FleetLink Route System

previously known as

Route Management System (RMS)



Training Guide

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About This Document



This document references version 3.20 Route Management System Software.

It is intended as an instructional aid for the FleetLink Route Management System (RMS) training presentation. The material presented here introduces the RMS and explains its general concepts, tasks, and work flows with the aim of getting users started using the system.

The FleetLink RMS is an evolving application, with new features and enhancements introduced with each new version. As such, your installation may vary somewhat from the content presented in this guide in terms of appearance and functionality.

Potential impact of these differences may be particularly important when importing data into your system.

ALWAYS REFER TO THE MOST RECENT VERSION OF THE FleetLink Route Management System User Guide (FULL MANUAL) FOR INFORMATION CONCERNING RULES FOR IMPORTING DATA.

What is the FleetLink Route Management System?

The FleetLink Route Management System is a web-based solution that supports dispatch operations for:

- Residential cart delivery and maintenance
- Residential waste collection service
- Commercial waste collection service.
- Graffiti Cleaning service

Using the FleetLink Route Management System, you can:

- Maintain inventory of carts
- Maintain cart assignments and status
- Maintain lists of trucks and drivers required to provide the services
- Manage Customer Subscriptions
- Create and maintain routes that will be used to deliver services
- Import route data from a CSV file
- Generate routes based on GeoZone screens
- Create add-ons, extras, and on-demand tasks
- Assign routes to trucks and drivers
- Initiate the wireless delivery of electronic route sheets to the FleetLink Mobile system
- Support normal dispatch operations such as re-assigning service stops to different trucks

Export data to support reporting and analysis

In addition, the FleetLink Route Management System (RMS) supports full integration with customers' back-office Customer Care and Billing Systems, enabling communication and synchronization between the two systems, and supporting special considerations such as rates for bundled services and for usage of shared containers.

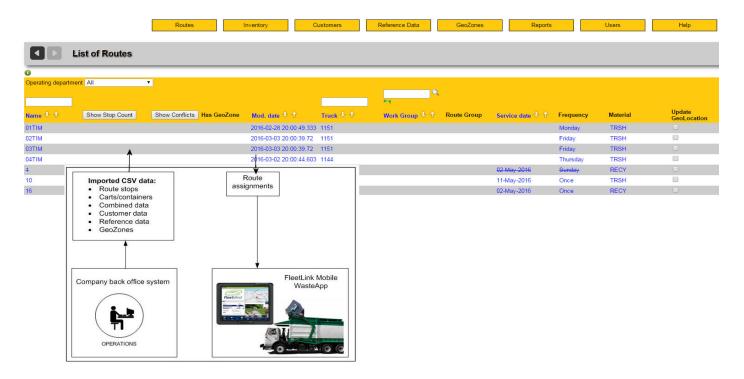
Why Use this Solution?

The FleetLink Route Management System takes the theory of optimizing route efficiencies and combines that with FleetLink Mobile's real-time fleet tracking and turn-by-turn driver direction to ensure that vehicles actually use those routes that minimize the distance, the amount of fuel used, or the amount of time required to accomplish their assignments.

By using the FleetLink Route Management System to create more efficient routing, you can realize benefits in terms of:

- reduced fuel consumption
- increased profitability
- improved service delivery
- improved vehicle utilization
- decreased travel time.

The FleetLink Route Management System can be deployed as a stand-alone dispatch solution or integrated with your existing back-office system to manage your routing. The application features the capability to import all the necessary data in comma-separated-value (CSV) files to populate your database and get you started quickly and easily.

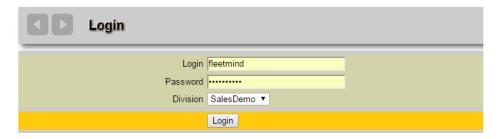


Getting to Know RMS

Logging In

To log in to the FleetLink Route Management System:

1. Open a browser window and navigate to the URL provided by your computer system administrator The FleetLink Route Management System login screen displays.

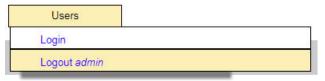


2. Enter your user name and password in the text fields provided, and then press Login.

You can choose a division now or after you have logged on.

Logging Out

Select Logout from the Users menu.



User Interface (UI)

The FleetLink Route Management System user interface is a tabbed interface that comprises all the menus required to manage your routes.

Controls and information are contained in a static area and a dynamic area.

Static Area

The upper area of the UI is the static area, which remain displayed on the UI at all times.

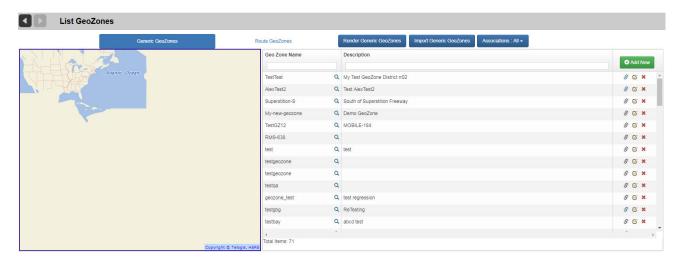


Functionality is categorized according to the following menus:

- Routes
- Inventory
- Customers
- · Reference Data
- GeoZones
- · Reports
- Users
- Help

Dynamic Area

The lower area of the UI is where dynamic information and form data for the currently selected menu option is displayed.

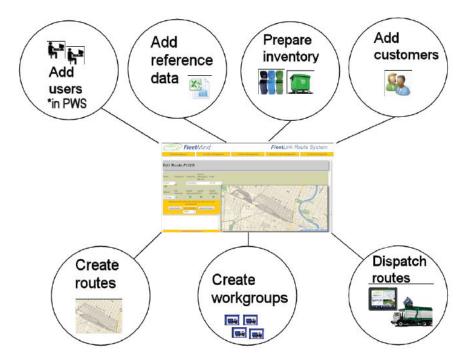


Getting Started

Getting started with the RMS involves the following workflow:

- 1. <u>Configurable Data Setup</u>: Define and manage Reference Data—data specific to your enterprise that defines the properties for your business and represents information that is available for use by all routes in your system.
- 2. <u>Inventory Setup</u>: Define the carts and containers in your inventory.
- Customer Setup: Define the customers that are serviced by your business, their locations, and their service subscriptions.
- 4. Route Creation: Define the routes and stops for assignments.
- Workgroup Creation (optional): Define the vehicles working in collaboration to service large routes (or Route Groups).

6. Route Dispatch: Send routes and assignment information to the mobile units.



User Setup

As of software release 3.5, User Management is done exclusively through the *Platform Web Services (PWS) User Portal* or *Active Directory.* RMS no longer provides *List User* and *Add User* menu options.

For information purposes, this section describes the user properties and privileges that can be defined using those applications.

Languages

Preferred language is the language used on the user interface. The FleetLink Route Management System currently supports English, French and Spanish.

Roles

Every user must be assigned a role, which defines their access privileges.

Five roles are defined for FleetLink Route Management System users:

- Admin has full privileges.
 - Only an Admin can view and edit the list of users.
- Billing defines billing plans, processes billing data.
- **Dispatcher** manages daily assignment dispatch, handles assignment exceptions/problems.
- Provision provisions customer service subscription to specific routes.
- Reader has very limited read-only privileges.

A user assigned the role of Reader can perform only the following operations:

READER PERMIS- SIONS				
Search Associations				
Search Stops				
Search Containers				
Search Customers				
List GeoZones				

If the Reader attempts to perform any unauthorized operations, he/she will be logged out automatically and the following message will display.

Access denied [listFlrsUsers	.html] to user: reader [read]
Login	
Password	
	Login

The other roles and their associated privileges are listed in the following table.

The privileges assigned to each are role are hard-coded in the application and are not user-configurable in the current software release.

	Dispatch-	Provi-	Bill-	Ad-
	er	sion	ing	min
Add Activity Code		Yes	Yes	Yes
Add Assignment		Yes	Yes	Yes
Add Building Category		Yes	Yes	Yes
Add Color		Yes	Yes	Yes
Add Container		Yes	Yes	Yes
Add Container Maker		Yes	Yes	Yes
Add Container ype		Yes	Yes	Yes
Add Customer			Yes	Yes
Add Customer Prfx		Yes	Yes	Yes
Add Customer Type		Yes	Yes	Yes
Add Facility		Yes	Yes	Yes
Add Firs Users				Yes
Add Frequency		Yes	Yes	Yes
Add Location		Yes	Yes	Yes
Add Material		Yes	Yes	Yes
Add Operator		Yes	Yes	Yes
Add Route		Yes	Yes	Yes
Add Service Add On			Yes	Yes
Add Service Type			Yes	Yes
Add State		Yes	Yes	Yes
Add Truck		Yes	Yes	Yes
Add Unit		Yes	Yes	Yes
Add Wkt		Yes	Yes	Yes
Add WorkGroup		Yes	Yes	Yes
Dispatch Route	Yes	Yes	Yes	Yes
Edit Activity Code		Yes	Yes	Yes
Edit App Settings				Yes
Edit Assignment		Yes	Yes	Yes

Edit Assignment Status	1	Yes	Yes	Yes
Edit Assignment Status		Yes	Yes	Yes
Edit Building Category Edit Color		Yes	Yes	Yes
	<u> </u>	+		
Edit Container Edit Container Maker	<u> </u>	Yes Yes	Yes	Yes Yes
		_	Yes	
Edit Container Type Edit Customer		Yes	Yes Yes	Yes Yes
		\ \/		
Edit Customer Prfx		Yes	Yes	Yes
Edit Customer Type		Yes	Yes	Yes
Edit DB Settings	1			Yes
Edit Facility		Yes	Yes	Yes
Edit Frequency		Yes	Yes	Yes
Edit List Wkt		Yes	Yes	Yes
Edit Location		Yes	Yes	Yes
Edit Material		Yes	Yes	Yes
Edit Operator		Yes	Yes	Yes
Edit Route		Yes	Yes	Yes
Edit Service AddOn			Yes	Yes
Edit Service Type			Yes	Yes
Edit State		Yes	Yes	Yes
Edit Truck		Yes	Yes	Yes
Edit Unit		Yes	Yes	Yes
Edit Wkt		Yes	Yes	Yes
Edit WorkGroup		Yes	Yes	Yes
exportAllData				Yes
exportAssignment				Yes
exportReferenceData				Yes
Import AllData				Yes
Import Assignment				Yes
Import Containers				Yes
Import Customers				Yes
Import Reference Data				Yes
Import Routes				Yes
Import Wkt				Yes
List Flrs Users				Yes
List Prepared Routes	Yes	Yes	Yes	Yes
List Prepared Stops	Yes	Yes	Yes	Yes
List Route	İ	Yes	Yes	Yes
List Routes To Close	Yes	Yes	Yes	Yes
Remove Activity Code	İ	Yes	Yes	Yes
Remove Assign	<u> </u>	Yes	Yes	Yes
Remove Building Category		Yes	Yes	Yes
	L	1		

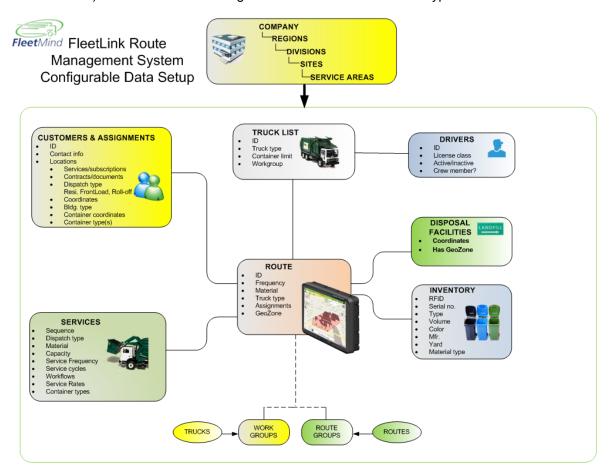
Remove Color		Yes	Yes	Yes
Remove Container Maker		Yes	Yes	Yes
Remove Container Type		Yes	Yes	Yes
Remove Customer Prfx		Yes	Yes	Yes
Remove Customer Type		Yes	Yes	Yes
Remove Facility		Yes	Yes	Yes
Remove Firs Users				Yes
Remove Material		Yes	Yes	Yes
Remove Operator		Yes	Yes	Yes
Remove Route		Yes	Yes	Yes
Remove Service AddOn		Yes	Yes	Yes
Remove Service Type		Yes	Yes	Yes
Remove State		Yes	Yes	Yes
Remove Stop		Yes	Yes	Yes
Remove Tmp Route	Yes	Yes	Yes	Yes
Remove Truck		Yes	Yes	Yes
Remove UnitT ype		Yes	Yes	Yes
Remove WorkGroup		Yes	Yes	Yes
View Server Log Files				Yes

Configurable Data Setup

What is Reference Data?

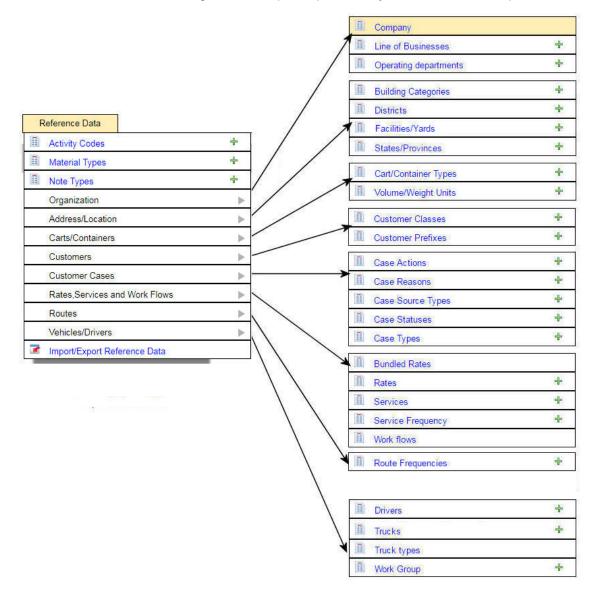
Reference data is specific to your enterprise. It defines the properties for your business and represents information that is available for use by all routes in your system.

Defining reference data is the starting point for your project. The most efficient way to define reference data is to import a comma-separated-values (CSV) file that you have prepared off-line (or have generated using your back-office system or other software) and formatted according to the criteria defined for each type of data.



Defining (or Importing) Reference Data

You define reference data using the menu options provided by the Reference Data pull-down menu.



TIP: It is recommended that you define your **Services** reference data as one of the last items, as it has dependencies on many other Reference Data elements in the list.

Reference Data List

Material Types

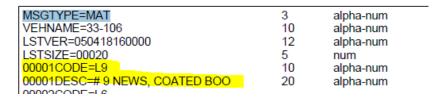
Material Types Reference Data specifies the types of disposal material for your business. Examples include Recyclable Materials, Compostable Yard Waste, Organics, Garbage, and so on.



This data defines the menu options available on the FleetLink Mobile WasteApp user interface, their captions, and the order in which they are presented to the user.

Material types are used in defining the Service types as well as filling out the material Master List for disposals or call-ins.

It follows the FleetMind standard API message compliance.



Note Types



Note Types refer to the codes defined in the Note Type Codes (NTC) master list that is sent to the mobile units. These codes are used to define lists of recipients for messages sent between the mobiles and the server

Note Types Reference Data defines the codes defined in the Note Type Codes (NTC) master list that is sent to the mobile units. These codes are used to define lists of recipients for messages sent between the mobiles and the server

Lines of Business

Line of Business Reference Data specifies the types of waste management services for your business, and hence, the functionalities offered on the FleetLink Mobile WasteApp user interface.

The standard FleetMind LOBs are Commercial, Industrial, Residential, and Cart Delivery.

The LOBs are associated to the ASN Stop type. You can technically add different LOBs to the system and have them associated all to the same stop type.

Customer Classes

Customer Classes Reference Data is provided as an optional data element for integration with a company's billing system

Customer Prefixes

When adding new customers to the FleetLink Route Management System, the application generates a unique ID for the new customer. A Customer Prefix is any alphanumeric string that is meaningful to your business for purposes of sorting or categorization of customers.

For example, if you wish to add a new customer to a Division of your business named "Beacon Hill", you may wish to add a customer prefix called "BH". This will enable you to generate a unique system ID resembling "BHnnnnnnnnn", where nnnnnnnnn is the numeric part of the unique Customer ID.

Customer Prefixes are used to make customers linkable/groupable, and may be used in the future for billing purposes.

Route Frequencies

Route Frequencies Reference Data defines the frequency with which your routes are run.

Cart and Container Types

Cart and Container Reference Data specifies the types of waste receptacles used by your business, and hence, the cart/container types displayed on the calls list and menus of the FleetLink Mobile WasteApp user interface.

Common examples include Blue Boxes, Totes, Yard Bins, and Compactors.

Truck Types

Truck Types Reference Data defines the purposes of the vehicles used on your routes.

Building Categories

Building Categories Reference Data specifies the types of buildings serviced by your business . Examples include Apartments, Office, Single-Family Dwelling, and Banquet Hall

This data has no impact on the FleetLink Mobile WasteApp user interface, but may be of use for route planning or statistical analysis by your Operations department.

States and Provinces

States and Provinces Reference Data specifies the U.S. states and/or Canadian provinces serviced by your business.

Districts

Districts Reference Data specifies the geographic areas serviced by your business.

Volume and Weight Units

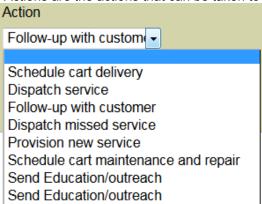
The FleetLink Route Management System has pre-programmed metric unit types:

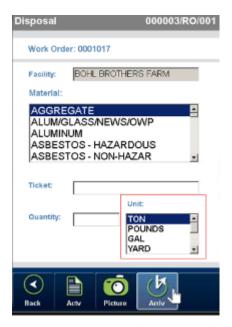
- Cubic Meters
- Kilogram
- Kilometer
- Liter
- Meter
- Metric Ton

Case Actions

This reference data element is a component of the Customer Service Representative (CSR) Dashboard and may not be applicable to your installation.

Case Actions are the actions that can be taken to process or resolve a Customer Case.





Case Types

This reference data element is a component of the Customer Service Representative (CSR) Dashboard and may not be applicable to your installation.

List of Case	Туреѕ	
Case Type	Description	+
CMPL	Complaint	×
IR	Information request	×
wo	Work order	×

Rates

Rates define the billing rates associated with different types of services, for example, regular service, extras, extra weight, and No Service.

After you have defined Rate Types, you can apply them when defining services.

Bundled Rates

Bundled Rates are special discounted rates available to customers who subscribe to a package comprising multiple service subscriptions.

Case Reasons

This reference data element is a component of the Customer Service Representative (CSR) Dashboard and may not be applicable to your installation.

Case Reasons represent predefined descriptions of the case that the Customer Service Representative will be able to select from a pull-down menu when entering or editing a case.

List of Case Reasons × Collection container is too heavy/big when full × Collection staff damaged my recycling container Collection staff spilled recyclables on the ground and did not remove them Collection staff were not wearing pants × Collection staff were rude or discourteous × Collection vehicle damaged private property × × Collection vehicle was speeding or operating dangerously This program is too confusing/restrictive/complicated etc × × Tim TEST REASON Tim TEST REASON3 × Export

Case Source Types

This reference data element is a component of the Customer Service Representative (CSR) Dashboard and may not be applicable to your installation.

Customer Cases will usually be initiated by a communication from the customer—via various means, such as email, telephone, web interface, and so on—to register a complaint or request a service

Customer Cases may also, on occasion, originate with a driver. For example, a driver may notice that a customer's bin is missing a wheel or is damaged to the point that it cannot be lifted with a side-loader. The driver may then relay this information to the back office so that a Customer Case may be created.

Case Statuses

This reference data element is a component of the Customer Service Representative (CSR) Dashboard and may not be applicable to your installation.

Case status indicates the current state of a customer case within the CSR's work flow.

Three statuses are predefined in the CSR Dashboard:

- Open Unassigned
- Open Assigned
- Closed

Company

Company reference data defines the properties of your company.

Used primarily for <u>Customer Service Report generation</u>, Company reference data has the following hierarchy:

- Company
- Region
- Division
- Site
- Service Area

When generating either the Curbside CSR or the Multi-Family CSR reports, one of the mandatory criteria is *Service Area*. When creating a case, the user will select the service area as part of the report criteria.

Trucks

Trucks Reference Data defines the vehicles used on your routes.

Because truck creation in the FleetLink Route Management System and the Command Center are independent, they need to be created in both places.

Residential routes are server-resource intensive. If the system has been setup to send 20 residential routes every morning to trucks that don't exist, valuable route generation time will be wasted.

The only data that is functionally important to the system is the name of the truck. All other fields are just descriptive.

Drivers

Drivers Reference Data defines the personnel authorized to drive the vehicles in your fleet.

Changes to drivers in this page are reflected in the drivers master list, and must conform to the waste messaging API.

MSGTYPE=DRV	3	alpha-num	mandatory
VEHNAME=33-106	10	alpha-num	mandatory
LSTVER=050418160000	12	alpha-num	mandatory
LSTSIZE=00007	5	num	mandatory
00001CODE=AA	20	alpha-num	mandatory
00001DESC=ABDUL	20	alpha-num	mandatory
00002CODE=AM		•	
AAAAAAAAA IIIIATEB HAAAAIIA	• •		



Activity Codes

Activity Codes Reference Data defines the codes that indicate the completion status for stops on your routes; they are completion codes that are included in the activity master list that's sent to the mobile.

Examples include Completed (normal completion), UTS (unable to service)—bin not out, access blocked, cart misplaced, and so on.

Activity Codes Reference Data defines the buttons or menu options available on the FleetLink Mobile WasteApp user interface, their captions, and the order in which they are presented to the user.



They are restricted to the Waste API fields.

MSGTYPE=ACT	3	alpha-num	mandatory
VEHNAME=33-106	10	alpha-num	mandatory
LSTVER=050419160000	12	alpha-num	mandatory
LSTSIZE=00004	5	num	mandatory
00001CODE=C	4	alpha-num	mandatory
00001DESC=COMPLETE	20	alpha-num	mandatory
00001EXCEP=N	1	'Y' or 'N' (def=Y)	optional
00001COMP=Y	1	'Y' or 'N' (def= N)	optional

Facilities

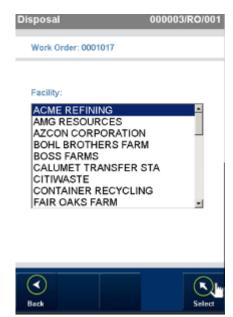
Disposal Facilities Reference Data specifies the Disposal Facilities utilized by your business .

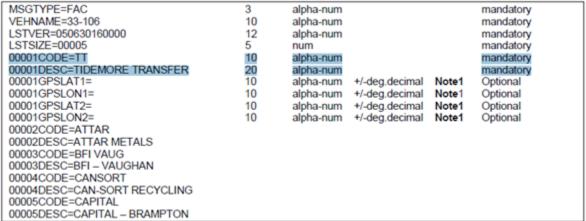
Information includes contact information and Facility location, which the application can translate into geographic coordinates for use by the FleetLink Mobile WasteApp .

The Route Management System does not have the ability to add/remove facilities based on LOB or division. This means that all trucks will receive all entries in the in this list (unless modified through the FleetLink Connector).

Disposal messages coming from the mobile are not inserted to the route system database.

Only the code and description are passed to the FleetLink Connector; the column length is respected from the waste API.





Work Groups

Work Groups are collections of vehicles working as a team to complete work assigned to them. From the perspective of the FleetLink Route Management System, a work group can be thought of as an identifier that can be set as a destination of a route.

Services

Services Reference Data specifies the types of waste management services provided by your company and, hence, the service types displayed on the calls list and menus of the FleetLink Mobile WasteApp user interface.



Service Frequencies

Service Frequency Reference Data specifies the frequency with which services are rendered at a Customer Location, for example, Daily, Twice a Week, On-Demand.

Operating Departments

Operating Departments Reference Data specifies the cost centers responsible for the various types of waste management services provided by your business.

Each Operating Department may be associated with different Work Flows, Lines of Business, and Dispatch Types.

Combined Data

The FleetLink Route Management System provides tools for importing and exporting Combined Data.

Combined Data is defined as a database record (or collection of records) each of which combines all data for one container: the container itself, the customer location to which the container is assigned, and details about that assignment.

File Formats

When importing Combined Data (and Reference Data) into RMS, file content and formatting is of critical importance in order for the operational to be successful. Always refer to the most recent version of the FleetLink Route Management System (RMS) User Guide to ensure that you are following the most recent data import rules.

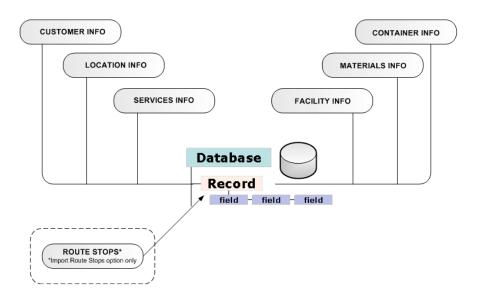
There are two different sets of Combined Data that can be imported into the FleetLink Route Management System:



FleetLink Route Management System
Combined Data

- Combined Data (Inventory Management)
- Route Stops (Route Management)

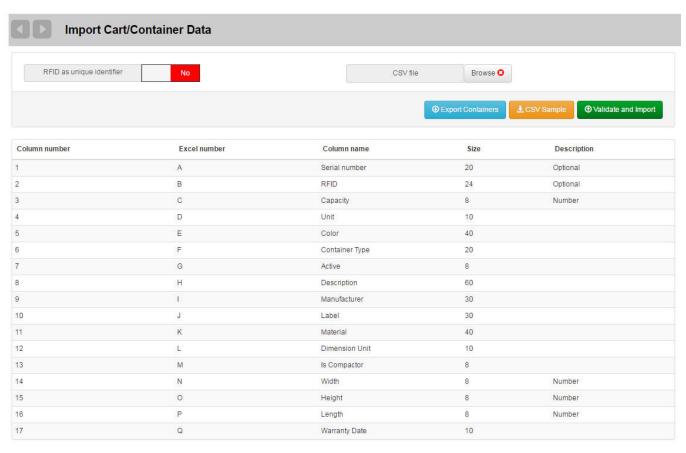
File content and format for these two sets of data are nearly identical--what differentiates them is that for Route Stops, each record has additional fields appended to the end to accommodate route data for up to 14 routes.



Inventory Management Combined Data

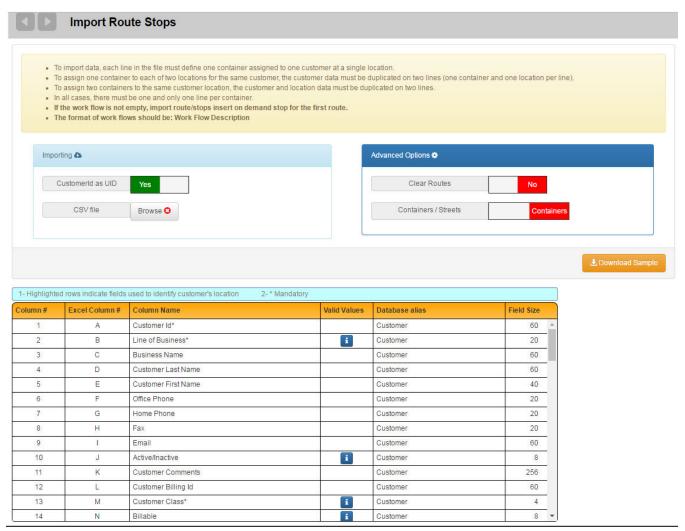
Select Inventory > Import Carts/Containers.





Route Management Combined Data

Select Routes > Import Route Stops.



Customer Setup

You can define customer data for your routes in one of two ways:

- Importing Customer Data
- Adding Customers Manually

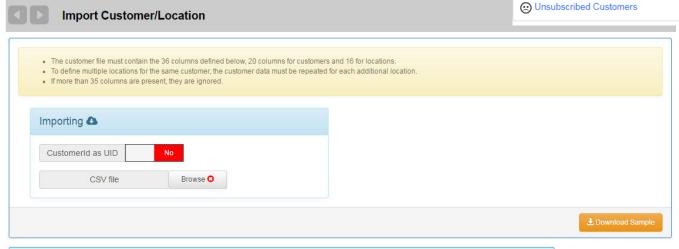
Importing Customer Data

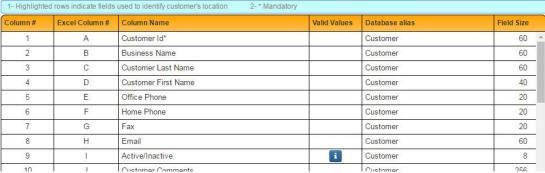
For new deployments of the FleetLink Route System, the quickest and most commonly used method is to import customer data collected from, or exported by, your back-office (dispatch) system.

The imported data must be in a properly formatted comma-separated-value (CSV) file, which can be generated using Microsoft Excel or other spreadsheet management applications.

The formatting of the file must adhere strictly to a set of rules, which are defined on the FleetLink Route System user interface.

- Prepare your data off-line, using the formatting scheme described in the Import Customer Data figure.
- Select Customers > Import Customer.
 The Import Customer Data screen displays.





Q Search Customers

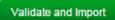
♣ Add New Customer

List customer cases

mport Customer

List of Not GeoCoded Customers

- 3. Click the Browse... button to navigate to the disk location where your file is saved.
- 4. Select your file, and then click **Open**.
- Press the Validate and Import button to upload your file.
 A message displays, indicating success or failure of the import operation.
 You can view a summary of the import by clicking View last results.



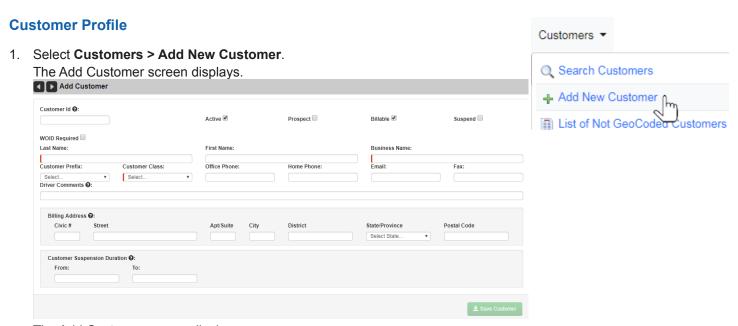
You can view the record(s) by selecting Customers > Search Customers, and entering your search criteria.

Adding Customers Manually

You can add a new customer directly by entering data manually in the FleetLink Route System.

Adding a new customer is a multi-step procedure:

- Entering customer profile information.
- Adding location(s) or address(es) for the customer.
- Subscribing the customer to service(s) at that location.



The Add Customer screen displays.

- 2. Enter all customer profile data using the text fields, check boxes, and pull-down menu.
 - a. Customer prefix menu: Selecting a prefix from this menu will result in the Customer ID—automatically generated by the system—contains the Customer Prefix as its first characters.
 - Billable check box: Check this option if this address is the billing address for the customer account.
 - WOID Required: Selecting this option forces you to enter a work order ID when scheduling an on-demand stop via the Edit Location screen.
- 4. Once you have entered all information press **Save**.

The Edit Customer screen displays, enabling you to add customer location information.



Customer Locations

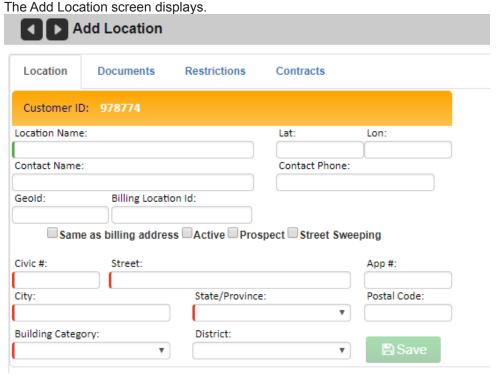
The lower portion of the Edit Customer screen provides an area where you can view and add additional customer location information.



To add a location:

Select the **Location** button.

The Add Location button.



Location

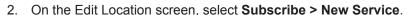
- 2. Enter all location information, and then press **Save** .

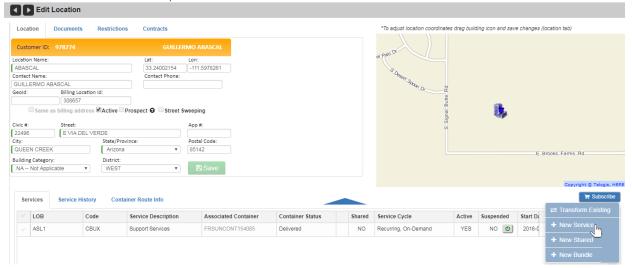
 You are returned to the Edit Customer screen, where you can add additional addresses in the same manner.
- 3. Once all the locations are defined, you need to select each location individually to associate services and containers to each, thereby generating unscheduled stops to be added to a route. Customers may have multiple locations or multiple bins at a single location, for example, one for garbage and one for recycling. Each bin is treated as a different stop (or assignment) on a potentially different route.

Subscribing Customers to Services

You subscribe a customer to a service using the Edit Location screen.

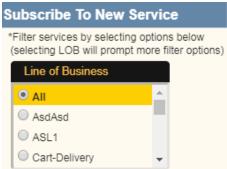
1. Locate the customer in the List of Customers, and click the location link to open the Edit Location screen.

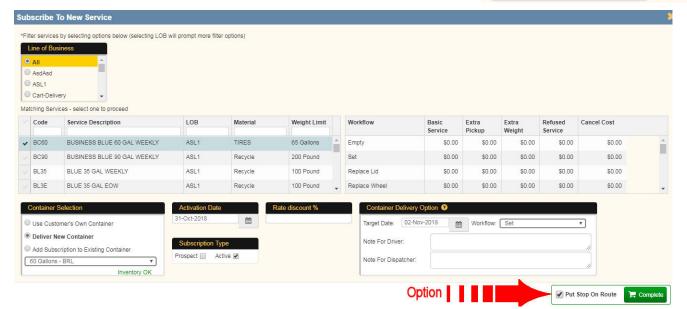


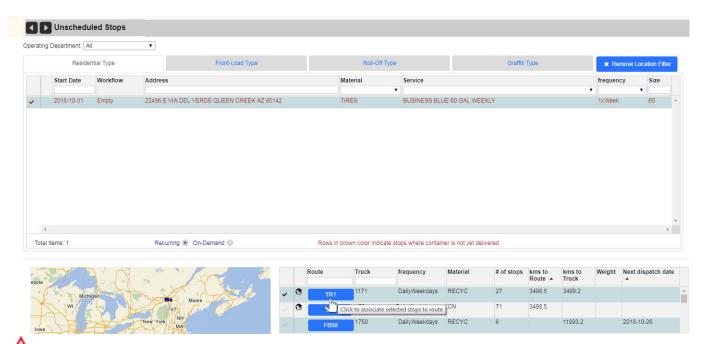


- 3. Select a Line of Business.
 Once you have done so, further filter options become available.
- Choose all your options here and click Complete when done.
 OR
 Ontionally select the Put Stop on Route check box (before selection).

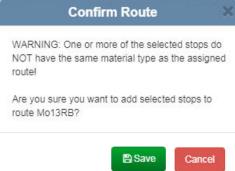
Optionally, select the Put Stop on Route check box (before selecting Complete). By doing so, you are directed to the Unscheduled Stops screen, where you can assign the stop(s) to a route immediately.



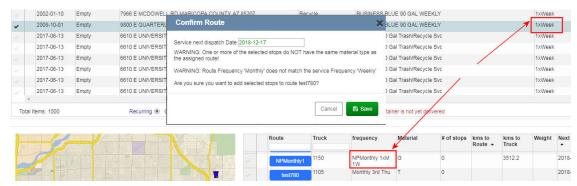




WARNING: When selecting a route, keep in mind the material to be handled and the route frequency. Where the stop to be transferred and the destination route involve different materials (e.g., recycling vs. garbage), you will be prompted to confirm your action with the following warning dialog:



Where the stop to be transferred and the destination route have incompatible service frequencies, you will be prompted to confirm your action with the following warning dialog:



The new service is added to the Services list on the Edit Location Screen.

5.

Route Setup

You can create Routes in the FleetLink Route Management System in one of two ways:

- · By importing.
- Manually, via the Add Route menu option.

Importing Route Stops

This menu option lets you import data collected from (or exported by) your back-office (dispatch) system.



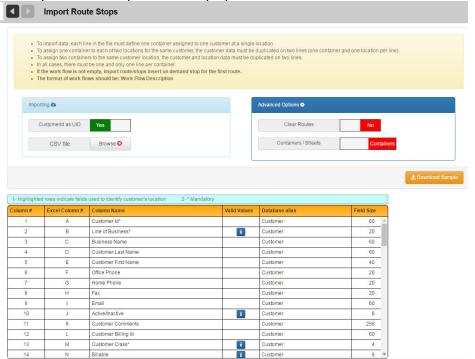
You can create new routes in the FleetLink Route Management System by importing data collected from (or exported by) your back-office (dispatch) system.

The imported data must be in a properly formatted comma-separated-value (CSV) file, which can be generated using Microsoft Excel or other spreadsheet management applications.

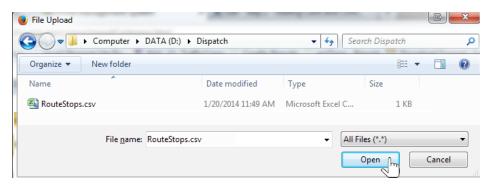
The formatting of the file must adhere strictly to a set of rules, which are defined on the FleetLink Route Management System user interface.

- 1. Prepare your data off-line, using the formatting scheme described in the figure below.
 - You can download an empty .csv file using the **Download Sample** button, and populate it with your own route data.
- 2. Select Routes> Import Route Stops.

The Import Route Stops screen displays.



Click the Browse button Browse O to navigate to the disk location where your file is saved.



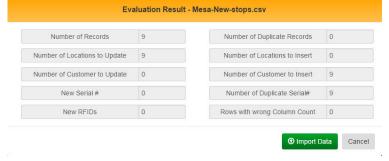
- 4. Select your file, and then click Open.
 - The application provides a feature to evaluate the file to be imported.

Evaluation will validate following:

- Column mismatch between CSV file and system grid.
- Reference data missing.
- · Duplicated rows in CSV file.
- Duplicated Serial Number or RFIDs.
- 5. Select the Validate and Import button.



A message displays the validation results for the data to be imported.



Advanced Options

The **Clear Routes** option removes all stops in routes before importing the new data. Use this feature when reorganization of routes means that the reorganized route(s) will have <u>fewer</u> stops.



Review the results, and select Import Data to proceed.

The **Containers/Streets** option is used when the routes to be imported are street sweeping routes (not applicable to all installations).

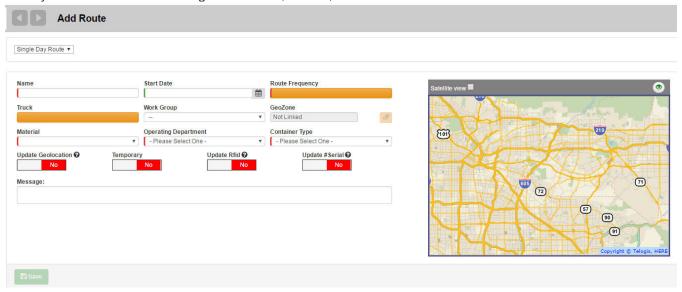
For street sweeping routes, select the **Sections** option.



Creating a Route Manually



- Select Routes > Add Route.
- 2. Enter your route information using the text field, menus, and check boxes.



O NOTES

- Name must be a unique identifier
- Single Day route: Used for regular waste collection routes. Multi Day Route for street sweeping services.
- Start Date is optional
- Route Frequency, Truck, Work Group, Material, Operating Department, and Container Type are all Reference Data elements. Make your selection from the pull-down menus.
- Temporary specifies whether the route is a regular (recurring) route or a temporary one created to handle special cases.
 - Temporary routes in the FleetLink Route Management System are deleted automatically on the day following their creation.
- Update GeoLocation, Update RFID, and Update #Serial are options that will update the cart's coordinates and other associated data when the lift is performed.
- 3. Press Save Route when done.

Adding Stops to the Route

Once you have created and saved a route, the screen refreshes, displaying Edit Route in the header, and a lower panel where you can add stops and view route history.



To add stops to the route:

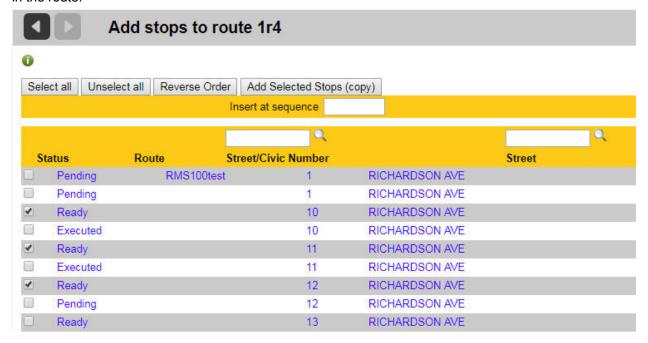
- 1. Choose a tab; either **Recurring Associations** or On **Demand/Extra**.
- 2. Select the **Add new Stop** icon A new screen displays: Search Customer Locations to Select Route Stops.



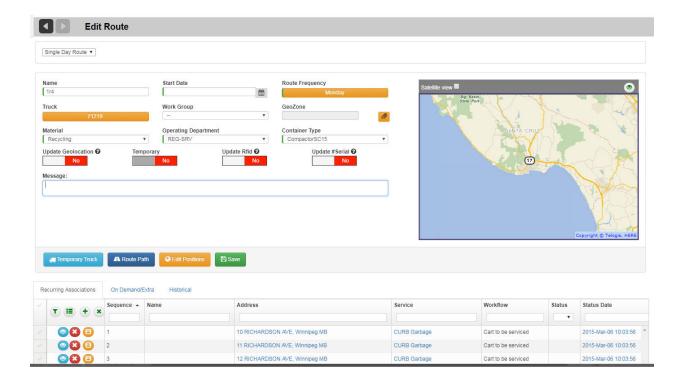
Searching instructions are provided at the top of the page. In this example, searching by Street is used.

3. Specify search information, and then click the search button .

The **Add stops to route** screen displays results matching the search criteria, including locations that may already be in the route.



- 4. Using the check boxes, select the stops you wish to add.
- 5. Select **Add Selected Stops (copy).**You are returned to the Edit Route screen, where the newly added stops display in the list.



Creating a Temporary Route

A temporary route is a route that can be dispatched to a vehicle that will only be run once. The route and the copied stops on this route will be deleted following the end of the service date.

Temporary

The procedure for creating a temporary is the same as that for creating a regular route except that you must select the Temporary switch.

Yes

See Creating a Route Manually.

Assigning a Stop or Group of Stops to a Route

The first recommended step before reassigning customers to another existing route should be to export the current Routes to verify what the current customer route assignments are.

1. Reassign Stops to Another Permanent Route

It should be noted that the following procedure is recommended for small changes to the permanent route. Larger changes, it is recommended that the affected routes be exported, modified then re-imported or in the case where the Container locations are geocoded, via the Geozone Management function.

- a. For Customer currently being serviced by one route
 - Go to Routes > Routes & Stops.
 - ii. Select Route from which customer will be removed.
 - iii. Remove customer(s) from Route by pressing the "X" on the left for each customer needing to be removed.



- iv. Go to Routes> Unscheduled Stops.
- v. Select tab with proper line of business.
- vi. Select check box on the right of each customer targeted for the route change.
- vii. Once selection is completed, select the target route in the lower right quadrant.
- viii. Select "YES" in the pop-up.

b. For Customers currently being serviced by more than one route

- i. Execute steps i. to iii. as described above.
- ii. Go to the static portion off the UI by selecting Route Management > Routes & Stops.
- iii. Select the target route.
- iv. Select Recurring Association tab.
- v. Add customers to route one by one by selecting the "+" on the right hand of the screen.

Reassigning Stops to a Temporary Route

1. From the Close Route screen - (Note: for dispatched routes only)

- a. To temporarily copy the stops from the close route screen, select the route on the left pane.
- b. Check off the stops to copy on the right pane.
- On the bottom of the right pane, select the temporary or permanent route which the stops are to be copied.
- d. Once selected, click on the Copy button (💬) to copy the selected stops to the chosen route.
- e. The route is now ready to be dispatched.

2. From the Current day screen:

- a. Click the check boxes of the individual stops to move to the temporary route.
- b. Choose the temporary route from the drop down list to send the stops to.
- c. Click on the button to copy the selected stops to the chosen route.
- d. Dispatch this temporary route manually if the temporary route is not in "status dispatched".

Rescheduling a Route to A Different Day (e.g., statutory holiday)

The recommended approach is to manipulate Route Frequency reference data to reschedule the routes. See <u>Holiday Rescheduling</u>.

Reassigning a Full Route to a Different Vehicle

- Go to the static portion off the UI by selecting Route Management > Routes & Stops.
- 2. Select the target route.
- 3. Change truck number.
- 4. Save.

The route is now ready to be dispatched.

Modifying and Replacing Routes

As data is collected and analyzed, Operations may wish to modify a route, e.g., re-sequence stops, replace the route, or redistribute stops among other routes.

The procedure for doing so is described in this section.

1. Exporting the Route Data

For existing RMS installations; changing, adding, deleting, rerouting stops .

For new RMS installations, refer to Configurable Data Setup.

Modifying Exported Route Data

Data can be manipulated manually (e.g., in Excel) or using third-party route software such as RouteSmart.

3. Deleting the Existing Route(s)

Off-line data modification may involve deletion and addition of stops. Deleting and recreating the routes from scratch minimizes conflicts and ensures that they contain only the correct (modified) data.

4. Recreating the Route(s)

See previous point.

5. Re-importing Modified Route Data

This will populate the empty routes created in step 4.

Resolving Unscheduled Stops

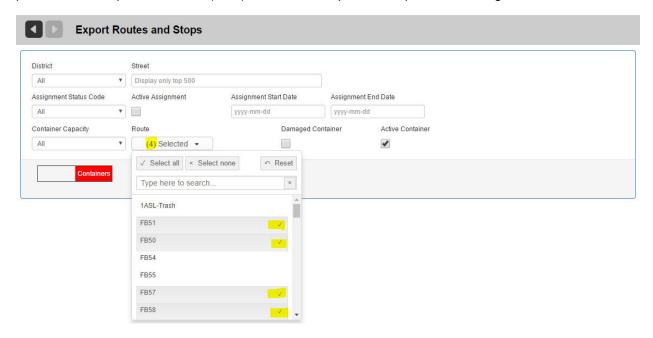
This is a quality control step to verify that stops have not been "orphaned" in the route modification process.

Exporting Route Data



This menu option lets you export Combined Data for your routes and cart/container inventory for migration to another

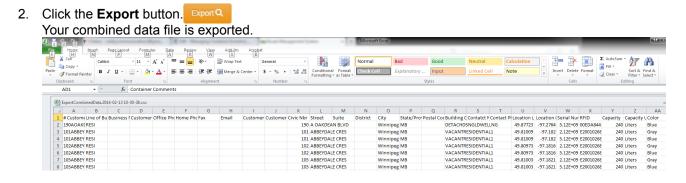
platform. The output is a text file (CSV) which can be opened and processed using Microsoft Excel.



Each record in the file contains all data for one container: the container itself, the customer location to which the container is assigned, and details about the assignment. The exported file is in the same format expected by the lmport Combined Data feature.

From the **Export Customer, Cart/Container and Route Data** screen, you can specify filters to export only those items matching your specified criteria.

- 1. Specify your filter criteria using the menus and check boxes.
 - You can select one, several, or all routes from the route selection menu.

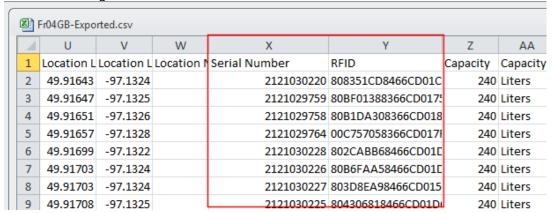


Modifying Exported Route Data

Once you have exported the route data, you can make modifications, such as deleting stops and adding new ones. Whether you are manipulating the data manually, using Excel, or using third-party software, it is critical to respect the format of the file in order to import it back into the RMS successfully.

File formats are listed in Configurable Data Setup.

When modifying route data—by whatever means—it is critical to ensure that the Container-to-Location association remains unchanged.



Deleting the Existing Route(s)

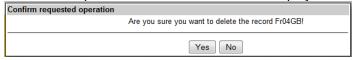
Before deleting the route from the Route Management System, record the route's parameters. You will require this information later when recreating the route.

The following parameters are important:

- Route Name
- Frequency
- Truck
- Material
- Work Group (where applicable)
- 1. Select **Routes > Routes and Stops** to display the List of Routes.
- 2. Locate the desired route in the list and click its delete icon.



Confirm the operation when the confirmation displays.



Recreating the Route(s)

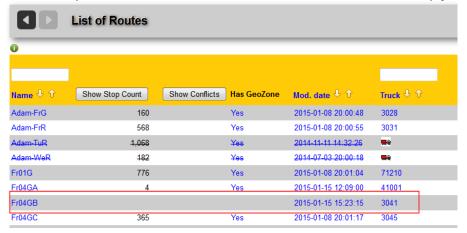
The next step is to create an empty route, using the same parameters as those recorded before deleting the route.



Routes

Import Route Stops

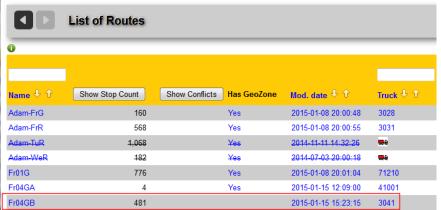
- Select Routes > Add Route.
- 2. Enter route parameters as recorded, and then select Save. The new empty route is added to the List of Routes.



Re-importing Modified Route Data

Import your modified route data as follows:

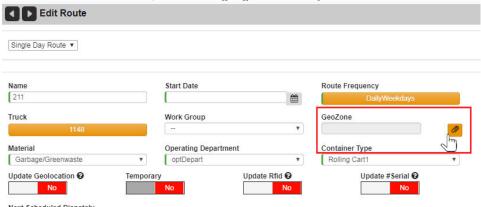
- 1. Select Routes > Import Route Stops.
- 2. From the Import Route Stops screen, browse for the file to import, and then select Import. Your newly (re)created route is now populated with the stops from the imported file.



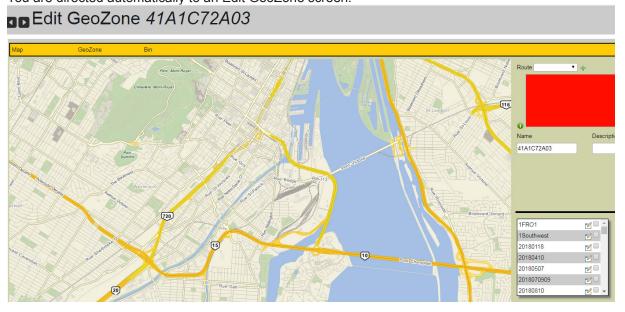
Note that the recreated route does not have a GeoZone. To create a GeoZone quickly, refer to <u>Creating a GeoZone</u> for a Route.

Creating a GeoZone for a Route

1. On the Edit Route screen, click the highlighted link adjacent to GeoZone.



You are directed automatically to an Edit GeoZone screen.



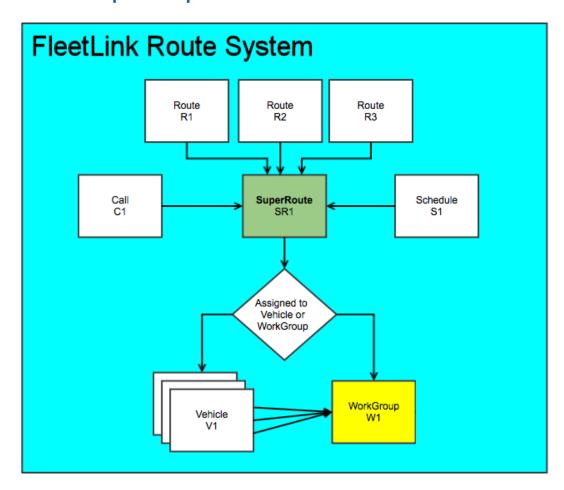
For further information, see Managing GeoZones in the FleetLink Route Management System (RMS) User Guide.

Work Group Setup

What are Work Groups?

A work group is a collection of vehicles working as a team to complete work assigned to them. From the perspective of the FleetLink Route Management System, a work group can be thought of as an identifier that can be set as a destination of a route.

Work Group Concepts



- Operations or Dispatch personnel create a Work Group as a Reference Data entity (see <u>Defining Work Groups</u>).
 They can then populate that Work Group by selecting trucks already defined in the Route Management System and assigning them to the Work Group.
- A Work Group mimics the behavior of a Truck with respect to confirmations, alarms and disposals. It is a "Virtual Truck".
- As stops get confirmed (or driven-by, or stopped-by), the messages are communicated and the status of the routes
 are updated, specifying which truck communicated the information. The status of the Super Route is a "view" of the
 status of each route comprising it.

- The dispatcher may need to reconfigure the WorkGroup if a truck fails to start in the morning or breaks down during
 the day. At that point, the dispatcher must add one or more trucks to the Work Group. This addition will prompt the
 FleetLink Route Management System to immediately dispatch the Super Route associated with the Work Group to
 the newly added truck(s).
- At the end of the day, the dispatcher may need to reassign work that has not been completed. In this case, the dispatcher may create a temporary route.
- A temporary route can be dispatched to a Work Group. In this case, confirmations from all trucks in the Work Group
 will update the same route. If more than one confirmation, driven-by or stopped-by is received, the first one will count,
 and all others will be ignored.
- A regular route can also be dispatched to a Work Group. The behavior will be the same as that described for a temporary route.
- When Work Groups are viewed in the FleetLink Report Manager, each truck will appear within the Work Group route.
- In FleetWeb, both the individual trucks and the Work Groups can be viewed and tracked. Clicking on the stops will display the usual information, including the truck that performed the work.

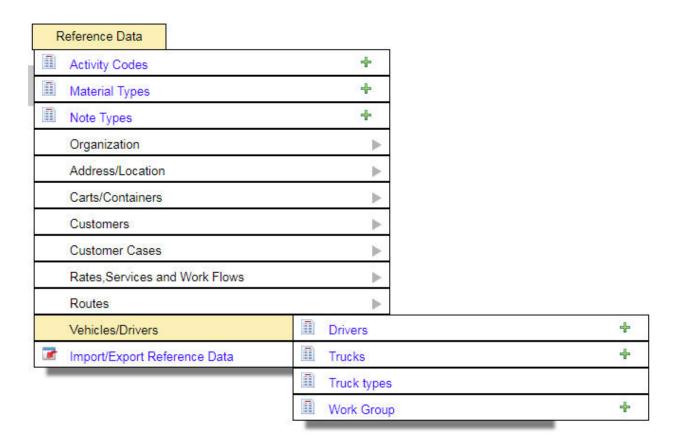
Rules

- The work Group name must be unique.
- A vehicle can be a member of no more than one Work Group at a time..
- If a vehicle has been added to a Work Group, this vehicle cannot be the single destination of a route. All existing routes associated with this vehicle will be removed once it is added to a Work Group.
- Cancels or RTCs will not be sent to vehicles for routes that have a Work Group as a destination
- If a vehicle has been added to a Work Group after the route has been dispatched, when you manually re-dispatch the route, it will be sent only to the newly added vehicle, in order to minimize unnecessary traffic on the system.

Defining Work Groups

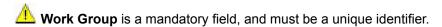
To define a new Work Group:

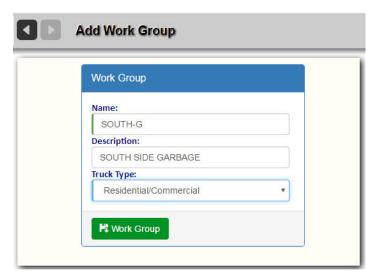
1. Select Reference Data > Vehicles/Drivers > Work Group, ensuring that you click on the green Add icon.



The Add Work Group page displays.

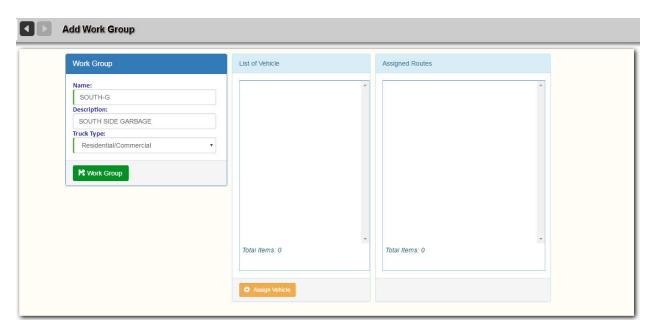
2. Enter a Work Group identifier and Description in their respective text fields.



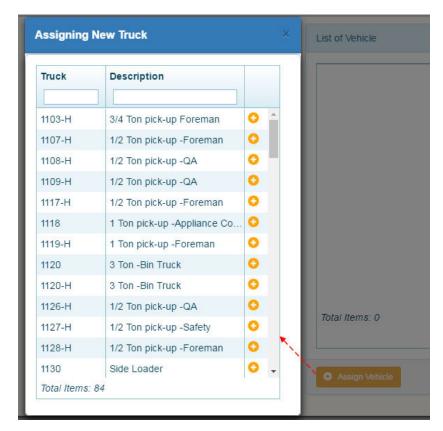


3. Select **Work Group** When done.

The page refreshes, displaying a vehicle list and assigned routes list panels.



To add trucks to the work group, select the Assign Vehicle button.
 A pop-up menu displays where you can select the trucks to be added to the group.



5. Select vehicles by clicking on their **Add** icons • and close the pop-up window when done. The vehicles are added to the List of Vehicles.



6. Select **Work Group** Regroup again when done. The new work group is added to the List of Work Groups.



The next step is to associate a Work Group with the route.

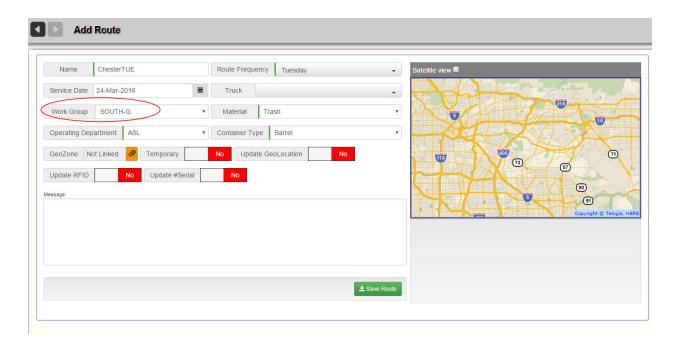
Associating a Work Group with a Route

You can either add a new route for your Work Group, or associate the Work Group with an existing route. In the following example, a new route is added.

1. Select Routes > Add Route.

Create a new route on the Add Route page, as shown in the following figure.





Notice that the **Truck** and **Work Group** pull-down menus are mutually exclusive, i.e., you can do only one of the following two operations, not both:

- · Associate a Work Group with a Route.
- · Associate a Truck with a Route.

In the above example, we are assigning this new route to a work group.

3. Select Save Route when done.

You can add stops to the route now or do it later. See <u>Creating a Single Route</u> in the *Daily Operations* section.

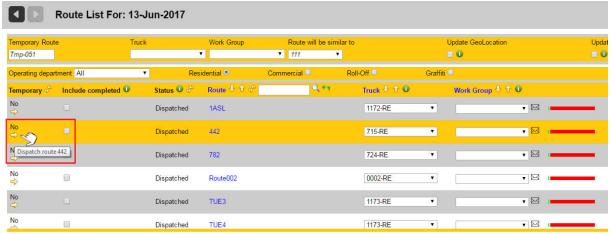
When you view your route in the List of Routes, you will notice a Work Group icon in the **Truck** column instead of a truck number, and the Work Group identifier in the **Work Group** column.



Route Dispatch

Routes can be dispatched manually or automatically. For permanent recurring routes, the FleetLink RMS dispatches routes at 18:00 local time by default. This is configurable by FleetMind Customer Support. The procedure to dispatch routes is as follows.

- Select Routes > Route List Month/Day.
 The List of routes for the current date displays.
- 2. Locate the route to be dispatched within the list.
- In the Temporary column, click the right-arrow (Dispatch to mobile) to send the route to the mobile.



The Status shown will indicate "Editing" until the route has been released to the truck from the FM Server fm_http out folder.

The Status will then indicate "Dispatched.

Closing Routes and Assignments

The Close Routes option enables you to close routes that have been left open at the end of the day.



In addition, this option enables dispatchers to close individual stops manually. A scenario where this feature can be useful is when a driver using Manual

Confirm mode realizes—after checkout—that he has forgotten to confirm stops that he knows have been serviced. Giving Dispatch the capability to close the stops manually ensures that the stops are not flagged as "missed" and that their completion status is reflected properly in FRM Reports and FleetWeb.

The manual close feature is provided on the Close Routes screen, and is applicable to Recurring and On-demand stops.

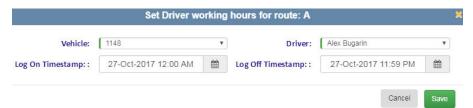


To close an entire route:

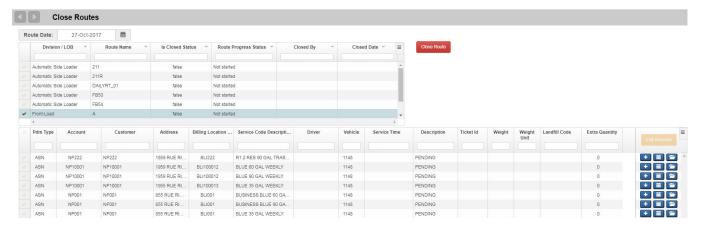
1. Locate your route in the Close Routes list, and then select its check box in the leftmost column.



A dialog displays immediately, where you can view and edit truck, driver, and logon information.

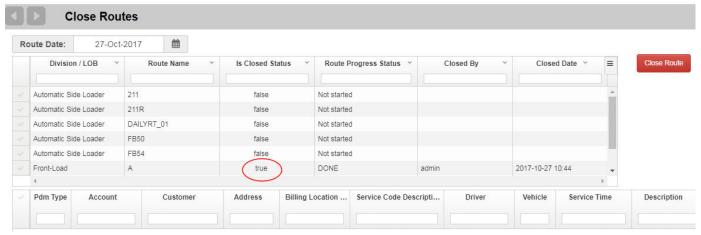


You can make changes and save here or you can dismiss the dialog. Once you have done so, the Close Routes screen refreshes, displaying the route's stops in the lower panel.



To close the entire route, click the Close Route button.The screen refreshes, showing the route's status as closed.





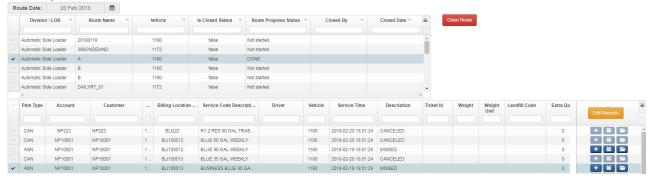
The route is closed, removed from the list, and is re-sent to the Mobile.

You can also close individual stops manually.

A scenario where this feature can be useful is when a driver using Manual Confirm mode realizes—after checkout—that he has forgotten to confirm stops that he knows have been serviced. Giving Dispatch the capability to close the stops manually ensures that the stops are not flagged as "missed" and that their completion status is reflected properly in FRM Reports and FleetWeb.

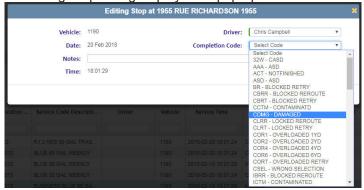
To close an assignment:

1. Locate your route in the Close Routes list.



Select Edit Records.

An Editing Stop dialog displays in a pop-up window.



The Date menu shows only dates on which the route was dispatched.

- Choose a driver from the Driver menu.
 Select the appropriate code from the Completion Code menu.
- 4. (Optional) enter a note in the Notes text field.

Notes: Forgot to confirm in manual mode

5. Select **Save**.

The completion status of the assignment will now be reflected correctly in the server-side software.

Rerouting Uncompleted Stops

The Route Management System provides Dispatch personnel the facility to ensure that stops that have not been serviced will be re-routed. Whether a stop is "reroutable" is determined by aconfigurable parameter in the Activity Codes Master List of the FleetLink Mobile WasteApp.

Activity Codes represent the actions a driver can take when servicing a call. The completion codes (completed = yes, completed = no) associated with these activities are customer-specific and fully customizable. They must be configured using your back-office system.

Some activities represent intermediate steps (completion code = No) and are not removed from the calls list, such as Blocked Retry, where the driver indicates that he intends to return to complete the call.

FleetMind Standard Activity Codes are shown in the following table.

RCOM	101	Υ	Completed
RNOT	102	Υ	Not Out
RMIS	103	Υ	Misplaced
RCTM	104	Υ	Contaminated
RDMG	105	Υ	Damaged
RUSS	106	Υ	Unsafe Site
RNOA	107	Υ	No Access
RNSV	108	Υ	No Service
CCOM	201	Υ	Completed
CBRT	202	N	Blocked Retry
CBRR	203	Υ	Blocked Reroute
CCTM	204	Υ	Contaminated
CORT	205	N	Overloaded Retry
CORR	206	Υ	Overloaded Reroute
CCOV	207	Υ	Carried Over
CUSS	208	Υ	Unsafe Site
CNAS	209	Υ	No Access to Site
CNSV	210	Υ	No Service
CTIM	211	N	Waiting at Site
ICOM	301	Υ	Completed
IBRR	302	Υ	Blocked Reroute
IEMP	303	Υ	Empty
ISND	304	N	Suspended No Disp
ISWD	305	Υ	Suspended with Disp
ISWP	306	Υ	Swapped
IDRC	307	Υ	Dump Return Cont
INAS	308	Υ	No Access to Site
INSV	309	Υ	No Service
ITIM	310	N	Waiting at Site

Every Activity Code has a Reroutable attribute that can be toggled.

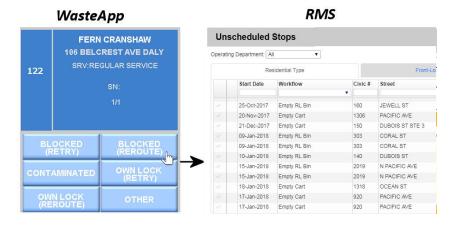
```
Example of entry in Activity Codes Master List
{"$type":"Fleetmind.Domain.MasterLists.ActivityCode, Fleetmind.
Domain","Id":4,
"Code":"B",
"Name":"BLOCKED (REROUTE)",
"CompletionStatus":true,
"Exception":false,
"Reroutable":true}
```

When this flag is set to TRUE, the following behavior occurs in the Route Management System:

When a route is closed:

- ALL **on-demand** stops of type Residential, Front-load, and Roll-off that are still of status Pending or of Activity Code with attribute Reroutable become available on the Unscheduled Stops screen, and can be scheduled to another route.
- ALL recurring stops of type Front-load, and Roll-off (not Residential) that are still pending or of Activity Code with attribute Reroutable are converted to On-Demand stops and become available on the Unscheduled Stops screen, again to be scheduled to another route.

When viewing the Unscheduled Stops Screen, you can distinguish easily between stops that are there because of ReRoute, Missed, or First Time, and reschedule them accordingly.



Transferring Stops to a Different Route

RMS enables a Dispatcher to transfer stops from one route to another.

To transfer route stops:

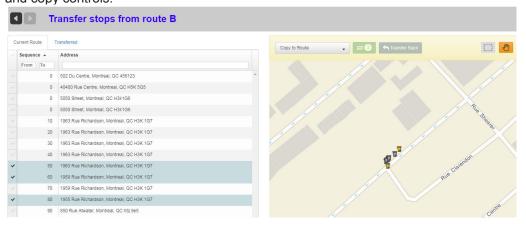
Select Route List < current day>.
 A route's incomplete stops display in a column at the far right of the row.



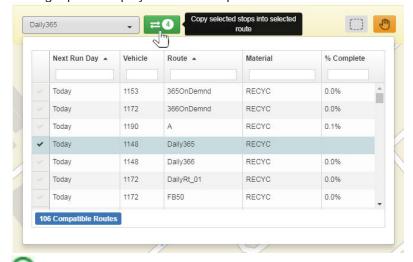


2. Click on the number in the Incomplete column.

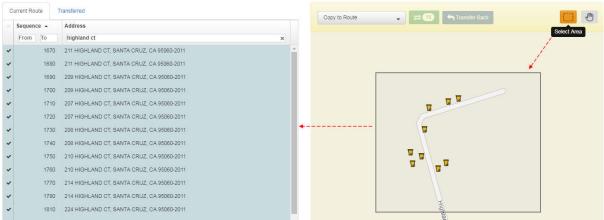
The Transfer Stops screen displays the route's assignments in the left panel. The right panel comprises a map area and copy controls.



3. Select the stops you wish to transfer from the assignment list using the check boxes. The right panel displays a list of compatible routes.



Alternatively, you can use the area selection tool in the map area to draw a rectangle around the bins for the assignments to be transferred. The assignment list in the left panel updates, showing the bins selected.



- 4. Select a target route from the list using the checkboxes.
- Click the green copy button to copy the selected stops.
 The stops are removed from the source route and copied to the target route.

Holiday Route Scheduling

Note to FleetLink RMS Users

The procedures described in this section are provided as a workaround solution due to constraints of the current version of RMS software.

FleetMind is currently developing a feature, for future release, to simplify and automate the task of holiday scheduling.

FleetLink RMS can accommodate rescheduling or suspension of all services for statutory holidays.

You do not have to edit each route and/or customer information individually to accomplish this. Instead, you edit Route Frequency reference data to make a global change to all routes affected for the day of the week in question.



You must make these reference data edits in two operations:

- · once before the holiday to manage the rescheduling or suspension, and
- once after to revert to "business as usual" service.

In the example provided here, we will use Monday as the holiday and reschedule all affected routes for the following day (Tuesday).

Part 1: View Regularly Scheduled Routes for the Holiday

Select Routes > Routes and Stops.

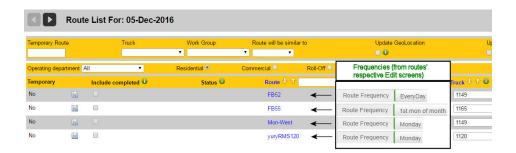


2. In the lower-left corner of the List of Routes screen, select *Monday* from the **Check routes for** menu.



The List of Routes for Monday displays.

In the interest of simplicity, we are using only a small number of routes. In a "real-world" scenario, there could be a significantly greater number.



The routes have different route frequencies, however they are all scheduled to run on the coming Monday.

Part 2: Back up (Export) Route Frequencies Reference Data

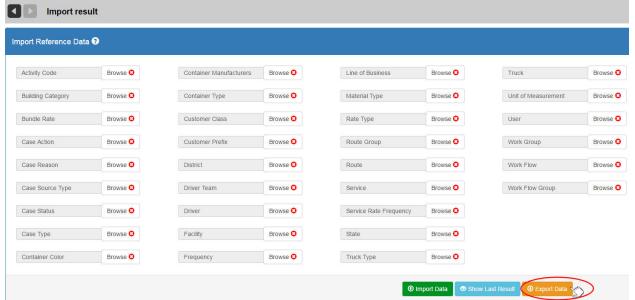
Before making any modifications to your Reference Data, back it up so that you can use it as a reference in case you require it when reverting to normal operations after the holiday.

You cannot restore the data by re-importing it, but at least you will have recorded the pre-holiday state of the frequencies so that you can verify them when re-editing the data.

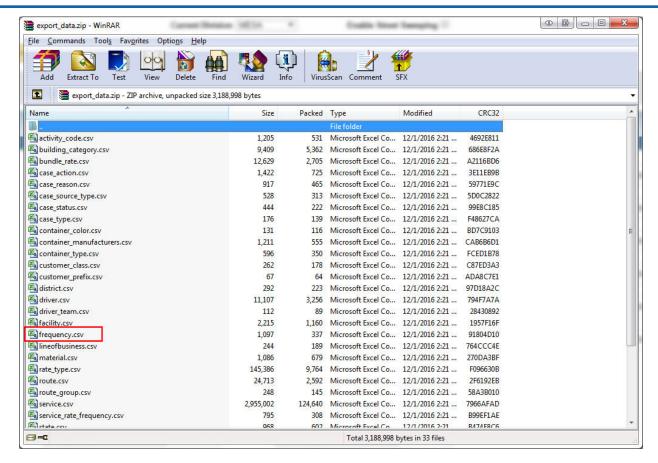
Select Reference Data > Import Reference Data.



2. From the Import Result screen, select the **Export Data** button.



- This will export all categories of reference data to a zipped file—you cannot export a single category at a time.
- Extract the frequency.csv file from the zipped file and save it to disk.



Save the file with a meaningful and descriptive name, for example, pre-holiday-backup-dec-01-2016.

You can now proceed with Reference Data modification.

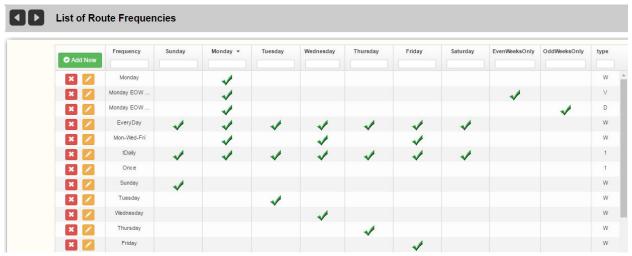
Part 3: Edit Route Frequency Reference Data

Select Reference Data > Routes > Route Frequencies.



The List of Route Frequencies displays.

By clicking on the **Monday** column header (to sort), you can view an at-a-glance grouping of all route frequencies that include Monday.



In this example, six route frequencies will require editing.

IMPORTANT: MAKE A NOTE OF ALL ROUTE FREQUENCIES THAT ARE TO BE MODIFIED IN ORDER TO MINIMIZE THE RISK OF OMITTING SOMETHING WHEN RESTORING THEM TO THEIR ORIGINAL STATE. OPTIONALLY, DO A SCREEN CAPTURE OF EACH EDIT ROUTE FREQUENCY SCREEN BEFORE YOU MAKE ANY MODIFICATIONS.



The most meaningful data used by the RMS in this table are the <u>days of the week</u> that are checked off. The string in the **Frequency** column is simply a name—a useful description that is comprehensible to humans.

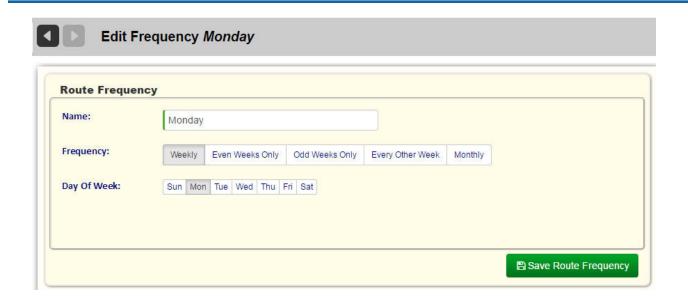
(A route with a frequency properly configured for Monday will be scheduled for Monday, even if the name in the **Frequency** column is Bob or Lucy.)

The data we will be modifying are the days of the week, not the Frequency names.

2. Select the **Edit** button for the first frequency item (*Monday* in the **Frequency** column).



The Edit Frequency screen for Monday displays.

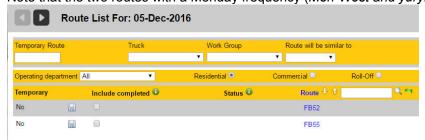


- 3. In the Day Of Week group of buttons, Monday is currently selected.
- 1. Click on the **Monday** button to deselect it.
- Click on the **Tuesday** button to select it.
- 4. Select Save Route Frequency.

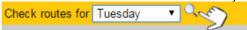
A success message displays.

Route Frequency modified successfully!

- 5. Return to the List of Routes for Monday.
- 1. Select Routes > Routes and Stops.
- Select Monday from the Check routes for menu.
 Note that the two routes with a Monday frequency (Mon-West and yuryRMS120) are no longer on the list.



6. Now check the List of Routes for Tuesday.



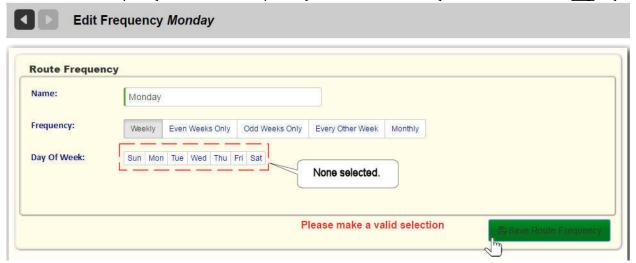
The routes affected by the Monday frequency are scheduled for Tuesday.



7. Return to the List of Route Frequencies reference data and modify (as required) the remaining frequencies that include Monday.

Constraints and Special Considerations

The Edit Route Frequency screen does not permit you to save the item if you have not selected <u>any</u> day of the week.



So, if service for the holiday is to be <u>suspended altogether</u>—not rescheduled—you must use a different approach.

Notice that different options are provided when you select:

a. A Weekly frequency (Weekly, Even Weeks Only, Odd Weeks Only, Every Other Week)



b. A Monthly frequency..



More specifically, the **Monthly** selection provides the additional option of Week Number. You can take advantage of these options when no make-up day is to be scheduled for cancelled holiday services.

For example:

- 1. If you are certain that the holiday occurs on an Even week, you could select **Odd Weeks Only** (and vice-versa).
- Alternatively, you could select Monthly, and then choose a Week Number and Day of Week combination that will get
 you past the holiday and buy you sufficient time to restore the Route Frequencies to their normal (backed up) state.

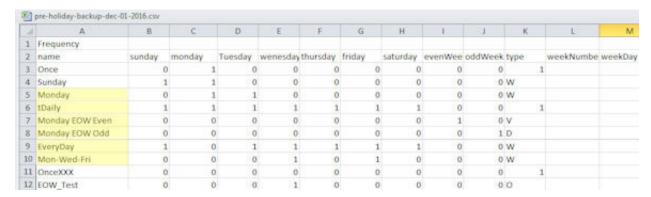
Reverting to the Pre-Holiday Route Frequencies

As soon as possible after the holiday, you must revert to the pre-holiday schedule.

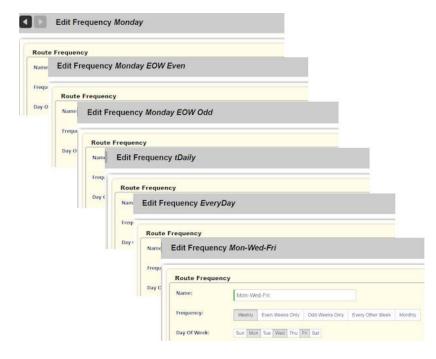
To do so, you must manually edit every Route Frequency reference data element that you modified prior to the holiday.

Consult the exported csv file and any notes and screen captures that you recorded in Part 2 of this section.

Excel File

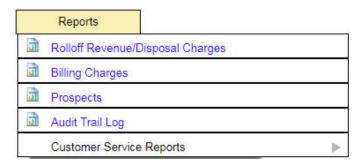


Screen Captures



Generating Reports

Although the FleetLink Report Manager (FRM Reports) is the most comprehensive application in the FleetMind Solution for report generation, the RMS Reports menu enables you to generate route-relevant revenue and billing-reports and Customer Service reports.



The following options are provided:

- Rolloff Revenue/Disposal Charges
- Billing Charges
- Prospects
- Audit Trail Log
- Customer Service Reports

Rolloff Revenue/Disposal Charges

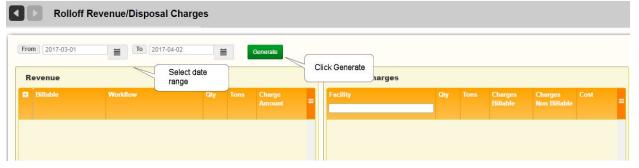
The Rolloff Revenue/Disposal Charges report tracks the history of roll-off revenue and disposal costs per material for each disposal facility, .

To generate a Rolloff Revenue/Disposal Charges report:

Select Reports > Rolloff Revenue/Disposal Charges.

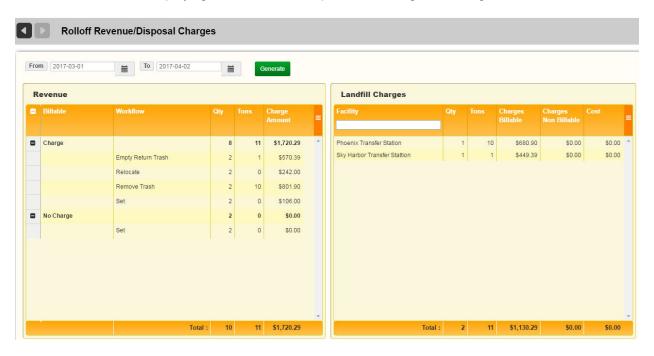


The report form displays.



- 2. Enter a date range using the **From** and **To** calendar menus.
- Select Generate.

The screen refreshes, displaying revenue in the left panel and charges in the right



4. To filter results in the Landfill Charges panel by Facility, enter the name of the facility—in whole or in part—in the **Facility** text field.



5. To reset the filter, select **Clear all filters** from the drop-down menu.



6. To export either Revenue or Landfill charges for review and analysis off-line, choose **Export all data as CSV** from their respective menus.

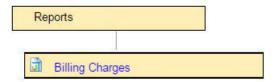


Billing Charges

The Billing Charges report tracks the history of billing charges for services provided.

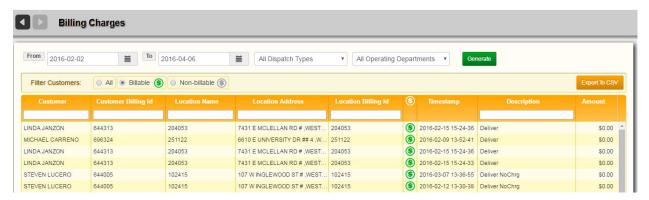
To generate a Billing Charges report:

Select Reports > Billing Charges.



2. Select a date range, Dispatch Type(s), and Operating Department(s) using the calendar menus and pull-down menus, and then click **Generate**.

The report displays results matching your search criteria.



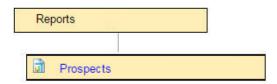
- You can filter the results further by using the text fields in the column headers and the All/Billable/Non-billable radio buttons.
- To export your report results for off-line review and analysis, select Export to CSV.

Prospects

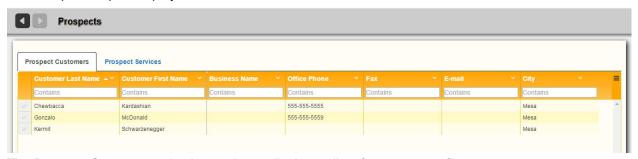
The Prospects report displays a list of all prospective (non-active) customers and services in the Route Management System

To generate a Prospects report:

1. Select Reports > Prospects.



The Prospects report displays.



The Prospect Customers tab, shown above, displays a list of customer profiles.

The Prospect Services tab, shown following, displays a list of services for the prospect customers.



2. To filter results in any column, enter a string—in whole or in part—in the text fields in the table header. To reset the filter, clear the text field, or select **Clear all filters** from the drop-down menu.



3. To show/hide columns in the report, make your selections from the same drop-down menu.

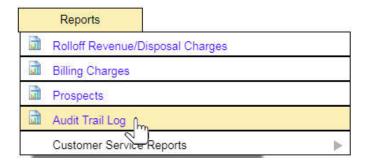


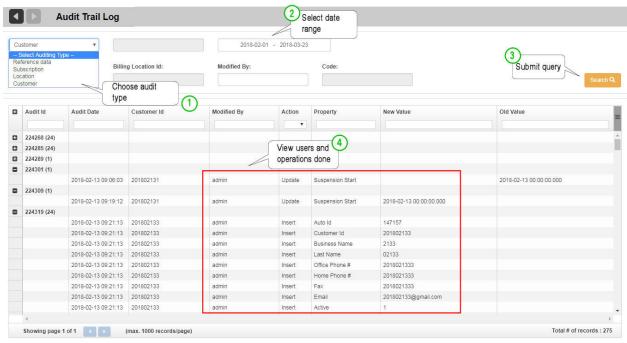
Audit Trail Log

The Audit Trail Log enables you to query and view operations performed on the RMS database(s) over a range of dates, and by whom (RMS user name) the operations were done.

To generate an Audit Trail Log report:

Select Reports > Audit Trail Log.





You can query changes made to:

- Customers
- Locations
- Subscriptions
- Reference Data