Warehouse Inventory System

Use Case Model

A green and yellow circle with a leaf in the center

Description automatically generated

Release Version: v1.3

Date: 12/05/23

Responsible Analyst: Micah Gordon

Email: [micah.gordon@oit.edu](mailto:micah.gordon@oit.edu)

# Signatory Page

This document accepted by

X\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature(Calvin Caldwell) Date

X\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature(Micah Gordon) Date

# Revision History

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Author | Company | Version | Date | Comments |
| Micah Gordon | Quackedsoft | 1.0 | 10/27/2023 | Initial Draft |
| Micah Gordon | Quackedsoft | 1.2 | 11/17/2023 | Fixed headings for use cases. Updated CRUD |
| Micah Gordon | Quackedsoft | 1.3 | 12/05/2023 | Added scenarios and sequence diagrams. |

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# Context Diagram

A blue and white application form

Description automatically generated

# Use Case Model Tables

|  |  |  |
| --- | --- | --- |
| Use Case ID | Use Case Name | Description |
| 10 | Lew Load | Operator has an incoming truck |
| 10a | New Transfer Weight Sheet | Operator must create new transfer weight sheet |
| 10b | New Inbound Weight Sheet | Operator must create new inbound weight sheet |
| 10c | New Lot | Operator must create new lot |
| 20 | Report Generation | Operator needs to generate a report for warehouse |
| 30 | Loads Data Manip | Operator needs to view and/or change entered load data |
| 30a | Edit Load |  |
| 40 | Weight Sheets Data Manip | Operator needs to view and/or change entered weight sheet data |
| 40a | Edit Weigh Sheet |  |
| 50 | Lots Data Manip | Operator needs to view and/or change entered lot data |
| 50a | Edit Lot |  |
| 60 | Close Weight Sheet | Operator is required to close a weight sheet |
| 60a | Reopen weight sheet | Operator must reopen a closed weight sheet |
| 70 | Close Lot | Operator is required to close a lot |
| 70a | Reopen lot | Operator must reopen a closed lot |
| 80 | Move Inbound Weight Sheets | Operator moves a weight sheet from one lot to another |
| 90 | Move Load | Operator moves a load from one weight sheet to another. |

# Actor Catalog Table

|  |  |  |
| --- | --- | --- |
| Name | Type | Description |
| Operator | Person | Individual operating scale and application. |

# Features Verification Matrix

|  |  |  |
| --- | --- | --- |
| Feature #’s | Use Case ID | Use Case Name |
| 1.1-1.2, 2.1-2.2, 3.1- 3.4, 3.6 -3.10 | 10 | New Load |
| 5.1-5.3 | 20 | Reports |
| 4.3, 3.5 | 30 | Load data view, edit, sort, filter |
| 2.3, 4.2 | 40 | Weight sheet data view, edit, sort, filter |
| 4.1, 1.3-1.5 | 50 | Lot data view, edit, sort, filter |
| 2.5-2.6 | 60 | Close/Reopen weight sheet |
| 1.4-1.5 | 70 | Close/Reopen Lot |
| 2.4 | 80 | Move Weight Sheet |
| 3.11 | 90 | Move Load |

# Use Case Specifications

## Use Case 10: Incoming Truck

|  |  |
| --- | --- |
| **General Information** | |
| Use Case Name\Number : 10  Subject Area : Load management  Description : Operator has an incoming truck | Responsible Analyst : Micah Gordon |

|  |  |
| --- | --- |
| **Requirements/Feature Trace** | |
| **REQ#** | **Requirements Name and / or Short Description** |
| 1.1 - 1.2 | New lot creation. |
| 2.1 - 2.2 | New Weight Sheet creation. |
| 3.1 – 3.4 | Operator must be able to weigh a truck’s new load in on a weight sheet. |
| 3.6 – 3.10 | Operator must be able to weigh a truck out. |

|  |  |  |
| --- | --- | --- |
| **Revision History** | | |
| **Author** | **Date** | **Comments** |
| Micah Gordon | 10/23/23 | Initial Draft |
|  |  |  |
|  |  |  |
|  |  |  |

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| --- | --- | --- |
| **Insertion Points in other Use Cases (Adds Only)** | | |
| **Use Case Name** | **Use Case Number** | **Step Inserted After** |
| NA |  |  |

|  |  |  |
| --- | --- | --- |
| **Actors** | | |
| **Actor Name** | **Person/System** | **Brief Description** |
| Operator | Person | Person operating scale |
|  |  |  |
|  |  |  |

|  |  |
| --- | --- |
| **Pre-Conditions** | |
| # | Description |
| 1 | Overview screen is displayed |
| 2 | Truck who is not weighed in is ready to be weighed in. |

|  |
| --- |
| **Start Stimulus** |
| Operator clicks new load button |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Main Course Steps** | | | |
| **Number** | **Description** | **Adds/Alt Name/Number** | **Bus Rule#** |
| 1 | System displays new Load from |  |  |
| 2 | Operator presses new Load button |  |  |
| 3 | Operator Selects a weight sheet to place load on | New Weight Sheet,  New Lot |  |
| 4 | Operator inputs load data |  | 1 Mandatory vs optional data |
| 5 | Operator presses “Weigh In” |  |  |
| 6 | System displays Overview screen w/ updated load data for weight sheet. |  |  |
| 7 | Operator selects “Weigh Out” |  |  |
| 8 | System displays Overview screen w/ updated load data for weight sheet. |  | 2 Calculate tare, net weights |

|  |  |  |
| --- | --- | --- |
| **Exception Conditions** | | |
| **Exception Situations** | **Action(s) on Exception** | **Adds\Alt UC #** |
| Scale connection failed during weight in process | System prompts Operator to manually input truck gross weight | N/A |
| Truck weight <= 0 | System prompts Operator to manually input a truck weight greater than 0 | N/A |

|  |  |
| --- | --- |
| **Post-Conditions** | |
| **#** | **Description** |
| 1 | Load number on weight sheet is incremented. |
| 2 | Overview screen is updated. |
| 3 | System has updated weight sheet to have new load on it. |

|  |  |  |
| --- | --- | --- |
| **Candidate Objects** | | |
| **Class/Object Name** | **Descriptions** | **Possible**  **attributes** |
| Load | Contains all the data for a truck load of a commodity | Id, weight sheet, gross, tare, net, time in, time out, truck id, bill of lading, bin id, moisture %, test weight, protein, notes |
| Transfer Weight Sheet | Contains all data for a particular transfer weight sheet | Id, weigher (operator), source of load, commodity type, commodity variety, Hauler, Miles, total billed, loads, notes |
| Inbound Weight Sheet | Contains all the data for inbound weight sheet | Id, weigher (operator), source of load, commodity type, commodity variety, Hauler, Miles, total billed, loads, notes, Lot number |
| Lot | Contains all the data for a producer’s lot. | Id, Producer Id, state id, start date, end date, weight sheets, landlord, Farm number, notes |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Assumptions** | | | | | |
| **#** | **Assumption** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
| 1 | Operator has opened the web app | 10/23/23 | Micah Gordon |  |  |
| 2 | Operator has logged in for their warehouse | 10/23/23 | Micah Gordon |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Issues** | | | | | |
| **#** | **Issue** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
| 1 | HTML Request scale not ready for test | 10/2323 | Micah Gordon |  |  |
|  |  |  |  |  |  |

|  |  |  |
| --- | --- | --- |
| **Other Comments** | | |
| **Author** | **Comment** | **Date** |
| Micah Gordon | Number 4 ALT selection: Operator will check data when they select a weight sheet. If an appropriate weight sheet does not exist, the operator will create a new weight sheet. | 10/23/23 |
| Micah Gordon | Number 4 ALT selection: If the Operator must create a new inbound weight sheet, they must check the data to see if they need a new lot. If they need a new lot they must follow alternate to create a new lot. | 10/23/23 |
| Micah Gordon | Inbound weight sheets have a lot. Transfer weight sheets do not. | 10/23/23 |

|  |
| --- |
| **Frequency of Execution** |
| **Frequency:**  Minimum: 0 Maximum: 200 Average: (OR)Fixed:  **Per:** Hour:Day:  Week:  Month:  Other: Seasonally depended |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Timing Information** | | | | | | | |
| **#** | **At/**  **Between** | **Step(s)** | **Timing**  **Unit** | **Minimum** | **Average** | **Maximum** | **Comments** |
| 1 | Between | 2, 3 | Seconds | N/A | .5 | 2 | Loads load form |
| 2 | Between | 3, 4 | Seconds | N/A | .5 | 2 | Sys loads weight sheets |
| 3 | Between | 6, 7 | seconds | N/A | .5 | 2 | Sys loads updated overview |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Volume Information** | | | | | | |
| **#** | **Step #** | **Unit of**  **Measure** | **Minimum** | **Average** | **Maximum** | **Comments** |
| 1 | 2 | Bytes | 90 |  |  | Load weight sheets |
| 2 | 5 | Bytes | 180 |  |  | Sends updated weight sheet to server and returns updated weight sheet for display |
| 3 | 6 | Bytes | 180 |  |  | See 2 |

### Scenario 10

**System displays new Load form.**

**Operator presses “New Load” button.**

WeightSheetService gets list of active weight sheets from database.

**Operator selects a weight sheet to a place load on**

**Operator inputs load data**

**Operator presses “Weigh in”**

Load is added to WeightSheet

LoadServices puts the load in database.

WeightSheetService posts the updated WeightSheet.

**System displays overview screen with updated load data for weight sheet.**

**Operator selects “Weight Out”.**

LoadService gets the Load.

Load updates.

LoadService puts the load in database.

**System displays Overview screen with updated load data for weight sheet.**

### Sequence Diagram 10A diagram of a computer Description automatically generated

### 

### Use Case 10a: Create New Transfer Weight Sheet

|  |
| --- |
| **Alternate Course General Information** |
| Alternate Course Name\Number: 10a  Description: Operator creates a new transfer weight sheet,  Reason for Execution: Operator has valid existing transfer weight sheet to use. Non Exception:  Exception: |

|  |
| --- |
| **Insertion Point** |
| **Step Inserted After** |
| 3 |

|  |  |
| --- | --- |
| **Pre-Conditions** | |
| 1. | No valid weight sheet exists for the new load. Drive information does not match any existing weight sheet. Max number of loads on existing weight sheets has been exceeded. |

|  |  |  |  |
| --- | --- | --- | --- |
| **Alternate Course Steps** | | | |
| **#** | **Step Description** | **Adds Use Case #** | **Business Rule(s)#** |
| 1. | Operator selects “New Transfer Weight Sheet” |  |  |
| 2. | System displays new transfer weight sheet form |  |  |
| 3. | Operator fills out weight sheet form. Clicks “Done” |  | 3 Mandatory vs optional fields |
| 4. | System returns to and displays “New Load” form |  |  |

|  |  |
| --- | --- |
| **Post-Conditions** | |
| 1. | New weight sheet is added to overview table. New load is put on new weight sheet. |

### Scenario 10a

**Operator selects “New Transfer Weight Sheet”.**

**System displays new transfer weight sheet form.**

**Operator fills out weight sheet form. Clicks “Done”**

TransferWeightSheet validates data.

TransferWeightSheetService puts TransferWeightSheet into database.

**System returns to display “New Load” form.**

Sequence Diagram 10aA screen shot of a diagram

Description automatically generated

### Use Case 10b: New Inbound Weight Sheet

|  |
| --- |
| **Alternate Course General Information** |
| Alternate Course Name\Number: 10b  Description: Operator creates a new inbound weight sheet  Reason for Execution: No valid inbound weight sheet exists for a new load Non Exception:  Exception: |

|  |
| --- |
| **Insertion Point** |
| **Step Inserted After** |
| 3 |

|  |  |
| --- | --- |
| **Pre-Conditions** | |
| 1. | Driver information does not match an existing weight sheet. |
| 2. | Driver has indicated a new lot is to be opened |
| 3. | Existing weight sheet is invalid because it has no space left on it. |

|  |  |  |  |
| --- | --- | --- | --- |
| **Alternate Course Steps** | | | |
| **#** | **Step Description** | **Adds Use Case #** | **Business Rule(s)#** |
| 1. | Operator selects New “New Inbound Weight Sheet” |  |  |
| 2. | System displays new inbound weight sheet form |  |  |
| 3. | Operator fills out form. Clicks “Done” |  | 4 Mandatory vs optional fields |
| 4. | System returns to and displays “New Load” form |  |  |

|  |  |
| --- | --- |
| **Post-Conditions** | |
| 1. | New weight sheet is added to overview table. |
| 2. | New load is put on new weight sheet. |

### Scenario 10b

**Operator selects “New Inbound Weight Sheet”.**

**System displays new inbound weight sheet form.**

**Operator fills out form. Clicks “Done”**

InboundWeightSheet validates input data.

InboundWeightSheetService puts InboundWeightSheetService into database.

**System returns to and displays “New Load” form.**

Sequence Diagram 10bA diagram of a diagram

Description automatically generated with medium confidence

### Use Case 10c: Create New Lot

|  |
| --- |
| **Alternate Course General Information** |
| Alternate Course Name\Number: 10c  Description: Operator creates new lot  Reason for Execution: Incoming load for inbound weight sheet has no valid lot. Non Exception:  Exception: |

|  |
| --- |
| **Insertion Point** |
| **Step Inserted After** |
| 3 |

|  |  |
| --- | --- |
| **Pre-Conditions** | |
| 1. | Driver information does match an existing lot. |
| 2. |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Alternate Course Steps** | | | |
| **#** | **Step Description** | **Adds Use Case #** | **Business Rule(s)#** |
| 1. | Operator selects “New Lot” |  |  |
| 2. | System displays new lot form |  |  |
| 3. | Operator fills out “New Lot” form. Clicks done |  | 5 mandatory vs optional fields |
| 4. | System redirects operator to “New Inbound Weight Sheet” form |  |  |
| 5. | Operator fills out “New Inbound Weight Sheet” form. Clicks “done” |  | 4 mandatory vs optional fields |
| 6 | System returns to “New Load” form |  |  |

|  |  |
| --- | --- |
| **Post-Conditions** | |
| 1. | New lot is added to overview table. |
| 2. | New weight sheet is added to overview table. |
| 3. | New load is put on new weight sheet. |

### Scenario 10c

**Operator selects “New Lot”.**

**System displays new lot from.**

**Operator fills out “New Lot” form. Clicks done.**

Lot validates data enter.

**System redirects operator to “New Inbound Weight Sheet” form.**

**Operator fills out “New Inbound Weight Sheet” form. Clicks “Done”.**

**System returns to “New Load” form.**

LotService puts Lot in the database.

### Sequence Diagram 10cA screenshot of a computer Description automatically generated

## Use Case 20: Reports

|  |  |
| --- | --- |
| **General Information** | |
| Use Case Name\Number : 20  Subject Area : Reports  Description : Operator generates a report of the warehouse | Responsible Analyst : Micah Gordon |

|  |  |
| --- | --- |
| **Requirements/Feature Trace** | |
| **REQ#** | **Requirements Name and / or Short Description** |
| 5.1 – 5.3 | Reports |

|  |  |  |
| --- | --- | --- |
| **Revision History** | | |
| **Author** | **Date** | **Comments** |
| Micah Gordon | 10-23-23 | Initial Draft |
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| **Insertion Points in other Use Cases (Adds Only)** | | |
| **Use Case Name** | **Use Case Number** | **Step Inserted After** |
| N/A | N/A | N/A |

|  |  |  |
| --- | --- | --- |
| **Actors** | | |
| **Actor Name** | **Person/System** | **Brief Description** |
| Operator | Person | Individual operating scale |

|  |  |
| --- | --- |
| **Pre-Conditions** | |
| # | Description |
| 1. | Data must exist in the database |

|  |
| --- |
| **Start Stimulus** |
| Operator clicks “Reports” button |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Main Course Steps** | | | |
| **Number** | **Description** | **Adds/Alt Name/Number** | **Bus Rule#** |
| 1. | Operator clicks “Reports” |  |  |
| 2. | System displays reports page |  |  |
| 3. | System prompts user for report type |  |  |
| 4. | Operator selects a report type |  | 6 report types |
| 5. | System previews the report |  |  |
| 6. | Operator selects Export report |  | 7 Excel or pdf |
| 7. | System exports report |  |  |
| 8. | System displays overview screen |  |  |

|  |  |  |
| --- | --- | --- |
| **Exception Conditions** | | |
| **Exception Situations** | **Action(s) on Exception** | **Adds\Alt UC #** |
| N/A |  |  |

|  |  |
| --- | --- |
| **Post-Conditions** | |
| **#** | **Description** |
| 1. | Data is exported to pdf or excel based on operators sorts and or filters. |

|  |  |  |
| --- | --- | --- |
| **Candidate Objects** | | |
| **Class/Object Name** | **Descriptions** | **Possible**  **attributes** |
| Warehouse | Object containing data and behavior for a warehouse | Bins, Id, district, weight sheets |

|  |  |  |  |  |  |
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| **Assumptions** | | | | | |
| **#** | **Assumption** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
|  | N/A |  |  |  |  |

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| --- | --- | --- | --- | --- | --- |
| **Issues** | | | | | |
| **#** | **Issue** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
|  | N/A |  |  |  |  |

|  |  |  |
| --- | --- | --- |
| **Other Comments** | | |
| **Author** | **Comment** | **Date** |
| Micah Gordon | Report types can be see in functional requirements 5.4.1, 5.4.3, 5.4.4, and 5.4.5 | 10/23/23 |
|  |  |  |

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| --- |
| Frequency of Execution |
| **Frequency:**  Minimum: 1 Maximum: Average: (OR)Fixed:  **Per:** Hour:Day:  Week:  Month:  Other: |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **Timing Information** | | | | | | | |
| **#** | **At/**  **Between** | **Step(s)** | **Timing**  **Unit** | **Minimum** | **Average** | **Maximum** | **Comments** |
| 1 | Between | 1, 2 | Seconds | N/A |  | 2 | Gets data from database |
| 2 | Between | 4, 5 | Seconds | N/A |  | 2 | Gets displays filtered data |
| 3 | Between | 6, 7 | Seconds | N/A |  | 5 | Exports data |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Volume Information** | | | | | | |
| **#** | **Step #** | **Unit of**  **Measure** | **Minimum** | **Average** | **Maximum** | **Comments** |
| 1 | 2 | Bytes | 100 |  |  | Estimated |
| 2 | 5 | Bytes | 1K |  |  | Estimated, depended on DTO & size of report selected |
| 3 | 7 | Bytes | 1K |  |  | Estimated |

### Scenario 20

**Operator clicks “Reports”.**

**System displays reports page.**

**System prompts operator for report type.**

**Operator selects a report type.**

ReportService gets data.

**System previews the report.**

**Operator selects Export Report.**

**System exports report.**

Report exports data Excel or pdf.

**System displays overview screen.**

Sequence Diagram 20A screenshot of a computer

Description automatically generated

## Use Case 30: Load Data Interactions

|  |  |
| --- | --- |
| **General Information** | |
| Use Case Name\Number : 30  Subject Area : Operator data interactions  Description : Operator views Loads for warehouse | Responsible Analyst : Micah Gordon |

|  |  |
| --- | --- |
| **Requirements/Feature Trace** | |
| **REQ#** | **Requirements Name and / or Short Description** |
| 4.3 | Load data is viewable, filterable and sortable |
| 3.5 | Load data is editable |

|  |  |  |
| --- | --- | --- |
| **Revision History** | | |
| **Author** | **Date** | **Comments** |
| Micah Gordon | 10/24/23 | Initial Draft |
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| --- | --- | --- |
| **Insertion Points in other Use Cases (Adds Only)** | | |
| **Use Case Name** | **Use Case Number** | **Step Inserted After** |
| N/A |  |  |

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| --- | --- | --- |
| **Actors** | | |
| **Actor Name** | **Person/System** | **Brief Description** |
| Operator | Person | Individual operating scale and application |

|  |  |
| --- | --- |
| **Pre-Conditions** | |
| # | Description |
| 1 | Load data exists in database |

|  |
| --- |
| **Start Stimulus** |
| Operator clicks “Loads” button |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Main Course Steps** | | | |
| **Number** | **Description** | **Adds/Alt Name/Number** | **Bus Rule#** |
| 1 | Operator clicks “Loads” button |  |  |
| 2 | System displays Loads page | 30a |  |
| 3 | Operator filters/sorts data |  |  |
| 4 | System updates page to match operators filters and/or sorts |  |  |
| 5 | Operator clicks “Overview” button |  |  |

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| --- | --- | --- |
| **Exception Conditions** | | |
| **Exception Situations** | **Action(s) on Exception** | **Adds\Alt UC #** |
| N/A | N/A | N/A |

|  |  |
| --- | --- |
| **Post-Conditions** | |
| **#** | **Description** |
| 1 | Loads page is consistent with interactions the operator has made |
| 2 | Loads page is reset to default filters and sorts when operator navigates away. |

|  |  |  |
| --- | --- | --- |
| **Candidate Objects** | | |
| **Class/Object Name** | **Descriptions** | **Possible**  **attributes** |
| N/A | N/A | N/A |

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| --- | --- | --- | --- | --- | --- |
| **Assumptions** | | | | | |
| **#** | **Assumption** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
| 1 | There is data in the database | 10/24/23 | Micah Gordon |  |  |

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| --- | --- | --- | --- | --- | --- |
| **Issues** | | | | | |
| **#** | **Issue** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
|  | N/A | N/A | N/A | N/A | N/A |

|  |  |  |
| --- | --- | --- |
| **Other Comments** | | |
| **Author** | **Comment** | **Date** |
| Micah Gordon | By default the loads pages should only display “today’s date” loads | 10/24/23 |
| Micah Gordon | For possible objects Ref Use Case: 10 | 10/24/23 |
| Micah Gordon | Filter and sort options can be found in Functional Requirements 4.3.2-4.3.3 | 10/24/23 |

|  |
| --- |
| **Frequency of Execution** |
| **Frequency:**  Minimum: Maximum: Average: 50 (OR)Fixed:  **Per:** Hour:Day:  Week:  Month:  Other: |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Timing Information** | | | | | | | |
| **#** | **At/**  **Between** | **Step(s)** | **Timing**  **Unit** | **Minimum** | **Average** | **Maximum** | **Comments** |
| 1 | Between | 1, 2 | Seconds | n/a |  | 2 | Depends on amount of loads that day |
| 2 | Between | 3, 4 | Seconds | n/a |  | 3 | Depends on requests |
| 3 | Between | 4, 5 | Seconds | n/a |  | 1.5 |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Volume Information** | | | | | | |
| **#** | **Step #** | **Unit of**  **Measure** | **Minimum** | **Average** | **Maximum** | **Comments** |
| 1 | 2 | Bytes | 0 | 1k |  | Estimated with size of api jsons |
| 2 | 3 | Bytes | 0 | 1k |  | Depends on what filters/sorts used |

### Scenario 30

**Operator clicks “Loads” button.**

**System displays Loads page.**

**Operator filters/sorts data.**

**System updates page to match operator filters and/or sorts.**

LoadService gets updated IApiResult.

**Operator clicks “Overview” button.**

### Sequence Diagram 30A screenshot of a computer Description automatically generated

### Use Case 30a: Edit Load Data

|  |
| --- |
| **Alternate Course General Information** |
| Alternate Course Name\Number: 30a  Description: Edit Load Data  Reason for Execution: Update needed due to bad or incomplete data Non Exception:  Exception: |

|  |
| --- |
| **Insertion Point** |
| **Step Inserted After** |
| 2 |

|  |  |
| --- | --- |
| **Pre-Conditions** | |
| 1. | Load data exists in the data base |
| 2. | Default display is data from “today’s date” |

|  |  |  |  |
| --- | --- | --- | --- |
| **Alternate Course Steps** | | | |
| **#** | **Step Description** | **Adds Use Case #** | **Business Rule(s)#** |
| 1. | Operator selects a data field and modifies it |  | 1 mandatory / optional |
| 2. | System updated the data shown to operator’s input |  | 7 sanitize |
| 3. | Operator navigates away from Loads page |  |  |

|  |  |
| --- | --- |
| **Post-Conditions** | |
| 1. | Valid data has been updated in the database. |
| 2. | New data shows on the overview screen |

### Scenario 30a

**Operator selects a data field and modifies it.**

Form verifies Operator input.

**System updates the data shown to operator’s input.**

LoadService puts data.

**Operator navigates away from Loads page.**

### Sequence Diagram 30aA screenshot of a computer Description automatically generated

## Use Case 40: Weight Sheet Data Interactions

|  |  |
| --- | --- |
| **General Information** | |
| Use Case Name\Number : 40  Subject Area : Operator data interactions  Description : Operator Interacts with Weight Sheet for warehouse | Responsible Analyst : Micah Gordon |

|  |  |
| --- | --- |
| **Requirements/Feature Trace** | |
| **REQ#** | **Requirements Name and / or Short Description** |
| 2.3 | Operator is able to edit weight sheet data |
| 4.2 | Operator is able to view, filter and sort weight sheet data |

|  |  |  |
| --- | --- | --- |
| **Revision History** | | |
| **Author** | **Date** | **Comments** |
| Micah Gordon | 10/24/23 | Initial draft |
|  |  |  |
|  |  |  |
|  |  |  |

|  |  |  |
| --- | --- | --- |
| **Insertion Points in other Use Cases (Adds Only)** | | |
| **Use Case Name** | **Use Case Number** | **Step Inserted After** |
| N/A | N/A | N/A |

|  |  |  |
| --- | --- | --- |
| **Actors** | | |
| **Actor Name** | **Person/System** | **Brief Description** |
| Operator | Person | Individual operating scale and application |

|  |  |
| --- | --- |
| **Pre-Conditions** | |
| # | Description |
| 1 | Weight sheet data exists |

|  |
| --- |
| **Start Stimulus** |
| Operator clicks “Weight Sheets” button |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Main Course Steps** | | | |
| **Number** | **Description** | **Adds/Alt Name/Number** | **Bus Rule#** |
| 1 | Operator clicks “Weight Sheet” button |  |  |
| 2 | System displays Weight Sheet page | 40a |  |
| 3 | Operator filters/sorts data |  |  |
| 4 | System updates page to match operator filters and/or sorts |  |  |
| 5 | Operator clicks “Overview” button |  |  |

|  |  |  |
| --- | --- | --- |
| **Exception Conditions** | | |
| **Exception Situations** | **Action(s) on Exception** | **Adds\Alt UC #** |
| N/A | N/A | N/A |

|  |  |
| --- | --- |
| **Post-Conditions** | |
| **#** | **Description** |
| 1 | Weight Sheets page is consistent with Operator actions |
| 2 | Weight Sheets page is rest to default filters and sorts when operator navigates away |

|  |  |  |
| --- | --- | --- |
| **Candidate Objects** | | |
| **Class/Object Name** | **Descriptions** | **Possible**  **attributes** |
| N/A | N/A | N/A |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Assumptions** | | | | | |
| **#** | **Assumption** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
| 1 | There is data in the database | 10/24/23 | Micah Gordon |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Issues** | | | | | |
| **#** | **Issue** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
|  | N/A | N/A | N/A | N/A | N/A |
|  |  |  |  |  |  |

|  |  |  |
| --- | --- | --- |
| **Other Comments** | | |
| **Author** | **Comment** | **Date** |
| Micah Gordon | By default the loads pages should only display “today’s date” loads | 10/24/23 |
| Micah Gordon | For possible objects Ref Use Case: 10 | 10/24/23 |
| Micah Gordon | Filter and sort options can be found in Functional Requirements 4.2.2-4.2.3 | 10/24/23 |

|  |
| --- |
| **Frequency of Execution** |
| **Frequency:**  Minimum: Maximum: Average: 50 (OR)Fixed:  **Per:** Hour:Day:  Week:  Month:  Other: |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Timing Information** | | | | | | | |
| **#** | **At/**  **Between** | **Step(s)** | **Timing**  **Unit** | **Minimum** | **Average** | **Maximum** | **Comments** |
| 1 | Between | 1, 2 | Seconds | n/a |  | 2 | Depends on amount of loads that day |
| 2 | Between | 3, 4 | Seconds | n/a |  | 3 | Depends on requests |
| 3 | Between | 4, 5 | Seconds | n/a |  | 1.5 |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Volume Information** | | | | | | |
| **#** | **Step #** | **Unit of**  **Measure** | **Minimum** | **Average** | **Maximum** | **Comments** |
| 1 | 2 | Bytes | 0 | 1k |  | Estimated with size of API json |
| 2 | 3 | Bytes | 0 | 1k |  | Depends on what filters/sorts used |

### Scenario 40

**Operator Clicks “Weight Sheet” button.**

**System displays Weight Sheet page.**

**Operator filters/sorts data.**

WeightSheetService gets updated IApiResult.

**System updates page to match operator selected filters and/or sorts**

**Operator clicks “Overview” button.**

### Sequence Diagram 40A screenshot of a computer Description automatically generated

### Use Case 40a: Edit Weight Sheet Data

|  |
| --- |
| **Alternate Course General Information** |
| Alternate Course Name\Number: 40a  Description: Edit Weight Sheet Data  Reason for Execution: Update needed due to bad or incomplete data Non Exception:  Exception: |

|  |
| --- |
| **Insertion Point** |
| **Step Inserted After** |
| 2 |

|  |  |
| --- | --- |
| **Pre-Conditions** | |
| 1. | Weight Sheet data exists in the data base |
| 2. | Default display is data from “today’s date” |

|  |  |  |  |
| --- | --- | --- | --- |
| **Alternate Course Steps** | | | |
| **#** | **Step Description** | **Adds Use Case #** | **Business Rule(s)#** |
| 1. | Operator selects a data field and modifies it |  | 3, 4 mandatory /optional |
| 2. | System updates the data shown to operator’s input |  | 7 sanitize |
| 3. | Operator navigates away from Weight Sheets page |  |  |

|  |  |
| --- | --- |
| **Post-Conditions** | |
| 1. | Valid data has been updated in the database |
| 2. | New data shows on the overview screen |

### Scenario 40a

**Operator selects a data field and modifies it.**

IWeightSheet verifies data modifications.

**System updates the data shown to operator’s input.**

Transfer/InboundWeightSheetService puts data.

**Operator navigates away from Weight Sheet page.**

### Sequence Diagram 40aA screenshot of a computer Description automatically generated

## Use Case 50: Lot Data Interactions

|  |  |
| --- | --- |
| **General Information** | |
| Use Case Name\Number : 50  Subject Area : Operator data interactions  Description : Operator views Lots for warehouse | Responsible Analyst : Micah Gordon |

|  |  |
| --- | --- |
| **Requirements/Feature Trace** | |
| **REQ#** | **Requirements Name and / or Short Description** |
| 4.1 | Lot data is viewable, filterable and sortable |
| 1.3-1.5 | Lot data is editable |
|  |  |
|  |  |

|  |  |  |
| --- | --- | --- |
| **Revision History** | | |
| **Author** | **Date** | **Comments** |
| Micah Gordon | 10/24/23 | Initial Draft |
|  |  |  |
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|  |  |  |

|  |  |  |
| --- | --- | --- |
| **Insertion Points in other Use Cases (Adds Only)** | | |
| **Use Case Name** | **Use Case Number** | **Step Inserted After** |
| N/A | N/A | N/A |

|  |  |  |
| --- | --- | --- |
| **Actors** | | |
| **Actor Name** | **Person/System** | **Brief Description** |
| Operator | Person | Individual operating scale and application |

|  |  |
| --- | --- |
| **Pre-Conditions** | |
| # | Description |
| 1 | Lot data exists in database |

|  |
| --- |
| **Start Stimulus** |
| Operator clicks “Lots” button |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Main Course Steps** | | | |
| **Number** | **Description** | **Adds/Alt Name/Number** | **Bus Rule#** |
| 1 | Operator clicks “Lots” button |  |  |
| 2 | System displays Lots Page | 50a |  |
| 3 | Operator filters/sorts data |  |  |
| 4 | System updates page to match operators filters and/or sorts |  |  |
| 5 | Operator clicks “Overview” button |  |  |

|  |  |  |
| --- | --- | --- |
| **Exception Conditions** | | |
| **Exception Situations** | **Action(s) on Exception** | **Adds\Alt UC #** |
| N/A | N/A | N/A |

|  |  |
| --- | --- |
| **Post-Conditions** | |
| **#** | **Description** |
| 1 | Lots page is consistent with interactions the operator has made. |
| 2 | Lots page is reset to default filters and sorts when operator navigates away. |

|  |  |  |
| --- | --- | --- |
| **Candidate Objects** | | |
| **Class/Object Name** | **Descriptions** | **Possible**  **attributes** |
| N/A | N/A | N/A |
|  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Assumptions** | | | | | |
| **#** | **Assumption** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
| 1 | There is data in the database | 10/24/23 | Micah Gordon |  |  |
|  |  |  |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Issues** | | | | | |
| **#** | **Issue** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
|  | N/A | N/A | N/A | N/A | N/A |

|  |  |  |
| --- | --- | --- |
| **Other Comments** | | |
| **Author** | **Comment** | **Date** |
| Micah Gordon | By default the loads pages should only display “today’s date” loads | 10/24/23 |
| Micah Gordon | For possible objects Ref Use Case: 10 | 10/24/23 |
| Micah Gordon | Filter and sort options can be found in Functional Requirements 4.1.2 – 4.1.3 | 10/24/23 |

|  |
| --- |
| **Frequency of Execution** |
| **Frequency:**  Minimum: Maximum: Average: 50 (OR)Fixed:  **Per:** Hour:Day:  Week:  Month:  Other: |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Timing Information** | | | | | | | |
| **#** | **At/**  **Between** | **Step(s)** | **Timing**  **Unit** | **Minimum** | **Average** | **Maximum** | **Comments** |
| 1 | Between | 1, 2 | Seconds | n/a |  | 2 | Depends on amount of weight sheets that day |
| 2 | Between | 3, 4 | Seconds | n/a |  | 3 | Depends on requests |
| 3 | Between | 4, 5 | Seconds | n/a |  | 1.5 |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Volume Information** | | | | | | |
| **#** | **Step #** | **Unit of**  **Measure** | **Minimum** | **Average** | **Maximum** | **Comments** |
| 1 | 2 | Bytes | 0 | 1k |  | Estimated with size of api jsons |
| 2 | 3 | Bytes | 0 | 1k |  | Depends on what filters/sorts used |

### Scenario 50

**Operator clicks “Lots” button.**

**System displays Lots page.**

**Operator filters/sorts data.**

**System updates page to match operators filters and/or sorts.**

LotService gets updated IApiResult

**Operator clicks “Overview” button.**

### Sequence Diagram 50A screenshot of a computer Description automatically generated

### Use Case 50a: Edit Lot Data

|  |
| --- |
| **Alternate Course General Information** |
| Alternate Course Name\Number: 50a  Description: Edit Lot Data  Reason for Execution: Update needed due to bad or incomplete data Non Exception:  Exception: |

|  |
| --- |
| **Insertion Point** |
| **Step Inserted After** |
| 2 |

|  |  |
| --- | --- |
| **Pre-Conditions** | |
| 1. | Load data exists in the data base |
| 2. | Default display is data from “today’s date” |

|  |  |  |  |
| --- | --- | --- | --- |
| **Alternate Course Steps** | | | |
| **#** | **Step Description** | **Adds Use Case #** | **Business Rule(s)#** |
| 1. | Operator selects a data field and modifies it |  | 5 mandatory / optional |
| 2. | System updated the data shown to operator’s input |  | 7 sanitize |
| 3. | Operator navigates away from Lots page |  |  |

|  |  |
| --- | --- |
| **Post-Conditions** | |
| 1. | Valid data has been updated in the database. |
| 2. | New data shows on the overview screen |

### Scenario 50a

**Operator selects a data field and modifies it.**

Lot verifies data.

**System updates the data shown to match operator’s input.**

LotService puts data.

**Operator navigates away from Lots page.**

### Sequence Diagram 50aA screenshot of a computer Description automatically generated

## Use Case 60: Close Weight Sheet

|  |  |
| --- | --- |
| **General Information** | |
| Use Case Name\Number : 60  Subject Area : Weight Sheet Behavior  Description : Operator is required to close a weight sheet. | Responsible Analyst : Micah Gordon |

|  |  |
| --- | --- |
| **Requirements/Feature Trace** | |
| **REQ#** | **Requirements Name and / or Short Description** |
| 2.5-2.6 | Close a weight sheet |

|  |  |  |
| --- | --- | --- |
| **Revision History** | | |
| **Author** | **Date** | **Comments** |
| Micah Gordon | 10/24/23 | Initial Draft |
|  |  |  |
|  |  |  |
|  |  |  |

|  |  |  |
| --- | --- | --- |
| **Insertion Points in other Use Cases (Adds Only)** | | |
| **Use Case Name** | **Use Case Number** | **Step Inserted After** |
| N/A | N/A | N/A |

|  |  |  |
| --- | --- | --- |
| **Actors** | | |
| **Actor Name** | **Person/System** | **Brief Description** |
| Operator | Person | Individual operating scale and application |

|  |  |
| --- | --- |
| **Pre-Conditions** | |
| # | Description |
| 1 | Must have an existing inbound or transfer weight sheet. |

|  |
| --- |
| **Start Stimulus** |
| 1 Operator clicks “Weight Sheets” button |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Main Course Steps** | | | |
| **Number** | **Description** | **Adds/Alt Name/Number** | **Bus Rule#** |
| 1 | Operator clicks “Weight Sheets” button |  |  |
| 2 | System displays Weight Sheets page |  |  |
| 3 | Operator selects a weight sheet |  |  |
| 4 | System displays a pop out view of weight sheet |  |  |
| 5 | Operator clicks “Close Weight Sheet” |  |  |
| 6 | System prompts Operator to confirm |  |  |
| 7 | Operator confirms clicks “yes” | 60a |  |
| 8 | System displays Overview |  | 8 remove from active |

|  |  |  |
| --- | --- | --- |
| **Exception Conditions** | | |
| **Exception Situations** | **Action(s) on Exception** | **Adds\Alt UC #** |
| Weight sheet closed in error | Operator re-opens weight sheet | 60a |

|  |  |
| --- | --- |
| **Post-Conditions** | |
| **#** | **Description** |
| 1 | Closed weight sheet is marked as closed in the databsae |
| 2 | Closed weight sheet is removed from overview page |

|  |  |  |
| --- | --- | --- |
| **Candidate Objects** | | |
| **Class/Object Name** | **Descriptions** | **Possible**  **attributes** |
| N/A | N/A | N/A |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Assumptions** | | | | | |
| **#** | **Assumption** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
|  | N/A/ | N/A/ | N/A | N/A | N/A |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Issues** | | | | | |
| **#** | **Issue** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
|  | N/A | N/A | N/A | N/A | N/A |

|  |  |  |
| --- | --- | --- |
| **Other Comments** | | |
| **Author** | **Comment** | **Date** |
| Micah Gordon | Closing a different types a of weight sheets has no effect. BUT closing a inbound will not close the lot. Lots contain many weight sheets | 10/24/23 |
| Micah Gordon | For possible objects Ref Use Case: 10 | 10/24/23 |

|  |
| --- |
| **Frequency of Execution** |
| **Frequency:**  Minimum: Maximum: 1 Average: (OR)Fixed:  **Per:** Hour:Day:  Week:  Month:  Other: weight sheet |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Timing Information** | | | | | | | |
| **#** | **At/**  **Between** | **Step(s)** | **Timing**  **Unit** | **Minimum** | **Average** | **Maximum** | **Comments** |
| 1 | Between | 1, 2 | Seconds | n/a |  | 1.5 |  |
| 2 | Between | 3, 4 | Seconds | n/a |  | 1.5 |  |
| 3 | Between | 7, 8 | Seconds | n/a |  | 2 | More processing needed |
|  |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Volume Information** | | | | | | |
| **#** | **Step #** | **Unit of**  **Measure** | **Minimum** | **Average** | **Maximum** | **Comments** |
| 1 | 7 | Bytes | 1 |  |  | Request to updated database weight sheet is closed |

### Scenario 60

**Operator Clicks “Weight Sheets” button.**

**System displays Weight Sheet page.**

**Operator selects a weight sheet.**

**System displays a pop out view of the weight sheet.**

**Operator clicks “Close Weight Sheet”.**

Transfer/InboundWeightSheet sets closed date.

**System prompts Operator to confirm.**

**Operator confirms. Clicks “Yes”.**

Transfer/InboundWeigthSheetService puts data in data base.

**System displays Overview.**

### Sequence Diagram 60A screenshot of a computer Description automatically generated

### Use Case 60a: Re-Open Weight Sheet

|  |
| --- |
| **Alternate Course General Information** |
| Alternate Course Name\Number: 60a  Description: Re open weight sheet  Reason for Execution: Weight sheet was not supposed to be close by Operator Non Exception:  Exception: |

|  |
| --- |
| **Insertion Point** |
| **Step Inserted After** |
| 7 |

|  |  |
| --- | --- |
| **Pre-Conditions** | |
| 1. | Weight sheet is closed |

|  |  |  |  |
| --- | --- | --- | --- |
| **Alternate Course Steps** | | | |
| **#** | **Step Description** | **Adds Use Case #** | **Business Rule(s)#** |
| 1. | Operator clicks “Weight Sheet” |  |  |
| 2. | System Displays “Weight Sheets” page |  |  |
| 3. | Operator selects the closed weight sheet |  |  |
| 4. | System displays weight sheet popout |  |  |
| 5. | Operator clicks “Re-Open” |  |  |
| 6 | System displays Overview page |  |  |

|  |  |
| --- | --- |
| **Post-Conditions** | |
| 1. | Overview page displays the weight sheet as active again |
| 2. | Database is updated to show the weight sheet is open |

### Scenario 60a

**Operator clicks “Weight Sheet”.**

**System Displays “Weight Sheet” pages.**

**Operator selects the closed weight sheet.**

**System displays weight sheet popout.**

**Operator clicks “Re-Open”.**

Transfer/InboundWeightSheet sets date closed state to null.

Transfer/InboundWeightSheetService puts data on database.

**System displays Overview page.**

### Sequence Diagram 60aA screenshot of a computer Description automatically generated

## Use Case 70: Close Lot

|  |  |
| --- | --- |
| **General Information** | |
| Use Case Name\Number : 70  Subject Area : Lot Behavior  Description : Operator is required to close a lot. | Responsible Analyst : Micah Gordon |

|  |  |
| --- | --- |
| **Requirements/Feature Trace** | |
| **REQ#** | **Requirements Name and / or Short Description** |
| 1.4-1.5 | Close a lot |

|  |  |  |
| --- | --- | --- |
| **Revision History** | | |
| **Author** | **Date** | **Comments** |
| Micah Gordon | 10/24/23 | Initial Draft |
|  |  |  |
|  |  |  |
|  |  |  |

|  |  |  |
| --- | --- | --- |
| **Insertion Points in other Use Cases (Adds Only)** | | |
| **Use Case Name** | **Use Case Number** | **Step Inserted After** |
| N/A | N/A | N/A |

|  |  |  |
| --- | --- | --- |
| **Actors** | | |
| **Actor Name** | **Person/System** | **Brief Description** |
| Operator | Person | Individual operating scale and application |
|  |  |  |
|  |  |  |

|  |  |
| --- | --- |
| **Pre-Conditions** | |
| # | Description |
| 1 | Existing open lot |

|  |
| --- |
| **Start Stimulus** |
| Operator clicks “Lots” button |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Main Course Steps** | | | |
| **Number** | **Description** | **Adds/Alt Name/Number** | **Bus Rule#** |
| 1 | Operator clicks “Lots” button |  |  |
| 2 | System displays Lots page |  |  |
| 3 | Operator selects a Lots |  |  |
| 4 | System displays a pop out view of Lots |  |  |
| 5 | Operator clicks “Close Lots” |  |  |
| 6 | System prompts Operator to confirm |  |  |
| 7 | Operator confirms clicks “yes” | 70a |  |
| 8 | System displays Overview |  | 8 remove from active |

|  |  |  |
| --- | --- | --- |
| **Exception Conditions** | | |
| **Exception Situations** | **Action(s) on Exception** | **Adds\Alt UC #** |
| Lot closed in error | Operator re-opens weight sheet | 70a |

|  |  |
| --- | --- |
| **Post-Conditions** | |
| **#** | **Description** |
| 1 | Closed lot is marked as closed in the database |
| 2 | All weight sheets on the closed lot are closed as well |

|  |  |  |
| --- | --- | --- |
| **Candidate Objects** | | |
| **Class/Object Name** | **Descriptions** | **Possible**  **attributes** |
| N/A | N/A | N/A |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Assumptions** | | | | | |
| **#** | **Assumption** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
|  | N/A | N/A | N/A | N/A | N/A |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Issues** | | | | | |
| **#** | **Issue** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
|  | N/A | N/A | N/A | NA | N/A |

|  |  |  |
| --- | --- | --- |
| **Other Comments** | | |
| **Author** | **Comment** | **Date** |
| Micah Gordon | For possible objects Ref Use Case: 10 | 10/24/23 |

|  |
| --- |
| **Frequency of Execution** |
| **Frequency:**  Minimum: Maximum: 1 Average: (OR)Fixed:  **Per:** Hour:Day:  Week:  Month:  Other: lOT |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Timing Information** | | | | | | | |
| **#** | **At/**  **Between** | **Step(s)** | **Timing**  **Unit** | **Minimum** | **Average** | **Maximum** | **Comments** |
| 1 | Between | 1, 2 | Seconds | n/a |  | 1.5 |  |
| 2 | Between | 3, 4 | Seconds | n/a |  | 1.5 |  |
| 3 | Between | 7, 8 | Seconds | n/a |  | 2 | More processing needed |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Volume Information** | | | | | | |
| **#** | **Step #** | **Unit of**  **Measure** | **Minimum** | **Average** | **Maximum** | **Comments** |
| 1 | 7 | Bytes | 1 |  |  | Request to updated database weight sheet is closed |

### Scenario 70

**Operator Clicks “Lots” button.**

**System displays Lot page.**

**Operator selects a Lot.**

**System displays a pop out view of the Lot.**

**Operator clicks “Close Lot”.**

Lot sets closed date.

**System prompts Operator to confirm.**

**Operator confirms. Clicks “Yes”.**

LotService puts data in data base.

**System displays Overview.**

### Sequence Diagram 70A screenshot of a computer Description automatically generated

### Use Case 70a: Re-Orpen Lot

|  |
| --- |
| **Alternate Course General Information** |
| Alternate Course Name\Number: 70a  Description: Re open lot  Reason for Execution: Lot was not supposed to be close by Operator Non Exception:  Exception: |

|  |
| --- |
| **Insertion Point** |
| **Step Inserted After** |
| 7 |

|  |  |
| --- | --- |
| **Pre-Conditions** | |
| 1. | Lot was closed |

|  |  |  |  |
| --- | --- | --- | --- |
| **Alternate Course Steps** | | | |
| **#** | **Step Description** | **Adds Use Case #** | **Business Rule(s)#** |
| 1. | Operator clicks “Lot” |  |  |
| 2. | System Displays “Lots” page |  |  |
| 3. | Operator selects the closed lot |  |  |
| 4. | System displays Lot popout |  |  |
| 5. | Operator clicks “Re-Open” |  |  |
| 6 | System displays Overview page |  |  |

|  |  |
| --- | --- |
| **Post-Conditions** | |
| 1. | Overview page displays the lot as active again |
| 2. | Database is updated to show the lot is open |

### Scenario 70a

**Operator clicks “Lot”.**

**System Displays “Lot” pages.**

**Operator selects the closed Lot.**

**System displays Lot popout.**

**Operator clicks “Re-Open”.**

Lot sets date closed state to null.

Lot Service puts data on database.

**System displays Overview page.**

### Sequence Diagram 70aA screenshot of a computer Description automatically generated

## Use Case 80: Move Inbound Weight Sheet

|  |  |
| --- | --- |
| **General Information** | |
| Use Case Name\Number : 80  Subject Area : Corrections  Description : Operator can move an inbound weight sheet from one lot to another | Responsible Analyst : Micah Gordon |

|  |  |
| --- | --- |
| **Requirements/Feature Trace** | |
| **REQ#** | **Requirements Name and / or Short Description** |
| 2.4 | Move Weight Sheet |

|  |  |  |
| --- | --- | --- |
| **Revision History** | | |
| **Author** | **Date** | **Comments** |
| Micah Gordon | 10/24/23 | Initial Draft |
|  |  |  |
|  |  |  |
|  |  |  |

|  |  |  |
| --- | --- | --- |
| **Insertion Points in other Use Cases (Adds Only)** | | |
| **Use Case Name** | **Use Case Number** | **Step Inserted After** |
| N/A | N/A | N/A |

|  |  |  |
| --- | --- | --- |
| **Actors** | | |
| **Actor Name** | **Person/System** | **Brief Description** |
| Operator | Person | Individual operating scale and application |

|  |  |
| --- | --- |
| **Pre-Conditions** | |
| # | Description |
| 1 | Two Lots open lots exist. |
| 2 | Weight sheet type is Inbound |
| 3 | Overview screen displayed |

|  |
| --- |
| **Start Stimulus** |
| Operator selects a weight sheet from the overview table |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Main Course Steps** | | | |
| **Number** | **Description** | **Adds/Alt Name/Number** | **Bus Rule#** |
| 1 | Operator selects an inbound weight sheet |  |  |
| 2 | System Displays weight sheet details pop out window |  |  |
| 3 | Operator clicks “Move” button |  |  |
| 4 | System Displays table of lots |  |  |
| 5 | Operator selects a lot to move the weight sheet to |  |  |
| 6 | Operator selects “Move” |  |  |
| 7 | System Displays Confirm message |  |  |
| 8 | Operator clicks “Yes” |  |  |
| 9 | System displays Overview screen with weight sheet on different lot |  |  |

|  |  |  |
| --- | --- | --- |
| **Exception Conditions** | | |
| **Exception Situations** | **Action(s) on Exception** | **Adds\Alt UC #** |
| N/A | NA/ | N/A |

|  |  |
| --- | --- |
| **Post-Conditions** | |
| **#** | **Description** |
| 1 | Weight sheet removed for original lot |
| 2 | Weight sheet is added to selected lot |
| 3 | Database is updated with change |

|  |  |  |
| --- | --- | --- |
| **Candidate Objects** | | |
| **Class/Object Name** | **Descriptions** | **Possible**  **attributes** |
| N/A | N/A | N/A |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Assumptions** | | | | | |
| **#** | **Assumption** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
|  | N/A | N/A | N/A | N/A | N/A |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Issues** | | | | | |
| **#** | **Issue** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
|  | N/A | N/A | N/A | N/A | N/A |

|  |  |  |
| --- | --- | --- |
| **Other Comments** | | |
| **Author** | **Comment** | **Date** |
| N/A | N/A | N/A |

|  |
| --- |
| **Frequency of Execution** |
| **Frequency:**  Minimum: 0 Maximum: 100 Average: (OR)Fixed:  **Per:** Hour:Day:  Week:  Month:  Other: |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Timing Information** | | | | | | | |
| **#** | **At/**  **Between** | **Step(s)** | **Timing**  **Unit** | **Minimum** | **Average** | **Maximum** | **Comments** |
| 1 | Between | 1, 2 | Seconds | N/A |  | 1.5 |  |
| 2 | Between | 3, 4 | Seconds | N/A |  | 1.5 |  |
| 3 | Between | 6, 7 | Seconds | N/A |  | .5 |  |
| 4 | Between | 8, 9 | Seconds | N/A |  | 1 |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Volume Information** | | | | | | |
| **#** | **Step #** | **Unit of**  **Measure** | **Minimum** | **Average** | **Maximum** | **Comments** |
| 1 | 8 | Bytes | 5 |  |  | S.W.A.G. |

### Scenario 80

**Operator selects an Inbound Weight Sheet.**

InboundWeightSheetService gets weight sheet.

**System displays Weight Sheet details pop up window.**

**Operator clicks “Move” button.**

**System Displays table of lots.**

LotService gets all lots.

**Operator selects a lot to move the weight sheet to.**

**Operator selects “Move”.**

**System displays confirm message.**

**Operator clicks “yes”.**

InboundWeightSheet moves to different lot.

Original lot removes weight sheet from its list.

Updates data base using LotService

InboundWeightSheetService sends to database.

LotServices sends to database.

**System displays Overview screen with weight on sheet on different lot.**

### Sequence Diagram 80A grid of lines with green arrows Description automatically generated with medium confidence

## Use Case 90: Move Load

|  |  |
| --- | --- |
| **General Information** | |
| Use Case Name\Number : 90  Subject Area : Corrections  Description : Operator can move an load from one weight sheet to another | Responsible Analyst : Micah Gordon |

|  |  |
| --- | --- |
| **Requirements/Feature Trace** | |
| **REQ#** | **Requirements Name and / or Short Description** |
| 3.11 | Move Load |

|  |  |  |
| --- | --- | --- |
| **Revision History** | | |
| **Author** | **Date** | **Comments** |
| Micah Gordon | 10/25/23 | Initial Draft |
|  |  |  |
|  |  |  |
|  |  |  |

|  |  |  |
| --- | --- | --- |
| **Insertion Points in other Use Cases (Adds Only)** | | |
| **Use Case Name** | **Use Case Number** | **Step Inserted After** |
| N/A | N/A | N/A |

|  |  |  |
| --- | --- | --- |
| **Actors** | | |
| **Actor Name** | **Person/System** | **Brief Description** |
| Operator | Person | Individual operating scale and application |

|  |  |
| --- | --- |
| **Pre-Conditions** | |
| # | Description |
| 1 | At least two open weight sheets |
| 2 | Overview screen displayed |

|  |
| --- |
| **Start Stimulus** |
| Operator selects a weight sheet form the overview table |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Main Course Steps** | | | |
| **Number** | **Description** | **Adds/Alt Name/Number** | **Bus Rule#** |
| 1 | Operator selects a weight sheet |  |  |
| 2 | System displays weight sheet details pop up window |  |  |
| 3 | Operator selects a load on the weight sheet |  |  |
| 4 | System displays load pop up window |  |  |
| 5 | Operator clicks move |  |  |
| 6 | System displays weight sheet table |  |  |
| 7 | Operator clicks move |  |  |
| 8 | System prompts for confirmation |  |  |
| 9 | Operator confirms |  |  |
| 10 | System displays overview screen |  |  |

|  |  |  |
| --- | --- | --- |
| **Exception Conditions** | | |
| **Exception Situations** | **Action(s) on Exception** | **Adds\Alt UC #** |
| N/A | N/A | N/A |

|  |  |
| --- | --- |
| **Post-Conditions** | |
| **#** | **Description** |
| 1 | Load is removed from original weight sheet |
| 2 | Load is added to selected weight sheet |
| 3 | Database is updated with change |

|  |  |  |
| --- | --- | --- |
| **Candidate Objects** | | |
| **Class/Object Name** | **Descriptions** | **Possible**  **attributes** |
| N/A | N/A | N/A |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Assumptions** | | | | | |
| **#** | **Assumption** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
|  | N/A | N/A | N/A | N/A | N/A |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Issues** | | | | | |
| **#** | **Issue** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
|  | N/A | N/A | N/A | N/A | N/A |

|  |  |  |
| --- | --- | --- |
| **Other Comments** | | |
| **Author** | **Comment** | **Date** |
| N/A | N/A | N/A |

|  |
| --- |
| **Frequency of Execution** |
| **Frequency:**  Minimum: 0 Maximum: Average: 100 (OR)Fixed:  **Per:** Hour:Day:  Week:  Month:  Other: |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Timing Information** | | | | | | | |
| **#** | **At/**  **Between** | **Step(s)** | **Timing**  **Unit** | **Minimum** | **Average** | **Maximum** | **Comments** |
| 1 | Between | 1, 2 | Seconds | N/A |  | 1.5 |  |
| 2 | Between | 3, 4 | Seconds | N/A |  | 1.5 |  |
| 3 | Between | 5, 6 | Seconds | N/A |  | 1.5 |  |
| 4 | Between | 7, 8 | Seconds | N/A |  | 1 |  |
| 5 | Between | 9, 10 | Seconds | N/A |  | 1.5 |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Volume Information** | | | | | | |
| **#** | **Step #** | **Unit of**  **Measure** | **Minimum** | **Average** | **Maximum** | **Comments** |
| 1 | 9 | Bytes | 5 |  |  | S.W.A.G. |

### Scenario 90

**Operator selects a weight sheet.**

Transfer/InboundWeightSheetService gets weight sheet.

**System displays weight sheet details pop up window.**

**Operator selects a load on the weight sheet.**

LoadService retrives load.

**System displays load pop up window.**

**Operator clicks move.**

**System displays weight sheet table.**

**Operator clicks move.**

**System prompts for confirmation.**

**Operator confirms.**

Load moves to a different IWeightSheet.

Load removed from original IWeightSheet.

Transfer/InboundWeightSheetService sends to database.

**System displays overview screen.**

### Sequence Diagram 90A screenshot of a computer Description automatically generated

# Crud matrix

CRUD Matrix

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Use Case ID | Use Case Name | Bin | CommodityService | Commodity | CommodityType |
| 10 | New Load | U | RC | R | RC |
| 20 | Reports | R |  | R |  |
| 30 | Load data view, edit, sort, filter |  |  |  |  |
| 40 | Weight sheet data view, edit, sort, filter | R | RC | R | RC |
| 50 | Lot data view, edit, sort, filter |  |  |  |  |
| 60 | Close/Reopen weight sheet |  |  |  |  |
| 70 | Close/Reopen |  |  |  |  |
| 80 | Move Weight Sheet |  |  |  |  |
| 90 | Move Lot |  |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Use Case ID | Use Case Name | District | DistrictService | IApiResult | InboundWeightSheet |
| 10 | New Load |  |  |  | C |
| 20 | Reports | R | RC |  |  |
| 30 | Load data view, edit, sort, filter |  |  |  | CRU |
| 40 | Weight sheet data view, edit, sort, filter |  |  |  | CRU |
| 50 | Lot data view, edit, sort, filter |  |  |  | CRU |
| 60 | Close/Reopen weight sheet |  |  |  | U |
| 70 | Close/Reopen Lot |  |  |  | U |
| 80 | Move Weight Sheet |  |  |  | U |
| 90 | Move Lot |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Use Case ID | Use Case Name | InboundWeightSheetService | IService | Load | Lot | LotService |
| 10 | New Load | U |  | C |  |  |
| 20 | Reports | R |  | R | R | R |
| 30 | Load data view, edit, sort, filter | RU |  | RU |  |  |
| 40 | Weight sheet data view, edit, sort, filter | RU |  |  |  |  |
| 50 | Lot data view, edit, sort, filter |  |  |  | RU | CRU |
| 60 | Close/Reopen weight sheet | U |  |  |  |  |
| 70 | Close/Reopen Lot |  |  |  | U | CR |
| 80 | Move Weight Sheet | U |  |  | U | CR |
| 90 | Move Lot |  |  |  | U | CR |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Use Case ID | Use Case Name | Producer | TransferWeightSheet | TransferWeightSheetService |
| 10 | New Load |  | U | CU |
| 20 | Reports | R | R | CR |
| 30 | Load data view, edit, sort, filter |  |  |  |
| 40 | Weight sheet data view, edit, sort, filter |  | RU | CR |
| 50 | Lot data view, edit, sort, filter | R |  |  |
| 60 | Close/Reopen weight sheet |  | RU | CR |
| 70 | Close/Reopen Lot |  |  |  |
| 80 | Move Weight Sheet |  | U | CR |
| 90 | Move Lot |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case ID | Use Case Name | Warehouse | WarehouseService |
| 10 | New Load | U | CR |
| 20 | Reports | R | CR |
| 30 | Load data view, edit, sort, filter |  |  |
| 40 | Weight sheet data view, edit, sort, filter |  |  |
| 50 | Lot data view, edit, sort, filter |  |  |
| 60 | Close/Reopen weight sheet |  |  |
| 70 | Close/Reopen Lot |  |  |
| 80 | Move Weight Sheet |  |  |
| 90 | Move Lot |  |  |

# Low Fidelity Ui

Overview Page
Description automatically generated

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generatedA screenshot of a computer

Description automatically generated

A screenshot of a weight sheet

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Description automatically generated

# Glossary

## Appendix A. Business Rules

1. New Load mandatory versus optional data
   1. Mandatory
      1. Truck Identifier
   2. Optional
      1. Destination Bin
      2. Test weight
      3. Moisture
      4. Protein
      5. Bill of lading number
      6. Notes
2. Calculating tare and net weights. Net = gross – tare. Net is the weight of the product unload. Gross is the weight of the truck plus commodity before unloading. Tare is the weight of the truck after it has been unloaded.
3. New Transfer Weight Sheet mandatory versus optional data
   1. Mandatory
      1. Source
      2. Commodity Type
   2. Optional
      1. Commodity Variety
      2. Bill of Lading
      3. Hauler
      4. One Way Miles
      5. Notes
4. New Inbound Weight Sheet mandatory versus optional data
   1. Mandatory
      1. Lot
   2. Optional
      1. Bill of Lading
      2. Hauler
      3. One Way Miles
      4. Notes
5. New Lot mandatory versus optional data
   1. Mandatory
      1. Producer
      2. Sate of Origin
      3. Commodity Type
   2. Optional
      1. Commodity Verity
      2. Landlord
      3. FSA Farm Number
      4. Notes
6. Report types
   1. Operator has the option of choosing one or more reports
      1. Intake
      2. Transfer
      3. Daily Weight Sheet
      4. Daily Commodity
      5. Producer Commodity Delivery
7. Operator can’t remove mandatory data. Scrub for SQL injection.
8. If closed, update database. Re query database and update model and view.