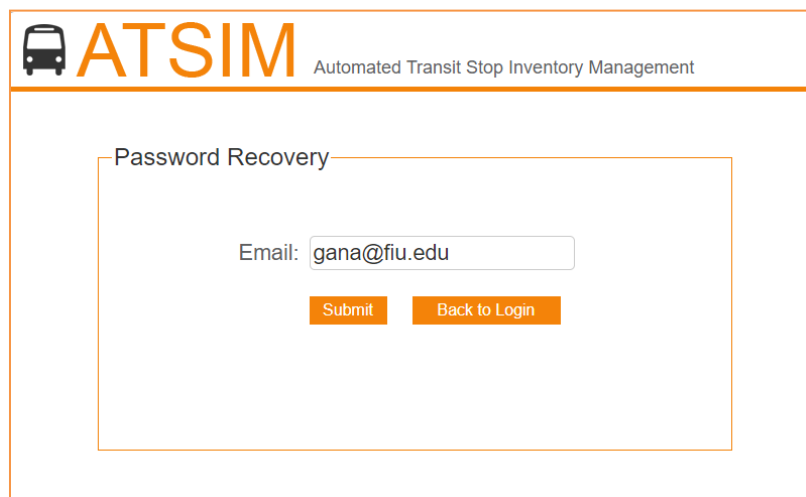
2.1 System Access

The ATSIM login page is located at <http://ftis.org/atsim>. As shown in Figure 2-1, users must have an authorized username and password to access ATSIM. An email can be used in place of a username if the user account is setup with it. An email is needed to recover password via its *Forget your password* link (see Figure 2-2).



The screenshot shows the ATSIM login interface. At the top left is a bus icon followed by the text "ATSIM Automated Transit Stop Inventory Management". Below this is a "Login" section enclosed in a light blue border. Inside this section, there are two input fields: "Username or Email:" with the value "gana@fiu.edu" and "Password:" with masked characters "....". Below the password field is an orange "Login" button. Underneath the button is a link that says "Forgot your password?". At the bottom of the login section, there is a line of text: "Please email Mr. Halfeng Wang for technical support".

Figure 2-1. ATSIM Login Screen



The screenshot shows the ATSIM password recovery interface. At the top left is a bus icon followed by the text "ATSIM Automated Transit Stop Inventory Management". Below this is a "Password Recovery" section enclosed in a light blue border. Inside this section, there is an "Email:" input field with the value "gana@fiu.edu". Below the input field are two orange buttons: "Submit" and "Back to Login".

Figure 2-2. ATSIM Password Recovery Screen

Tip: For security reasons, ATSIM connections will expire after one hour of inactivity; users will then be logged out. It is also recommended to log out the system when fieldwork has been completed.


After logging into ATSIM, the system will open the main menu screen shown in Figure 2-3. The screen includes four large buttons providing access to each of the four key ATSIM modules listed below. The large menu buttons have been designed to ease tapping on a tablet in the field.

1. **Data Collection:** Allows collection of over 100 standard stop attributes, custom attributes, GPS coordinates, and transit stop images.
2. **Data Management:** Allows users to export stop data and images, view and print reports, and generate queries and charts.
3. **Map Visualization:** Allows users to visualize stops and routes on Google Maps.
4. **Work Orders:** Allows planning staff to communicate with maintenance personnel to carry out fieldwork related to stops.



Figure 2-3. ATSIM Main Menu Screen

2.2 User Account Management

ATSIM provides a comprehensive user account management function. The function is available to only the account administrator(s) and is accessed by pressing the  icon located on the top-right corner of the main menu screen (see Figure 2-3). The function allows the administrator(s) to create user accounts and set the appropriate access permission levels for users of the *Data*

Collection and *Work Orders* modules. As shown in Figure 2-4, an administrator can set up an account by specifying the following information:


- **Name:** The full name of the user.
- **Username:** An assigned name of the user.
- **Email:** The email of the user. This field is needed for users to log in using an email and to recover a password.
- **Phone Number:** The phone number of the user.
- **Access permission for *Data Collection* module:** A user can be assigned *Read Only*, *Read & Write*, or *Administrator*. A user assigned with the *Read* permission can only view but not create or modify any part of the transit stop inventory data in the system. A user assigned with the *Read & Write* permission can create and modify the transit inventory data. An administrator is automatically assigned the *Read & Write* permission.
- **Access permission for *Work Orders* module:** A user can be assigned *Read Only*, *Assignment*, or *Approval* within the module. A user assigned with the *Read Only* permission can only view but not create or modify any part of the work order data in the system. A user assigned with the *Assignment* permission can create and assign work orders. An administrator is automatically assigned the *Approval* permission and is the only user(s) who can close a work order.

Note: After a user account is created, it will remain in the system for record keeping and cannot be deleted. To retire a user and prevent access to the system, the administrator simply sets the user status to *Inactive*.

No.	Name	Username	Email	Transit Stop Permission	Work Order Permission	Status	Action
2	Alex Doe	Alex	alex.doe@fiu.edu	Read Only	Assignment	Inactive	Edit
3	Apple Doe	Apple	apple.doe@fiu.edu	Read & Write	Approval	Active	Edit

Figure 2-4. User Management Screen

2.3 GTFS Data Import

The GTFS import function is accessed by pressing the  icon located on the top-right corner of the main menu screen (see Figure 2-3). The function allows an agency to quickly set up a transit stop inventory by importing the following data attributes from its GTFS feed into the system:

- Stop ID (required, automatically included)
- Latitude and longitude coordinate (stop location)
- Time point
- Transfer point
- Routes served by each stop
- Route shape points (for route display on Google Maps)
- On-street and at-street names

Figure 2-5 shows the screen for GTFS data import. The function works as follows:

- If it is a new GTFS import, the system will create a record for each stop found in the GTFS feed and import the user-selected attribute data into each stop record.
- If the import is to modify an existing stop inventory, the system will perform a data update. It does this by matching the existing stop records using the stop IDs and replacing the existing data with the new data being imported. For new stops not in the existing inventory, the system will create new stop records and populate them with the selected attribute data.
- Because an agency may use either the *stop_name* or *stop_desc* fields in GTFS' *stops.txt* file to describe the stop location, the system requires users to indicate which field in the *stop.txt* file is being used for this purpose. The system also requires users to identify the separator being used to separate the on-street and at-street names. The system allows users to choose from a list of commonly used separators, including *AND*, *and*, *&*, *@*, */*, and *+*. As shown in Figure 2-5, the system also allows users to specify any other separator used. The final user input is to press the *Choose File* button to select a GTFS feed from a local file folder.
- After GTFS data are imported, which can take several minutes, the user is asked to check and verify if the data have been correctly imported (see Figure 2-6). For example, if the user did not specify the correct separator for the street names, the data would not be imported correctly. In this case, the user can choose to reject the import and the system will roll back and remove only the newly imported data without affecting any existing data. If the user chooses to accept the import, the newly imported data will be made permanent. Any corrections that need to be made can only be done by re-importing GTFS data to overwrite the incorrect data.
- GTFS data import can be performed as frequent as needed to update stop records and to synchronous the ATSIM and GTFS data.

After GTFS data are successfully imported, additional stop data can be collected in the field with relative ease with a GPS-enabled mobile unit. Users can use the *Retrieve the Record of Nearest Stop* toolbar function (see Section 3.2) to automatically retrieve the record for the nearest stop (i.e., nearest to the current GPS location) to update the record.

For agencies without a GTFS feed, a crew member in the field can collect data by standing at a stop location and press the *Get GPS* button to populate the current latitude and longitude stop coordinate and collect other stop data. See bullet point 7 in Section 3.4 for details.

GTFS Import

This function allows you to import several data attributes from your agency's GTFS feed into your ATSIM stop inventory. It works as follows:

- If you are starting a new stop inventory from scratch, ATSIM will create a record for each stop found in the GTFS feed and import the data for the attributes you select below into each stop record.
- If you are updating an existing stop inventory in ATSIM, ATSIM will match the records based on stop IDs and replace the existing data with the data for the attributes you select below from GTFS. For new stops in GTFS but not found in the existing inventory in ATSIM, ATSIM will create new records for these stops and populate them with the data for the attributes you select below from GTFS.
- After the data are imported, you will be asked to check to verify if the data have been correctly imported. You will be asked to decide whether to accept the import. If you accept the import, the imported data will be saved permanently in ATSIM. If you reject the import, the system will roll back the newly imported data and keep intact any data that existed prior to the import.

Select data attributes to import:

- Latitude and longitude coordinate (stop location)
- Time point
- Transfer point
- Routes (served by each stop)
- Route shape points (to allow display of routes on Google Maps)
- On-street and at-street names

Select the GTFS field (in the stops.txt file) that contains the on-street and at-street names:

- stop_name stop_desc

Select the separator used to separate the on-street and at-street names:

- "AND" "and" "&" "@" "/" "+" Other:

Select your GTFS feed: google_transit.zip

Figure 2-5. GTFS Import Specification Screen

GTFS Import

Data from a GTFS feed named google_transit.zip were imported into ATSIM on 8/29/2024.
Please read the instructions below carefully before you decide to accept or reject this import:

- You are strongly advised to return to the main menu (by clicking the Back button above) to carefully check the imported data to make sure they were correctly imported. You may then return to this screen to accept or reject (i.e., rollback) this import.
- If you decide to accept this import, the data will be saved in ATSIM permanently.
- If you decide to reject this import, all imported data will be removed. In the case where there were existing data that were replaced by the import, the original data will be restored.

Reject Import

Accept Import

Figure 2-6. GTFS Import Confirmation Screen

3 DATA COLLECTION

This section describes the working of the *Data Collection* module which is designed for the collection of stop attributes, GPS coordinates, and digital images. It also describes the standard and customizable attributes included in the module. This module is accessed by pressing the *Data Collection* button on the main menu screen (see Figure 2-3).

3.1 Data Attributes

The majority of the attributes in ATSIM were identified based on both a survey of agencies and a review of existing stop databases from transit agencies in Florida. The agency survey was conducted in 2004 to obtain information on the state-of-the-practice in transit stop inventories. The information was incorporated into earlier versions of ATSIM. A teleconference with Florida transit agencies was subsequently conducted in 2012 to present a proposal for a new version of ATSIM and to get feedback from the agencies. Several new attributes were added as a result. The current transit stop inventory has close to one hundred attributes, including 20 attributes that can be customized to meet specific agency needs.

3.2 Toolbar and Jumper Link Bar

Figure 3-1 shows ATSIM's toolbar and jumper link bar in the *Data Collection* module which is located at the top of the *Data Collection* screen. The toolbar provides a total of nine different functions as summarized in Table 3-1. As Figure 3-1 also shows, the tool bar shows the date a stop record was first created.

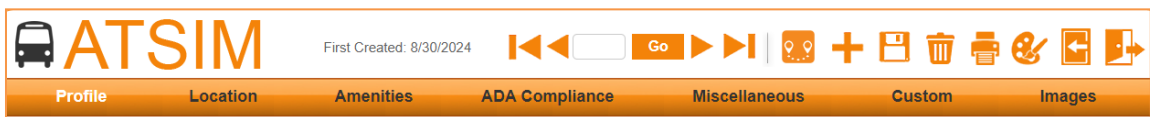


Figure 3-1. ATSIM's Toolbar and Jump Link Bar for Stop Data Collection

If a stop record was updated, it will show the date the record was last updated and a *History* link will appear, as shown in Figure 3-2. Pressing the *View History* link will show the screen in Figure 3-3, which lists a history of the updates that were done to the record. It shows the person who did the update, the date the update was performed, and the specific updated performed. The user can also press the *View* action link to view the stop record that includes all the prior updates (but not after the current update).

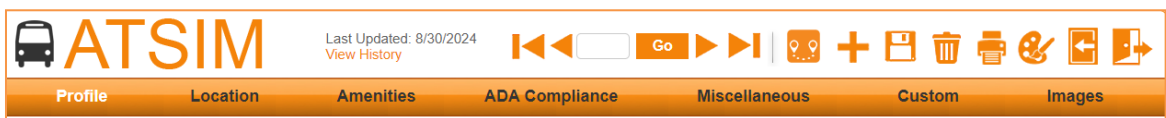


Figure 3-2. Example Showing *Last Updated* Date and *View History* Link

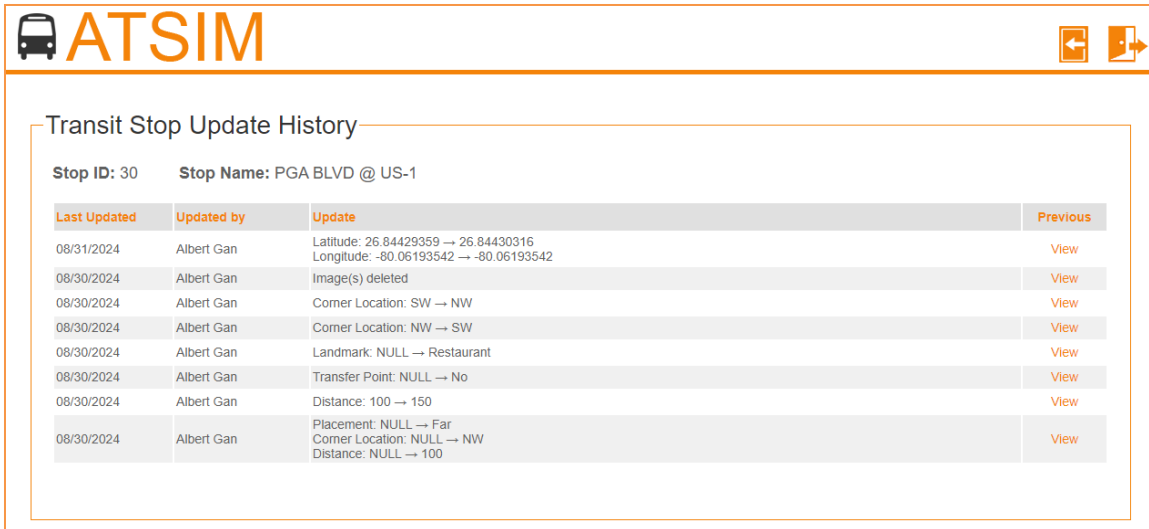


Figure 3-3. Screen Showing Stop Record Update History

Table 3-1. Toolbar Functions

Toolbar Icon	Functions
	Search the database for stop records through two different methods: (1) type the stop number in the <i>Search</i> box and press the <i>Go</i> button, or (2) use the navigation arrows (from left to right: first, last, previous, and next record) to browse through the records.
	Retrieve the record for the stop that is the closest to the current GPS location. This function requires an active GPS in the mobile unit.
	Add a new stop record.
	Save changes to a stop record.
	Delete a stop record.
	Print stop records, reports, etc.
	Change the background color when it is difficult to see the screen while out in the field. Options include three different background colors: medium gray, light gray, and white.
	Move back to the previous screen. Users will be prompted to save any unsaved data.
	Logout of the ATSIM system. Users will be prompted to save any unsaved data.

Tip: Press the ATSIM logo from any ATSIM page to return to the main menu screen.

The jumper link bar allows users to quickly jump to a specific data entry section. As shown in Figure 3-1, the jump link bar includes seven jump links, one to each of the following seven data entry sections:

1. Profile
2. Location
3. Amenities
4. ADA Compliance
5. Miscellaneous
6. Custom
7. Images

Each of these data entry sections and their associated attributes are further detailed below.

3.3 Profile Attribute Section

Figure 3-4 displays the *Profile* data section. It displays the following user information:

1. **Agency:** The affiliated agency of the account user.
2. **Assessor:** The name of the account user.
3. **Username:** The account username of the account user.
4. **Email:** The email of the account user.
5. **Permission:** The data access privilege level assigned to the account user (see Section 2.2 for more information).

Figure 3-4. User Profile Data Section

3.4 Location Attribute Section

Figure 3-5 shows the data entry section for stop location attributes. It allows the user to enter the attribute data describing the location of a stop.

Figure 3-5. Data Entry Section for Location Attributes

The location attributes included are described below:

1. **Stop ID:** A required, unique identifier assigned to a transit stop. It is common for agencies to assign this number to the transit stop sign.
2. **Stop Name:** A stop name used as a stop identifier established by an agency.
3. **Stop Class:** A stop location based on a selection of County, Local, Private, and State rights-of-way.
4. **Status:** “Active” if the transit stop is currently being used, or “inactive” if it is not used.
5. **On-Street:** The name of the street along a transit route.
6. **At-Street:** The name of the closest cross-street to the stop location.
7. **Latitude and Longitude:** These are the latitude and longitude coordinates. They can either be entered manually or automatically filled in by pressing the *Get GPS* button in the field. The latter option requires the data collection device be equipped with a built-in GPS receiver and be connected to a wireless network. When accessing ATSIM on a computer or a tablet, the user must grant access to the GPS device by selecting the *Allow* option when prompted. If access is not granted, the user will be prompted a warning message (e.g., “This website does not have permission to use the Geolocation API”) when the *Get GPS* button is pressed.

Once the GPS coordinates are acquired and the record is saved, the *Map It* button will appear next to the *Get GPS* button. The *Map It* button allows the user to see the stop location on Google Maps (see Figure 3-6). On this screen, the user can correct a stop location by dragging the stop location icon to a new location. After a stop location is moved, the user will be prompted to save the new location, or cancel the move.

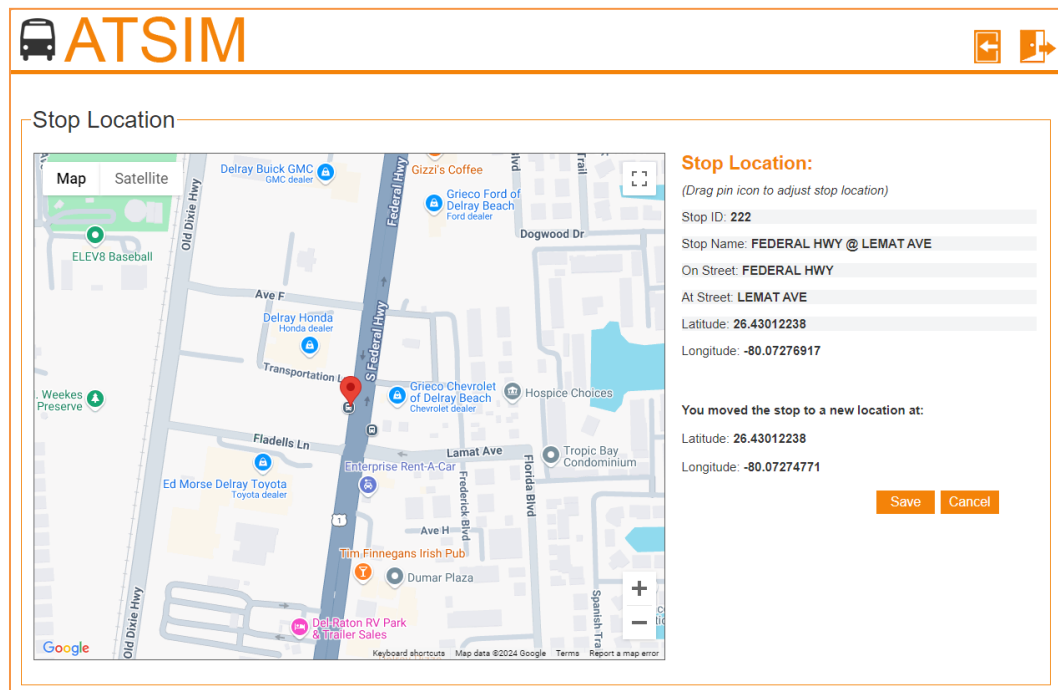


Figure 3-6. Displaying Stop Location on Google Maps

8. **Routes:** All route numbers served by the stop (enter each route number, separated by a comma, and followed by a space).
9. **Time Point:** Whether or not the stop is used as a time point.
10. **Transfer Point:** Check if the stop is a transfer point.
11. **Placement:** The stop location is associated with the cross-street. It can be *Far* for far-side stop, *Near* for near-side stop, *Midblock* for mid-block stop, and *Terminal*. When *Near* or *Far* is selected, the *Corner Location* and *Distance* attributes will appear on the right. When *Midblock* is selected, the *Midblock* attribute will appear on the right. The determination of whether a stop is on the far- or near-side depends on its location to the nearest intersection. If *Terminal* is selected, no additional attributes will appear.
 - a. **Midblock:** The *Midblock* attribute will appear when the *Midblock* option, in the *Placement* dropdown list, is selected. The standard selection is *ES* (east side), *WS* (west side), *NS* (north side), and *SS* (south side). A stop can be considered midblock if it is located more than 200 feet from its nearest intersection.
 - b. **Corner Location:** The corner location dropdown list will only appear when either the *Near* or *Far* option, in the *Placement* dropdown list, is selected. The street corner where the stop is located. It can be labeled as *NE* (northeast), *NW* (northwest), *SE* (southeast), or *SW* (southwest).
 - c. **Distance:** This is the distance, in feet, from the transit stop to the cross-street. If a measuring wheel is not used, this can be a distance estimated by the assessor (the nearest 5 or 10 feet should be sufficient). This dropdown list will only appear when either the *Near* or *Far* option, in the *Placement* dropdown list, is selected.
12. **Travel Direction:** The travel direction of the street on which the stop is found. It can be *EB* (Eastbound), *WB* (Westbound), *NB* (Northbound), *SB* (Southbound), *IB* (Inbound), or *OB* (Outbound).
13. **Municipality:** The name of the municipality where the stop is located. See Section 3.8 on how to customize the list of local municipalities.
14. **Landmark:** The major landmark served by the transit stop if one exists near the stop. Table 3-2 lists the 38 landmarks that are included.

Table 3-2. Landmark Options

Airport	Government Center	Nursing/Retirement Home	Shopping Center
Apartment Complex	Hospital	Office Building	Stadium
Bridge	Hotel/Motel	Park/Recreation	Trailer Park
Bus Terminal	Industrial Complex	Park-N-Ride	Train Station
Campground	Lake	Police Department	Theatre
Cemetery	Library	Post Office	Tower
City/Town Hall	Mall	Prison	University/College
Court House	Marine Terminal	Religious Institution	Others
Fire Dept	Military	Restaurant	
Golf Course	Museum	School	

15. **Location Notes:** A place for the assessor to document any special conditions that exist at the stop.

3.5 Amenity Attribute Section

Figure 3-7 shows the data entry section for amenity attributes. It allows users to enter detailed data pertaining to shelters, benches, and miscellaneous other amenities. The amenity attributes are described below.

Amenities

Number of Shelters: 0

Current Shelter:

Shelter Ownership:

Shelter Installation Year:

Shelter Condition:

Shelter Type:

Shelter Seating Capacity: persons

Graffiti:

Total Width: feet Total Height: feet

Total Depth: feet

Wheelchair Access:

Shelter Light:

Advertisement:

Trash Can: Schedule: Map:

Electronic Message: Information Display:

Shelter Notes:

Number of Benches: 1

Current Bench: 1

Bench Ownership: Primary Transit

Bench Installation Year: 2005

Bench Condition: Average

Bench Type: Mostly Concrete

Bench Seating Capacity: 3 persons

Graffiti: No

Bench Notes:
Concrete support. Wooden top.

Trash Can (not at a shelter): Yes Bike Rack: No Vending Machine: No Restroom: No Nearby Phone: No

Lighting: Street Light Parking: No Newspaper: Yes Info Kiosk: No

Figure 3-7. Data Entry Section for Amenities Attributes

3.5.1 Shelter Attributes

Because shelters and benches are important stop amenities, ATSIM provides additional attributes to record additional information for these facilities. The following additional attributes are included for shelters:

1. **Number of Shelters:** Allows the entry of the total number of shelters at a transit stop. There can be situations when an agency places more than one shelter at busy locations or transit terminals. To be able to enter the shelter information, 1 or more shelters need to be selected from the dropdown list. Note that for stops with no shelter, 0 needs to be selected from the dropdown list. If a number is not selected, the system will consider as if no data have been collected.
2. **Current Shelter:** When there is more than one shelter, this item allows the selection of a particular shelter from the total number indicated in the *Number of Shelters* attribute.

3. **Shelter Ownership:** The name of the shelter owner. The standard selection options are *Primary Transit, Other Transit, Municipality, University, Business, and Advertisement Firm*.
4. **Shelter Installation Year:** The year the shelter was installed.
5. **Shelter Condition:** The condition of the shelter, which can be *Good, Average, or Poor*.
6. **Shelter Type:** The type of material the shelter is made of. The standard selection options are *Mostly Wood, Mostly Brick/Concrete, Mostly Metal, Mostly Plastic, and Other*.
7. **Shelter Seating Capacity:** The total seating capacity inside the shelter.
8. **Graffiti:** Whether or not there is graffiti on the shelter.
9. **Total Width:** The total width of the shelter in feet.
10. **Total Height:** The total height of the shelter in feet.
11. **Total Depth:** The total depth of the shelter in feet.
12. **Wheelchair Access:** Whether the shelter is wheelchair accessible. The standard selection items are *Easy, Difficult, and Not Possible*.
13. **Shelter Light:** Whether or not there is lighting inside the shelter.
14. **Advertisement:** One of the following options can be selected: *On Bench, On Shelter, On Both, and No Ads*.
15. **Trash Can:** Whether or not there is trash can inside the shelter.
16. **Schedule:** Whether or not there is a printed schedule inside the shelter.
17. **Map:** Whether or not there is a map inside the shelter.
18. **Electronic Message:** Whether or not there is an electronic message device inside the shelter.
19. **Information Display:** Whether or not there is a selected area for information display inside the shelter.
20. **Shelter Notes:** A place for the assessor to document any special conditions related to the shelter attributes.

3.5.2 Bench Attributes

The following additional attributes are included for benches:

1. **Number of Benches:** Allows the entry of the total number of benches at a transit stop. There can be situations when an agency places more than one bench at busy locations or transit terminals. To be able to enter the bench information, 1 or more benches need to be selected from the dropdown list. Note that for stops with no benches, 0 needs to be selected from the dropdown list. If a number is not selected, the system will consider as if no data have been collected.
2. **Current Bench:** When there is more than one bench, this item allows the selection of a particular bench from the total number indicated in the *Number of Benches* attribute.
3. **Bench Ownership:** The name of the bench owner. The standard selection options are

Primary Transit, Other Transit, Municipality, University, Business, and Advertisement Firm.

4. **Bench Installation Year:** The year the bench was installed.
5. **Bench Condition:** The condition of the bench, which can be *Good, Average, or Poor*.
6. **Bench Type:** The type of material the bench is made of. The standard selection options are *Mostly Wood, Mostly Concrete, Mostly Metal, Mostly Plastic, and Other*.
7. **Bench Seating Capacity:** The total seating capacity of that bench.
8. **Graffiti:** Whether or not there is graffiti on the bench.
9. **Bench Notes:** A place for the assessor to document any special conditions related to the bench attributes.

3.5.3 Other Amenity Attributes

The *Amenities* data entry section shown in Figure 3-5 also includes the following nine amenities:

1. Trash Can (not a shelter)
2. Bike rack
3. Vending machine
4. Restroom
5. Nearby phone
6. Parking
7. Newspaper
8. Info kiosk
9. Lighting

With the exception of Lighting, these amenities are recorded via a dropdown list as whether an item exists (*Yes*) or not (*No*). By default, an amenity is recorded in the database as blank, indicating that no data entry has been made. For Lighting, one of the following options can be selected: *Street Light, Building Light, Solar, and No Light*. Note that the *Trash Can (not at a shelter)* attribute allows to record trash cans outside shelters.

3.6 ADA Compliance Attribute Section

Figure 3-8 shows the ADA Compliance data entry section. The attributes, as described below, can help agencies assess if a stop is in compliance with ADA regulations.

The screenshot shows a data entry form titled "ADA Compliance". It contains several dropdown menus and input fields:

- Sidewalk: 5 feet or greater
- Loading Pad: Yes
- Nearby Ped Crossing: No
- Obstructions: Yes
- Curb Cut: No
- ADA Compliance Notes: A text area containing "Sidewalk partially blocked by newspaper stands and bench."
- Terrain: Flat
- Surface: Mostly Concrete
- Cross Slope: 1 %
- Running Slope: 0 %
- ADA Access: Accessible

Figure 3-8. Data Entry Section for ADA-Compliance Attributes

1. **Sidewalk:** Whether there is sidewalk equal to 5 feet or greater, a sidewalk with less than 5 feet, or no sidewalk.
2. **Loading pad:** Whether or not there is a 5x8 loading pad to help people in wheelchairs board the transit vehicle.
3. **Nearby Pedestrian Crossing:** Whether there is a nearby pedestrian crossing that may be used by people in wheelchairs.
4. **Obstructions:** Whether or not there are obstructions that will prevent people in wheelchairs from accessing the stop, including obstructions in any access direction.
5. **Curb cut:** Whether or not there are ramps to allow people in wheelchairs to get to the transit stop.
6. **Terrain:** The general terrain where the stop is located. The dropdown list includes the following items: *Flat*, *Minor Slope*, and *Major Slope*.
7. **Surface:** The ground surface near the stop. The dropdown list includes the following items: *Mostly Concrete*, *Mostly Brick*, *Mostly Wood*, *Mostly Gravel*, *Mostly Grass*, *Mostly Soil/Sand*, and *Other*.
8. **Cross Slope:** The percentage of the cross slope at the stop.
9. **Running Slope:** The percentage of the running slope at the stop.
10. **ADA access:** Three levels of ADA accessibility are used: *Accessible*, *Functional*, and *Not Accessible*. A transit stop is considered accessible when people in wheelchairs can access it and meets the ADA requirements. A functional stop can be accessed by people in wheelchairs, but do not meet the ADA requirements. A stop is considered inaccessible if people in wheelchairs cannot reach it.
11. **ADA Compliance Notes:** A place for the assessor to document any special conditions that exist at the stop.

3.7 Miscellaneous Attribute Section

Figure 3-9 shows the data entry section for Miscellaneous other attributes, as described below:

1. **Stop Sign:** Whether or not there is a transit stop sign.
2. **Sign Mount:** The type of post to hold the transit stop sign. It can be a dedicated post used exclusively for the stop sign, a utility pole, or any other type of pole. The standard selections include the following items: *Pole*, *Post*, *Shelter*, *Building*, and *Other*.
3. **Stop Sign not Clear:** Whether or not the information on the transit stop sign has become difficult to read.
4. **Bus Bay:** Whether or not a bus bay exists; it is a specially constructed area separated from the travel lanes, located off the normal section of a roadway.
5. **Posted Speed:** The posted speed limit on the street at which the transit stop is located.
6. **Trees:** Whether or not there are trees blocking the stop.

7. **Bike Lane:** Whether or not a bike lane exists in front of the transit stop. The standard selections include the following items: *On Road*, *Lane with Barrier*, *Multiuse Trail*, *Sharrows*, and *None*.
8. **Notes:** A place for the assessor to document any special conditions that exist at the stop.

Figure 3-9. Data Entry Section for Miscellaneous Attributes

3.8 Custom Attribute Section

Figure 3-10 shows the data entry section for custom attributes. The section allows individual agencies to include up to 20 additional attributes to meet agency-specific needs. These attributes can be used when agency-specific attributes do not exist in ATSIM and can be customized by the Administrator. They include eight drop-down list attributes, eight textbox attributes, and four checkbox attributes.


Figure 3-11 shows the screen in ATSIM for customizing these attributes. The screen is accessed by pressing the  icon on the top-right corner of the main menu screen (see Figure 2-3). The screen allows the user to name an attribute and edit, add, delete, and save the associated list options for each of the 20 custom attributes. It also allows the *Municipality* location attribute to be customized (see Section 3.4). It is noted that once a list option has been used in a record, it cannot be deleted. In this case, the *Delete* action link will not appear on the *Action* column.

Figure 3-10. Data Entry Section for Custom Attributes

Transit Stop Field Management

Field Number	Field Name	Field Type	Action																								
1	Municipality	Dropdown List	Edit																								
2	Advertiser	Dropdown List	Save Cancel																								
<table border="1"> <thead> <tr> <th>No.</th> <th>List Option</th> <th>Action</th> <th>Action</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Dollars Tree Discount Store</td> <td>Edit</td> <td>Delete</td> </tr> <tr> <td>2</td> <td>Five Dudes Burger</td> <td>Edit</td> <td></td> </tr> <tr> <td>3</td> <td>Godmother's Pizza</td> <td>Edit</td> <td>Delete</td> </tr> <tr> <td>4</td> <td>Starbugs Cafe</td> <td>Edit</td> <td>Delete</td> </tr> <tr> <td>5</td> <td>Wildmart Supercenter</td> <td>Edit</td> <td></td> </tr> </tbody> </table>				No.	List Option	Action	Action	1	Dollars Tree Discount Store	Edit	Delete	2	Five Dudes Burger	Edit		3	Godmother's Pizza	Edit	Delete	4	Starbugs Cafe	Edit	Delete	5	Wildmart Supercenter	Edit	
No.	List Option	Action	Action																								
1	Dollars Tree Discount Store	Edit	Delete																								
2	Five Dudes Burger	Edit																									
3	Godmother's Pizza	Edit	Delete																								
4	Starbugs Cafe	Edit	Delete																								
5	Wildmart Supercenter	Edit																									
Add																											
3	Custom List 2	Dropdown List	Edit																								
4	Custom List 3	Dropdown List	Edit																								
5	Custom List 4	Dropdown List	Edit																								
6	Custom List 5	Dropdown List	Edit																								
7	Custom List 6	Dropdown List	Edit																								
8	Custom List 7	Dropdown List	Edit																								
9	Custom List 8	Dropdown List	Edit																								
10	Custom Textbox 1	Text Box	Edit																								
11	Custom Textbox 2	Text Box	Edit																								
12	Custom Textbox 3	Text Box	Edit																								
13	Custom Textbox 4	Text Box	Edit																								
14	Custom Textbox 5	Text Box	Edit																								
15	Custom Textbox 6	Text Box	Edit																								
16	Custom Textbox 7	Text Box	Edit																								
17	Custom Textbox 8	Text Box	Edit																								
18	Custom Checkbox 1	Check Box	Edit																								
19	Custom Checkbox 2	Check Box	Edit																								
20	Custom Checkbox 3	Check Box	Edit																								
21	Custom Checkbox 4	Check Box	Edit																								

Figure 3-11. Transit Stop Field Management Screen

3.9 Image Section

Figure 3-12 shows the data entry section for uploading image files for the current stop. Only JPEG and PNG graphic file types will be accepted. The images can be taken in the field or selected from a local file folder.

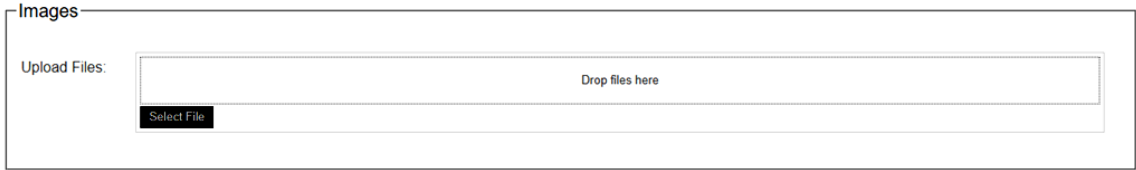


Figure 3-12. Data Entry Section for Image Upload

To upload files, presses the *Select File* button. If the device is not camera-ready, a browse window will open to allow the user to select files from an existing folder. Multiple files can be selected at once. If the device is camera-ready, a pop-up window will appear allowing the user to select an action option. The options should generally include taking new images and selecting existing files from a folder.

To take new images with a camera, simply select the *Camera* option and start taking images. To upload existing files from a local file folder, in addition to through the *Select File* button as mentioned above, the user also has the option to drag and drop the file(s) from a folder to inside the *Drop files here* box. Multiple files can be selected and dragged at once. When dragging and dropping files, the "+ Copy" sign must fall within the *Drop files here* box for the files to be accepted.

After images are taken or selected from a folder, the files will be listed, as shown in Figure 3-13. The user must decide whether to remove or upload the file. Press the *Remove* button to discard an image or the *Upload* button to upload the listed file(s). All uploaded files will appear on the *Uploaded images* section, as shown in Figure 3-14.

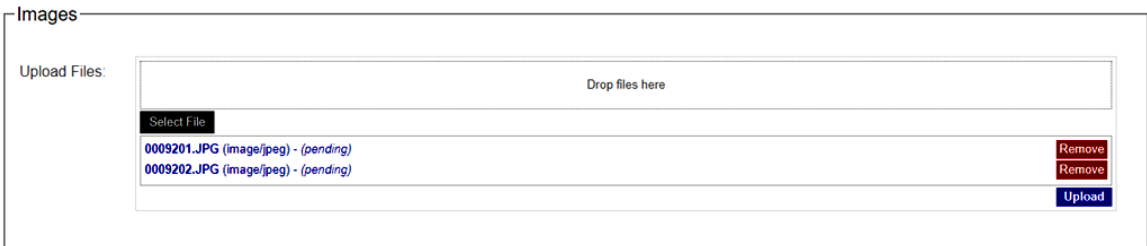




Figure 3-13. Data Entry Section with Selected Image Files





Figure 3-14. Screen Showing List of Uploaded Files

The uploaded images will be saved to the database only after the record is saved by pressing the  icon on top of the form. All saved images will be listed under the *Saved Images* section, as shown in Figure 3-15. To delete a saved image, check the *Delete* box under the image and then press the  icon.

Images

Saved images:

	
<input type="checkbox"/> Delete	<input type="checkbox"/> Delete

Upload Files:

Drop files here

Figure 3-15. Screen Showing List of Saved Images

4

DATA MANAGEMENT

The *Data Management* module allows users to export data and images, generate queries, plot charts, and print reports. The module is accessed by pressing the *Data Management* button on the main menu (see Figure 2-3). Figure 4-1 shows the module's submenu for access to each of the four functions, which are described in detail below.



Figure 4-1. Data Management Submenu

4.1 Export

The *Export* function allows users to export data to the following files:

- CSV (Comma Separated Value): Export a zip file containing three CSV text files for stop, bench, and shelter records, respectively.
- GTFS (General Transit Feed Specification): Export a zip file containing the standard *stops.txt* and *stop_features* GTFS text files.
- GIS (Geographic Information Systems): Export a zip file containing three standard GIS shapefiles (.dbf, .shp, shx) for stop records.
- JPG/PNG: Export a zip file containing the saved JPG and/or PNG image files for all stops.

4.2 Queries

The *Queries* function is accessed by pressing the *Queries* button on the *Data Management* submenu screen (see Figure 4-1). It allows users to quickly identify and retrieve transit stops by specifying query conditions. The query conditions act as filters for the stop attributes and only retrieve information of the stops that meet the specified condition(s). Figure 4-2 shows the initial query screen. The top part of the screen allows users to create queries and the query results are listed below it.

Transit Stop Query

Query Condition:

Select an attribute Select an operator Select a value AND OR

Query Editor:

Total records: 2,746

Stop ID	Stop Name	Stop Class	Routes	On Street	At Street	Time Point	Transfer Point	Place -ment	Travel Dir	Municipality	Shel -ter	Ben -ch	Status	Last Updated	Act -ion	Act -ion
30	PGA BLVD @ US-1	STATE	1	PGA BLVD	US-1	No			NB	PBG	0	0	Active	09/02/2024	Edit	Map
32	PGA BLVD & HARBOUR FINANCE CTR	STATE	1	PGA BLVD	HARBOUR FINANCE CTR	No			NB	PBG	0	0	Active	09/01/2024	Edit	Map
34	PGA BLVD @ MEADOWS MHP	STATE	1, 21	PGA BLVD	MEADOWS MHP	No			NB	PBG	0	0	Active	09/01/2024	Edit	Map
36	PGA BLVD @ CAMPUS DR	STATE	1, 21	PGA BLVD	CAMPUS DR	No			NB	PBG	0	0	Active	09/01/2024	Edit	Map
37	GARDENS MALL TRM @ SEARS TRM	PRIVATE	1, 10, 20, 21, 3, 33	GARDENS MALL TRM	SEARS TRM	Yes			NB	PBG	1	1	Active	09/01/2024	Edit	Map
38	PGA BLVD @ CAMPUS DR	STATE	1, 21	PGA BLVD	CAMPUS DR	No			SB	PBG	1	1	Active	09/01/2024	Edit	Map
39	PGA BLVD @ PBS	STATE	1, 21	PGA BLVD	PBS	No			SB	PBG	0	0	Active	09/01/2024	Edit	Map

Figure 4-2. Initial Stop Query Screen

In specifying query conditions, the following rules apply:

- By default, the *Query Editor* box is empty (i.e., no filters specified) and all stops are listed.
- A query condition is constructed by selecting an attribute of interest, a logical operator, and a value from their respective drop-down lists. After a query condition is constructed, press the *Add* button to add it to the *Query Editor* box.
- Depending on the attribute selected, the logical operator can be “=”, “>=”, and “<=” for numeric attributes, and “=” and “like” for text/string attributes, and only “=” for attributes with a fixed list of selections (i.e., attributes with a dropdown selection list). The system will list only the logical operators that apply.
- The “like” logical operator is used to retrieve data that contains specific characters. For example, specifying *On Street Like 'King'* will return all stops where the word “King” exists in the on-street name. The characters are not case-sensitive.
- Multiple query conditions may be specified using the *AND* and *OR* operators. By default, the *AND* operator is selected.

- When multiple conditions are specified for an attribute, the *OR* logical operator is used. For example, when *SB* and *NB* are selected for travel directions, the query will return transit stops in the southbound direction, plus those in the northbound direction.
- When conditions are specified for more than one attribute, the *AND* logical operator is used. For example, specifying *Time Point = 'Yes'* in the query condition, and adding *Transfer Point = 'Yes'* will cause the query to only return stops that serve both as a time point and a transfer point.

Note: Once a query statement is in the *Query Editor* box, it can be manually edited.

Tip: For more complex queries, the user may choose to save them on an external file for future use. They can then be copied and pasted directly into the *Query Editor* box.

Once the query specifications are completed, press the *Apply* button to execute the query. All stops that satisfy the query conditions will be listed. Figure 4-3 shows the query and the results based on the above example, i.e., to find stops that serve both as a time point and a transfer point. The query returns a total of nine stops. The *Reset* button can be used to clear the *Query Editor* box, which will then display all stops.


The screenshot shows the ATSIM Transit Stop Query interface. At the top, there is a header with a bus icon and the text "ATSIM". Below the header, the "Transit Stop Query" section contains a "Query Condition:" area with three dropdown menus for selecting attributes, radio buttons for "AND" (selected) and "OR", and an "Add" button. Below this is a "Query Editor:" text box containing the query "Time Point='Yes' AND Transfer Point='Yes'", with "Reset" and "Apply" buttons underneath. The results section shows "Total records: 9" and buttons for "Map" and "Export". A table lists the following stops:



Stop ID	Stop Name	Stop Class	Routes	On Street	At Street	Time Point	Transfer Point	Place -ment	Travel Dir	Municipality	Shel -ter	Ben -ch	Status	Last Updated	Act -ion	Act -ion
155	DIXIE HWY @ LUCERNE AVE	STATE	1	DIXIE HWY	LUCERNE AVE	Yes	Yes		SB	LKW	1	1	Active	10/15/2019	Edit	Map
370	DIXIE HWY @ SUMMA ST	STATE	1, 46	DIXIE HWY	SUMMA ST	Yes	Yes		NB	WPB	0	1	Active	10/15/2019	Edit	Map
602	WPB ITC @ BUS TRM	PRIVATE	1, 2, 20, 31, 40, 41, 43, 44, 60	WPB ITC	TRI RAIL	Yes	Yes		NB	WPB	1	1	Active	10/15/2019	Edit	Map
829	CONGRESS AVE @ PBS ENT 2	STATE	2	CONGRESS AVE	PBS ENT 2	Yes	Yes		NB	UNC	1	0	Active	10/15/2019	Edit	Map
1036	MILITARY TRL @ OKEECHOBEE BLVD	STATE	3	MILITARY TRL	OKEECHOBEE BLVD	Yes	Yes		SB	UNC	1	1	Active	10/15/2019	Edit	Map
1232	MILITARY TRL @ OKEECHOBEE	STATE	3	MILITARY TRL	OKEECHOBEE	Yes	Yes		NB	UNC	0	1	Active	10/15/2019	Edit	Map
3253	BLG HRS @ SR-80	PRIVATE	40, 47	BLG HRS	SR-80	Yes	Yes		EB	UNC	1	1	Active	10/15/2019	Edit	Map
3289	OKEECHOBEE BLVD @ MILITARY TRL	STATE	33, 40, 43	OKEECHOBEE BLVD	MILITARY TRL	Yes	Yes		NB	UNC	1	1	Active	10/15/2019	Edit	Map
5355	LUCERNE AVE @ DIXIE HWY	STATE	61, 62	LUCERNE AVE	DIXIE HWY	Yes	Yes		EB	LKW	1	1	Active	10/16/2019	Edit	Map

Figure 4-3. Example Query Conditions and Resulting Stops

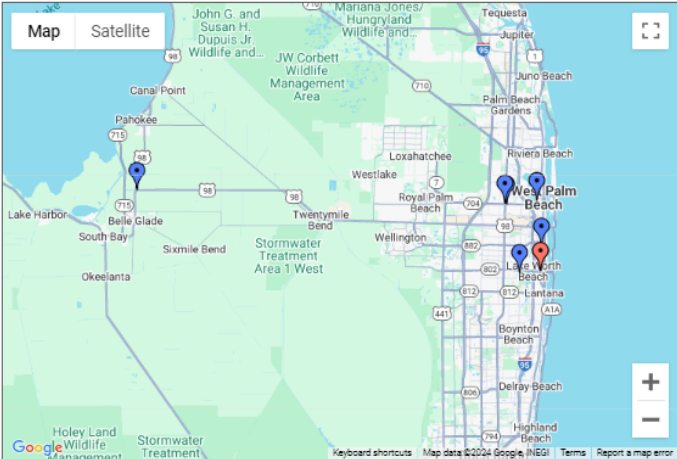
The following functions are available for the resulting stops:

- Press the *Map* link on the *Action* column to view and edit the map location of a stop (see Figure 3-6).
- Press the *Edit* link on the *Action* column to open a stop record in the *Data Collection* form, which allows the stop records to be edited.
- Press the *Map* button on top of the list of stops to view the map locations of all listed stops. Figure 4-4 displays the map locations of the resulting stops. The screen also lists all the resulting stops for which the user can press the *Detail* action link to select a stop to display its attribute data. The user may also select a stop by pressing a stop location icon on the map. The location icon of the selected stop is shown in red. The screen also allows the user to press an *Edit* action link to open a stop record in the *Data Collection* form for editing.
- Press the *Export* button to export the complete list of stop records to a CSV file.



Transit Stops



Transit Stop Information:

Location

Stop ID: 155 Stop Class: STATE

Stop Name: DIXIE HWY @ LUCERNE AVE

On Street: DIXIE HWY

At Street: LUCERNE AVE

Latitude: 26.616945 Longitude: -80.057442

Routes: 1

Time Point: Yes Transfer Point: Yes

Placement: 0 MidBlock:

Corner Location: Distance:

Travel Direction: SB Municipality: 14

Status: Active Landmark:

Amenities

Total Shelter Number: 1

Total Bench Number: 1

Trash Can (not at a shelter): Yes

Bike Rack: No Vending Machine: No

Restroom: No Nearby Phone: No

Parking: No Electronic Message:

Info Kiosk: No Lighting: Yes

ADA Compliance

Sidewalk:

Loading Pad: No Obstructions: No

Curb Cut: No Nearby Ped Crossing: No

Terrain: Surface:

Cross Slope: Running Slope:

ADA Access: Accessible

Miscellaneous

Bike Lane:

Stop Sign: Yes Stop Mount:

Sign Not Clear: No Bus Bay: No

Posted Speed: Trees: No

Images

Stop ID	Stop Name	Stop Class	Routes	On Street	At Street	Action	Action
155	DIXIE HWY @ LUCERNE AVE	STATE	1	DIXIE HWY	LUCERNE AVE	Detail	Edit
370	DIXIE HWY @ SUMMA ST	STATE	1, 46	DIXIE HWY	SUMMA ST	Detail	Edit
602	WPB ITC @ BUS TRM	PRIVATE	1, 2, 20, 31, 40, 41, 43, 44, 60	WPB ITC	TRI RAIL	Detail	Edit
829	CONGRESS AVE @ PBS ENT 2	STATE	2	CONGRESS AVE	PBS ENT 2	Detail	Edit
1036	MILITARY TRL @ OKEECHOBEE BLVD	STATE	3	MILITARY TRL	OKEECHOBEE BLVD	Detail	Edit
1232	MILITARY TRL @ OKEECHOBEE	STATE	3	MILITARY TRL	OKEECHOBEE	Detail	Edit
3253	BLG HRS @ SR-80	PRIVATE	40, 47	BLG HRS	SR-80	Detail	Edit
3289	OKEECHOBEE BLVD @ MILITARY TRL	STATE	33, 40, 43	OKEECHOBEE BLVD	MILITARY TRL	Detail	Edit
5355	LUCERNE AVE @ DIXIE HWY	STATE	61, 62	LUCERNE AVE	DIXIE HWY	Detail	Edit

Figure 4-4. Screen Displaying Map Locations and Attributes of Resulting Stops

4.3 Charts

The *Charts* function is accessed by pressing the *Charts* button on the *Data Management* submenu screen (see Figure 4-1). It allows users to plot the distribution of a stop attribute in terms of number of stops and percent of stops. The number of stops is displayed as a bar chart and the percent of stops as a pie chart. The attribute is selected from a dropdown list. A chart is generated as soon as an attribute is selected. Figures 4-5 and 4-6 shows an example of a bar chart and a pie chart, respectively, based on ADA access level. *Null* is for stops for which data have not determined, which in this case is for stops that have not been rated for ADA accessibility. Using the icons on the top-right corner of the screen, charts can be saved as a JPG or PDF file and they can also be printed on a printer.

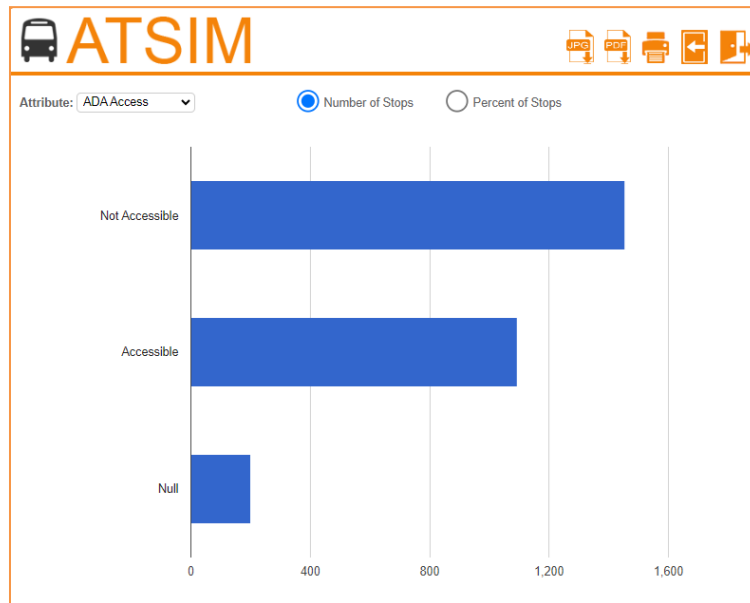


Figure 4-5. Bar Chart Example Showing Number of Stops by ADA Access Level

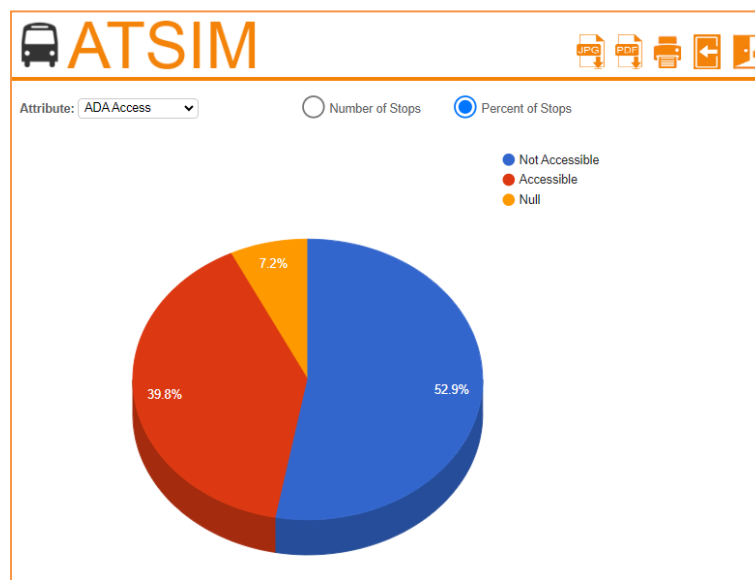


Figure 4-6. Pie Chart Example Showing Percent Share of Stops by ADA Access Level

4.4 Reports

The *Reports* function allows users to generate and print the following two reports: Full Report and Summary Report.

4.4.1 Full Report

The *Full Report* function lists all stop attributes including the map location on Google Maps. The user can access this function by pressing the *FULL REPORT* link on the *Reports* button (see Figure 4-1). Figure 4-7 shows the initial screen of the report. On this report screen, the user can select a stop by either entering the Stop ID on top of the screen or by pressing on a stop on the map.

ATSIM Stop ID: **Go**

Transit Stop Report

Map Satellite

Transit Stop Information:

Location

Stop ID: Stop Class:

Stop Name:

On Street:

At Street:

Latitude: Longitude:

Routes:

Time Point: Transfer Point:

Placement: MidBlock:

Corner Location: Distance:

Travel Direction: Municipality:

Status: Landmark:

Amenities

Total Shelter Number:

Total Bench Number:

Trash Can (not at a shelter):

Bike Rack: Vending Machine:

Restroom: Nearby Phone:

Parking: Newspaper:

Info Kiosk: Lighting:

ADA Compliance

Sidewalk:

Loading Pad: Obstructions:

Curb Cut: Nearby Ped Crossing:

Terrain: Surface:

Cross Slope: Running Slope:

ADA Access:

Miscellaneous

Bike Lane:

Stop Sign: Stop Mount:

Sign Not Clear: Bus Bay:

Posted Speed: Trees:

Custom

Custom List 1: Custom List 2:

Custom List 3: Custom List 4:

Custom List 5: Custom List 6:

Custom List 7: Custom List 8:

Alightings: Boardings:

BID: ADA1:

Custom Textbox 5: Custom Textbox 6:

Custom Textbox 7: Custom Textbox 8:

Custom Checkbox 1: Custom Checkbox 2:

Custom Checkbox 3: Custom Checkbox 4:

Figure 4-7. Stop Full Report Initial Screen

Figure 4-8 shows an example report for Stop ID 30. As the figure shows, once a stop is selected, the report will display the complete stop record and the map will zoom into the selected stop (with the stop location icon in red). On this screen, the user can also press the button to print the screen (note: select the *Landscape* printing layout option to cover the entire content area).

ATSIM

Stop ID: Go

Transit Stop Report

Transit Stop Information:

Location

Stop ID: 30	Stop Class: STATE
Stop Name: PGA BLVD @ US-1	
On Street: PGA BLVD	
At Street: US-1	
Latitude: 26.844303	Longitude: -80.061935
Routes: 1	
Time Point: No	Transfer Point:
Placement: MidBlock	
Corner Location: Distance:	
Travel Direction: NB	Municipality: PBG
Status: Active	Landmark:

Amenities

Total Shelter Number: 0	
Total Bench Number: 0	
Trash Can (not at a shelter):	
Bike Rack:	Vending Machine:
Restroom:	Nearby Phone:
Parking:	Newspaper:
Info Kiosk:	Lighting: Street Light

ADA Compliance

Sidewalk:	
Loading Pad:	Obstructions:
Curb Cut:	Nearby Ped Crossing:
Terrain:	Surface:
Cross Slope:	Running Slope:
ADA Access: Not Accessible	

Miscellaneous

Bike Lane:	
Stop Sign: Yes	Stop Mount:
Sign Not Clear:	Bus Bay: No
Posted Speed:	Trees:

Custom

Custom List 1:	Custom List 2:
Custom List 3:	Custom List 4:
Custom List 5:	Custom List 6:
Custom List 7:	Custom List 8:
Alightings: 149	Boardings: 85
BID: 5/19/2019 12:00:00 AM	ADA1: NA1
Custom Textbox 5:	Custom Textbox 6:
Custom Textbox 7:	Custom Textbox 8:
Custom Checkbox 1: No	Custom Checkbox 2: No
Custom Checkbox 3: No	Custom Checkbox 4: No

Images

Figure 4-8. Stop Full Report for a Selected Stop (Stop ID = 30)

4.4.2 Summary Report

The *Summary Report* function displays the summary statistics of select key stop attributes in a PDF file. The user can access this function by pressing the *SUMMARY REPORT* link on the *Reports* button (see Figure 4-1). Figure 4-9 shows an example of the report. Due to data processing in the system, the statistics in this report may take several minutes to reflect any new changes to the stop records.

ATSIM Summary Report

Transit Agency

Location

Stop Class

County stops: 1034 Local stops: 470 Private stops: 60 State stops: 1015

Placement

Nearside: 1 Midblock: 0 Farside: 0 Terminal: 0

Time point stops: 192 Transfer point stops: 16

Five Most Used Landmarks

1) Number: 0 2) Number: 0 3) Number: 0 4) Number: 0 5) Number: 0

Amenities

Number of shelters: 545 Number of benches: 995

Shelter condition - Good: 0 Average: 0 Poor: 0

Bench condition - Good: 0 Average: 0 Poor: 0

Number of stops with trash cans: 836 Number of stops with bike racks: 0

Number of stops with graffiti: 0 Number of stops with advertising: 0

Stops with lighting: 2148 Stops without lighting: 0

ADA Compliance

Number of stops with sidewalks: 0 Number of stops without sidewalks: 0

Stops with loading pads: 0 Number of ADA accessible stops: 1094

Number of ADA functional stops: 0 Number of ADA non-accessible stops: 1453

Total number of stops: 2746

Figure 4-9. Example Summary Report

5 MAPS

The *Maps* module allows users to visualize stop attribute data on Google Maps. The module is accessed by pressing the *Maps* button on the main menu (see Figure 2-3). Figure 5-1 shows the initial *Maps* screen, which includes a map window that displays all the stop locations and routes. The user may choose to hide and display routes by toggling between the *Hide Routes* and *Show Routes* action links on top of the map window. The screen also lists all of the stops below the map window.

The screenshot shows the ATSIM Transit Stop Map interface. At the top, there is a search bar for 'Stop ID: 7620' and a 'Go' button. Below the search bar is a map window titled 'Transit Stop Map' with a 'Hide Routes' toggle. The map displays various stop locations and routes. To the right of the map is a legend for 'Select Attribute: ADA Access' with four categories: Accessible (green), Functional (red), Not Accessible (blue), and Null (yellow). Below the legend is a 'Transit Stop Information' form with fields for Stop ID, Stop Name, On Street, At Street, Latitude, Longitude, Routes, Time Point, Transfer Point, Placement, Midblock, Corner Location, Distance, Travel Direction, Municipality, Status, and Landmark. Below the form is a table of stop data with columns for Stop ID, Stop Name, Stop Class, Routes, On Street, At Street, and Action (Detail, Edit). Below the table is an 'Amenities' section with fields for Total Shelter Number, Total Bench Number, Trash Can, Bike Rack, Vending Machine, Restroom, Nearby Phone, Parking, Newspaper, Info Kiosk, and Lighting. Below the amenities is an 'ADA Compliance' section with fields for Sidewalk, Loading Pad, and Obstructions.


Stop ID	Stop Name	Stop Class	Routes	On Street	At Street	Action	Action
30	PGA BLVD @ US-1	STATE	1	PGA BLVD	US-1	Detail	Edit
32	PGA BLVD & HARBOUR FINANCE CTR	STATE	1	PGA BLVD	HARBOUR FINANCE CTR	Detail	Edit
34	PGA BLVD @ MEADOWS MHP	STATE	1, 21	PGA BLVD	MEADOWS MHP	Detail	Edit
36	PGA BLVD @ CAMPUS DR	STATE	1, 21	PGA BLVD	CAMPUS DR	Detail	Edit
37	GARDENS MALL TRM @ SEARS TRM	PRIVATE	1, 10, 20, 21, 3, 33	GARDENS MALL TRM	SEARS TRM	Detail	Edit
38	PGA BLVD @ CAMPUS DR	STATE	1, 21	PGA BLVD	CAMPUS DR	Detail	Edit
39	PGA BLVD @ PBS	STATE	1, 21	PGA BLVD	PBS	Detail	Edit


Figure 5-1. Initial Map Screen

The screen provides the following three alternatives for selecting a stop to display its attribute data:




1. By entering the stop ID on top of the screen and pressing the *Go* button.
2. By pressing a stop location icon on the map.
3. By pressing the *Detail* action link of a listed stop.

Once a stop is selected, the map will zoom into the stop location and the screen will display the stop record. Figure 5-2 shows an example after Stop ID 7678 selected. The selected stop is highlighted on the map with a white circle in the middle on the stop location icon. The screen also provides the following three functions:

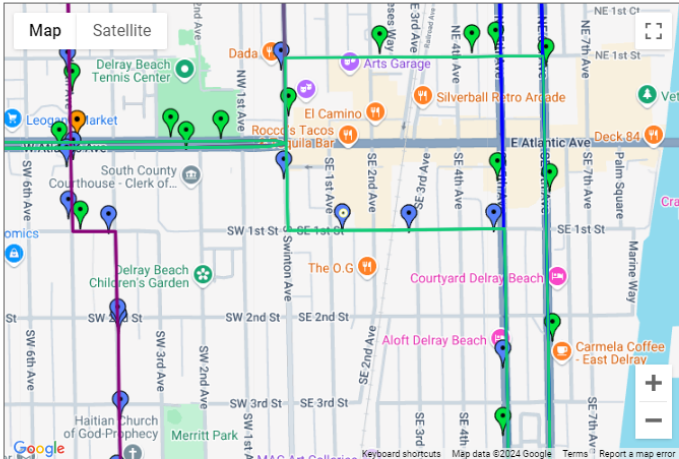
1. Press the *Edit* action link to open a stop record in the *Data Collection* form, which allows data editing.
2. Select an attribute from the *Select Attribute* dropdown list to create a color-coded thematic map based on the selected attribute. By default, the first attribute, ADA Access, is selected.
3. Press the  button to print the screen. Select the *Landscape* printing layout option to cover the entire content area.



ATSIM

Stop ID:
Go




Transit Stop Map



Select Attribute: ADA Access

- Accessible
- Functional
- Not Accessible
- Null

Transit Stop Information:

Location

Stop ID: 7678	Stop Class: LOCAL
Stop Name: SE 1ST ST @ SE 1ST AVE	
On Street: SE 1ST ST	
At Street: SE 1ST AVE	
Latitude: 26.459780	Longitude: -80.071777
Routes: 81	
Time Point: No	Transfer Point:
Placement:	Midblock:
Corner Location:	Distance:
Travel Direction: EB	Municipality: DLB
Status: Active	Landmark:

Amenities

Total Shelter Number: 0	
Total Bench Number: 0	
Trash Can (not at a shelter):	
Bike Rack:	Vending Machine:
Restroom:	Nearby Phone:
Parking:	Newspaper:
Info Kiosk:	Lighting: Street Light

ADA Compliance

Sidewalk:	
Loading Pad:	Obstructions:

Stop ID	Stop Name	Stop Class	Routes	On Street	At Street	Action	Action
30	PGA BLVD @ US-1	STATE	1	PGA BLVD	US-1	Detail	Edit
32	PGA BLVD & HARBOUR FINANCE CTR	STATE	1	PGA BLVD	HARBOUR FINANCE CTR	Detail	Edit
34	PGA BLVD @ MEADOWS MHP	STATE	1, 21	PGA BLVD	MEADOWS MHP	Detail	Edit
36	PGA BLVD @ CAMPUS DR	STATE	1, 21	PGA BLVD	CAMPUS DR	Detail	Edit
37	GARDENS MALL TRM @ SEARS TRM	PRIVATE	1, 10, 20, 21, 3, 33	GARDENS MALL TRM	SEARS TRM	Detail	Edit
38	PGA BLVD @ CAMPUS DR	STATE	1, 21	PGA BLVD	CAMPUS DR	Detail	Edit
39	PGA BLVD @ PBS	STATE	1, 21	PGA BLVD	PBS	Detail	Edit

Figure 5-2. Map Screen Displaying Data for a Selected Stop (Stop ID = 7678)

6

WORK ORDERS

The *Work Orders* module allows agencies to manage maintenance work performed on their transit stops. The module is accessed by pressing the *Work Orders* button on the main menu screen (see Figure 2-3). Figure 6-1 shows the *Work Orders* submenu screen, which serves as the gateway to accessing the following four submodules:

1. Form
2. Queries
3. Maps
4. Reports

These four submodules are described in the next four subsections, respectively.



Figure 6-1. Work Orders Sub-menu Screen

6.1 Form

The *Form* submodule includes a data entry form that allows users to manage work orders. It can be accessed by pressing the *Form* button on the *Work Orders* submenu screen (see Figure 6-1). Figure 6-2 shows the toolbar and the jumper link bar of the submodule screen. The toolbar includes nine icons for which their functions are summarized in Table 6-1. The tool bar shows the date a work order record was first created.



Figure 6-2. ATSIM’s Toolbar and Jump Link Bar for Work Orders

Table 6-1. Work Order Toolbar Functions

Toolbar Icon	Functions
	Search the database for work order records through two different methods: (1) type the stop number in the textbox and press the <i>Go</i> button, or (2) use the navigation arrows (from left to right: first, last, previous, and next record) to browse through the records.
	Display stop on a Google map using the GPS latitude and longitude coordinates.
	Add a work order record.
	Save changes to a work order record.
	Delete a work order record.
	Print work order records, reports, etc.
	Change the background color when it is difficult to see the screen while out in the field. Options include three different background colors: medium gray, light gray, and white.
	Move back to the previous screen.
	Logout of the ATSIM system.

If a work order record was updated, it will show the date the record was last updated and a *History* link will appear, as shown in Figure 6-3. Pressing the *View History* link will show the screen in Figure 6-4, which lists a history of the updates that were done to the record. It shows the person who did the update, the date the update was performed, and the specific updated performed. The user can also press the *View* action link to view the work order record that includes all the prior updates (but not after the current update).

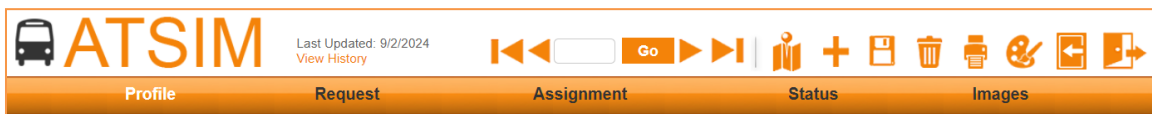


Figure 6-3. Example Showing *Last Updated* Date and *View History* Link

Last Updated	Updated by	Update	Previous
09/02/2024	Joe Doe	Estimated Days to Complete Work: 2 → 3 Assignment Notes: This is urgent. Please call Joe 786-222-3333 when done. → This is urgent. Please call Joe 786-222-3333 when done. Call Jane for more info if needed.	View
09/02/2024	Joe Doe	Assigned Employee: NULL → Elon Mug Assigned Manager: NULL → Joe Doe Estimated Days to Complete Work: NULL → 2 Assignment Notes: NULL → This is urgent. Please call Joe 786-222-3333 when done. Current Status: NULL → Assigned	View

Figure 6-4. Screen Listing Work Order Record Update History

As shown in Figure 6-2, the jump link bar includes five jump links, one to each of the following five data entry sections:

- Profile
- Request
- Assignment
- Status
- Images

Each of these data entry sections and their associated attributes are further detailed below.

6.1.1 Profile Form Section

Figure 6-5 displays the *Profile* data section. It displays the following user information:

1. **Agency:** The affiliated agency of the account user.
2. **Assessor:** The name of the account user.
3. **Username:** The account username of the account user.
4. **Email:** The email of the account user.
5. **Permission:** The data access privilege level assigned to the account user.

Profile	Request	Assignment	Status	Images
Profile Field Report Agency: Florida International University Assessor: Joe Doe Username: Joe Email: joe.doe@fiu.edu Permission: Approval				

Figure 6-5. User Profile Data Section

6.1.2 Request Form Section

Figure 6-6 displays the *Request* data entry section which allows the user to enter the work order information based on a request for the work to be performed. The section includes the following fields:

1. **Work Order Number:** A unique identifier assigned to a work order. As default, this number is automatically generated in incremental order. If an agency prefers to enter this number manually, the administrator can change this setting in the *Work Order Field Management* screen (see Section 6.1.6).
2. **Request Date Time:** The date and time when a work order is first created. This is automatically generated by the system when a new work order is started.
3. **Requested by:** The person that made the request. The persons in the dropdown list are entered using the *Work Order Field Management* screen (see Section 6.1.6).
4. **Request sent to:** The person that received the request. The dropdown list contains the names of supervisors or managers who handle the work orders. These users are added via the *User Account Management* screen (see Section 2.2).
5. **Stop Number:** The number of the stop to which the work is to be performed. If the stop number does not exist, the entry field will remain blank.
6. **Municipality:** The name of the municipality where the stop is located. If this information exists in the stop record, this field will be populated automatically when a stop number is specified.
7. **On Street:** The name of the street along a transit route. If this information exists in the database, this field will be populated automatically when a stop number is specified.
8. **At Street:** The closest cross-street to the stop location. If this information exists in the stop record, this field will be populated automatically when a stop number is specified.
9. **Request Notes:** This field allows entering any information about the work order request.
10. **Custom List 1:** This field can be used to enter additional information that has a known list of options. The name of the field and the list options can be customized using the *Work Order Field Management* screen (see Section 6.1.6).
11. **Custom Textbox 1:** This field can be used to enter additional information in a textbox. The name of the field can be customized using the *Work Order Field Management* screen (see Section 6.1.6).

The screenshot shows a form titled "Request" with the following fields and values:

- Work Order Number: 3 (required)
- Request Date: 09/02/2024
- Requested by: Jane Doe
- Request sent to: Joe Doe
- Stop ID: 222
- Request Notes: Broken bench with sharp edges. See images below.
- On Street: FEDERAL HWY
- At Street: LEMAT AVE
- Municipality: DLB
- Custom List 1: (dropdown menu)
- Custom Textbox 1: (empty text input)

Figure 6-6. Work Order Request Section

6.1.3 Assignment Form Section

Figure 6-7 displays the *Assignment* section which allows the user (Supervisors or Managers) to assign the work to an employee based on the work to be performed. To be able to edit this section, the user needs to have the *Assignment* or *Approval* permission. The section includes the following fields:

1. **Assigned Employee:** The employee assigned to conduct the work. The employee names are added using the *Work Order Field Management* screen (see Section 6.1.6).
2. **Assignment Date:** The date and time when the work is assigned. This is automatically populated by the system when an assignment is made and saved.
3. **Supervisor or Manager:** The name of the person who assigns the work to be performed. The dropdown list contains the names of supervisors or managers who handle the work orders. Supervisors or managers are added via the *User Management* screen (see Section 2.2).
4. **Service Type:** The type of work to be performed (e.g., installation, maintenance, repairs, etc.). The service types can be customized and added using the *Work Order Field Management* screen (see Section 6.1.6).
5. **Safety Issues:** This field allows users to choose (*Yes* or *No*) if the work to be performed is in response to a safety issue or not. This information help agencies track the work done to address safety issues.
6. **Estimated Days to Complete Work:** The estimated number of days of the work to be performed.
7. **Expected Completion Date:** The estimated completion date based on the entered number of days of the work to be performed.
8. **Assignment Notes:** This field allows entering information regarding the assigned work. The information entered in this field will be also added to the *Notes* entry in the *Field Report* for field personnel (see Section 6.4.2)
9. **Custom List 2.** This field can be used to enter additional information. The name of the field and the list options can be customized using the *Work Order Field Management* screen (see Section 6.1.6).
10. **Custom Textbox 2.** This field can be used to enter additional information. The name of the field can be customized using the *Work Order Field Management* screen (see Section 6.1.6).

The screenshot shows a form titled "Assignment" with the following fields and values:

- Assigned Employee: Elton Mug (dropdown)
- Supervisor or Manager: Joe Doe (dropdown)
- Safety Issues: Yes No
- Estimated Days to Complete Work: 3 days
- Expected Completion Date: 09/05/2024
- Custom List 2: (dropdown)
- Custom Textbox 2: (text input)
- Assignment Date: 09/02/2024
- Service Type: Repair bench (dropdown)
- Assignment Notes: This is urgent. Please call Joe 786-222-3333 when done. Call Jane for more info if needed.

Figure 6-7. Work Order Assignment Section

6.1.4 Status Form Section

Figure 6-8 displays the *Status* section which allows users (Supervisors or Managers) to enter information on the status of the work order. The section includes the following fields:

1. **Current Status:** The field dropdown list allows users to select the following information about the work order: *Requested, Assigned, In-process, Completed, and Other*.
2. **Last Status Changed Date:** The date and time when the information in the *Current Status* field is modified.
3. **Status Change Notes:** This field allows entering information regarding the status of the work order.
4. **Completed Date:** This field allows users to enter the date when the work order is completed.
5. **Closed by:** The drop-down menu contains the names of supervisors or managers that approve the completed work orders. These users are added using the *User Management* screen (see Section 2.2). Users in this category need to have the *Approval* permission.
6. **Completed Notes:** This field allows entering information regarding the work that has been completed.
7. **Custom List 3.** This field can be used to enter additional information. The name of the field and the list options can be customized using the *Work Order Field Management* screen (see Section 6.1.6).
8. **Custom Textbox 3.** This field can be used to enter additional information. The name of the field can be customized using the *Work Order Field Management* screen (see Section 6.1.6).

The screenshot shows a form titled "Status" with the following fields and controls:

- Current Status:** A dropdown menu with "Assigned" selected.
- Last Status Change Date:** A text field containing "09/02/2024".
- Closed by:** A dropdown menu.
- Completed Date:** A text field with a date format "(mm/dd/yyyy)".
- Custom List 3:** A dropdown menu.
- Custom Textbox 3:** A text input field.
- Status Change Notes:** A large text area.
- Completed Notes:** A large text area.

Figure 6-8. Work Order Status Section

6.1.5 Image Form Section

Figure 6-9 shows the *Images* section which allows users to upload images related to the maintenance work being performed. The process for uploading, saving, and removing images for work orders is the same as that for stop data collection. Refer to Section 4.9 for details.

The screenshot shows a form titled "Images" with the following fields and controls:

- Upload Files:** A large text area with the text "Drop files here" and a "Select File" button.

Figure 6-9. Work Order Images Section

6.1.6 Work Order Field Management





Three of the fields on the *Work Orders* form (i.e., *Requested by*, *Assigned Employee*, and *Service Type*) are given as a dropdown list for which their list options need to be customized for specific agencies. In addition, each data entry section on the form also contains two general fields, including one dropdown list and one textbox that can be customized for any other information an agency may need to record. All of these fields can be customized by pressing the  icon on the top-right corner of the *Work Orders* submenu screen (see Figure 6-1).

Figure 6-10 shows the screen for customizing the fields. The screen allows the administrator to edit, add, delete, and save the associated list options for each field. The screen further allows the administrator to rename the fields from their generic field names. It is noted that once a list option has been used in a work order record, it cannot be deleted. As such, the *Delete* action link will not appear under the *Action* column. At the bottom of the customization screen (see Figure 6-8), the administrator can select whether the work order number is to be generated by the system automatically. The default is no. See Subsection 6.1.2 for more information on work order number.



ATSIM

Work Order Field Management

Field Number	Field Name	Field Type	Action																
1	Requested by <input style="width: 100px;" type="text"/>	Dropdown List																	
	<table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 5px;"> <thead> <tr style="background-color: #f2f2f2;"> <th style="width: 5%;">No.</th> <th style="width: 60%;">List Option</th> <th style="width: 15%;">Action</th> <th style="width: 20%;">Action</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td>Jane Doe</td> <td style="text-align: center;">Edit</td> <td style="text-align: center;">Delete</td> </tr> <tr> <td style="text-align: center;">2</td> <td>Joe Doe</td> <td style="text-align: center;">Edit</td> <td style="text-align: center;">Delete</td> </tr> <tr> <td style="text-align: center;">3</td> <td>John Doe</td> <td style="text-align: center;">Edit</td> <td></td> </tr> </tbody> </table>	No.	List Option	Action	Action	1	Jane Doe	Edit	Delete	2	Joe Doe	Edit	Delete	3	John Doe	Edit			
No.	List Option	Action	Action																
1	Jane Doe	Edit	Delete																
2	Joe Doe	Edit	Delete																
3	John Doe	Edit																	
	Add																		
2	Custom List 1	Dropdown List	Edit																
3	Custom Textbox 1	Text Box	Edit																
4	Assigned Employee	Dropdown List	Edit																
5	Service Type	Dropdown List	Edit																
6	Custom List 2	Dropdown List	Edit																
7	Custom Textbox 2	Text Box	Edit																
8	Custom List 3	Dropdown List	Edit																
9	Custom Textbox 3	Text Box	Edit																

Work order number generated by system automatically:

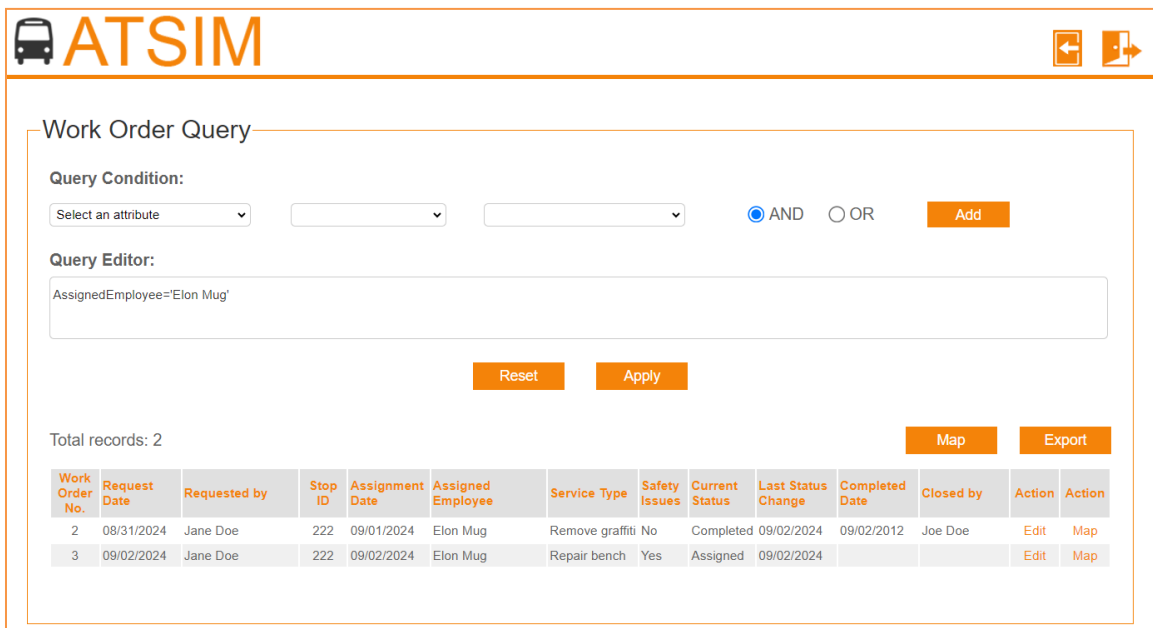
Figure 6-10. Field Management Screen

6.2 Queries

The *Queries* function allows users to quickly retrieve work orders information based on specific query conditions. The function is accessed by pressing the *Queries* button in *Work Orders* submenu screen (see Figure 6-1). Figure 6-11 shows the query screen which allows the user to specify the query conditions. Query conditions act as filters for the work orders attributes. Work Orders can be queried by the following attributes:

- Work Order Number
- Request by
- Request sent to
- Stop Number
- Assigned Employee
- Supervisor or Manager
- Service Type
- Safety Issues
- Current Status
- Close by
- Request Date

Note that the *Map* icon will not show up when the stop number has not been entered or when the stops do not have GPS coordinates. The functionality of this feature is similar to that for *Transit Stop Query*. Refer to Section 4.2 of this guide for more details.



Work Order Query

Query Condition:

Select an attribute AND OR

Query Editor:

AssignedEmployee='Elon Mug'

Total records: 2

Work Order No.	Request Date	Requested by	Stop ID	Assignment Date	Assigned Employee	Service Type	Safety Issues	Current Status	Last Status Change	Completed Date	Closed by	Action	Action
2	08/31/2024	Jane Doe	222	09/01/2024	Elon Mug	Remove graffiti	No	Completed	09/02/2024	09/02/2012	Joe Doe	Edit	Map
3	09/02/2024	Jane Doe	222	09/02/2024	Elon Mug	Repair bench	Yes	Assigned	09/02/2024			Edit	Map

Figure 6-11. Work Orders Query Screen

6.3 Maps

The *Maps* function in the Work Orders module allows users to view and print work order information. The function is accessed by pressing the *Maps* button in the *Work Order* submenu screen (see Figure 6-1). Figure 6-12 shows the initial *Maps* screen. It includes a map window that

displays all the stop locations for which there exists at least a work order. Below the map window it lists all the work orders. The screen provides the following three alternatives for selecting a work order to display its attribute data:

1. By entering the Work Order Number on top of the screen and pressing the *Go* button.
2. By pressing a stop location icon on the map.
3. By pressing the *Detail* action link of a listed work orders.

Work Order Map

Work Order No.	Bus Stop ID	Request Date	Assigned Date	Service Type	Status	Action	Action
1	30	08/31/2024	08/31/2024	Install missing stop sign	Requested	Detail	Edit
2	222	08/31/2024	09/01/2024	Remove graffiti	Completed	Detail	Edit
3	222	09/02/2024	09/02/2024	Repair bench	Assigned	Detail	Edit

Work Order Information:

Request

Work Order Number:

Request Date:

Requested by:

Request Sent to:

Stop ID:

Municipality:

Main Street:

Cross Street:

Request Notes:

:

:

Assignment

Assigned Employee:

Assignment Date:

Supervisor or Manager:

Service Type:

Safety Issues:

Estimated Days to Complete Work:

Expected Completion Date:

Assignment Notes:

:

:

Status

Current Status:

Last Status Change Date:

Status Change Notes:

Completed Date:

Closed by:


Completed Notes:

:

:

Figure 6-12. Work Orders Map Initial Screen

As shown in Figure 6-13, after a work order is selected, the screen will retrieve the work order record and display the attribute data on the right side of the screen. At the same time, the map will zoom into the selected stop, with the map location icon appearing in red color. The screen also provides the following two functions:

1. Press the *Edit* action link to open a work order record in the work order form for editing.
2. Press the  button to print the screen. Select the *Landscape* printing layout option to cover the entire content area.

Work Order Map

Work Order Number: **Go**

Work Order Information:

Request

Work Order Number: 3
 Request Date: 09/02/2024
 Requested by: Jane Doe
 Request Sent to: Joe Doe
 Stop ID: 222
 Municipality: DLB
 Main Street: FEDERAL HWY
 Cross Street: LEMAT AVE
 Request Notes: Broken bench with sharp edges. See images below.
 Custom List 1:
 Custom Textbox 1:

Assignment

Assigned Employee: Elon Mug
 Assignment Date: 09/02/2024
 Supervisor or Manager: Joe Doe
 Service Type: Repair bench
 Safety Issues: Yes
 Estimated Days to Complete Work: 3
 Expected Completion Date: 09/05/2024
 Assignment Notes: This is urgent. Please call Joe 786-222-3333 when done. Call Jane for more info if needed.
 Custom List 2:
 Custom Textbox 2:

Status

Current Status: Assigned
 Last Status Change Date: 09/02/2024
 Status Change Notes:
 Completed Date:
 Closed by:
 Completed Notes:
 Custom List 3:
 Custom Textbox 3:

Images

Work Order No.	Bus Stop ID	Request Date	Assigned Date	Service Type	Status	Action	Action
1	30	08/31/2024	08/31/2024	Install missing stop sign	Requested	Detail	Edit
2	222	08/31/2024	09/01/2024	Remove graffiti	Completed	Detail	Edit
3	222	09/02/2024	09/02/2024	Repair bench	Assigned	Detail	Edit

Figure 6-13. Work Order Map Screen Displaying a Work Order Record

6.4 Reports

The *Reports* function allows users to generate and print *Full Report* and *Field Report* for work orders. This function is accessed by pressing their respective links on the *Reports* button on the *Work Orders* submenu screen (see Figure 6-1).

6.4.1 Full Report

This report provides full information on a work order. Figure 6-14 shows the initial *Full Report* screen. It includes a map window that displays all the stop locations for which there exists at least a work order. Below the map window it lists all the work orders. To retrieve a work order, the user is given the following two options:

1. By entering the Work Order Number on top of the screen and pressing the *Go* button.
2. By pressing a stop location icon on the map.

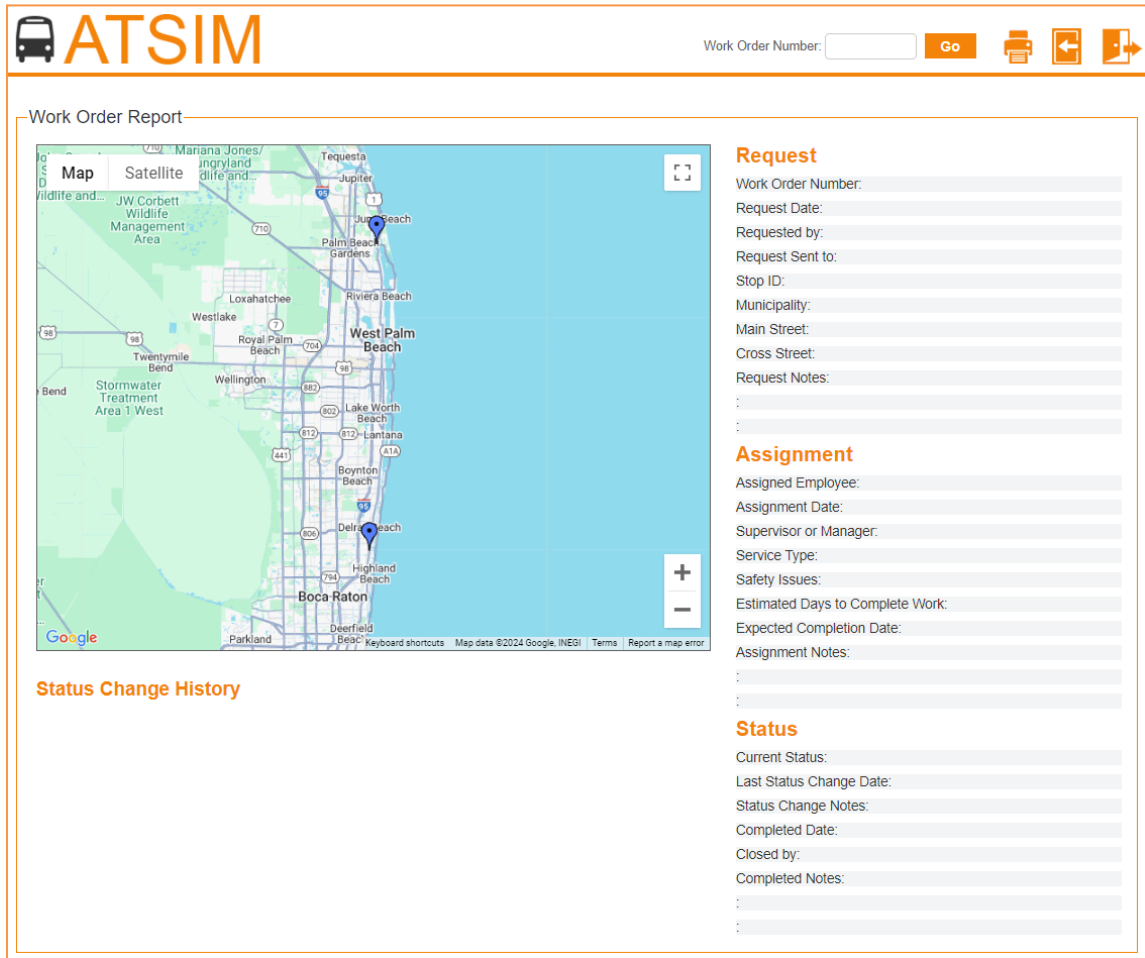



Figure 6-14. Work Orders Full Report Initial Screen

After a work order is selected, it will display all the work order record on the right side of the screen and the map location icon of the associated stop will appear in red. The screen also lists all the changes to the status of the work order below the map window. In addition, if there are other work orders associated with the same stop, they will be listed under the *Work Orders* section on top. The user can press any of the listed work order numbers to retrieve the work order record.

Figure 6-15 shows the screen that displays the work order record for Work Order No. 3. It can be seen that Work Order No. 2 is also listed which is also for work performed at the same stop (Stop ID 222). On this screen, the user can also press the  button to print the screen. Note that the user must select the *Landscape* printing layout option in order to cover the entire content area.

Work Order Report

Work Order Number: **Go**

Work Orders:

2 3

Request

Work Order Number: 3
 Request Date: 09/02/2024
 Requested by: Jane Doe
 Request Sent to: Joe Doe
 Stop ID: 222
 Municipality: DLB
 Main Street: FEDERAL HWY
 Cross Street: LEMAT AVE
 Request Notes: Broken bench with sharp edges. See images below.
 Custom List 1:
 Custom Textbox 1:

Assignment

Assigned Employee: Elon Mug
 Assignment Date: 09/02/2024
 Supervisor or Manager: Joe Doe
 Service Type: Repair bench
 Safety Issues: Yes
 Estimated Days to Complete Work: 3
 Expected Completion Date: 09/05/2024
 Assignment Notes: This is urgent. Please call Joe 786-222-3333 when done. Call Jane for more info if needed.
 Custom List 2:
 Custom Textbox 2:

Status

Current Status: Assigned
 Last Status Change Date: 09/02/2024
 Status Change Notes:
 Completed Date:
 Closed by:
 Completed Notes:
 Custom List 3:
 Custom Textbox 3:

Status Change History

No.	Work Order No.	Status Change Date	Changed by	Old Status	New Status
1	3	09/02/2024	Joe Doe	Null	Assigned

Images

Figure 6-15. Full Report Displaying a Work Order Record

6.4.2 Field Report

As shown in Figure 6-16, access to the field report is done by entering the work order number and then pressing the *Create PDF* button. A PDF file will be generated, available for download and printing. If the Create PDF button is pressed without a work order number, a blank report will be generated.

ATSIM

Field Report

Work Order Number: **Create PDF**

Figure 6-16. Work Orders Field Report Search Function

Figure 6-17 shows a sample field report. The report pulls stop and work order information from the associated stop and work order records. It can be used to convey information to the field personnel on the work that needs to be performed.

Work Order Number: 3		
On Street: FEDERAL HWY	Reported by:	ADA Compliant: (Circle One) YES NO
At Street: LEMAT AVE	Priority type: 1) Hazard/Emergency 2) Routine 3) Re-align rt. 4) RUSH/time deadline-do by _____	
Municipality: DLB	Work Type: 3) Remove 6) Re-install & Repair 1) Install new sign 4) Repair	
Bus travel direction: SB	2) Re-Install 5) Relocate	
Placement: 0) None 1) Far 2) Near 3) MidBlock 4) Terminal	Corner Side: NW	
Install Type: 1) Square post in concrete 2) Post-in ground 3) existing Square post 4) bare anchor- needs post _____ 5) existing u-iron in concrete 6) existing u-iron in ground 7) Other	Sign Type: 1) New style sign 2) No Parking-Bus 3) Do Not Enter 4) Bus Stop & No Prkg 5) No Prkg/No Entry/Bus Stop Zone 6) Bus stop/No Entry 7) Other	
Amenities: 1) Shelter 2) Bench 3) Trash can 4) Lighting 5) Other		
Route/destination decal list:	Sign size: Number of decals spaces needed _____	
1.	6.	
2.	7.	
3.	8.	
4.	9.	
5.	10.	
Location Map		
Notes: This is urgent. Please call Joe 786-222-3333 when done. Call Jane for more info if needed.		
Supervisor / Manager: _____	Facilities Crew: _____	
Assigned Date: _____	Date Work Completed: _____	

Figure 6-17. Work Orders Field Report

7

FIELD GUIDELINES

This section provides procedural guidelines for fieldwork for collecting transit stop data. A significant portion of the guidelines presented were based on lessons learned from a field test on transit stops on a major route (i.e., Route 1) for the Palm Tran transit system in Palm Beach County. Route 1 runs mainly along U.S. Highway 1 and had about 400 transit stops at the time of data collection. Palm Tran had planned for this to be a major corridor for implementation of Advanced Public Transportation Systems (APTS) or Transit Intelligent Transportation Systems (ITS) technologies, which requires accurate stop data.

7.1 Data Collection Plan

7.1.1 Initial Field Survey

- Before the actual data are collected, it is important that an initial field survey be conducted to obtain field conditions, followed by the design of the data collection plan that best fits the field conditions.
- During the field survey, it is advisable to have a camera ready to capture any special field conditions. These pictures can also be used for crew training, described later in this section.

7.1.2 Date and Time

- Transit stop inventories should be collected during daylight hours, on any day of the year.
- Data collection on weekends generally offers the benefit of faster data collection and better safety due to lighter traffic, especially at busy intersections.
- Assignments at transit stops on congested roadway sections should be avoided during rush hour.

7.1.3 Crew Assignment

- The number of crew members to use for data collection depends on availability of equipment and personnel. Larger agencies will require more crew members to ensure the job can be completed within a reasonable amount of time.
- Fewer crew members will take longer to complete the data collection, but the total cost of data collection may be reduced, and the quality of data may be improved, as it gives time for the survey crew to become experienced.

7.1.4 Mode of Travel

- A passenger vehicle is the most convenient mode of transportation for traveling from one stop to another, as it offers good travel speed, provides the survey crew with a refuge from rain and heat, allows for recharging of equipment, shields the survey crew from other vehicles, and provides a place to store items such as the tablet, measuring wheel, food,

water, garments, shoes, etc. A passenger vehicle also allows the survey crew to quickly travel to a new survey location, as well as to and from restaurants, restrooms, hotels, etc.

- For the safety of both the survey crew and the general traveling public, the survey vehicle, if possible, should not block a travel lane during data collection.
- A pick-up truck is the preferred type of vehicle, as it offers the height and power needed to drive onto a curb when necessary. Agencies should check with the local jurisdictions to determine if temporary parking on the curb is allowed. Figure 7-1 shows a pick-up truck parked on a sidewalk area.



Figure 7-1. Survey Pick-up Truck Parked on Curb/Sidewalk

- Walking is another potential alternative for areas with dense transit stop locations and/or with limited space for vehicle parking. Walking offers the convenience of easy access and does not require the extra fuel cost. However, a major problem with this alternative is that the survey crew will quickly become tired from prolonged walking, thus, this mode of transportation may shorten the number of work hours and reduce work productivity.

7.1.5 Safety Accessories

- An emergency flashing light should be used to alert drivers and provide safety to the crew. The light should ideally be located on top of the vehicle and toward the side of the travel lane to increase visibility to other drivers. In addition, the emergency stop lights of the survey vehicle should be turned on at all times during data collection. Figure 7-2 shows an example of an emergency flashing light and stop lights.
- Due to the frequent stops that will be made by the survey vehicle, a large display sign mounted on the back of the survey vehicle is used to alert motorists that there is a survey in progress.
- Each member of the survey crew should wear an orange vest. Not only is this recommended for safety purposes, but it also indicates to people waiting at transit stops that data are being collected for official purposes, hence reducing uneasiness when having their pictures taken at a transit stop.



Figure 7-2. Use of Emergency Flashing Light and Emergency Stop Lights

7.1.6 Miscellaneous Items

- Each survey crew should carry a letter issued by the transit agency. The letter should be on agency letterhead and include the data collection period, the contact person at the agency, and the purpose of data collection effort.
- Bottled water, snacks, and other food items may be carried in the vehicle.
- Hats and sunglasses should be used on sunny days.
- Unless it is needed to obtain an accurate distance of a stop location from the nearest intersection, a measuring wheel is not needed. Estimates based on “eye measurement” should generally be sufficient.

7.1.7 Crew Training

- Crew training is important to ensure that all crew members are familiar with both the operation of the equipment and the data collection procedure.
- The trainer should explain each attribute, preferably with examples and pictures of different actual transit stops, to illustrate specific attribute options.
- Potential problems that may be encountered in the field should be pointed out during the training session.
- The training session should include a field test to collect data from several stop locations. A follow-up session right after the field test should be conducted to share questions and answers among the survey crew.

7.2 Data Collection Procedure

7.2.1 Equipment Setup

- Survey crew members should refer to Section 2 of this guide to become familiar with the various functions provided by ATSIM’s *Data Collection* module.

- The survey crew must check all equipment to make sure it functions properly before each trip to the field.
- Most tablets are powered by a rechargeable battery. Therefore, the survey crew should make sure that the tablet is fully charged before going out in the field.
- Depending on the device, the battery may last between four and eight hours of continuous/active usage. When a survey vehicle is not in use, it is advisable to have the battery recharged between shifts, such as over a lunch break in a restaurant. It may take a few hours to fully recharge an empty battery. The survey crew should make sure the restaurant they dine in allows for the recharging of equipment. Many fast-food places do not provide power outlets.
- A regular charger and a car battery charger are needed to avoid work interruptions due to a low battery.
- The tablet should be recharged after each data collection session.
- Battery life depends on CPU usage, along with screen brightness, Wi-Fi, Bluetooth and other features. Close all unnecessary applications to extend battery life.

7.2.2 Pictures

- Pictures of transit stops are optional data for a transit stop inventory.
- If an agency wishes to collect pictures of transit stops, it is recommended that three pictures be taken at each stop. The first includes a close-up view of the transit stop sign, which usually displays route information and sometimes the transit stop number. A second can provide a clear view of the transit stop amenities that are easily identifiable. A third can provide a broader view of the transit stop's surrounding area.
- Photographing front views of transit stops, which may require that the survey crew cross the street, is both time-consuming (waiting for traffic to clear) and is a safety hazard and should be avoided.

7.3 Data Quality Assurance

- To ensure quality of data, quality assurance (QA) needs to be performed. Field verification of a randomly selected set of transit stops from different survey crew members from different areas and different days should be conducted.
- The sample size can be reduced over the data collection period. Field verification for the first few days is especially important because it will help correct any problems early on.
- Data quality deemed unacceptable should be redone.
- If pictures are collected, a final verification of random samples can be performed by matching what is observed in the pictures to what is recorded for particular stops.

ATSIM 7.0

User's Guide



Developed for:

Public Transit Office
Florida Department of Transportation
605 Suwannee Street, MS 26
Tallahassee, FL 32399

Developed by:

Department of Civil & Environmental Engineering
Florida International University
10555 West Flagler Street, EC 3680
Miami, FL 33174