

Logistics Scheduling Application

Sample Technical Writing

Software Requirements Specifications



Introduction	9
Purpose.....	9
Project Scope	9
In Scope.....	9
Out of Scope.....	10
Overview	10
References.....	10
Section 2: Overall Description	11
Product Perspective	11
Product Features.....	11
User Classes and Characteristics.....	17
Operating Environment.....	18
Design and Implementation Constraints	18
User Documentation.....	19
Assumptions and Dependencies.....	20
Section 3: System Features.....	21
Database - Storage	21
Description and Priority.....	21
Stimulus / Response Sequences.....	21
Specific Requirements	22
Functional Requirements	22
Use case related to System Access and Authorization.....	22
Use Case 1: Log In.....	22
Use Case 2: Retrieve Password.....	23
Use Case 3: Change Password	24
Use Case 4: Create Task Group.....	24
Use Case 5: Update Task Group	25
Use Case 6: Delete Task Group.....	26

Sample Technical Writing

Software Requirements Specifications



Use Case 7: Create Task	27
Use Case 8: Update Task	28
Use Case 9: Delete Task.....	28
Use Case 10: Create User Group	29
Use Case 11: Update User Group.....	30
Use Case 12: Delete User Group	31
Use Case 13: Assign Tasks to User Group	31
Use Case 14: Remove Tasks from User Group.....	32
Use Case 15: Create Client	33
Use Case 16: Update Client.....	34
Use Case 17: Suspend Client	35
Use Case 18: Un-suspend Client.....	36
Use Case 19: Create User	37
Use Case 20: Update User	38
Use Case 21: Suspend User	39
Use Case 22: Un-suspend User.....	39
Use Case 23: Assign User to User Groups.....	40
Use Case 24: Record Timestamps	41
Use Case 25: Record User Actions	41
Use case related to Requesting Delivery	42
Use Case 26: View Delivery Request Calendar	42
Use Case 27: Navigate Delivery Request Calendar Incrementally	43
Use Case 28: Navigate Delivery Request Calendar by Date	43
Use Case 29: Change Timeframe Display	44
Use Case 30: Filter Calendar Results	45
Use Case 31: Search Delivery Requests	46
Use Case 32: Select Fields Displayed	46
Use Case 33: Save as View	47

Sample Technical Writing

Software Requirements Specifications



Use Case 34: Create View	48
Use Case 35: Edit View	49
Use Case 36: Apply View.....	51
Use Case 37: Delete View	51
Use Case 38: Create Delivery Request	52
Use Case 39: Edit Delivery Request.....	55
Use Case 40: Delete Delivery Request.....	58
Use Case 41: Create Return Delivery Request.....	59
Use Case 42: Select Customer.....	62
Use Case 43: Select Cargo	62
Use Case 44: Add Document	63
Use Case 45: View Documents.....	65
Use Case 46: Edit Document	65
Use Case 47: Delete Document	68
Use case related to Scheduling Deliveries.....	68
Use Case 48: View Delivery Requests	69
Use Case 49: Navigate Delivery Calendar Incrementally	69
Use Case 50: Navigate Delivery Calendar By Date	70
Use Case 51: Change Timeframe Display	70
Use Case 52: Filter Delivery Requests	71
Use Case 53: Search Delivery Requests	72
Use Case 54: Select Fields Displayed	73
Use Case 55: Save As View	73
Use Case 56: Create View	74
Use Case 57: Edit View	75
Use Case 58: Apply View.....	77
Use Case 59: Delete View	77
Use Case 60: Schedule Delivery.....	78

Sample Technical Writing

Software Requirements Specifications



Use Case 61: View Vehicle Contents	79
Use Case 62: Sort Delivery Order	80
Use Case 63: Transfer Cargo	81
Use Case 64: Reschedule Vehicle	81
Use Case 65: Confirm Schedule	82
Use Case 66: Assign Driver	83
Use Case 67: View Vehicle Details	84
Use Case 68: Print Delivery Schedule	84
Use Case 69: Add Document	85
Use Case 70: View Documents	87
Use Case 71: Edit Document	88
Use Case 72: Delete Document	90
Use case related to Performing Deliveries	91
Use Case 73: View Delivery Schedule	91
Use Case 74: Change Timeframe Display	92
Use Case 75: View Vehicle Contents	93
Use Case 76: Sort Delivery Order	93
Use Case 77: Print Delivery Schedule	94
Use Case 78: Complete Delivery	95
Use case related to Reports	96
Use Case 79: Master Report	96
Use Case 80: Create Report Template	99
Use Case 81: Use Report Template	100
Use Case 82: System Report	101
Use case related to Application Settings	102
Use Case 83: Add Delivery Request Field	102
Use Case 84: Edit Delivery Request Field	103
Use Case 85: Delete Delivery Request Field	105

Sample Technical Writing

Software Requirements Specifications



Use Case 86: Arrange Delivery Request Fields	105
Use Case 87: Add Customer	106
Use Case 88: Edit Customer	107
Use Case 89: Delete Customer.....	108
Use Case 90: Bulk Import Customers.....	109
Use Case 91: Bulk Export Customers	110
Use Case 92: Add Cargo	111
Use Case 93: Edit Cargo.....	112
Use Case 94: Delete Cargo	113
Use Case 95: Bulk Import Cargo	114
Use Case 96: Bulk Export Cargo.....	115
Use Case 97: Add Location.....	116
Use Case 98: Edit Location.....	117
Use Case 94: Delete Location	119
Use Case 100: Add Vehicle	119
Use Case 101: Edit Vehicle	121
Use Case 102: Delete Vehicle	122
Use Case 103: Add Service Appointment	122
Use Case 104: Edit Service Appointment.....	123
Use Case 105: Delete Service Appointment.....	125
Use Case 106: Edit Delivery Slip.....	125
Use Case 107: Add Delivery Window	126
Use Case 108: Edit Delivery Window	127
Use Case 109: Delete Delivery Window	128
Use Case 110: Add Document Type.....	129
Use Case 111: Edit Document Type	129
Use Case 112: Delete Document Type	130
External Interface Requirements	132

Sample Technical Writing

Software Requirements Specifications



User Interfaces	132
Software Interfaces	132
Communications Interfaces	132
Non Functional Requirements.....	133
Performance	133
Safety	133
Security.....	133
Maintainability	133
Multilingual Support.....	134
Auditing and Logging	134
Software Quality Attributes	134
Appendix A – Definitions, Acronyms, and Abbreviations.....	135
Acronyms and Abbreviations	135
Definitions	135
Sponsor Acceptance.....	136

Revision History

#	Date	Notes	Owner
1.0	October 5, 2012	- Initial document submitted	Christopher Muggridge
		-	
		-	
		-	
		-	
		-	
		-	
		-	

Introduction

Purpose

The logistics scheduler is an in-house Software as a Service (SaaS) application to be developed with the goal of offering multi-location dealerships the opportunity to better manage and dispatch their delivery fleet. Initially the product will be geared towards agricultural dealerships (such as John Deere) but will eventually be adapted to meet the needs of other verticals. We will be investigating any potential market that requires some sort of scheduling effort along the lines of what our product can offer.

This document is meant to delineate the features of the SaaS application so as to serve as a guide to the developers on one hand and a software validation document for the stakeholders on the other.

Project Scope

In Scope

- **Delivery Requests**
Identifying location to be shipped to/from and cargo to be picked up/delivered and submitted as a delivery request to the central dispatcher.
- **Delivery Forecast**
Viewing scheduled and pending delivery requests on a delivery calendar.
- **Scheduling**
Delivery requests allocated to vehicles and delivery dates.
- **Drivers**
Retrieval of delivery schedules for print out. Confirmation of delivery once made.
- **Reports**
History reports based on keywords and filters.

Sample Technical Writing

Software Requirements Specifications



- Customers
Import and manage list of customers under client's account.
- Cargo
Import and manage list of cargo under client's account.
- Documents
Upload and store delivery related documents.
- Controlled Access
User authentication by client and user. Limited individual tool access based on User Groups.
- Dynamic Settings
Create and arrange custom fields for multiple areas such as delivery requests, driver itinerary, etc.

Out of Scope

- Accounting
This will not be required in our initial product offerings.
- Salesman and Driver Payroll
This will not be required in our initial product offerings.
- Carrier and Business Management
This will not be required in our initial product offerings.

Overview

The rest of this SRS is organized as follows: Section 2 gives an overall description of the software. It gives what level of proficiency is expected of the user, some general constraints while making the software and some assumptions and dependencies that are assumed. Section 3 gives specific requirements which the software is expected to deliver. Functional requirements are given by various use cases. Some performance requirements and design constraints are also given.

References

- a) Appendix A: Definitions, Acronyms, and Abbreviations

Section 2: Overall Description

Product Perspective

Transportation costs have a major impact on the success of any organization dependent on delivery operations. Having an efficient system and integrated tools can extract maximum revenue dollars from every pickup or delivery and reduce the costs that affect the bottom line directly. The logistic scheduler's secure cloud based offering will enable organizations to effectively consolidate and optimize their shipments, line up their inbound and outbound freight and capitalize on pooled loads.

The logistic scheduler is intended to be a SaaS product and should not depend on the availability of other software. It should run on a LAMP platform and be accessible to Account Admins and Users through the WWW via any one of the major browsers as well as mobile and tablet.

Product Features

The logistic scheduler should support the following cases:

Class of use cases	Use cases		Description of use cases
Related to System Access and Authorization	1	Log In	<i>Logs in to logistic scheduler</i>
	2	Retrieve Password	<i>Sets new password</i>
	3	Change Password	<i>Changes password</i>
	4	Create Task Group	<i>Creates a new Task Group</i>
	5	Update Task Group	<i>Updates an existing Task Group</i>
	6	Delete Task Group	<i>Deletes and existing Task Group</i>
	7	Create Task	<i>Creates a new Task</i>
	8	Update Task	<i>Updates an existing Task</i>
	9	Delete Task	<i>Deletes an existing Task</i>

Sample Technical Writing
Software Requirements Specifications



	10	Create User Group	<i>Creates a group to organize a set of tasks together</i>
	11	Update User Group	<i>Updates a User Group</i>
	12	Delete User Group	<i>Deletes a User Group</i>
	13	Assign Tasks to User Group	<i>Assigns Tasks to a particular User Group</i>
	14	Remove Tasks from User Group	<i>Removes Tasks from a particular User Group</i>
	15	Create Client	<i>Creates a Client account</i>
	16	Update Client	<i>Updates a Client Account</i>
	17	Suspend Client	<i>Suspends a Client Account</i>
	18	Un-suspend Client	<i>Un-suspends a Client Account</i>
	19	Create User	<i>Creates new User account</i>
	20	Update User	<i>Updates User account</i>
	21	Suspend User	<i>Suspends User account</i>
	22	Un-suspend User	<i>Un-suspends User Account</i>
	23	Assign User to User Groups	<i>Assigns User to one or more User Groups</i>
	24	Record Timestamps	
	25	Record User Actions	<i>Stores and logs activity information for each user</i>
Related to Requesting Delivery	26	View Delivery Request Calendar	<i>View current Requests in calendar</i>
	27	Navigate Delivery Request Calendar Incrementally	<i>Navigate forward and backward through the calendar</i>
	28	Navigate Delivery Request Calendar by Date	<i>Jump to specific date on calendar</i>
	29	Change Timeframe Display	<i>Choose how many days or weeks to display on calendar at once</i>
	30	Filter Calendar Results	<i>Choose which records appear on calendar</i>

Sample Technical Writing
Software Requirements Specifications



	31	Search Requests	<i>Search for specific delivery requests</i>
	32	Select Fields Displayed	<i>Choose which fields appear on calendar</i>
	33	Save as View	<i>Save current filters and fields to a new View</i>
	34	Create View	<i>Save timeframe, filter and field values for reuse in the future</i>
	35	Edit View	<i>Edit previously created view</i>
	36	Apply View	<i>Apply previously created view to calendar</i>
	37	Delete View	<i>Delete previously created view</i>
	38	Create Delivery Request	<i>Create and submit a new delivery request</i>
	39	Update Delivery Request	<i>Update previously created delivery request</i>
	40	Delete Delivery Request	<i>Delete previously created delivery request</i>
	41	Create Return Delivery Request	<i>Create a return delivery request based on previously created delivery request</i>
	42	Select Customer	<i>Select a customer as a delivery location</i>
	43	Select Cargo	<i>Select cargo to be shipped</i>
	44	Add Document	<i>Upload document and assign to Delivery Request</i>
	45	View Documents	<i>View documents assigned to Delivery Request</i>
	46	Edit Document	<i>Edit document record values</i>
	47	Delete Document	<i>Delete document assigned to Delivery Request</i>

Sample Technical Writing
Software Requirements Specifications



Related to Scheduling Deliveries	48	View Requests	<i>View Requests in the system</i>
	49	Navigate Delivery Request Calendar Incrementally	<i>Navigate forward and backward through the calendar</i>
	50	Navigate Delivery Request Calendar by Date	<i>Jump to specific date on calendar</i>
	51	Change Timeframe Display	<i>Choose how many days to display on calendar at once</i>
	52	Filter Requests	<i>Choose which records appear in delivery list</i>
	53	Search Requests	<i>Search for specific delivery requests</i>
	54	Select Fields Displayed	<i>Choose which fields appear on delivery list</i>
	55	Save as View	<i>Save current filters and fields to a new View</i>
	56	Create View	<i>Save timeframe, filter and field values for reuse in the future</i>
	57	Edit View	<i>Edit previously created view</i>
	58	Apply View	<i>Apply previously created view to list and calendar</i>
	59	Delete View	<i>Delete previously created view</i>
	60	Schedule Delivery	<i>Schedule a delivery</i>
	61	View Vehicle Contents	<i>View cargo allocated to a specific vehicle</i>
62	Sort Delivery Order	<i>Arrange delivery requests in a specific order within a vehicle</i>	
63	Transfer Cargo	<i>Transfer cargo from one vehicle to another</i>	

Sample Technical Writing
Software Requirements Specifications



	64	Reschedule Vehicle	<i>Change date of delivery for a vehicle</i>
	65	Confirm Schedule	<i>Confirm vehicle for shipment</i>
	66	Assign Driver	<i>Assign a driver to a vehicle</i>
	67	View Vehicle Details	<i>View vehicle details such as driver, mileage, capacity</i>
	68	Print Delivery Schedule	<i>Print delivery schedule for a specific day</i>
	69	Add Document	<i>Upload document and assign to Delivery Request</i>
	70	View Documents	<i>View documents assigned to Delivery Request</i>
	71	Edit Document	<i>Edit document record values</i>
	72	Delete Document	<i>Delete document assigned to Delivery Request</i>
Related to Performing Deliveries	73	View Delivery Schedule	<i>View scheduled deliveries</i>
	74	Change Timeframe Display	<i>Choose how many days to display on calendar at once</i>
	75	View Vehicle Contents	<i>View cargo allocated to a specific vehicle</i>
	76	Sort Delivery Order	<i>Arrange delivery requests in a specific order within a vehicle</i>
	77	Print Delivery Schedule	<i>Print delivery schedule for a specific day</i>
	78	Complete Delivery	<i>Set delivery statuses to Complete</i>
Related to Reports	79	Master Report	<i>Generates Master Report</i>
	80	Create Report Template	<i>Creates a reusable template from Master Report settings</i>

Sample Technical Writing
Software Requirements Specifications



	81	Use Report Template	<i>Run reports based on previously created templates</i>
	82	System Report	<i>Generates System Log report</i>
Related to Application Settings	83	Add Delivery Request Fields	<i>Creates new fields to be used in Requests</i>
	84	Edit Delivery Request Fields	<i>Updates existing Request Fields</i>
	85	Delete Delivery Request Fields	<i>Deletes Request Fields</i>
	86	Order Delivery Request Fields	<i>Arranges order of Request Fields on Request Form</i>
	87	Add Customer	<i>Create new Customer record</i>
	88	Edit Customer	<i>Updates existing Customer record</i>
	89	Delete Customer	<i>Deletes Customer record</i>
	90	Bulk Import Customers	<i>Performs mass import of customer information</i>
	91	Bulk Export Customers	<i>Performs mass export of customer information</i>
	92	Add Cargo	<i>Creates new Cargo item</i>
	93	Edit Cargo	<i>Updates existing Cargo item</i>
	94	Delete Cargo	<i>Deletes Cargo item</i>
	95	Bulk Import Cargo	<i>Mass import of Cargo items</i>
	96	Bulk Export Cargo	<i>Mass export of Cargo items</i>
	97	Add Location	<i>Add new Delivery Location</i>
	98	Edit Location	<i>Updates existing Delivery Location</i>
	99	Delete Location	<i>Deletes Delivery Location</i>
	100	Add Vehicle	<i>Creates new Vehicle record</i>

	101	Edit Vehicle	<i>Updates existing Vehicle record</i>
	102	Delete Vehicle	<i>Deletes Vehicle record</i>
	103	Add Service Appointment	<i>Schedule Vehicle for maintenance</i>
	104	Edit Service Appointment	<i>Updates existing maintenance</i>
	105	Delete Service Appointment	<i>Deletes maintenance</i>
	106	Edit Delivery Slips	<i>Select and arrange request fields which display on Driver Report</i>
	107	Add Delivery Window	<i>Create a start and end date for a delivery window</i>
	108	Edit Delivery Window	<i>Edit existing Delivery Window</i>
	109	Delete Delivery Window	<i>Delete existing Delivery Window</i>
	110	Add Document Type	<i>Create a new Document Type</i>
	111	Edit Document Type	<i>Edit existing Document Type</i>
	112	Delete Document Type	<i>Delete existing Document Type</i>

User Classes and Characteristics

There are various kinds of users for the product. Individual permissions for Users will be determined by the Account Admin by assigning individual Tasks to a User Group and then assigning Users to one or more User Groups. The users include:

- a) System Admin: A login ID representing a user with access to all software privileges.
- b) Account Admin: A login ID representing a user with user administration privileges to the software.

- c) User: A general login ID representing users who use most functions of the program on a full time or part time basis.
- d) User Groups: Permissions for individual actions and features throughout the application can be added to groups. Users are then assigned to groups based on their level of access.

Operating Environment

- a) The product will operate on a Unix server.
- b) The product will be built in PHP with a MySQL database back end.
- c) The product will require an Internet connection.
- d) System Admin, Account Admin and Users will manage the application using any one of the major web browsers
- e) Driver portions of the application will be compatible with tablet and mobile browsers
- f) 90% of the responses should be within 2 sec, except for generation of large reports for which more time is acceptable.

Design and Implementation Constraints

- a) Security: The files should be secured against malicious deformations.
- b) Fault Tolerance: Data should not become corrupted in case of system crash or power failure.

The entire implementation is managed in eight distinct areas; Access, Request Delivery, Schedule Delivery, Perform Deliveries, Reports, Import/Export, and Framework.

Area I: This first area enables the System Admin and Account Admin to create and manage Tasks, User Groups and Users. It also acts as the first line of security for the application, controlling who can access the application via a secure login and controlling which features of the application the User can access based on their User Group clearance.

Area II: This second area enables Users to request delivery of cargo to specific locations, both customer and branch. Contained within this area are any requests made previously along with their current status and the ability to request new deliveries.

Area III: The third area manages all delivery requests and allows the User to allocate those requests to the delivery schedule.

Area IV: The fourth area allows Drivers to sort and print delivery schedules as well as mark each delivery as completed.

Area V: The fifth area provides reporting capabilities delivering comprehensive information about shipments, schedules and system logs.

Area VI: The sixth area offers the ability to import and export specific information utilized by the application. Imported data would include Customers and Cargo. Exported data would include Customers, Cargo, and Delivery Schedules.

Area VII: The seventh area covers those aspects of the application framework not covered by the first six areas. It encompasses the uploading and storing of general documents and managing individual application settings.

User Documentation

The product will include a comprehensive user manual. The user manual will include product overview, complete configuration of the software, technical details, backup procedure and contact information which will include an email address.

There will be a knowledgebase area provided for clients to look up answers to their questions and video tutorials outlining how key features work where applicable.

Assumptions and Dependencies

- a) It is assumed that a Unix server will be available at our 101 Front Street data center to host the product.
- b) It is assumed that the client will have desktop terminals or laptops with one of the major browsers installed.
- c) Active Internet connections to both the application server and to the User's terminal are required for the product to function.

Section 3: System Features

Database - Storage

Description and Priority

Proposed database is intended to store, retrieve, update, and manipulate information related to the organization, information which would include:

- Profile of System Admin, Account Admin, and Users
- Delivery Details
- Customer Details
- Cargo Details
- Usage Logs

Stimulus / Response Sequences

a) Responses for System Admin:

The System Admin can log in and log out. When the System Admin logs in to the logistic scheduler application the system will check for validity of login. If the username and password are valid, the response to this action is the System Admin will be able to modify, view, add, delete, and any other function which can be performed on the database as it relates to all aspects of the application.

b) Responses for Account Admin:

The Account Admin can log in and log out. When the Account Admin logs in to the logistic scheduler application, the system will check for validity of login. If the username and password are valid, the response to this action is the Account Admin will be able to modify, view, add, delete, and any other function which can be performed on the database as it relates to User options.

c) Responses for Users:

The User can log in and log out. When the User logs in to the logistic scheduler application, the system will check for validity of login. If the

username and password are valid, the response to this action is the User will be able to modify, view, add, delete, and any other function which they have been approved for by the Account Admin. After logging in, the User will view only those options which they have available to them.

Specific Requirements

Functional Requirements

We describe the functional requirements by giving various use cases.

Use case related to System Access and Authorization

Use Case 1: Log In

Primary Actor: System Admin, Account Admin, User

Pre-Condition: Internet connection available, custom browser loaded

Main Scenario:

1. Navigate to application.
2. Visitor prompted for account ID, username and password.
3. Visitor enters their account ID, username and password.
4. System does authentication.
5. Action is logged in Activity Log table (Refer to Use Case 25).
6. System Admin/Account Admin/User is taken to the Delivery Request calendar (Refer to Use Case 26).

Alternate Scenario:

- 2.1. User's first visit. No password yet.
 - 2.1.1 User follows retrieve password process (refer to Use Case 2).
- 3.1. Authentication fails.
 - 3.1.2 Log failure in Activity Log table.

- 3.1.3 Prompt the Visitor that they entered the wrong account ID, username or password combination.
- 3.1.4 Allow them to re-enter their account ID, username and password. Give them 5 chances.

Use Case 2: Retrieve Password

Primary Actor: System Admin, Account Admin, User

Pre-Condition: Internet connection available, browser loaded

Main Scenario:

1. Visitor clicks on “Forgot Password” link and is taken to the password recovery page.
2. Visitor submits their email address.
3. System checks for email address in database.
4. System creates a random code and saves it in the database.
5. An email is sent to the Visitor containing a link to the password reset page and the random code.
6. The Visitor follows the link and clicks on “Reset Password”.
7. The random code passed by the email link is compared to the code in the database.
8. The Visitor is logged in and prompted to change their password before proceeding.
9. Password is reset.
10. Action is logged in Activity Log table (Refer to Use Case 25).
11. Delivery Request calendar is displayed.

Alternate Scenario:

- 3.1. Email address is not located in database.
 - 3.1.1. Prompt the Visitor that they entered an incorrect email address.
 - 3.1.2. Allow them to re-enter their email address. Give them 5 chances.

- 5.1. Email is not received by Visitor.
 - 5.1.1. Allow Visitor to repeat the process.

Use Case 3: Change Password

Primary Actor: System Admin, Account Admin, User

Pre-Condition: Visitor logged in

Main Scenario:

1. Visitor initiates the password change process.
2. System prompts the user to enter the attributes for password change.
3. User specifies the following fields:
 - a. *Old password*: Password currently in use.
 - b. *New password*: New password to be used.
 - c. *Confirm Password*: New password again to ensure the New Password has been entered correctly.
4. System does authentication.
5. New password is registered with the system.
6. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 4.1. Authentication fails.
 - 4.1.1. Prompt the Visitor that they entered the wrong old password.
 - 4.1.2. Allow them to re-enter the password. Give them 5 chances.
- 4.2. New password and confirm new password don't match.
 - 4.2.1. Allow them to re-enter the new and confirm passwords. Give them 5 chances.

Use Case 4: Create Task Group

Primary Actor: System Admin

Pre-Condition: System Admin logged in

Main Scenario:

1. System Admin initiates the “create task group” functionality.
2. System prompts the System Admin to enter the attributes of the Task Group.
3. System Admin specifies the following fields:
 - a. *Code (required field)*: Unique 6 character code identifying Task Group
 - b. *Name (required field)*: Name for the Task Group
 - c. *Description*: Optional description of the purpose of the Task Group
4. An empty Task Group of specified attributes is created.
5. Timestamp record function is initiated on Task Group (Refer to Use Case 24).
6. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 4.1. Task Group code already in use.
 - 4.1.1. Task group creation fails, error message is displayed.
- 4.2. Code is less than 6 characters long.
 - 4.2.1. Task group creation fails, error message is displayed.
- 4.3. Required fields are left empty.
 - 4.3.1. Task group creation fails, error message is displayed.

Use Case 5: Update Task Group

Primary Actor: System Admin

Pre-Condition: System Admin logged in, Task Group created

Main Scenario:

1. System Admin selects Task Group to be edited. Choosing from a list of Task Groups does this. (Task Groups added previously,

- Refer to Use Case 4). Search capabilities allow for filtering of results.
2. System Admin modifies some or all attributes of the Task Group.
 3. The following fields are available:
 - a. *Code (required field)*: Unique 6 character code identifying Task Group
 - b. *Name (required field)*: Name for the Task Group
 - c. *Description*: Optional description to describe the purpose of the Task Group
 4. The changes are committed to the database.
 5. Timestamp record function is initiated on Task Group (Refer to Use Case 24).
 6. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 4.1. Task Group code already in use.
 - 4.1.1. Update fails, error message is displayed.
- 4.2. Code is less than 6 characters long.
 - 4.2.1. Update fails, error message is displayed.
- 4.3. Required fields are left empty.
 - 4.3.1. Update fails, error message is displayed.

Use Case 6: Delete Task Group

Primary Actor: System Admin

Pre-Condition: System Admin logged in, Task Group exists

Main Scenario:

1. System Admin selects Task Groups to be removed. Choosing from a list of Task Groups does this. (Task Groups added previously, Refer to Use Case 4). Search capabilities allow for filtering of results.
2. System presents dialog, warning of results of action.

3. System Admin confirms the action.
4. The Task Group is deleted from the database.
5. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 2.1. System Admin cancels action.
 - 2.1.1. No further action is taken.
- 3.1. System identifies tasks within the task group which are in active use.
 - 3.1.1. Deletion fails, error message is displayed.

Use Case 7: Create Task

Primary Actor: System Admin

Pre-Condition: System Admin logged in

Main Scenario:

1. System Admin accesses the Task Group. Choosing from a list of Task Groups does this. (Task Groups added previously, Refer to Use Case 4). Search capabilities allow for filtering of results.
2. System Admin initiates the “create task” functionality.
3. System prompts the System Admin to enter the attributes of the Task.
4. System Admin specifies the following fields:
 - a. *Name (required field)*: Name of task
 - b. *Description*: Optional description of the purpose of the Task
5. A new Task is created.
6. Timestamp record function is initiated on Task (Refer to Use Case 24).
7. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

5.1. Required fields are left empty.

5.1.1. Task creation fails, error message is displayed.

5.2. Task name already in use.

5.2.1. Task creation fails, error message is displayed.

Use Case 8: Update Task

Primary Actor: System Admin

Pre-Condition: System Admin logged in, Task created

Main Scenario:

1. System Admin accesses the Task Group. Choosing from a list of Task Groups does this. (Task Groups added previously, Refer to Use Case 4). Search capabilities allow for filtering of results.
2. System Admin selects the Task to be updated. Choosing from a list of Tasks does this. (Tasks added previously, Refer to Use Case 7). Search capabilities allow for filtering of results.
3. User modifies some or all attributes of the Tasks.
4. The following fields are available:
 - a. *Name (required field)*: Name of task
 - b. *Description*: Optional description of the purpose of the Task
5. The changes are committed to the database.
6. Timestamp record function is initiated on Task (Refer to Use Case 24).
7. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

5.1. Required fields are left empty.

5.1.1. Task update fails, error message is displayed.

Use Case 9: Delete Task

Primary Actor: System Admin

Pre-Condition: System Admin logged in, Task exists

Main Scenario:

1. System Admin accesses the Task Group. Choosing from a list of Task Groups does this. (Task Groups added previously, Refer to Use Case 4). Search capabilities allow for filtering of results.
2. System Admin selects the Task to be deleted. Choosing from a list of Tasks does this. (Tasks added previously, Refer to Use Case 7). Search capabilities allow for filtering of results.
3. System presents dialog, warning of results of action.
4. System Admin confirms the action.
5. The Task is deleted from the database.
6. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 3.1. System Admin cancels action.
 - 3.1.1. No further action is taken.
- 3.2. System identifies tasks which are in active use.
 - 3.2.1. Deletion fails, error message is displayed.

Use Case 10: Create User Group

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in

Main Scenario:

1. Account Admin initiates the “create user group” functionality.
2. System prompts the Account Admin to enter the attributes of the User Group.
3. Account Admin specifies the following fields:
 - a. *Name (required field)*: Name for the User Group

- b. *Description*: Optional description of the purpose of the User Group
4. An empty User Group of specified attributes is created.
5. Timestamp record function is initiated on User Group (Refer to Use Case 24).
6. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 4.1. User Group name already in use.
 - 4.1.1. User Group creation fails, error message is displayed.
- 4.2. Required fields are left empty.
 - 4.2.1. User Group creation fails, error message is displayed.

Use Case 11: Update User Group

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, User Group created

Main Scenario:

1. Account Admin selects the User Group to be updated. Choosing from a list of User Groups does this. (User groups added previously, Refer to Use Case 10). Search capabilities allow for filtering of results.
2. Account Admin modifies some or all attributes of the User Group.
3. The following fields are available:
 - a. *Name (required field)*: Name for the User Group
 - b. *Description*: Optional description of the purpose of the User Group
4. The changes are committed to the database.

5. Timestamp record function is initiated on User Group (Refer to Use Case 24).
6. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 4.1. User Group name already in use.
 - 4.1.1. User Group update fails, error message is displayed.
- 4.2. Required fields are left empty.
 - 4.2.1. User Group update fails, error message is displayed.

Use Case 12: Delete User Group

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, User Group exists

Main Scenario:

1. Account Admin selects the User Group to be deleted. Choosing from a list of User Groups does this. (User groups added previously, Refer to Use Case 10). Search capabilities allow for filtering of results.
2. System presents dialog, warning of results of action.
3. Account Admin confirms the action.
4. The User Group is deleted from the database.
5. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 3.1. Account Admin cancels action.
 - 3.1.1. No further action is taken.

Use Case 13: Assign Tasks to User Group

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, User Group exists, Tasks exists

Main Scenario:

1. Account Admin enters User Group. Choosing from a list of User Groups does this. (User Group added previously. Refer to Use Case 10)
2. Account Admin initiates the “assign tasks” functionality.
3. Account Admin selects Tasks to be assigned to User Group. Choosing from a list of Tasks, organized by Task Group, does this. (Tasks and Task Groups entered previously. Refer to Use Case 4 and Use Case 7)
4. Updates are committed to database.
5. Timestamp record function is initiated on User Group (Refer to Use Case 24).
6. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

None

Use Case 14: Remove Tasks from User Group

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, User Group exists, Tasks exists

Main Scenario:

1. Account Admin enters User Group. Choosing from a list of User Groups does this. (User Group added previously. Refer to Use Case 10)
2. Account Admin selects Tasks to be removed from User Group. Choosing from a list of Tasks previously selected does this (Tasks entered previously. Refer to Use Case 4)
3. Updates are committed to database.
4. Timestamp record function is initiated on User Group (Refer to Use Case 24).

5. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

None

Use Case 15: Create Client

Primary Actor: System Admin

Pre-Condition: System Admin logged in

Main Scenario:

1. System Admin initiates the “create client” functionality.
2. System prompts the System Admin to enter the attributes of the Client.
3. System Admin specifies the following fields:
 - a. *Client Code (required)*: Unique code for client
 - b. *Company Name (required)*: Name of client’s company
 - c. *Address 01 (required)*: Client’s Head Office address
 - d. *Address 02*: Client’s Head Office address
 - e. *City (required)*: Client’s Head Office city
 - f. *Province/State (required)*: Client’s Head Office province or state
 - g. *Postal/Zip Code (required)*: Client’s Head Office postal or zip code
 - h. *Country (required)*: Client’s Head Office country
 - i. *Contact First Name (required)*: Account Admin’s first name
 - j. *Contact Last Name (required)*: Account Admin’s last name
 - k. *Contact Email (required)*: Account Admin’s email address
 - l. *Account Admin Username (required)*: Account Admin’s username
 - m. *Account Admin Password (required)*: Account Admin’s password
 - n. *Trial Period Start (required)*: Date trial period first starts

- f. *Province/State (required)*: Client's Head Office province or state
 - g. *Postal/Zip Code (required)*: Client's Head Office postal or zip code
 - h. *Country (required)*: Client's Head Office country
 - i. *Contact First Name (required)*: Account Admin's first name
 - j. *Contact Last Name (required)*: Account Admin's last name
 - k. *Contact Email (required)*: Account Admin's email address
 - l. *Account Admin Username (required)*: Account Admin's username
 - m. *Account Admin Password (required)*: Account Admin's password
 - n. *Trial Period Start (required)*: Date trial period first starts
 - o. *Trial Period End (required)*: Date trial period ends
 - p. *Term Start*: Date full term first starts
 - q. *Term End*: Date current term ends
 - r. *Date Deactivated*: Date account suspended. Not editable (Refer to Use Case 17).
- 4. Updates are committed to the database.
 - 5. Timestamp record function is initiated on Client (Refer to Use Case 24).
 - 6. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 4.1. Client Code already in use.
 - 4.1.1. Client update fails, error message is displayed.
- 4.2. Client email address already in use.
 - 4.2.1. Client update fails, error message is displayed.
- 4.3. Required fields are left empty.
 - 4.3.1. Client update fails, error message is displayed.

Use Case 17: Suspend Client

Primary Actor: System Admin

Pre-Condition: System Admin logged in, Client exists

Main Scenario:

1. System Admin selects the Client to be suspended. Choosing from a list of Clients does this. (Clients added previously, Refer to Use Case 15). Search capabilities allow for filtering of results.
2. System Admin initiates the “suspend client” functionality.
3. System warns System Admin that the Client account will still exist in the system but won’t be visible or active in the application.
4. System Admin chooses to proceed.
5. The Client account is set to Suspended status in the database.
6. Timestamp record function is initiated on Client (Refer to Use Case 24).
7. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 4.1. System Admin cancels action.
 - 4.1.1. No further action is taken.

Use Case 18: Un-suspend Client

Primary Actor: System Admin

Pre-Condition: System Admin logged in, Client exists

Main Scenario:

1. System Admin selects the Client to be un-suspended. Choosing from a list of Clients does this. (Clients added previously, Refer to Use Case 15). Search capabilities allow for filtering of results.
2. System Admin initiates the “un-suspend user” functionality.
3. System presents warning dialog stating the Client account will be made visible/active in the application.

4. System Admin chooses to proceed.
5. The Client account is set to Active status in the database.
6. Timestamp record function is initiated on Client (Refer to Use Case 24).
7. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 4.1. System Admin cancels action.
 - 4.1.1. No further action is taken.

Use Case 19: Create User

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in

Main Scenario:

1. Account Admin initiates the “create user” functionality.
2. System prompts the Account Admin to enter the attributes of the User.
3. Account Admin specifies the following fields:
 - a. *Client (required): Client Code.* This is an automatically filled field and cannot be edited (Refer to Use Case 15)
 - b. *First Name (required):* User’s first name
 - c. *Last Name (required):* User’s last name
 - d. *Email (required):* User’s email address
4. A User of specified attributes is created.
5. Timestamp record function is initiated on User (Refer to Use Case 24).
6. Action is logged in Activity Log table (Refer to Use Case 25).
7. Account Admin is taken to Update User screen to finish filling in the rest of the User’s attributes (refer to Use Case 20)

Alternate Scenario:

- 4.1. User email address already in use.
 - 4.1.1. User creation fails, error message is displayed.
- 4.2. Required fields are left empty.
 - 4.2.1. User creation fails, error message is displayed.

Use Case 20: Update User

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, User created

Main Scenario:

1. Account Admin selects the User to be updated. Choosing from a list of Users does this. (Users added previously, Refer to Use Case 19). Search capabilities allow for filtering of results.
2. Account Admin modifies some or all attributes of the User.
3. The following fields are available:
 - a. *Client (required): Client Code.* This is an automatically filled field and cannot be edited (Refer to Use Case 15)
 - b. *First Name (required):* User's first name
 - c. *Last Name (required):* User's last name
 - d. *Email (required):* User's email address
 - e. *Password:* User's password. If new User account the User can set this value by following the Retrieve Password process (Refer to Use Case 2)
 - f. *Job Title:* User's job title
 - g. *Salesperson:* Whether User is a salesperson.
 - h. *Driver:* Whether User is a driver.
 - i. *Date Deactivated:* Date User's account was suspended. Not editable (Refer to Use Case 21).
4. Updates are committed to the database.
5. Timestamp record function is initiated on User (Refer to Use Case 24).
6. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 4.1. User email address already in use.
 - 4.1.1. User update fails, error message is displayed.
- 4.2. Required fields are left empty.
 - 4.2.1. User update fails, error message is displayed.

Use Case 21: Suspend User

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, User exists

Main Scenario:

1. Account Admin selects the User to be suspended. Choosing from a list of Users does this. (Users added previously, Refer to Use Case 19). Search capabilities allow for filtering of results.
2. Account Admin initiates the “suspend user” functionality.
3. System warns Account Admin that the User account will still exist in the system but won’t be visible or active in the application.
4. Account Admin chooses to proceed.
5. The User account is set to Suspended status in the database.
6. Timestamp record function is initiated (Refer to Use Case 24).
7. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 4.1. Account Admin cancels action.
 - 4.1.1. No further action is taken.

Use Case 22: Un-suspend User

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, User exists

Main Scenario:

1. Account Admin selects the User to be un-suspended. Choosing from a list of Users does this. (Users added previously, Refer to Use Case 19). Search capabilities allow for filtering of results.
2. Account Admin initiates the “un-suspend user” functionality.
3. System presents warning dialog stating the User account will be made visible/active in the application.
4. Account Admin chooses to proceed.
5. The User account is set to Active status in the database.
6. Timestamp record function is initiated on User (Refer to Use Case 24).
7. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 4.1. Account Admin cancels action.
 - 4.1.1. No further action is taken.

Use Case 23: Assign User to User Groups

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, User Group exists, User exists

Main Scenario:

1. Account Admin selects the User to be updated. Choosing from a list of Users does this. (Users added previously, Refer to Use Case 19). Search capabilities allow for filtering of results.
2. Account Admin selects User Groups to be associated with the User Account. Choosing from a list of Users Groups does this. (User Groups added previously, Refer to Use Case 10)
3. The changes are committed to the database.
4. Timestamp record function is initiated on User (Refer to Use Case 24).

5. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

None

Use Case 24: Record Timestamps

Primary Actor: System

Pre-Condition: Record added or updated

Main Scenario:

1. System inserts current date and time into the corresponding fields where required:
 - a. *Date Added*: Date record was added
 - b. *Date Updated*: Date record was last updated
 - c. *Updated By ID*: ID of Account Admin/User who made the changes
 - d. *Updated By Name*: Name of Account Admin/User who made the changes

Alternate Scenario:

None

Use Case 25: Record User Actions

Primary Actor: System

Pre-Condition: Data altered in system

Main Scenario:

1. System records the actions affected by the user:
 - a. *Timestamp*: Date and time action was made
 - b. *User ID*: ID of User making the action

- c. *User Name*: First and last name of User making the action
- d. *Delivery ID*: ID of Delivery record being affected. Only required when action affects a specific Delivery record.
- e. *User ID*: ID of User being affected. Only required when action affects a specific User.
- f. *User Name*: First and last name of User being affected. Only required when action affects a specific User.
- g. *Client Code*: Code of Client being affected.
- h. *Client Name*: Name of Client being affected.
- i. *Details*: Details of action taken

Alternate Scenario:

None.

Use case related to Requesting Delivery

Use Case 26: View Delivery Request Calendar

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance

Main Scenario:

1. User initiates the “view delivery request calendar” functionality.
2. User is presented with a calendar of previously requested deliveries. The number of days or weeks shown is determined by User (Refer to Use Case 29). The type of delivery records shown are determined by User (Refer to Use Case 30). The information displayed for each delivery record is determined by User (Refer to Use Case 31).
3. User views full details for each delivery record by hovering over the record.

4. User creates new delivery request by clicking on “add” icon beside each calendar date (Refer to Use Case 37).
5. User edits existing delivery request by clicking on delivery record (Refer to Use Case 38).

Alternate Scenario:

None

Use Case 27: Navigate Delivery Request Calendar Incrementally

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Delivery Request Calendar

Main Scenario:

1. User clicks on arrow indicators to either the right or left of the calendar.
2. Calendar display shifts ahead or behind 1 day or week depending on the Timeframe selected (Refer to Use Case 29).

Alternate Scenario:

None

Use Case 28: Navigate Delivery Request Calendar by Date

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Delivery Request Calendar

Main Scenario:

1. User initiates the “date change” functionality.
2. User selects a new month, day, year or any combination thereof.
3. User confirms their changes.

4. Calendar is refreshed with the selected date defaulting to the beginning of the display.

Alternate Scenario:

- 3.1. Selected date does not exist.
 - 3.1.1. Date change fails, error message is displayed.
- 3.2. User cancels action.
 - 3.2.1. No further action is taken.

Use Case 29: Change Timeframe Display

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Delivery Request Calendar

Main Scenario:

1. User initiates the “change timeframe display” functionality.
2. User selects preferred timeframe to display. Choosing from a list of options does this:
 - a. *One Day*: View single day at a time.
 - b. *Two Days*: View two days at a time.
 - c. *Three Days*: View three days at a time.
 - d. *Four Days*: View four days at a time.
 - e. *Five Days*: View five days at a time.
 - f. *Six Days*: View six days at a time.
 - g. *One Week*: View one week at a time.
 - h. *Two Weeks*: View two weeks at a time.
 - i. *Three Weeks*: View three weeks at a time.
 - j. *Four Weeks*: View four weeks at a time.
 - k. *Five Weeks*: View five weeks at a time.
3. User confirms choice.
4. Choice is saved in a cookie to be used during the duration of the User’s visit.

Alternate Scenario:

- 4.1. User cancels action.
 - 4.1.1 No further action is taken.

Use Case 30: Filter Calendar Results

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Delivery Request Calendar

Main Scenario:

1. User initiates the “filter calendar results” functionality.
2. User optionally selects one or more types of delivery requests to display. Choosing from a checkbox list of delivery statuses does this:
 - a. *Pending*: Any delivery requests still not scheduled.
 - b. *Allocated*: Allocated to a vehicle but not yet confirmed.
 - c. *Confirmed*: Any delivery requests scheduled but not yet shipped.
 - d. *Completed*: Any delivery request that has been successfully shipped.
3. User optionally selects deliveries requested by one or more salespeople to display. Choosing from a checkbox list of salespeople does this (Salespeople added previously, Refer to Use Case 19).
4. User optionally selects deliveries originating from one or more locations to display. Choosing from a checkbox list of locations does this (Locations added previously, Refer to Use Case 97).
5. User optionally selects deliveries being delivered to one or more locations to display. Choosing from a checkbox list of locations does this (Locations added previously, Refer to Use Case 97).

6. User optionally selects deliveries allocated to one or more vehicles to display. Choosing from a checkbox list of vehicles does this (Vehicles added previously, Refer to Use Case 100).
7. User confirms choices.
8. The Delivery Calendar is refreshed to display results based on User's choices.

Alternate Scenario:

- 8.1. User cancels action.
 - 8.1.1 No further action is taken.

Use Case 31: Search Delivery Requests

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Delivery Request Calendar

Main Scenario:

1. User initiates the "search delivery requests" functionality.
2. User enters keywords to search for. (Fields available for searching selected previously, Refer to Use Case 83).
3. User confirms choices.
4. The Delivery Calendar is refreshed to display information based on User's search criteria.

Alternate Scenario:

- 4.1. No results are found matching the User's search criteria.
 - 4.1.1 Warning message is displayed.

Use Case 32: Select Fields Displayed

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Delivery Request Calendar

Main Scenario:

1. User initiates the “select fields displayed” functionality.
2. User selects fields to be displayed with each delivery request on the calendar. Choosing from a checkbox list of fields does this (Fields added previously, Refer to Use Case 83).
3. User confirms choices.
4. The Delivery Calendar is refreshed to display information based on User’s choices.

Alternate Scenario:

- 4.1. User cancels action.
 - 4.1.1 No further action is taken.

Use Case 33: Save as View

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Delivery Request Calendar

Main Scenario:

1. User initiates the “save as view” functionality.
2. System prompts the User to confirm that they wish to create a new view based on the filters, fields and timeframe settings they are currently using.
3. User confirms the action.
4. System prompts User for a Label for the new view.
5. User enters the name the view is to be saved as.
6. User submits the view.
7. New view is created and assigned specifically to the User.
8. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 3.1. User cancels action.
 - 3.1.1 No further action is taken.
- 6.1. The Label is already in use by the User.
 - 6.1.1 Save as view fails, error message is displayed.

Use Case 34: Create View

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Delivery Request Calendar

Main Scenario:

1. User initiates the “create view” functionality.
2. System prompts the User to enter the attributes of the View.
3. The following fields are available:
 - a. *Label (required)*: Unique name for the View.
 - b. *Timeframe*: Preferred timeframe to display. Choosing from a list of options does this:
 - i. *One Day*: View single day at a time.
 - ii. *Two Days*: View two days at a time.
 - iii. *Three Days*: View three days at a time.
 - iv. *Four Days*: View four days at a time.
 - v. *Five Days*: View five days at a time.
 - vi. *Six Days*: View six days at a time.
 - vii. *One Week*: View one week at a time.
 - viii. *Two Weeks*: View two weeks at a time.
 - ix. *Three Weeks*: View three weeks at a time.
 - x. *Four Weeks*: View four weeks at a time.
 - xi. *Five Weeks*: View five weeks at a time.
 - c. *Type*: Type of delivery to display. Choosing from a checkbox list of delivery statuses does this:

- i. *Pending*: Any delivery requests still not scheduled.
 - ii. *Allocated*: Allocated to a vehicle but not yet confirmed.
 - iii. *Confirmed*: Any delivery requests scheduled but not yet shipped.
 - iv. *Completed*: Any delivery request that has been successfully shipped.
 - d. *Fields*: Fields to be displayed with each delivery request. Choosing from a checkbox list of fields does this (Fields added previously, Refer to Use Case 83).
6. New view is saved to the database and assigned specifically to the User.
7. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 7.1. The name is already in use by the User.
 - 7.1.1 Create view fails, error message is displayed.

Use Case 35: Edit View

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Delivery Request Calendar

Main Scenario:

1. User accesses the View. Choosing from a list of Views does this. (Views added previously, Refer to Use Case 33 and Use Case 34).
2. User initiates the "edit view" functionality.
3. User modifies some or all attributes of the View.
4. The following fields are available:
 - a. *Label (required)*: Unique name for the View.

- b. *Timeframe*: Preferred timeframe to display. Choosing from a list of options does this:
 - xii. *One Day*: View single day at a time.
 - xiii. *Two Days*: View two days at a time.
 - xiv. *Three Days*: View three days at a time.
 - xv. *Four Days*: View four days at a time.
 - xvi. *Five Days*: View five days at a time.
 - xvii. *Six Days*: View six days at a time.
 - xviii. *One Week*: View one week at a time.
 - xix. *Two Weeks*: View two weeks at a time.
 - xx. *Three Weeks*: View three weeks at a time.
 - xxi. *Four Weeks*: View four weeks at a time.
 - xxii. *Five Weeks*: View five weeks at a time
 - c. *Type*: Type of delivery to display. Choosing from a checkbox list of delivery statuses does this:
 - i. *Pending*: Any delivery requests still not scheduled.
 - ii. *Allocated*: Allocated to a vehicle but not yet confirmed.
 - iii. *Confirmed*: Any delivery requests scheduled but not yet shipped.
 - iv. *Completed*: Any delivery request that has been successfully shipped.
 - d. *Fields*: Fields to be displayed with each delivery request. Choosing from a checkbox list of fields does this (Fields added previously, Refer to Use Case 83).
- 5. Updates are committed to the database.
 - 6. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 5.1. View Label is already in use by the User.
 - 5.1.1 Update view fails, error message is displayed.

Use Case 36: Apply View

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Delivery Request Calendar

Main Scenario:

1. User accesses the View. Choosing from a list of Views does this. (Views added previously, Refer to Use Case 33 and Use Case 34).
2. Delivery Request Calendar refreshes to reflect the options assigned to the view.
3. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

None

Use Case 37: Delete View

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Delivery Request Calendar

Main Scenario:

1. User accesses the View. Choosing from a list of Views does this. (Views added previously, Refer to Use Case 33 and Use Case 34).
2. User initiates the "delete view" functionality.
3. System presents warning dialog stating the view will be deleted.
4. User chooses to continue.
5. View is deleted.
6. Delivery Request Calendar refreshes to reflect the default options.
7. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 4.1. User cancels action.
 - 4.1.1 No further action is taken.

Use Case 38: Create Delivery Request

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance

Main Scenario:

1. User initiates the “create delivery request” functionality.
2. System prompts the User to enter the attributes of the Delivery Request.
3. The following fields are available:
 - a. *Earliest Ship Date*: Earliest date delivery can be shipped. If Delivery Request was started from the calendar this value will be automatically filled in.
 - b. *Cargo*: Cargo to be shipped. Retrieved by an Cargo Search (Refer to Use Case 43).
 - c. *Salesperson Code*: Unique ID of salesperson making the delivery request. This is an auto filled field and cannot be edited.
 - d. *Salesperson Name*: Name of salesperson making the delivery request. This is an auto filled field and cannot be edited.
 - e. *From Location*: Location to be sent from. Choosing from a list of Locations does this. (Locations added previously, Refer to Use Case 97). Selection of Location populates the following fields:
 - i. *Address 1 (required)*: Address of originating Location.
 - ii. *Address 2*: Address of originating Location.
 - iii. *City (required)*: City of originating Location.

- iv. *Province/State (required)*: Province/State of originating Location.
- v. *Postal/Zip Code (required)*: Postal/Zip Code of originating Location.
- vi. *Country (required)*: Country of originating Location.
- vii. *Phone (required)*: Contact phone number of originating Location.
- f. *To Location*: Location to be sent to. Choosing from a list of Locations does this. (Locations added previously, Refer to Use Case 97). Selection of Location populates the following fields:
 - i. *Address 1 (required)*: Address of destination Location.
 - ii. *Address 2*: Address of destination Location.
 - iii. *City (required)*: City of destination Location.
 - iv. *Province/State (required)*: Province/State of destination Location.
 - v. *Postal/Zip Code (required)*: Postal/Zip Code of destination Location.
 - vi. *Country (required)*: Country of destination Location.
 - vii. *Phone (required)*: Contact phone number of destination Location.
- g. *Delivery Window*: Number of days available for scheduling the delivery. Choosing from a list of Delivery Window options does this. (Delivery Window options added previously, Refer to Use Case 107).
- h. Additional fields provided by the Account Admin (Refer to Use Case 83).
- i. *Email Request To Salesperson*: Indicate whether a copy of the Delivery Request should be emailed to the salesperson who submitted it. Checking a checkbox does this.

- j. *Email Request To Others:* Indicate whether a copy of the Delivery Request should be emailed to anyone other than the salesperson. Entering one or more email addresses separated by a comma does this.
 - k. *Email Confirmation To Salesperson:* Indicate whether the salesperson who submitted the request should be notified by email when the delivery is confirmed. Checking a checkbox does this.
 - l. *Email Confirmation To Others:* Indicate whether anyone other than the salesperson should be notified by email when the delivery is confirmed. Entering one or more email addresses separated by a comma does this.
 - m. *Email Completion To Salesperson:* Indicate whether the salesperson who submitted the request should be notified by email when the delivery is completed. Checking a checkbox does this.
 - n. *Email Completion To Others:* Indicate whether anyone other than the salesperson should be notified by email when the delivery is completed. Entering one or more email addresses separated by a comma does this.
4. Delivery Request is created.
 5. If required, a copy of the Delivery Request is emailed to the Salesperson and/or any others indicated.
 6. Timestamp record function is initiated on Delivery Request (Refer to Use Case 24).
 7. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

3.1. User selects Customer as From Location.

- 3.1.1. Customer name and address details are retrieved via customer search (Refer to Use Case 42) or entered manually.
- 3.2. User selects Customer as To Location.
 - 3.2.1. Customer name and address details are retrieved via customer search (Refer to Use Case 42) or entered manually.
- 4.1. Earliest Ship Date has already passed.
 - 4.1.1. Delivery Request fails, error message is displayed.
- 4.2. Required fields are left empty.
 - 4.2.1. Delivery Request fails, error message is displayed.
- 5.1. Email notification cannot be sent.
 - 5.1.1. Warning message is displayed.

Use Case 39: Edit Delivery Request

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Delivery Request Calendar, Delivery Request is in Pending status

Main Scenario:

1. User accesses the Delivery Request. Choosing from a list of Delivery Requests on the Delivery Request Calendar does this. (Delivery Requests added previously, Refer to Use Case 38). Search capabilities allow for filtering of results.
2. User modifies some or all attributes of the Delivery Request.
3. The following fields are available:
 - a. *Earliest Ship Date*: Earliest date delivery can be shipped. If Delivery Request was started from the calendar this value will be automatically filled in.
 - b. *Cargo*: Cargo to be shipped. Retrieved by an Cargo Search (Refer to Use Case 43).
 - c. *From Location*: Location to be sent from. Choosing from a list of Locations does this. (Locations added

- previously, Refer to Use Case 97). Selection of Location populates the following fields:
- d. *Address 1 (required)*: Address of originating Location.
 - e. *Address 2*: Address of originating Location.
 - f. *City (required)*: City of originating Location.
 - g. *Province/State (required)*: Province/Sate of originating Location.
 - h. *Postal/Zip Code (required)*: Postal/Zip Code of originating Location.
 - i. *Country (required)*: Country of originating Location.
 - j. *Phone (required)*: Contact phone number of originating Location.
- d. *To Location*: Location to be sent to. Choosing from a list of Locations does this. (Locations added previously, Refer to Use Case 97). Selection of Location populates the following fields:
- i. *Address 1 (required)*: Address of destination Location.
 - ii. *Address 2*: Address of destination Location.
 - iii. *City (required)*: City of destination Location.
 - iv. *Province/State (required)*: Province/Sate of destination Location.
 - v. *Postal/Zip Code (required)*: Postal/Zip Code of destination Location.
 - vi. *Country (required)*: Country of destination Location.
 - vii. *Phone (required)*: Contact phone number of destination Location.
- e. *Delivery Window*: Number of days available for scheduling the delivery. Choosing from a list of Delivery Window options does this. (Delivery Window options added previously, Refer to Use Case 107).

- f. Additional fields provided by the Account Admin (Refer to Use Case 83).
 - g. *Email Request To Salesperson*: Indicate whether a copy of the updated Delivery Request should be emailed to the salesperson who submitted it. Checking a checkbox does this.
 - h. *Email Request To Others*: Indicate whether a copy of the updated Delivery Request should be emailed to anyone other than the salesperson. Entering one or more email addresses separated by a comma does this.
 - i. *Email Confirmation To Salesperson*: Indicate whether the salesperson who submitted the request should be notified by email when the delivery is confirmed. Checking a checkbox does this.
 - j. *Email Confirmation To Others*: Indicate whether anyone other than the salesperson should be notified by email when the delivery is confirmed. Entering one or more email addresses separated by a comma does this.
 - k. *Email Completion To Salesperson*: Indicate whether the salesperson who submitted the request should be notified by email when the delivery is completed. Checking a checkbox does this.
 - l. *Email Completion To Others*: Indicate whether anyone other than the salesperson should be notified by email when the delivery is completed. Entering one or more email addresses separated by a comma does this.
- 4. Updates are committed to the database.
 - 5. If required, a copy of the updated Delivery Request is emailed to the Salesperson and/or any others indicated.
 - 6. Timestamp record function is initiated on Delivery Request (Refer to Use Case 24).
 - 7. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

5.1. User selects Customer as From Location.

5.1.1. Customer name and address details are retrieved via customer search (Refer to Use Case 42) or entered manually.

5.2. User selects Customer as To Location.

5.2.1. Customer name and address details are retrieved via customer search (Refer to Use Case 42) or entered manually.

6.1. Earliest Ship Date has already passed.

6.1.1. Delivery Request fails, error message is displayed.

6.2. Required fields are left empty.

6.2.1. Delivery Request fails, error message is displayed.

7.1. Email notification cannot be sent.

7.1.1. Warning message is displayed.

Use Case 40: Delete Delivery Request

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Delivery Request Calendar, Delivery Request is in Pending status

Main Scenario:

1. User accesses the Delivery Request. Choosing from a list of Delivery Requests on the Delivery Request Calendar does this. (Delivery Requests added previously, Refer to Use Case 38). Search capabilities allow for filtering of results.
2. User initiates the "delete delivery request" functionality.
3. System presents warning dialog stating the delivery request will be deleted
4. User chooses to continue.

5. System prompts User to indicate whether an email notification should be sent:
 - a. *Email Notification To Salesperson:* Indicate whether a deletion notice should be emailed to the salesperson who created the Delivery Request. Checking a checkbox does this.
 - b. *Email Notification To Others:* Indicate whether a deletion notice should be emailed to anyone other than the salesperson. Entering one or more email addresses separated by a comma does this.
6. Delivery Request is deleted.
7. If required, a deletion notification is emailed to the Salesperson and/or any others indicated.
8. Timestamp record function is initiated on Member (Refer to Use Case 24).
9. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 4.1. User cancels action.
 - 4.1.1. No further action is taken.
- 7.1. Email notification cannot be sent.
 - 7.1.1. Warning message is displayed.

Use Case 41: Create Return Delivery Request

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Delivery Request Calendar

Main Scenario:

1. User accesses the Delivery Request. Choosing from a list of Delivery Requests on the Delivery Request Calendar does this.

(Delivery Requests added previously, Refer to Use Case 38).
Search capabilities allow for filtering of results.

2. User initiates the “create return delivery request” functionality.
3. System swaps the From and To Location details.
4. System changes the Update button to a Submit button.
5. User modifies some or all attributes of the Delivery Request.
3. The following fields are available:
 - a. *Earliest Ship Date*: Earliest date delivery can be shipped. If Delivery Request was started from the calendar this value will be automatically filled in.
 - b. *Delivery Window*: Number of days available for scheduling the delivery. Choosing from a list of Delivery Window options does this. (Delivery Window options added previously, Refer to Use Case 107).
 - c. *Salesperson Code*: Unique ID of salesperson making the delivery request. This is an auto filled field and cannot be edited.
 - d. *Salesperson Name*: Name of salesperson making the delivery request. This is an auto filled field and cannot be edited
 - e. Additional fields provided by the Account Admin (Refer to Use Case 83).
 - f. *Email Request To Salesperson*: Indicate whether a copy of the Delivery Request should be emailed to the salesperson who submitted it. Checking a checkbox does this.
 - g. *Email Request To Others*: Indicate whether a copy of the Delivery Request should be emailed to anyone other than the salesperson. Entering one or more email addresses separated by a comma does this.
 - h. *Email Confirmation To Salesperson*: Indicate whether the salesperson who submitted the request should be

- notified by email when the delivery is confirmed. Checking a checkbox does this.
- i. *Email Confirmation To Others:* Indicate whether anyone other than the salesperson should be notified by email when the delivery is confirmed. Entering one or more email addresses separated by a comma does this.
 - j. *Email Completion To Salesperson:* Indicate whether the salesperson who submitted the request should be notified by email when the delivery is completed. Checking a checkbox does this.
 - k. *Email Completion To Others:* Indicate whether anyone other than the salesperson should be notified by email when the delivery is completed. Entering one or more email addresses separated by a comma does this
6. New Delivery Request is created.
 7. If required, a copy of the Delivery Request is emailed to the Salesperson and/or any others indicated.
 8. Timestamp record function is initiated on Member (Refer to Use Case 24).
 9. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 6.1. Earliest Ship Date has already passed.
 - 6.1.1. Delivery Request fails, error message is displayed.
- 6.2. Earliest Ship Date occurs before the original Delivery Request's Early Ship Date.
 - 6.2.1. Delivery Request fails, error message is displayed.
- 6.3. Required fields are left empty.
 - 6.3.1. Delivery Request fails, error message is displayed.
- 7.1. Email notification cannot be sent.
 - 7.1.1. Warning message is displayed.

Use Case 42: Select Customer

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is creating or editing a Delivery Request, Delivery Request is new or in Pending status

Main Scenario:

1. User selects Customer as either the From or To Location.
2. User initiates “search for customer” functionality.
3. User selects Customer. Choosing from a list of Customers does this. (Customers added previously, Refer to Use Case 87). Search capabilities allow for filtering of results.
4. Customer name and address are populated into the corresponding From or To Location fields.

Alternate Scenario:

- 3.1. Customer not found.
 - 3.1.1. Prompt User to add Customer to database.

Use Case 43: Select Cargo

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is creating or editing a Delivery Request, Delivery Request is new or in Pending status

Main Scenario:

1. User initiates “search for cargo” functionality.
2. User selects Cargo. Choosing from a list of Cargo does this. (Cargo added previously, Refer to Use Case 92). Search capabilities allow for filtering of results.
3. Cargo is populated into the corresponding Cargo field.

Alternate Scenario:

3.1. Cargo not found.

3.1.1. Prompt User to add Cargo to database.

Use Case 44: Add Document

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Delivery Request Calendar

Main Scenario:

1. User accesses the Delivery Request. Choosing from a list of Delivery Requests on the Delivery Request Calendar does this. (Delivery Requests added previously, Refer to Use Case 38). Search capabilities allow for filtering of results.
2. User initiates the “add document” functionality.
3. System prompts the User to enter the attributes of the Document.
4. The following fields are available:
 - a. File (required): The file to be uploaded. Selecting a file on the User’s computer does this.
 - b. Title (required): Title of the document to indicate its content.
 - c. Document Type (required): Type of document uploaded. Choosing from a list of Document Types does this. (Document Types added previously, Refer to Use Case 110).
 - d. Description: Description of document content and purpose.
 - e. Keywords: Keywords that can be used when searching for documents.

- f. Location Code: Unique code of location associated with this document. Selecting either the From or To location for the Delivery Request does this.
 - g. Location Name: Name of location associated with this document. If location is a customer, the customer's name will be displayed here. Selecting either the From or To location for the Delivery Request does this.
 - h. Customer Code: Unique code of customer associated with document if the Location selected is a Customer. Selecting either the From or To location for the Delivery Request does this.
 - i. Cargo Code: Unique product code of cargo associated with document. This is an auto-generated field based on the cargo indicated in the Delivery Request.
 - j. Cargo Name: Name of cargo associated with document. This is an auto-generated field based on the cargo indicated in the Delivery Request.
 - k. Salesperson Code: Unique User code of salesperson associated with Delivery Request. This is an auto-generated field based on the salesperson who submitted the Delivery Request.
 - l. Salesperson Name: Name of salesperson associated with Delivery Request. This is an auto-generated field based on the salesperson who submitted the Delivery Request.
- 5. Document is uploaded.
 - 6. Document record is created in the database.
 - 7. Timestamp record function is initiated on Document (Refer to Use Case 24).
 - 8. Timestamp record function is initiated on Delivery Request (Refer to Use Case 24).
 - 9. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

5.1. Document cannot be uploaded.

5.1.1. Add Document fails, error message is displayed.

Use Case 45: View Documents

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Delivery Request Calendar

Main Scenario:

1. User accesses the Delivery Request. Choosing from a list of Delivery Requests on the Delivery Request Calendar does this. (Delivery Requests added previously, Refer to Use Case 38). Search capabilities allow for filtering of results.
2. User initiates the “view documents” functionality.
3. User loads details of Document. Choosing from a list of Document titles assigned to this Delivery Record does this (Documents added previously, Refer to Use Case 44, 69).
4. User views Document. Clicking on “view document” link does this.

Alternate Scenario:

None

Use Case 46: Edit Document

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Delivery Request Calendar

Main Scenario:

1. User accesses the Delivery Request. Choosing from a list of Delivery Requests on the Delivery Request Calendar does this. (Delivery Requests added previously, Refer to Use Case 38). Search capabilities allow for filtering of results.
2. User initiates the “view document” functionality.
3. User loads details of Document. Choosing from a list of Document titles assigned to this Delivery Record does this (Documents added previously, Refer to Use Case 44, 69).
4. User initiates the “update document” functionality.
5. User modifies some or all attributes of the Document.
6. The following fields are available:
 - a. File (required): The file to be uploaded. User can overwrite an existing file. Selecting a file on the User’s computer does this.
 - b. Title (required): Title of the document to indicate its content.
 - c. Document Type (required): Type of document uploaded. Choosing from a list of Document Types does this. (Document Types added previously, Refer to Use Case 110).
 - d. Description: Description of document content and purpose.
 - e. Keywords: Keywords that can be used when searching for documents.
 - f. Location Code: Unique code of location associated with this document. Selecting either the From or To location for the Delivery Request does this.
 - g. Location Name: Name of location associated with this document. If location is a customer, the customer’s name will be displayed here. Selecting either the From or To location for the Delivery Request does this.

- h. Customer Code: Unique code of customer associated with document if the Location selected is a Customer. Selecting either the From or To location for the Delivery Request does this.
 - i. Cargo Code: Unique product code of cargo associated with document. This is an auto-generated field based on the cargo indicated in the Delivery Request.
 - j. Cargo Name: Name of cargo associated with document. This is an auto-generated field based on the cargo indicated in the Delivery Request.
 - k. Salesperson Code: Unique User code of salesperson associated with Delivery Request. This is an auto-generated field based on the salesperson who submitted the Delivery Request.
 - l. Salesperson Name: Name of salesperson associated with Delivery Request. This is an auto-generated field based on the salesperson who submitted the Delivery Request.
7. If new file is being uploaded, System presents warning dialog stating the old document will be deleted.
 8. User chooses to continue.
 9. If necessary, new document is uploaded.
 10. Updates are committed to the database.
 11. Timestamp record function is initiated on Document (Refer to Use Case 24).
 12. Timestamp record function is initiated on Delivery Request (Refer to Use Case 24).
 13. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

7.1. User cancels action.

7.1.1. No further action is taken.

9.1. Document cannot be uploaded.

9.1.1. Edit Document fails, error message is displayed.

Use Case 47: Delete Document

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Delivery Request Calendar

Main Scenario:

1. User accesses the Delivery Request. Choosing from a list of Delivery Requests on the Delivery Request Calendar does this. (Delivery Requests added previously, Refer to Use Case 38). Search capabilities allow for filtering of results.
2. User initiates the “view document” functionality.
3. User selects Document to be deleted. Choosing from a list of Document titles assigned to this Delivery Record does this (Documents added previously, Refer to Use Case 44, 69).
4. System presents warning dialog stating the document will be deleted.
5. User chooses to continue.
6. Document is deleted.
7. Timestamp record function is initiated on Delivery Request (Refer to Use Case 24).
8. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

5.1. User cancels action.

5.1.1. No further action is taken.

Use case related to Scheduling Deliveries

Use Case 48: View Delivery Requests

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance

Main Scenario:

1. User initiates “schedule deliveries” functionality.
2. User is presented with a calendar of vehicles available on each day as well as a list of deliveries below the calendar. The number of days shown on the calendar is determined by User (Refer to Use Case 51). The type of delivery records shown in the list are determined by User (Refer to Use Case 52). The information displayed for each delivery record in the list is determined by User (Refer to Use Case 54).
3. User views total number of deliveries scheduled for each vehicle load displayed on the Delivery Resource in the calendar.
4. If available, User views the percentage of space used on each vehicle displayed on the Delivery Resource in the calendar.
5. User views full details for each delivery record by hovering over the record in the list.
6. User edits existing Delivery Request by clicking on the edit icon for each Delivery Request (Refer to Use Case 39).
7. Delivery List refreshes automatically at regular intervals to reflect most up to date information.
8. Date and time of most recent refresh is stored by the system to be compared to date and time records on individual Delivery Requests during updates (Refer to Use Case 60, 62, 64 - 66, 68).

Alternate Scenario:

None

Use Case 49: Navigate Delivery Calendar Incrementally

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Schedule Deliveries screen

Main Scenario:

1. User clicks on arrow indicators to either the right or left of the calendar.
2. Calendar display shifts ahead or behind 1 day.

Alternate Scenario:

None

Use Case 50: Navigate Delivery Calendar By Date

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Schedule Deliveries screen

Main Scenario:

1. User initiates the “date change” functionality.
2. User selects a new month, day, year or any combination thereof.
3. User confirms their changes.
4. Calendar is refreshed with the selected date defaulting to the beginning of the display.

Alternate Scenario:

3.1. Selected date does not exist.

3.1.1. Date change fails, error message is displayed.

3.2. User cancels action.

3.2.1. No further action is taken.

Use Case 51: Change Timeframe Display

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance

Main Scenario:

1. User initiates the “change timeframe display” functionality.
2. User selects preferred timeframe to display. Choosing from a list of options does this:
 - a. *One Day*: View single day at a time.
 - b. *Two Days*: View two days at a time.
 - c. *Three Days*: View three days at a time.
 - d. *Four Days*: View four days at a time.
 - e. *Five Days*: View five days at a time.
 - f. *Six Days*: View six days at a time.
 - g. *Seven Days*: View six days at a time.
3. User confirms choice.
4. Choice is saved in the database to be used during the duration of the User’s visit.

Alternate Scenario:

- 3.1. User cancels action.
 - 3.1.1 No further action is taken.

Use Case 52: Filter Delivery Requests

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Schedule Deliveries screen

Main Scenario:

1. User initiates the “filter list results” functionality.
2. User optionally selects one or more types of delivery requests to display. Choosing from a checkbox list of delivery statuses does this:

- a. *Pending*: Any delivery requests still not scheduled.
 - b. *Allocated*: Allocated to a vehicle but not yet confirmed.
 - c. *Confirmed*: Any delivery requests scheduled but not yet shipped.
 - d. *Completed*: Any delivery request that has been successfully shipped.
3. User optionally selects deliveries requested by one or more salespeople to display. Choosing from a checkbox list of salespeople does this (Salespeople added previously, Refer to Use Case 19).
 4. User optionally selects deliveries originating from one or more locations to display. Choosing from a checkbox list of locations does this (Locations added previously, Refer to Use Case 97).
 5. User optionally selects deliveries being delivered to one or more locations to display. Choosing from a checkbox list of locations does this (Locations added previously, Refer to Use Case 97).
 6. User optionally selects deliveries allocated to a vehicle to display. Clicking on a specific vehicle on the scheduling calendar does this (Vehicles added previously, Refer to Use Case 100).
 7. User confirms choices.
 8. The Scheduling List is refreshed to display results based on User's choices.

Alternate Scenario:

- 7.1. User cancels action.
 - 7.1.1 No further action is taken.

Use Case 53: Search Delivery Requests

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Schedule Deliveries screen

Main Scenario:

1. User initiates the “search delivery requests” functionality.
2. User enters keywords to search for. (Fields available for searching selected previously, Refer to Use Case 83).
3. User confirms choices.
4. The Scheduling List is refreshed to display information based on User’s search criteria.

Alternate Scenario:

- 4.1. No results are found matching the User’s search criteria.
 - 4.1.1. Warning message is displayed.

Use Case 54: Select Fields Displayed

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Schedule Deliveries screen

Main Scenario:

1. User initiates the “select fields displayed” functionality.
2. User selects fields to be displayed with each delivery request on the list. Choosing from a checkbox list of fields does this (Fields added previously, Refer to Use Case 83).
3. User confirms choices.
4. The Schedule List is refreshed to display information based on User’s choices.

Alternate Scenario:

- 3.1. User cancels action.
 - 3.1.1 No further action is taken.

Use Case 55: Save As View

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Schedule Deliveries screen

Main Scenario:

1. User initiates the “save as view” functionality.
2. System prompts the User to confirm that they wish to create a new view based on the filters, fields and timeframe settings they are currently using.
3. User confirms the action.
4. System prompts User for a Label for the new view.
5. User enters the name the view is to be saved as.
6. User submits the view.
7. New view is created and assigned specifically to the User.
8. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 3.1. User cancels action.
 - 3.1.1 No further action is taken.
- 7.1. The Label is already in use by the User.
 - 7.1.1 Save as view fails, error message is displayed.

Use Case 56: Create View

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Schedule Deliveries screen

Main Scenario:

1. User initiates the “create view” functionality.
2. System prompts the User to enter the attributes of the View.
3. The following fields are available:
 - a. *Label (required)*: Unique name for the View.

- b. *Timeframe*: Preferred timeframe to display. Choosing from a list of options does this:
 - i. *One Day*: View single day at a time.
 - ii. *Two Days*: View two days at a time.
 - iii. *Three Days*: View three days at a time.
 - iv. *Four Days*: View four days at a time.
 - v. *Five Days*: View five days at a time.
 - vi. *Six Days*: View six days at a time.
 - vii. *Seven Days*: View seven days at a time.
 - c. *Type*: Type of delivery to display. Choosing from a checkbox list of delivery statuses does this:
 - i. *Pending*: Any delivery requests still not scheduled.
 - ii. *Allocated*: Allocated to a vehicle but not yet confirmed.
 - iii. *Confirmed*: Any delivery requests scheduled but not yet shipped.
 - iv. *Completed*: Any delivery request that has been successfully shipped.
 - d. *Fields*: Fields to be displayed with each delivery request. Choosing from a checkbox list of fields does this (Fields added previously, Refer to Use Case 83).
- 4. New view is saved to the database and assigned specifically to the User.
 - 5. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 4.1. The name is already in use by the User.
 - 4.1.1 Create view fails, error message is displayed.

Use Case 57: Edit View

Sample Technical Writing

Software Requirements Specifications



Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Schedule Deliveries screen

Main Scenario:

1. User accesses the View. Choosing from a list of Views does this. (Views added previously, Refer to Use Case 55 and Use Case 56).
2. User initiates the "edit view" functionality.
3. User modifies some or all attributes of the View.
4. The following fields are available:
 - a. *Label (required)*: Unique name for the View.
 - b. *Timeframe*: Preferred timeframe to display. Choosing from a list of options does this:
 - i. *One Day*: View single day at a time.
 - ii. *Two Days*: View two days at a time.
 - iii. *Three Days*: View three days at a time.
 - iv. *Four Days*: View four days at a time.
 - v. *Five Days*: View five days at a time.
 - vi. *Six Days*: View six days at a time.
 - vii. *Seven Days*: View seven days at a time.
 - c. *Type*: Type of delivery to display. Choosing from a checkbox list of delivery statuses does this:
 - i. *Pending*: Any delivery requests still not scheduled.
 - ii. *Allocated*: Allocated to a vehicle but not yet confirmed.
 - iii. *Confirmed*: Any delivery requests scheduled but not yet shipped.
 - iv. *Completed*: Any delivery request that has been successfully shipped.

- d. *Fields*: Fields to be displayed with each delivery request. Choosing from a checkbox list of fields does this (Fields added previously, Refer to Use Case 83).
5. Updates are committed to the database.
6. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 5.1. View Label is already in use by the User.
 - 5.1.2 Update view fails, error message is displayed.

Use Case 58: Apply View

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Schedule Deliveries screen

Main Scenario:

1. User accesses the View. Choosing from a list of Views does this. (Views added previously, Refer to Use Case 55 and Use Case 56).
2. Schedule List refreshes to reflect the options assigned to the view.
3. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

None

Use Case 59: Delete View

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Schedule Deliveries screen

Main Scenario:

1. User accesses the View. Choosing from a list of Views does this. (Views added previously, Refer to Use Case 55 and Use Case 56).
2. User initiates the “delete view” functionality.
3. System presents warning dialog stating the view will be deleted.
4. User chooses to continue.
5. View is deleted.
6. Schedule List refreshes to reflect the default options.
7. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 4.1. User cancels action.
 - 4.1.1 No further action is taken.

Use Case 60: Schedule Delivery

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Schedule Deliveries screen

Main Scenario:

1. User drags and drops a delivery request with Pending status from the Schedule List to a Delivery Resource displayed on the Schedule Calendar.
2. If active, system checks size of cargo to available space left on Vehicle.
3. System compares current Delivery Request timestamp with the Delivery Request timestamp stored in the database.
4. Changes are committed to the database.
5. Total number of deliveries displayed on the Delivery Resource increases to reflect the new addition.
6. Delivery Request Status changes to Allocated in database.
7. Delivery List is refreshed to reflect changes.

8. Timestamp record function is initiated on Delivery Request (Refer to Use Case 24).
9. Timestamp record function is initiated on Delivery Resource (Refer to Use Case 24).
10. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 3.1. Cargo size exceeds space available.
 - 3.1.1 Warning message is displayed.
 - 3.1.1.1 User approves action.
 - 3.1.1.1.1 Process continues.
 - 3.1.1.2 User cancels action.
 - 3.1.1.2.1 No further action is taken.
- 4.1. Current timestamp is older than the timestamp in the database.
 - 4.1.2 Schedule Delivery is canceled, error message is displayed, screen is refreshed to reflect up to date information

Use Case 61: View Vehicle Contents

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Schedule Deliveries screen

Main Scenario:

1. User selects Delivery Resource. Clicking on Delivery Resource in Delivery Calendar does this. (Deliveries added to Delivery Resource previously, Refer to Use Case 60).
2. Schedule List refreshes to display all Delivery Requests allocated to the selected Delivery Resource (Delivery Requests added previously, Refer to Use Case 60).

3. Timestamp record function is initiated on Delivery Request (Refer to Use Case 24).
4. Timestamp record function is initiated on Delivery Resource (Refer to Use Case 24).
5. Action is logged in Activity Log table (Refer to Use Case 25)

Alternate Scenario:

None

Use Case 62: Sort Delivery Order

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Schedule Deliveries screen

Main Scenario:

1. User selects Delivery Resource. Clicking on Delivery Resource in Delivery Calendar does this. (Deliveries added to Delivery Resource previously, Refer to Use Case 60)
2. Schedule List refreshes to display all Delivery Requests allocated to the selected Delivery Resource (Delivery requests added previously, Refer to Use Case 60).
3. User drag and drops the Deliveries to arrange them in the order they prefer.
4. System compares current Delivery Request timestamp with the Delivery Request timestamp stored in the database.
5. System saves each change as they happen.
6. Timestamp record function is initiated on Delivery Request (Refer to Use Case 24).
7. Timestamp record function is initiated on Delivery Resource (Refer to Use Case 24).
8. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

4.1. Current timestamp is older than the timestamp in the database.

4.1.1 Sorting is canceled, error message is displayed, screen is refreshed to reflect up to date information.

Use Case 63: Transfer Cargo

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Schedule Deliveries screen

Main Scenario:

1. User selects Delivery Resource to be transferred. Clicking on Delivery Resource in Delivery Calendar does this. (Deliveries added to Vehicles previously, Refer to Use Case 60).
2. Schedule List refreshes to display all Delivery Requests allocated to the selected Delivery Resource (Delivery requests added previously, Refer to Use Case 60).
3. User proceeds to Use Case 60.

Alternate Scenario:

None

Use Case 64: Reschedule Vehicle

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Schedule Deliveries screen

Main Scenario:

1. User drags and drops Delivery Resource with deliveries onto another Delivery Resource on the Delivery Calendar.

2. System compares current Delivery Request timestamps with the Delivery Request timestamps stored in the database.
3. System updates all delivery items to be assigned to the new Vehicle.
4. Timestamp record function is initiated on Delivery Requests (Refer to Use Case 24).
5. Timestamp record function is initiated on Delivery Resource (Refer to Use Case 24).
6. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 2.1. Current timestamp is older than the timestamp in the database.
 - 2.1.1 Reschedule Vehicle is canceled, error message is displayed, screen is refreshed to reflect up to date information.
- 3.1. Cargo size exceeds space available.
 - 3.1.1. Warning message is displayed.
 - 3.1.1.1 User approves action.
 - 3.1.1.1.1 Process continues.
 - 3.1.1.2 User cancels action.
 - 3.1.1.2.1 No further action is taken.

Use Case 65: Confirm Schedule

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Schedule Deliveries screen

Main Scenario:

1. User selects Delivery Resource containing deliveries in Allocated status. Clicking on Delivery Resource in Delivery Calendar does

- this. (Deliveries added to Vehicles previously, Refer to Use Case 60).
2. User initiates “confirm schedule” functionality.
 3. System compares current Delivery Request timestamps with the Delivery Request timestamps stored in the database
 4. System changes all delivery items to Confirmed status and locks the Vehicle from adding or deleting any deliveries.
 5. If required, email notices of the Confirmed status are issued to all relevant parties of each of the deliveries.
 6. Timestamp record function is initiated on Delivery Resource (Refer to Use Case 24).
 7. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 3.1. Current timestamp is older than the timestamp in the database.
 - 3.1.1 Confirm Schedule is canceled, error message is displayed, screen is refreshed to reflect up to date information.
- 5.1. Email notification cannot be sent.
 - 5.1.1 Warning message is displayed.

Use Case 66: Assign Driver

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Schedule Deliveries screen

Main Scenario:

1. User selects Delivery Resource to edit. Clicking on Delivery Resource in Delivery Calendar does this.
2. User initiates “assign driver” functionality.

3. User selects Driver. Choosing from a list of Drivers does this. (Drivers added previously, Refer to Use Case 19). Search capabilities allow for filtering of results.
4. User confirms their changes.
5. System updates Driver assigned to Delivery Resource.
6. Timestamp record function is initiated on Delivery Resource (Refer to Use Case 24).
7. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 4.1. User cancels action.
 - 4.1.1 No further action is required.

Use Case 67: View Vehicle Details

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Schedule Deliveries screen

Main Scenario:

1. User selects Delivery Resource to view. Clicking on Delivery Resource in Delivery Calendar does this.
2. User initiates “view vehicle details” functionality.
3. Schedule List refreshes to display details for the selected Vehicle.

Alternate Scenario:

None

Use Case 68: Print Delivery Schedule

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Schedule Deliveries screen

Main Scenario:

1. User selects Delivery Resource to view. Clicking on Delivery Resource in Delivery Calendar does this.
2. Schedule List refreshes to display all Delivery Requests allocated to the selected Delivery Resource (Delivery requests added previously, Refer to Use Case 60).
3. User initiates “print delivery schedule” functionality.
4. System generates PDF of delivery slips for each of the deliveries assigned to the selected Delivery Resource (Fields to be displayed on Delivery Schedule determined previously, Refer to Use Case 106).
5. User prints Delivery Schedule PDF.
6. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

4.1. Delivery Schedule could not be generated.

4.1.1 Print Delivery Schedule fails, error message is displayed.

Use Case 69: Add Document

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Schedule Deliveries screen

Main Scenario:

1. User accesses the Delivery Request. Choosing from a list of Delivery Requests on the Schedule List does this. (Delivery Requests added previously, Refer to Use Case 38). Search capabilities allow for filtering of results.

2. User initiates the “add document” functionality.
3. System prompts the User to enter the attributes of the Document.
4. The following fields are available:
 - a. File (required): The file to be uploaded. Selecting a file on the User’s computer does this.
 - b. Title (required): Title of the document to indicate its content.
 - c. Document Type (required): Type of document uploaded. Choosing from a list of Document Types does this. (Document Types added previously, Refer to Use Case 110).
 - d. Description: Description of document content and purpose.
 - e. Keywords: Keywords that can be used when searching for documents.
 - f. Location Code: Unique code of location associated with this document. Selecting either the From or To location for the Delivery Request does this.
 - g. Location Name: Name of location associated with this document. If location is a customer, the customer’s name will be displayed here. Selecting either the From or To location for the Delivery Request does this.
 - h. Customer Code: Unique code of customer associated with document if the Location selected is a Customer. Selecting either the From or To location for the Delivery Request does this.
 - i. Cargo Code: Unique product code of cargo associated with document. This is an auto-generated field based on the cargo indicated in the Delivery Request.

- j. Cargo Name: Name of cargo associated with document. This is an auto-generated field based on the cargo indicated in the Delivery Request.
 - k. Salesperson Code: Unique User code of salesperson associated with Delivery Request. This is an auto-generated field based on the salesperson who submitted the Delivery Request.
 - l. Salesperson Name: Name of salesperson associated with Delivery Request. This is an auto-generated field based on the salesperson who submitted the Delivery Request.
- 5. Document is uploaded.
 - 6. Document record is created in the database.
 - 7. Timestamp record function is initiated on Document (Refer to Use Case 24).
 - 8. Timestamp record function is initiated on Delivery Request (Refer to Use Case 24).
 - 9. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

5.2. Document cannot be uploaded.

5.2.1. Add Document fails, error message is displayed.

Use Case 70: View Documents

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Schedule Deliveries screen

Main Scenario:

- 1. User accesses the Delivery Request. Choosing from a list of Delivery Requests on the Schedule List does this. (Delivery

- Requests added previously, Refer to Use Case 38). Search capabilities allow for filtering of results.
2. User initiates the “view documents” functionality.
 3. User loads details of Document. Choosing from a list of Document titles assigned to this Delivery Record does this (Documents added previously, Refer to Use Case 44, 69).
 4. User views Document. Clicking on “view document” link does this.

Alternate Scenario:

None

Use Case 71: Edit Document

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Schedule Deliveries screen

Main Scenario:

1. User accesses the Delivery Request. Choosing from a list of Delivery Requests on the Schedule List does this. (Delivery Requests added previously, Refer to Use Case 38). Search capabilities allow for filtering of results.
2. User initiates the “view document” functionality.
3. User loads details of Document. Choosing from a list of Document titles assigned to this Delivery Record does this (Documents added previously, Refer to Use Case 44, 69).
4. User initiates the “update document” functionality.
5. User modifies some or all attributes of the Document.
6. The following fields are available:
 - a. File (required): The file to be uploaded. User can overwrite an existing file. Selecting a file on the User’s computer does this.

- b. Title (required): Title of the document to indicate its content.
- c. Document Type (required): Type of document uploaded. Choosing from a list of Document Types does this. (Document Types added previously, Refer to Use Case 110).
- d. Description: Description of document content and purpose.
- e. Keywords: Keywords that can be used when searching for documents.
- f. Location Code: Unique code of location associated with this document. Selecting either the From or To location for the Delivery Request does this.
- g. Location Name: Name of location associated with this document. If location is a customer, the customer's name will be displayed here. Selecting either the From or To location for the Delivery Request does this.
- h. Customer Code: Unique code of customer associated with document if the Location selected is a Customer. Selecting either the From or To location for the Delivery Request does this.
- i. Cargo Code: Unique product code of cargo associated with document. This is an auto-generated field based on the cargo indicated in the Delivery Request.
- j. Cargo Name: Name of cargo associated with document. This is an auto-generated field based on the cargo indicated in the Delivery Request.
- k. Salesperson Code: Unique User code of salesperson associated with Delivery Request. This is an auto-generated field based on the salesperson who submitted the Delivery Request.

- I. Salesperson Name: Name of salesperson associated with Delivery Request. This is an auto-generated field based on the salesperson who submitted the Delivery Request.
7. If new file is being uploaded, System presents warning dialog stating the old document will be deleted.
8. User chooses to continue.
9. If necessary, new document is uploaded.
10. Updates are committed to the database.
11. Timestamp record function is initiated on Document (Refer to Use Case 24).
12. Timestamp record function is initiated on Delivery Request (Refer to Use Case 24).
13. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 8.1. User cancels action.
 - 8.1.1. No further action is taken.
- 9.1. Document cannot be uploaded.
 - 9.1.1. Edit Document fails, error message is displayed.

Use Case 72: Delete Document

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Schedule Deliveries screen

Main Scenario:

1. User accesses the Delivery Request. Choosing from a list of Delivery Requests on the Schedule List does this. (Delivery Requests added previously, Refer to Use Case 38). Search capabilities allow for filtering of results.
2. User initiates the “view document” functionality.

3. User selects Document to be deleted. Choosing from a list of Document titles assigned to this Delivery Record does this (Documents added previously, Refer to Use Case 44, 69).
4. System presents warning dialog stating the document will be deleted.
5. User chooses to continue.
6. Document is deleted.
7. Timestamp record function is initiated on Delivery Request (Refer to Use Case 24).
8. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 5.2. User cancels action.
 - 5.2.1. No further action is taken.

Use case related to Performing Deliveries

Use Case 73: View Delivery Schedule

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Schedule Deliveries screen

Main Scenario:

1. User initiates “schedule deliveries” functionality.
2. User is presented with a calendar of any vehicles they are assigned to as a Driver. The number of days shown on the calendar is determined by User (Refer to Use Case 74).
3. User views total number of deliveries scheduled for each vehicle load displayed on the Delivery Resource in the calendar.
4. If available, User views the percentage of space used on each vehicle displayed on the Delivery Resource in the calendar.

5. User views full details for each delivery record by hovering over the record in the list.
6. Date and time of most recent refresh is stored by the system to be compared to date and time records on individual Delivery Requests during updates (Refer to Use Case 76).

Alternate Scenario:

None

Use Case 74: Change Timeframe Display

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Schedule Deliveries screen

Main Scenario:

1. User initiates the “change timeframe display” functionality.
2. User selects preferred timeframe to display. Choosing from a list of options does this:
 - a. *One Day*: View single day at a time.
 - b. *Two Days*: View two days at a time.
 - c. *Three Days*: View three days at a time.
 - d. *Four Days*: View four days at a time.
 - e. *Five Days*: View five days at a time.
 - f. *Six Days*: View six days at a time.
 - g. *Seven Days*: View six days at a time.
3. User confirms choice.
4. Choice is saved in the database to be used during the duration of the User’s visit.

Alternate Scenario:

- 3.1. User cancels action.

3.1.1 No further action is taken.

Use Case 75: View Vehicle Contents

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Schedule Deliveries screen

Main Scenario:

1. User selects Delivery Resource. Clicking on Delivery Resource in Delivery Calendar does this. (Deliveries added to Delivery Resource previously, Refer to Use Case 60).
2. Schedule List refreshes to display all Delivery Requests allocated to the selected Delivery Resource (Delivery Requests added previously, Refer to Use Case 60).
3. Timestamp record function is initiated on Delivery Request (Refer to Use Case 24).
4. Timestamp record function is initiated on Delivery Resource (Refer to Use Case 24).
5. Action is logged in Activity Log table (Refer to Use Case 25)

Alternate Scenario:

None

Use Case 76: Sort Delivery Order

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Schedule Deliveries screen

Main Scenario:

1. User selects Delivery Resource. Clicking on Delivery Resource in Delivery Calendar does this. (Deliveries added to Delivery Resource previously, Refer to Use Case 60).

2. Schedule List refreshes to display all Delivery Requests allocated to the selected Delivery Resource (Delivery requests added previously, Refer to Use Case 60).
3. User drag and drops the Deliveries to arrange them in the order they prefer.
4. System compares current Delivery Request timestamp with the Delivery Request timestamp stored in the database.
5. System saves each change as they happen.
6. Timestamp record function is initiated on Delivery Request (Refer to Use Case 24).
7. Timestamp record function is initiated on Delivery Resource (Refer to Use Case 24).
8. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 4.1. Current timestamp is older than the timestamp in the database.
 - 4.1.1 Sorting is canceled, error message is displayed, screen is refreshed to reflect up to date information.

Use Case 77: Print Delivery Schedule

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Schedule Deliveries screen

Main Scenario:

1. User selects Delivery Resource to view. Clicking on Delivery Resource in Delivery Calendar does this.
2. Schedule List refreshes to display all Delivery Requests allocated to the selected Delivery Resource (Delivery requests added previously, Refer to Use Case 60).
3. User initiates “print delivery schedule” functionality.

4. System generates PDF of all delivery details for each of the deliveries assigned to the selected Delivery Resource (Fields to be displayed on Delivery Schedule determined previously, Refer to Use Case 106).
5. User prints Delivery Schedule PDF.
6. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 4.1. Delivery Schedule could not be generated.
 - 4.1.1 Print Delivery Schedule fails, error message is displayed.

Use Case 78: Complete Delivery

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, User is on Schedule Deliveries screen

Main Scenario:

1. User selects Delivery Resource. Clicking on Delivery Resource in Delivery Calendar does this. (Deliveries added to Delivery Resource previously, Refer to Use Case 60).
2. Schedule List refreshes to display all Delivery Requests allocated to the selected Delivery Resource (Delivery requests added previously, Refer to Use Case 60).
3. User initiates “complete delivery” functionality. Clicking on the Complete icon beside each Delivery Request does this.
4. Delivery Request Status changes to Allocated in database.
5. Delivery List is refreshed to reflect changes.
6. If required, email notices of the Completed status are issued to all relevant parties of each of the deliveries.

7. If required, Driver Code and Driver Name are added to, and the Timestamp record function is initiated on (Refer to Use Case 24), all Document records for each of the Delivery Requests.
8. Timestamp record function is initiated on Delivery Request (Refer to Use Case 24).
9. Timestamp record function is initiated on Delivery Resource (Refer to Use Case 24).
10. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 3.1. User chooses to set the whole Delivery Resource as Complete at once.
 - 3.1.1 Clicking on the Mark All As Complete link does this.
- 6.1. Email notification cannot be sent.
 - 6.1.1 Warning message is displayed.

Use case related to Reports

Use Case 79: Master Report

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance

Main Scenario:

1. User initiates the “master report” functionality.
2. System prompts the User for options to be used filtering results.
3. The following options are available
 - a. *Vehicle*: Vehicle used to transport. Choosing from a checkbox list of vehicles does this. (Vehicles added previously, Refer to Use Case 100)

- b. *Salesperson*: Salesperson who requested transport. Choosing from a checkbox list of salespeople does this. (Salespeople added previously, Refer to Use Case 19).
 - c. *Location*: Store location. Choosing from a checkbox list of locations does this. (Locations added previously, Refer to Use Case 97).
 - d. *Customer Name*: Name of customer. Entering text in text field does this
 - e. *Customer Street*: Street address of customer. Entering text in text field does this
 - f. *Customer City*: City of customer. Entering text in text field does this
 - g. *Customer Province/State*: Province/State of customer. Entering text in text field does this
 - h. *Customer Postal/Zip Code*: Postal/Zip code of customer. Entering text in text field does this
 - i. *Customer Country*: Country of customer. Entering text in text field does this
 - j. *Destination*: Include From locations or To locations. Choosing from a checkbox list of “From” and “To” does this
 - k. *Cargo*: Cargo shipped. Entering text in text field does this. Ability to search cargo table
 - l. *Dates*: Delivery window. Specifying a start and end date range does this
 - m. *Status*: Status of item being shipped. Choosing from a checkbox list of “Pending”, “Allocated”, “Confirmed”, and “Complete” does this
 - n. *Additional Fields*: Fields and field types added by client. (Fields available for searching selected previously, Refer to Use Case 83).
4. System prompts the User for fields to be included in the report.

5. The following fields are available
 - a. *Vehicle*: Vehicle used to transport.
 - b. *Salesperson*: Salesperson who requested transport.
 - c. *Location*: Store (or customer) location.
 - d. *Ship From Customer Name*: Name of customer item shipped from.
 - e. *Ship From Address*: Street address of customer item shipped from.
 - f. *Ship From City*: City of customer item shipped from.
 - g. *Ship From Province/State*: Province/State of customer item shipped from.
 - h. *Ship From Postal/Zip Code*: Postal/Zip code of customer item shipped from.
 - i. *Ship From Country*: Country of customer item shipped from.
 - j. *Ship To Customer Name*: Name of customer item shipped to.
 - k. *Ship To Address*: Street address of customer item shipped to.
 - l. *Ship To City*: City of customer item shipped to.
 - m. *Ship To Province/State*: Province/State of customer item shipped to.
 - n. *Ship To Postal/Zip Code*: Postal/Zip code of customer item shipped to.
 - o. *Ship To Country*: Country of customer item shipped to.
 - p. *Earliest Date*: Earliest ship date required.
 - q. *Latest Date*: Latest Date Required.
 - r. *Cargo*: Cargo being shipped.
 - s. *Status*: Status of delivery.
 - t. *Additional Fields*: Fields and field types added by client. (Fields available for searching selected previously, Refer to Use Case 83)

- u. *Date Created*: Date request was created in the system.
 - v. *Date Updated*: Date request was last updated.
5. System retrieves results based on filters and fields supplied by User.
 6. System presents User with option to download the report results in a CSV file.
 7. Action is logged in Activity Log table (Refer to Use Case 25)

Alternate Scenario:

- 5.1. No filters applied or fields selected.
 - 5.1.1. Master Report fails, error message is displayed.
- 5.2. No results returned.
 - 5.2.1. Master Report fails, error message is displayed.
- 6.1. System cannot create CSV file.
 - 6.1.1 No CSV file available, error message is displayed.

Use Case 80: Create Report Template

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, Report has been generated

Main Scenario:

1. User initiates the “create report template” process. (Report generated previously, Refer to Use Case 88).
2. System prompts the User to enter the attributes of the Report Template.
3. User specifies the following fields:
 - a. *Name (required)*: The unique name that will identify the report template.
 - b. *Description*: Details of the report template’s purpose.
4. All report filters are saved to the database along with information provided by User

5. Action is logged in Activity Log table (Refer to Use Case 25)

Alternate Scenario:

- 4.1. Required fields are left empty.
 - 4.1.1 Create template fails, error message is displayed.

Use Case 81: Use Report Template

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance, Report Template has been created

Main Scenario:

1. User initiates the “master report” functionality.
2. System prompts the User for options to be used filtering results.
3. User initiates the “use report template” functionality
4. User selects template to use. Choosing from a list of templates does this. (Templates added previously, Refer to Use Case 89)
5. Report filters are pre-loaded with settings from report template
8. System retrieves results based on filters supplied by User.
9. System presents User with option to download the report results in a CSV file.
10. Action is logged in Activity Log table (Refer to Use Case 25)

Alternate Scenario:

- 5.1. Filters cannot be loaded.
 - 5.1.1. Master Report fails, error message is displayed.
- 6.1. No results returned.
 - 6.1.1. Master Report fails, error message is displayed.
- 6.2. System cannot create CSV file.
 - 6.2.1. No CSV file available, error message is displayed.

Use Case 82: System Report

Primary Actor: User

Pre-Condition: User logged in, User has proper clearance

Main Scenario:

1. User initiates the “system data report” functionality.
2. System prompts the User for options to be used filtering results.
3. The following fields are available:
 - a. *Timestamp*: Date and time when action was taken. Specifying a start and end date range does this.
 - b. *Action*: Type of action taken. Selecting from a list of checkboxes does this.
 - c. *User*: User who performed the action. Selecting from a list of checkboxes does this.
 - d. *Request ID*: Unique Request ID. Optional field used only when tracking changes directly to a Request. Entering text in a text field does this.
 - e. *Vehicle ID*: Unique Vehicle ID. Optional field used only when tracking changes directly to a Vehicle. Entering text in a text field does this.
 - f. *Vehicle Name*: Name of Vehicle. Optional field used only when tracking changes directly to a Vehicle. Entering text in a text field does this.
 - g. *Details*: Details of action taken. Entering text in a text field does this.
5. System prompts the User for fields to be included in the report.
6. The following fields are available
 - a. *Timestamp*: Date and time when action was taken.
 - b. *Action*: Type of action taken.
 - c. *User*: User who performed the action.
 - d. *Request ID*: Unique Request ID.
 - e. *Vehicle ID*: Unique Vehicle ID.

- f. *Vehicle Name*: Name of Vehicle.
 - g. *Details*: Details of action taken.
7. System retrieves results based on filters and fields supplied by User.
8. System presents User with option to download the report results in a CSV file.
9. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 7.1. No results returned.
 - 7.1.1. System Report fails, error message is displayed.
- 8.1. System cannot create CSV file.
 - 8.1.1. System Report fails, error message is displayed.

Use case related to Application Settings

Use Case 83: Add Delivery Request Field

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, Account Admin has proper clearance

Main Scenario:

1. Account Admin accesses Settings area.
2. Account Admin initiates the “delivery request fields” functionality.
3. System prompts the Account Admin to enter the attributes of the delivery request field.
4. Account Admin specifies the following fields:
 - a. *Field Name (required)*: The name of the field to be used in the form
 - b. *Friendly Name (required)*: The name of the field to be displayed to the User

- c. *Field Type (required)*: The type of field to be displayed. Choosing from a list of field types does this
 - i. *Text*: A text field.
 - ii. *Text Area*: A text area field.
 - iii. *Select*: A dropdown select field.
 - iv. *Radio*: A radio button field.
 - v. *Checkbox*: A checkbox field.
 - d. *Field Value*: Option available for selection if Select, Radio, or Checkbox field types are selected. There can be multiple Field Values for each Field.
 - e. *Required*: Whether the field is required or not. Clicking on a checkbox does this.
 - f. *Width*: The width of the field in px.
- 5. Delivery Request Field is created.
 - 6. Timestamp record function is initiated on Delivery Request Field (Refer to Use Case 24).
 - 7. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 5.1. Required fields are left empty.
 - 5.1.1. Add Delivery Request Field fails, error message is displayed.
- 5.2. Township code already exists.
 - 5.2.1. Add Township fails, error message is displayed.

Use Case 84: Edit Delivery Request Field

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, Account Admin has proper clearance

Main Scenario:

Sample Technical Writing

Software Requirements Specifications



1. Account Admin accesses Settings area.
2. Account Admin initiates the “delivery request fields” functionality.
3. Account Admin selects Delivery Request Field to be updated. Choosing from a list of Delivery Request Fields does this. (Delivery Request Fields added previously, Refer to Use Case 83).
4. Account Admin modifies some or all attributes of the Township.
5. The following fields are available:
 - a. *Field Name (required)*: The name of the field to be used in the form
 - b. *Friendly Name (required)*: The name of the field to be displayed to the User
 - c. *Field Type (required)*: The type of field to be displayed. Choosing from a list of field types does this
 - i. *Text*: A text field.
 - ii. *Text Area*: A text area field.
 - iii. *Select*: A dropdown select field.
 - iv. *Radio*: A radio button field.
 - v. *Checkbox*: A checkbox field.
 - d. *Field Value*: Option available for selection if Select, Radio, or Checkbox field types are selected. There can be multiple Field Values for each Field.
 - e. *Required*: Whether the field is required or not. Clicking on a checkbox does this.
 - f. *Width*: The width of the field in px.
6. Updates are committed to the database.
7. Timestamp record function is initiated on Delivery Request Field (Refer to Use Case 24).
8. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

6.1. Required fields are left empty.

6.1.1. Update fails, error message is displayed.

Use Case 85: Delete Delivery Request Field

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, Account Admin has proper clearance

Main Scenario:

1. Account Admin accesses Settings area.
2. Account Admin initiates the “delivery request fields” functionality.
3. Account Admin selects Delivery Request Field to be deleted. Choosing from a list of Delivery Request Fields does this. (Delivery Request Fields added previously, Refer to Use Case 83).
4. System warns Account Admin that the Delivery Request Field will no longer be available on Delivery Requests.
5. Account Admin chooses to proceed.
6. Delivery Request Field is set to inactive in the database.
7. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

5.1. Account Admin cancels action.

5.1.1. No further action is required.

Use Case 86: Arrange Delivery Request Fields

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, Account Admin has proper clearance

Main Scenario:

1. Account Admin accesses Settings area.
2. Account Admin initiates the “order delivery request fields” functionality.
3. Account Admin drags and drops Delivery Request Fields into the configuration they will appear in on the Delivery Request form. Selecting from a list of Delivery Request Fields does this. (Delivery Request Fields added previously, Refer to Use Case 83).
4. Updates are committed to the database.
5. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

None

Use Case 87: Add Customer

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, Account Admin has proper clearance

Main Scenario:

1. Account Admin accesses Settings area.
2. Account Admin initiates the “add customer” functionality.
3. System prompts the Account Admin to enter the attributes of the Customer.
4. Account Admin specifies the following fields:
 - a. *Customer Code (required)*: Unique ID of Customer.
 - b. *Organization*: Name of business, farm, etc.
 - c. *Contact (required)*: Name of contact for Customer account.
 - d. *Address 1 (required)*: Address of Customer.
 - e. *Address 2*: Address of Customer.
 - f. *City (required)*: City of Customer.

- g. *Province/State (required)*: Province/State of Customer. Choosing from a dropdown list of Provinces/States does this.
 - h. *Postal/Zip Code (required)*: Postal/Zip Code of Customer.
 - i. *Country (required)*: Country of Customer. Choosing from a dropdown list of Countries (Canada, USA) does this.
 - j. *Phone (required)*: Contact phone number of Customer.
 - k. *Email*: Email address of Customer.
- 5. Customer is created.
 - 6. Timestamp record function is initiated on Customer (Refer to Use Case 24).
 - 7. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 5.1. Required fields are left empty.
 - 5.1.1. Add Customer fails, error message is displayed.
- 5.2. Customer code already exists.
 - 5.2.1. Add Customer fails, error message is displayed.

Use Case 88: Edit Customer

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, Account Admin has proper clearance

Main Scenario:

- 1. Account Admin accesses Settings area.
- 2. Account Admin initiates the “customer” functionality.
- 3. Account Admin selects Customer to be updated. Choosing from a list of Customers does this. (Customers added previously, Refer to Use Case 88). Search capabilities allow for filtering of results.

4. Account Admin modifies some or all attributes of the Customer.
5. The following fields are available:
 - a. *Customer Code (required)*: Unique ID of Customer.
 - b. *Organization*: Name of business, farm, etc.
 - c. *Contact (required)*: Name of contact for Customer account.
 - d. *Address 1 (required)*: Address of Customer.
 - e. *Address 2*: Address of Customer.
 - f. *City (required)*: City of Customer.
 - g. *Province/State (required)*: Province/State of Customer. Choosing from a dropdown list of Provinces/States does this.
 - h. *Postal/Zip Code (required)*: Postal/Zip Code of Customer.
 - i. *Country (required)*: Country of Customer. Choosing from a dropdown list of Countries (Canada, USA) does this.
 - j. *Phone (required)*: Contact phone number of Customer.
 - k. *Email*: Email address of Customer.
6. Updates are committed to the database.
7. Timestamp record function is initiated on Customer (Refer to Use Case 24).
8. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 6.1. Required fields are left empty.
 - 6.1.1. Update fails, error message is displayed.

Use Case 89: Delete Customer

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, Account Admin has proper clearance

Main Scenario:

1. Account Admin accesses Settings area.
2. Account Admin initiates the “customer” functionality.
3. Account Admin selects Customer to be deleted. Choosing from a list of Customers does this. (Customers added previously, Refer to Use Case 88). Search capabilities allow for filtering of results.
4. System warns Account Admin that the Customer will no longer be available on Delivery Requests.
5. Account Admin chooses to proceed.
6. Customer is set to inactive in the database.
7. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

5.2. Account Admin cancels action.

5.2.1. No further action is required.

Use Case 90: Bulk Import Customers

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, Account Admin has proper clearance

Main Scenario:

1. Account Admin accesses Settings area.
2. Account Admin initiates the “import customers” functionality.
3. System prompts the Account Admin for the customer file. This is a comma-delimited, flat text file.
4. User navigates to the file to be used.
5. System uploads file.
6. System imports file data into Customer table with one of two actions for each customer record.
 - a. If unique Customer Code already exists in the database the record is updated with the new information.

- b. If unique Customer Code does not exist in the database the new record is added.
7. The following fields are populated:
 - a. *Customer Code (required)*: Unique ID of Customer.
 - b. *Organization*: Name of business, farm, etc.
 - c. *Contact (required)*: Name of contact for Customer account.
 - d. *Address 1 (required)*: Address of originating Location
 - e. *Address 2*: Address of originating Location.
 - f. *City (required)*: City of originating Location.
 - g. *Province/State (required)*: Province/Sate of originating Location.
 - h. *Postal/Zip Code (required)*: Postal/Zip Code of originating Location.
 - i. *Country (required)*: Country of originating Location.
 - j. *Phone (required)*: Contact phone number of originating Location.
 - k. *Email*: Email address of Customer.
8. Action is logged in Activity Log table (Refer to Use Case 105).

Alternate Scenario:

- 4.1. User cannot locate text file.
 - 4.1.1. Customer import is aborted.
- 5.1. System cannot upload file.
 - 5.1.1. Customer import fails, error message is displayed.
- 7.1. Required fields are left empty.
 - 7.1.1. Customer import fails, error message is displayed.

Use Case 91: Bulk Export Customers

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, Account Admin has proper clearance

Main Scenario:

1. Account Admin accesses Settings area.
2. Account Admin initiates the “export customers” functionality.
3. System retrieves list of Customer accounts and generates a customer file. This is a comma-delimited, flat text file.
4. The following fields are populated:
 - a. *Customer Code (required)*: Unique ID of Customer.
 - b. *Organization*: Name of business, farm, etc.
 - c. *Contact (required)*: Name of contact for Customer account.
 - d. *Address 1 (required)*: Address of originating Location
 - e. *Address 2*: Address of originating Location.
 - f. *City (required)*: City of originating Location.
 - g. *Province/State (required)*: Province/Sate of originating Location.
 - h. *Postal/Zip Code (required)*: Postal/Zip Code of originating Location.
 - i. *Country (required)*: Country of originating Location.
 - j. *Phone (required)*: Contact phone number of originating Location.
 - k. *Email*: Email address of Customer.
 - l. *Date Added*: Date Customer added to application.
 - m. *Date Updated*: Date Customer last updated.
 - n. *Date Removed*: Date Customer set as Inactive.
5. Action is logged in Activity Log table (Refer to Use Case 105).

Alternate Scenario:

7.2. System cannot generate text file.

7.2.1. Customer export fails, error message is displayed.

Use Case 92: Add Cargo

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, Account Admin has proper clearance

Main Scenario:

1. Account Admin accesses Settings area.
2. Account Admin initiates the “add cargo” functionality.
3. System prompts the Account Admin to enter the attributes of the Cargo.
4. Account Admin specifies the following fields:
 - a. *Cargo Code (required)*: Unique ID of Cargo.
 - b. *Description (required)*: Description of Cargo.
 - c. *Height*: Height of Cargo. Used in calculating overall volume when utilizing Vehicle Load Status.
 - d. *Length*: Length of Cargo. Used in calculating overall volume when utilizing Vehicle Load Status.
 - e. *Weight*: Width of Cargo. Used in calculating overall volume when utilizing Vehicle Load Status.
5. Cargo is created.
6. Timestamp record function is initiated on Cargo (Refer to Use Case 24).
7. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 5.1. Required fields are left empty.
 - 5.1.1. Add Customer fails, error message is displayed.
- 5.2. Cargo code already exists.
 - 5.2.1. Add Cargo fails, error message is displayed.

Use Case 93: Edit Cargo

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, Account Admin has proper clearance

Main Scenario:

1. Account Admin accesses Settings area.
2. Account Admin initiates the “edit cargo” functionality.
3. Account Admin selects Cargo to be updated. Choosing from a list of Cargo does this. (Cargo added previously, Refer to Use Case 92). Search capabilities allow for filtering of results.
4. Account Admin modifies some or all attributes of the Cargo.
5. The following fields are available:
 - a. *Cargo Code (required)*: Unique ID of Cargo.
 - b. *Description (required)*: Description of Cargo.
 - c. *Height*: Height of Cargo. Used in calculating overall volume when utilizing Vehicle Load Status.
 - d. *Length*: Length of Cargo. Used in calculating overall volume when utilizing Vehicle Load Status.
 - e. *Weight*: Width of Cargo. Used in calculating overall volume when utilizing Vehicle Load Status.
6. Updates are committed to the database.
7. Timestamp record function is initiated on Cargo (Refer to Use Case 24).
8. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

6.2. Required fields are left empty.

6.2.1. Update fails, error message is displayed.

Use Case 94: Delete Cargo

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, Account Admin has proper clearance

Main Scenario:

1. Account Admin accesses Settings area.
2. Account Admin initiates the “delete cargo” functionality.
3. Account Admin selects Cargo to be deleted. Choosing from a list of Cargo does this. (Cargo added previously, Refer to Use Case 92). Search capabilities allow for filtering of results.
4. System warns Account Admin that the Cargo will no longer be available on Delivery Requests.
5. Account Admin chooses to proceed.
6. Cargo is set to inactive in the database.
7. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 5.1. Account Admin cancels action.
 - 5.1.1. No further action is required.

Use Case 95: Bulk Import Cargo

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, Account Admin has proper clearance

Main Scenario:

1. Account Admin accesses Settings area.
2. Account Admin initiates the “import cargo” functionality.
3. System prompts the Account Admin for the cargo data. This is a comma-delimited, flat text file.
4. User navigates to the file to be used.
5. System uploads file.
6. System imports file data into Cargo table with one of two actions for each record.

- a. If unique Cargo Code already exists in the database the record is updated with the new information.
 - b. If unique Cargo Code does not exist in the database the new record is added.
7. The following fields are populated:
- a. *Cargo Code (required)*: Unique ID of Cargo.
 - b. *Description (required)*: Description of Cargo.
 - c. *Height*: Height of Cargo. Used in calculating overall volume when utilizing Vehicle Load Status.
 - d. *Length*: Length of Cargo. Used in calculating overall volume when utilizing Vehicle Load Status.
 - e. *Weight*: Width of Cargo. Used in calculating overall volume when utilizing Vehicle Load Status.
 - f. *Date Added*: Date Cargo was added to the database. This is only impacted when adding new cargo.
 - g. *Date Updated*: Date Cargo was last updated in the database.
8. Action is logged in Activity Log table (Refer to Use Case 105).

Alternate Scenario:

- 4.1. User cannot locate text file.
 - 4.1.1. Customer import is aborted.
- 5.1. System cannot upload file.
 - 5.1.1. Customer import fails, error message is displayed.
- 7.1. Required fields are left empty.
 - 7.1.1. Customer import fails, error message is displayed.

Use Case 96: Bulk Export Cargo

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, Account Admin has proper clearance

Main Scenario:

1. Account Admin accesses Settings area.
2. Account Admin initiates the “export cargo” functionality.
3. System retrieves list of Cargo and generates a customer file. This is a comma-delimited, flat text file.
4. The following fields are populated:
 - a. *Cargo Code (required)*: Unique ID of Cargo.
 - b. *Description (required)*: Description of Cargo.
 - c. *Height*: Height of Cargo. Used in calculating overall volume when utilizing Vehicle Load Status.
 - d. *Length*: Length of Cargo. Used in calculating overall volume when utilizing Vehicle Load Status.
 - e. *Weight*: Width of Cargo. Used in calculating overall volume when utilizing Vehicle Load Status.
 - f. *Date Added*: Date Cargo added to application.
 - g. *Date Updated*: Date Cargo last updated.
 - h. *Date Removed*: Date Cargo set as Inactive.
5. Action is logged in Activity Log table (Refer to Use Case 105).

Alternate Scenario:

- 3.1. System cannot generate text file.
 - 3.1.1. Cargo export fails, error message is displayed.

Use Case 97: Add Location

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, Account Admin has proper clearance

Main Scenario:

1. Account Admin accesses Settings area.
2. Account Admin initiates the “add location” functionality.

3. System prompts the Account Admin to enter the attributes of the Location.
4. Account Admin specifies the following fields:
 - a. *Location Code (required)*: Unique ID of Location.
 - b. *Location Name (required)*: Name of Location.
 - c. *Contact (required)*: Name of primary contact for Location.
 - d. *Address 1 (required)*: Address of Location.
 - e. *Address 2*: Address of Location.
 - f. *City (required)*: City of Location.
 - g. *Province/State (required)*: Province/State of Location. Choosing from a dropdown list of Provinces/States does this.
 - h. *Postal/Zip Code (required)*: Postal/Zip Code of Location.
 - i. *Country (required)*: Country of Location. Choosing from a dropdown list of Countries (Canada, USA) does this.
 - j. *Phone (required)*: Primary contact phone number of Location.
 - a. *Email*: Primary email address of Location.
5. Location is created.
6. Timestamp record function is initiated on Location (Refer to Use Case 24).
7. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 5.1. Required fields are left empty.
 - 5.1.1. Add Location fails, error message is displayed.
- 5.2. Location code already exists.
 - 5.2.1. Add Location fails, error message is displayed.

Use Case 98: Edit Location

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, Account Admin has proper clearance

Main Scenario:

1. Account Admin accesses Settings area.
2. Account Admin initiates the “edit location” functionality.
3. Account Admin selects Location to be updated. Choosing from a list of Locations does this. (Locations added previously, Refer to Use Case 97). Search capabilities allow for filtering of results.
4. Account Admin modifies some or all attributes of the Location.
5. The following fields are available:
 - a. *Location Code (required)*: Unique ID of Location.
 - b. *Location Name (required)*: Name of Location.
 - c. *Contact (required)*: Name of primary contact for Location.
 - d. *Address 1 (required)*: Address of Location.
 - e. *Address 2*: Address of Location.
 - f. *City (required)*: City of Location.
 - g. *Province/State (required)*: Province/Sate of Location. Choosing from a dropdown list of Provinces/States does this.
 - h. *Postal/Zip Code (required)*: Postal/Zip Code of Location.
 - i. *Country (required)*: Country of Location. Choosing from a dropdown list of Countries (Canada, USA) does this.
 - j. *Phone (required)*: Primary contact phone number of Location.
 - k. *Email*: Primary email address of Location.
6. Updates are committed to the database.
7. Timestamp record function is initiated on Location (Refer to Use Case 24).
8. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 6.1. Required fields are left empty.
 - 6.1.1. Edit Location fails, error message is displayed.
- 6.2. Location code already exists.
 - 6.2.1. Edit Location fails, error message is displayed.

Use Case 94: Delete Location

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, Account Admin has proper clearance

Main Scenario:

1. Account Admin accesses Settings area.
2. Account Admin initiates the “delete location” functionality.
3. Account Admin selects Location to be deleted. Choosing from a list of Locations does this. (Locations added previously, Refer to Use Case 97). Search capabilities allow for filtering of results.
4. System warns Account Admin that the Location will no longer be available on Delivery Requests.
5. Account Admin chooses to proceed.
6. Location is set to inactive in the database.
7. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 5.1. Account Admin cancels action.
 - 5.1.1. No further action is required.

Use Case 100: Add Vehicle

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, Account Admin has proper clearance

Main Scenario:

1. Account Admin accesses Settings area.
2. Account Admin initiates the “add vehicle” functionality.
3. System prompts the Account Admin to enter the attributes of the Vehicle.
4. Account Admin specifies the following fields:
 - a. *Vehicle Code (required)*: Unique ID of Vehicle.
 - b. *Vehicle Name (required)*: Name of Vehicle.
 - c. *Driver*: Default driver for Vehicle. Choosing from a dropdown list of Drivers does this (Drivers added previously, Refer to Use Case 19)
 - d. *Availability*: Days of week Vehicle is available. Choosing from a checkbox list of weekdays does this.
 - e. *Employ Load Status*: Whether Vehicle loading will be measured by volume. Checking a checkbox does this.
 - f. *Height*: Height of cargo area. Required to calculate volume of Vehicle cargo area.
 - g. *Length*: Length of cargo area. Required to calculate volume of Vehicle cargo area.
 - h. *Width*: Width of cargo area. Required to calculate volume of Vehicle cargo area.
5. Vehicle is created.
6. Timestamp record function is initiated on Vehicle (Refer to Use Case 24).
7. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 5.1. Required fields are left empty.
 - 5.1.1. Add Vehicle fails, error message is displayed.
- 5.2. Location code already exists.
 - 5.2.1. Add Vehicle fails, error message is displayed.

Use Case 101: Edit Vehicle

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, Account Admin has proper clearance

Main Scenario:

1. Account Admin accesses Settings area.
2. Account Admin initiates the “edit vehicle” functionality.
3. Account Admin selects Vehicle to be updated. Choosing from a list of Vehicles does this. (Vehicles added previously, Refer to Use Case 97). Search capabilities allow for filtering of results.
4. Account Admin modifies some or all attributes of the Vehicle.
5. The following fields are available:
 - a. *Vehicle ID (required)*: Unique ID of Vehicle.
 - b. *Vehicle Name (required)*: Name of Vehicle.
 - c. *Driver*: Default driver for Vehicle. Choosing from a dropdown list of Drivers does this (Drivers added previously, Refer to Use Case 19)
 - d. *Availability*: Days of week Vehicle is available. Choosing from a checkbox list of weekdays does this.
 - e. *Employ Load Status*: Whether Vehicle load will be measured by volume. Checking a checkbox does this.
 - f. *Height*: Height of cargo area. Required to calculate volume of Vehicle cargo area.
 - g. *Length*: Length of cargo area. Required to calculate volume of Vehicle cargo area.
 - h. *Width*: Width of cargo area. Required to calculate volume of Vehicle cargo area.
6. Updates are committed to the database.
7. Timestamp record function is initiated on Vehicle (Refer to Use Case 24).
8. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

6.1. Required fields are left empty.

6.1.1. Edit Vehicle fails, error message is displayed.

6.2. Vehicle ID already exists.

6.2.1. Edit Vehicle fails, error message is displayed.

Use Case 102: Delete Vehicle

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, Account Admin has proper clearance

Main Scenario:

1. Account Admin accesses Settings area.
2. Account Admin initiates the “delete vehicle” functionality.
3. Account Admin selects Vehicle to be deleted. Choosing from a list of Vehicles does this. (Vehicles added previously, Refer to Use Case 100). Search capabilities allow for filtering of results.
4. System warns Account Admin that the Vehicle will no longer be available on Delivery Requests.
5. Account Admin chooses to proceed.
6. Vehicle is set to inactive in the database.
7. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

5.1. Account Admin cancels action.

5.1.1. No further action is required.

Use Case 103: Add Service Appointment

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, Account Admin has proper clearance

Main Scenario:

1. Account Admin accesses Settings area.
2. Account Admin selects Vehicle to be scheduled for service. Choosing from a list of Vehicles does this. (Vehicles added previously, Refer to Use Case 97). Search capabilities allow for filtering of results.
3. Account Admin initiates the “add service appointment” functionality.
4. System prompts the Account Admin to enter the attributes of the Service Appointment.
5. Account Admin specifies the following fields:
 - a. *Vehicle ID (required)*: Unique ID of Vehicle. This is an automated field and cannot be edited.
 - b. *Date Start (required)*: Start date of Service Appointment.
 - c. *Date End (required)*: End date of Service Appointment.
 - d. *Description (required)*: Description of service being done.
6. Service Appointment is created.
7. Timestamp record function is initiated on Vehicle (Refer to Use Case 24).
8. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

6.1. Required fields are left empty.

6.1.1. Add Service Appointment fails, error message is displayed.

Use Case 104: Edit Service Appointment

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, Account Admin has proper clearance

Main Scenario:

1. Account Admin accesses Settings area.
2. Account Admin selects Vehicle scheduled for service. Choosing from a list of Vehicles does this. (Vehicles added previously, Refer to Use Case 97). Search capabilities allow for filtering of results.
3. Account Admin selects Service Appointment to be edited. Choosing from a list of Service Appointments does this. (Service Appointments added previously, Refer to Use Case 103). Search capabilities allow for filtering of results.
4. Account Admin initiates the “edit service appointment” functionality.
5. Account Admin modifies some or all attributes of the Service Appointment.
6. The following fields are available:
 - a. *Date Start (required)*: Start date of Service Appointment.
 - b. *Date End (required)*: End date of Service Appointment.
 - c. *Description (required)*: Description of service being done.
7. Updates are committed to the database.
8. Timestamp record function is initiated on Vehicle (Refer to Use Case 24).
9. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 7.1. Required fields are left empty.
 - 7.1.1. Edit Service Appointment fails, error message is displayed.

Use Case 105: Delete Service Appointment

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, Account Admin has proper clearance

Main Scenario:

1. Account Admin accesses Settings area.
2. Account Admin selects Vehicle scheduled for service. Choosing from a list of Vehicles does this. (Vehicles added previously, Refer to Use Case 97). Search capabilities allow for filtering of results.
3. Account Admin selects Service Appointment to be deleted. Choosing from a list of Service Appointments does this. (Service Appointments added previously, Refer to Use Case 103). Search capabilities allow for filtering of results.
4. Account Admin initiates the “delete service appointment” functionality.
5. System warns Account Admin that the Service Appointment will no longer be available.
6. Account Admin chooses to proceed.
7. Service Appointment is deleted from the database.
8. Timestamp record function is initiated on Vehicle (Refer to Use Case 24).
9. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 6.1. Account Admin cancels action.
 - 6.1.1. No further action is required.

Use Case 106: Edit Delivery Slip

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, Account Admin has proper clearance

Main Scenario:

1. Account Admin accesses Settings area.
2. Account Admin initiates the “edit delivery slip” functionality.
3. Account Admin drag and drops available delivery fields (Refer to Use Case 83) onto Delivery Slip, arranging them in their preferred positions.
4. Account Admin specifies the following fields:
 - a. *Require Signature*: Specify if a signature field should be displayed at bottom of each Delivery Slip.
5. Updates are committed to the database.
6. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

None

Use Case 107: Add Delivery Window

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, Account Admin has proper clearance

Main Scenario:

1. Account Admin accesses Settings area.
2. Account Admin initiates the “add delivery window” functionality.
3. System prompts the Account Admin to enter the attributes of the Delivery Window.
4. Account Admin specifies the following fields:
 - a. *First Day (required)*: Number of days to start window at.
 - b. *Last Day (required)*: Number of days to end window at.

- c. *Colour*: Colour to be used to indicate this Window.
5. Delivery Window is created.
6. Timestamp record function is initiated on Delivery Window (Refer to Use Case 24).
7. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 5.1. Required fields are left empty.
 - 5.1.1. Add Delivery Window fails, error message is displayed.

Use Case 108: Edit Delivery Window

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, Account Admin has proper clearance

Main Scenario:

1. Account Admin accesses Settings area.
2. Account Admin initiates the “edit delivery window” functionality.
3. Account Admin selects Delivery Window to be updated. Choosing from a list of Delivery Windows does this. (Delivery Windows added previously, Refer to Use Case 107). Search capabilities allow for filtering of results.
4. Account Admin modifies some or all attributes of the Delivery Window.
5. The following fields are available:
 - a. *First Day (required)*: Number of days to start window at.
 - b. *Last Day (required)*: Number of days to end window at.
 - c. *Colour*: Colour to be used to indicate this Window.
6. Updates are committed to the database.

7. Timestamp record function is initiated on Vehicle (Refer to Use Case 24).
8. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

6.1. Required fields are left empty.

6.1.1. Edit Delivery Window fails, error message is displayed.

Use Case 109: Delete Delivery Window

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, Account Admin has proper clearance

Main Scenario:

1. Account Admin accesses Settings area.
2. Account Admin initiates the "delete delivery window" functionality.
3. Account Admin selects Delivery Window to be deleted. Choosing from a list of Delivery Windows does this. (Delivery Windows added previously, Refer to Use Case 107). Search capabilities allow for filtering of results.
4. System warns Account Admin that the Delivery Window will no longer be available on Delivery Requests.
5. Account Admin chooses to proceed.
6. Delivery Window is deleted from the database.
7. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

5.1. Account Admin cancels action.

5.1.1. No further action is required.

Use Case 110: Add Document Type

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, Account Admin has proper clearance

Main Scenario:

1. Account Admin accesses Settings area.
2. Account Admin initiates the “add document type” functionality.
3. System prompts the Account Admin to enter the attributes of the Document Type.
4. Account Admin specifies the following fields:
 - a. *First Day (required)*: Number of days to start window at.
 - b. *Last Day (required)*: Number of days to end window at.
 - c. *Colour*: Colour to be used to indicate this Window.
5. Document Type is created.
6. Timestamp record function is initiated on Document Type (Refer to Use Case 24).
7. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

5.1. Required fields are left empty.

5.1.1. Add Document Type fails, error message is displayed.

Use Case 111: Edit Document Type

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, Account Admin has proper clearance

Main Scenario:

1. Account Admin accesses Settings area.
2. Account Admin initiates the “edit document type” functionality.
3. Account Admin selects Document Type to be updated. Choosing from a list of Document Types does this. (Document Types added previously, Refer to Use Case 110). Search capabilities allow for filtering of results.
4. Account Admin modifies some or all attributes of the Document Type.
5. The following fields are available:
 - a. *First Day (required)*: Number of days to start window at.
 - b. *Last Day (required)*: Number of days to end window at.
 - c. *Colour*: Colour to be used to indicate this Window.
6. Updates are committed to the database.
7. Timestamp record function is initiated on Document Type (Refer to Use Case 24).
8. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

6.1. Required fields are left empty.

6.1.1. Edit Document Type fails, error message is displayed.

Use Case 112: Delete Document Type

Primary Actor: Account Admin

Pre-Condition: Account Admin logged in, Account Admin has proper clearance

Main Scenario:

1. Account Admin accesses Settings area.

2. Account Admin initiates the “delete document type” functionality.
3. Account Admin selects Document Type to be deleted. Choosing from a list of Document Types does this. (Document Types added previously, Refer to Use Case 110). Search capabilities allow for filtering of results.
4. System warns Account Admin that the Document Type will no longer be available on Delivery Requests.
5. Account Admin chooses to proceed.
6. Document Type is deleted from the database.
7. Action is logged in Activity Log table (Refer to Use Case 25).

Alternate Scenario:

- 5.1.Account Admin cancels action.
 - 5.1.1. No further action is required.

External Interface Requirements

User Interfaces

The logistic scheduler application will be accessed through a browser interface.

Base Application

The base application will be a web-based SaaS solution allowing multiple clients to access the same interface while being able to view and edit only their own data.

No user would be able to access any part of the application without logging on to the system.

Mobile Access

Limited access for drivers will be provided through mobile and tablet interfaces and should be developed accordingly.

No user would be able to access any part of the application without logging on to the system.

Software Interfaces

Web Server: Unix

Client Side: Web Browser, HTML, PHP, AJAX, jQuery

Communications Interfaces

The customer must connect to the Internet to access the Website:

- DSL
- Broadband
- T1
- T3

- 3G, 4G

Non-Functional Requirements

Performance

- The database shall be able to accommodate a continuously expanding number of records for an expanding number of accounts.
- The software shall support use of multiple users at a time.
- The software shall support the ability to process large amounts of data during import, export and report processes.

Safety

To protect against data degradation and loss due to database failure, a strict backup plan will need to be implemented.

Security

Some of the factors that are identified to protect the software from accidental or malicious access, use, modification, destruction, or disclosure are described below.

- Keep specific log or history data sets
- Assign certain functions to different modules
- Restrict communications between some areas of the program
- Check data integrity for critical variables
- Incorporate encryption techniques in the user authentication process.
- Restrict communication (i.e. using https) when logged in to the application.

Maintainability

All code for the application should be thoroughly commented and documented to allow for ongoing maintenance of the product. Features for the application will be contained in modules where possible to better allow

for the upgrading and changing of features as well as offering further usability in future projects.

Multilingual Support

The application requires an English language interface only.

Auditing and Logging

All actions pertaining to the management and use of the application will be logged and available for revue as required.

Software Quality Attributes

The quality of the system is maintained in such a way that it can be very user friendly to all the users.

The software quality attributes are assumed as under:

- Accurate and hence reliable
- Secured
- Fast speed
- Compatibility
- Usability

Appendix A – Definitions, Acronyms, and Abbreviations

Acronyms and Abbreviations

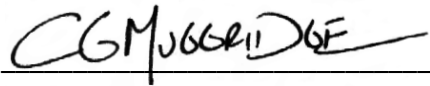
- a) SaaS: Software as a Service
- b) SRS: Software Requirements Specification
- c) WWW: World Wide Web
- d) GUI: Graphical User Interface

Definitions

- a) Task: A feature available to a user within the application (ability to add a new record for example)

Sponsor Acceptance

Approved by the Project Sponsor:



Christopher Muggridge
Founder, Chief Innovations Officer

Date: October 5, 2012