

Requirementstst

PHASE 1 = Text not highlighted at all should be included in phase 1

PHASE 2 = Text highlighted in yellow should be included in phase 2

PHASE 3 = Text highlighted in red should be included in phase 3

ADDED TO PHASE 1 = Text highlighted in pink are new requirements added to PHASE 1 during discussions with the development team.

1. General requirements

1.1. Universal Requirements

1.1.1.

1.1.2. Log Entries

1.1.2.1. Each entry in the system should automatically be logged with a "date created" field, and the user who created it.

1.1.3. Log Changes

1.1.3.1. Each edit in the system should automatically be logged with a "date modified" field and the user who modified it.

1.1.4. Mandatory Fields

1.1.4.1. All fields mentioned below should be considered mandatory unless denoted with the word "Optional"

1.1.5. Saved Views

1.1.5.1. All pages built off of the Packaging Order View page, the Shipments View page, or the Container View page should allow the user to modify the views and include a "Saved Views" dropdown.

1.1.5.2. ***Users should be able to manage their saved views so that when many saved views appear, they can be well-organized

1.1.5.2.1. Users should be able to re-order saved views and place them in folders (much like organizing bookmarks in a browsers)

1.1.6. Hyperlinks

1.1.6.1. Whenever possible, clicking on a link on a page should open up the detail of that link on a new page.

1.1.6.1.1. For instance, when looking at the Shipment Detail page, if the user double-clicks on the PO#, it should bring up the Packaging Instruction Detail page for that particular PO#.

1.1.7. Menu Items

1.1.7.1. In general, the buttons listed on the page in the wireframe drawings should also be selectable with menu item dropdowns on the top of the page. These menus have not usually been included in the wireframes.

1.1.8. Weights

1.1.8.1. All weights must be able to be toggled between pounds and kilograms. Some weights will default to pounds, others to kilograms.

1.1.8.2. The system should remember the last weight toggle setting for each user for each field that measures weight, and display it using that measure all subsequent times until it is toggled to something else.

1.1.9. Print

1.1.9.1. Every page will include a button, and menu item, to print the page.

1.1.9.2. Printing will include only the important/pertinent data from the page (eg, no filter bar, menu bar, etc.)

1.1.9.3. Printouts will look similar across pages (eg. They will probably follow a similar print CSS style sheet)

1.1.10. Grids

1.1.10.1. Much of the data on the view pages and other pages will be displayed in a data grid.

1.1.10.2. Grids shall support paging of records

1.1.10.3. Grids shall allow the user to choose the default number of records to display per page (10, 25, 50, 100)

1.1.10.4. Grids shall allow the navigation between first, last, and intermediate pages

1.1.10.5. Grid filtering, sorting, etc. preferences shall be persisted on a per user and per view basis.

1.1.10.6. The headings line of all Grids should be frozen (i.e. If the user scrolls down a long list of data, the data should scroll, but the headings should remain on the top of the screen, visible at all times to the user)

1.1.11. Browser

1.1.11.1. The user must always be able to use the browser back button to navigate back through history.

1.1.11.2. Where possible, applications URLs shall be able to be bookmarked with sensible titles.

1.1.11.3. Breadcrumb navigation shall be employed to allow the user to jump back in history.

1.1.12. *** Edit Functionality Limitations

1.1.12.1. Once a packaging instruction record makes it to a certain status state, some of the ability to edit those records should be locked out, to avoid creating errors in the database and other inconsistencies.

1.1.12.2. For example, once a packaging instruction switches to "partially packaged" we don't want the user to be able to change the material type, or many other fields.

1.2. Status State Summary

1.2.1. A summary of the different status states parts of an order can have throughout their lives

1.2.2. Packaging Instructions

1.2.2.1. Unconfirmed

1.2.2.1.1. An Packaging Instruction that has been entered but not confirmed

1.2.2.1.1.1. A Packaging Instruction MAY be checked in as "arrived" before it is "confirmed". In this case, its status remains as "Unconfirmed". Once it is confirmed, since it has already "arrived," it will skip immediately to "arrived" skipping the "confirmed" status.

1.2.2.2. Confirmed

1.2.2.2.1. A Packaging Instruction that has been confirmed, but the railcar hasn't arrived yet

1.2.2.3. Arrived

1.2.2.3.1. A Packaging Instruction that has been both "confirmed" and for which the railcar has been marked "arrived", but it hasn't been put in the packaging queue yet

1.2.2.4. Queued

1.2.2.4.1. A Packaging Instruction that has been put in the packaging queue, but hasn't been packaged yet

1.2.2.5. Partially Packaged

- 1.2.2.5.1. A Packaging Instruction for which some of the railcar has been packaged and placed into inventory, but not all of it.
- 1.2.2.6. In Inventory
 - 1.2.2.6.1. A Packaging Instruction that has been completely bagged and placed into inventory, but the bags haven't been released yet.
- 1.2.2.7. Shipped
 - 1.2.2.7.1. A Packaging Instruction that has been completely shipped and nothing is left in inventory
- 1.2.3. Shipment
 - 1.2.3.1. Unconfirmed
 - 1.2.3.1.1. A Shipment that has been entered but not confirmed
 - 1.2.3.2. Confirmed
 - 1.2.3.2.1. A Shipment that has been confirmed, but hasn't been put in the release queue yet
 - 1.2.3.3. Queued
 - 1.2.3.3.1. A Shipment that has been put in the release queue, but hasn't been loaded yet
 - 1.2.3.4. Loaded
 - 1.2.3.4.1. A Shipment that has had all the containers loaded, but not all the containers have been delivered
 - 1.2.3.5. Completed
 - 1.2.3.5.1. A Shipment that has had all the containers delivered to the port, and is now complete.
- 1.2.4. Containers
 - 1.2.4.1. Unallocated
 - 1.2.4.1.1. A quantity of containers that have been entered in the system for a Shipment, but no specific Trucker or Containers have been allocated.
 - 1.2.4.2. Not Arrived (Allocated)
 - 1.2.4.2.1. A "quantity" of containers that have been entered into the system as promised by a trucker to us, and assigned a particular Release Number, but the container has not arrived yet. (These do not include specific container numbers, but rather, just a quantity of containers that have been allocated by a Trucker to a particular Shipment)
 - 1.2.4.3. Arrived
 - 1.2.4.3.1. A container that has arrived at the warehouse, but not queued yet.
 - 1.2.4.4. Queued
 - 1.2.4.4.1. A container that has been queued, but not loaded yet.
 - 1.2.4.5. 2/7/2017: Assigned
 - 1.2.4.5.1. A container for which at least one item has been moved from inventory to the container (in the system), but it hasn't yet been confirmed as loaded.
 - 1.2.4.6. Loaded
 - 1.2.4.6.1. A container that has been loaded but hasn't left the warehouse yet.
 - 1.2.4.7. In transit
 - 1.2.4.7.1. A container for which the bill of lading has been printed, and which has left the warehouse, but we haven't confirmed it has made it to the port yet.
 - 1.2.4.8. Delivered
 - 1.2.4.8.1. A container which we confirmed has been delivered to the port.

2. Packaging Instructions

2.1. Packaging Instruction Entry

2.1.1. This page is the beginning of the process, used to enter in a Packaging Instruction received from a customer.

2.1.2. Packaging Instruction Information

2.1.2.1. Customer Name

2.1.2.1.1. Alpha

2.1.2.1.2. Dropdown

2.1.2.1.3. Only Customers that are already entered into the system may be in this field.

2.1.2.2. AR Bulk Location

2.1.2.2.1. This field indicates which location the Packaging Instruction railcar will be arriving at.

2.1.2.2.2. There are only two possible selections for this field:

"New Jersey"

"South Carolina"

2.1.2.3. Purchase Order

2.1.2.3.1. This field is the customer's purchase order number supplied on the Packaging Instruction

2.1.2.3.2. Alphanumeric field

2.1.2.3.3. 8/14/17: NO LONGER VALID. PO# must be filled in by the user. If there is no PO#, the user will fill in the lot number in the PO# field.

ORIGINAL REQUIREMENT: For domestic orders that do not have Purchase Order Numbers, the user may leave this field blank.

2.1.2.3.3.1. If the user leaves the field blank, the PO Number will be populated with the Lot Number.

2.1.2.3.3.1.1. 4/4/17: We agreed that the user will put the PO number in manually. The PO# needs to be unique.

2.1.2.4. Railcar Number

2.1.2.4.1. This field is the railcar number that is supplied on the Packaging Instruction

2.1.2.4.2. A PO Number may have multiple railcars associated with it or just one

2.1.2.4.3. The same railcar number might be associated with different PO Numbers, since the railcar may return a month later with new material. These Railcar Numbers should be treated as if they were different railcars, NOT aggregated together.

2.1.2.4.4. Alphanumeric field

2.1.2.4.5. A "+" sign should show up next to this field, which will allow the user to create multiple Railcar Numbers in a particular PO Number with the same Purchase Order Details

2.1.2.4.5.1. If a particular Railcar within a PO Number requires different Purchase Order Details, it will need to be entered separately (in two parts).

2.1.2.5. Lot Number

2.1.2.5.1. This field is the lot number associated with the Railcar that is supplied on the Packaging Instruction.

2.1.2.5.2. A railcar may have only one Lot Number associated with it. And a Lot Number may have only one Railcar Number associated with it. There is a one to one relationship between Railcar Number and Lot Number.

2.1.2.5.2.1. However, the same railcar number might be associated with different Lot Number, since the railcar may return a month later with new material.

These Railcar Numbers should be treated as if they were different railcars, NOT aggregated together.

- 2.1.2.5.3. Alphanumeric field
- 2.1.2.6. Weight
 - 2.1.2.6.1. This field is the weight (in pounds) of the railcar that is supplied on the Packaging Instruction
 - 2.1.2.6.2. Numeric field
- 2.1.3. Purchase Order Details
 - 2.1.3.1. Information that is common to the entire Purchase Order being entered (for all the Lot Numbers and Railcars being entered)
 - 2.1.3.2. If a particular Railcar Number within a Purchase Order requires different Purchase Order Details, it will need to be entered separately (in two parts).
 - 2.1.3.3. Material
 - 2.1.3.3.1. This field is the type of material that is contained in the railcar. Only one type can be associated with a particular railcar.
 - 2.1.3.3.2. Alphanumeric field
 - 2.1.3.4. Origin
 - 2.1.3.4.1. This field is the place of origin of the material that is supplied on the Packaging Instruction
 - 2.1.3.4.2. Alphanumeric field
 - 2.1.3.4.3. Dropdown field
 - 2.1.3.4.3.1. Admin should be able to modify the list of places available in the origin field dropdown
 - 2.1.3.4.3.2. This field should default to "USA"
 - 2.1.3.5. Type of Packaging
 - 2.1.3.5.1. This field represents the type of packaging that the customer wants to use
 - 2.1.3.5.2. Alphanumeric field
 - 2.1.3.5.3. Dropdown field
 - 2.1.3.5.3.1. Admin should be able to list the types of packaging available in this list, but it should include:
 - 2.1.3.5.3.1.1. Bulk
 - 2.1.3.5.3.1.2. Box
 - 2.1.3.5.3.1.3. Bag
 - 2.1.3.5.3.1.4. Supersack
 - 2.1.3.6. Type of Bag
 - 2.1.3.6.1. This field is the type of bag that the material is supposed to be packaged in (assuming the Type of Packaging is "Bag") and is supplied on the Packaging Instruction
 - 2.1.3.6.2. This field should only become active when Type of Packaging selected is equal to "Bag".
 - 2.1.3.6.3. Alphanumeric field
 - 2.1.3.6.4. Dropdown field
 - 2.1.3.6.4.1. Admin should be able to modify the list of bags available in the Type of Bag dropdown
 - 2.1.3.6.4.2. The types of bags available should be specific to the customer specified in the Customer Name field
 - 2.1.3.6.4.3. The types of bags available should be limited only to those that are marked "active". "Inactive" bags should be hidden from view.
 - 2.1.3.6.4.4. All "active" bags should be listed, without regard to how many bags are in inventory.

2.1.3.6.5. Logic

2.1.3.6.5.1. Once the type of bag has been selected, the system should determine the estimated number of bags required for this order by using the following equation: $\text{Weight/average weight per bag} = \text{number of bags required per railcar}$

2.1.3.6.5.2. The Number of Bags Estimated should be displayed next to each weight entered for each Lot Number

2.1.3.6.5.3. The Number of Bags Estimated should also be compared to how many of those bags are in inventory (after subtracting bags that are already allocated to other Packaging Instructions)

2.1.3.6.5.4. If there are enough bags, do nothing. If there are NOT enough bags, display a warning next to the field.

2.1.3.6.5.4.1. Warning should say "Not enough bags are in inventory for this order."

2.1.3.7. Type of Pallet

2.1.3.7.1. This field is the type of pallet that the bags should be placed on, and is supplied on the Packaging Instruction

2.1.3.7.2. Alphanumeric field

2.1.3.7.3. Dropdown field

2.1.3.7.3.1. Admin should be able to modify the list of pallets available in the Type of Pallet dropdown

2.1.3.7.3.2. "None" should be an option

2.1.3.8. Bags per Pallet

2.1.3.8.1. This field is the number of bags that should be placed on each pallet, and is supplied on the Packaging Instruction

2.1.3.8.2. Numeric

2.1.3.8.3. Defaults

2.1.3.8.3.1. If the AR Bulk Location is NJ, this should default to 55

2.1.3.8.3.2. If the AR Bulk Location is SC, this should default to 60

2.1.3.8.4. Logic

2.1.3.8.4.1. Once the Type of Pallet and Bags per Pallet have been selected, the system should determine the estimated number of pallets required for this order by using the following equation:

2.1.3.8.4.1.1. $\text{Weight/average weight per bag/bags per pallet} = \text{number of pallets required per railcar}$

2.1.3.8.4.2. Then, that number should be compared to how many of those pallets are in inventory (after subtracting pallets that already allocated to other Packaging Instructions).

2.1.3.8.4.3. If there are enough pallets, do nothing. If there are NOT enough pallets, display a warning next to the field.

2.1.3.8.4.3.1. Warning should say "Not enough pallets are in inventory for this order."

2.1.3.9. Stretch Wrap

This field is the way each pallet should be wrapped, and is supplied on the Packaging Instruction

2.1.3.9.1. Alphanumeric

2.1.3.9.2. Dropdown field

2.1.3.9.2.1. Admin should be able to modify the list of Stretch Wraps available in the Stretch Wrap dropdown

2.1.3.9.2.2. "None" should be an option

2.1.3.10. Notes

This field is an open text field that allows the user to input any notes they want in reference to the Packaging Instruction

2.1.3.10.1. Alphanumeric

2.1.3.10.2. This should allow an unlimited number of characters to be entered. If this isn't possible, then it should be the maximum number of characters possible.

2.1.4. Label Information

2.1.4.1. Automated Label

If this radio button is selected, then the label printed on the bag will be automatically generated by the fields from the Packaging Instruction already selected.

2.1.4.1.1. Radio Button (Mutually exclusive with "Custom Label")

2.1.4.1.2. The following "Include" fields should be able to be dragged and dropped to switch the order in which they appear on the label.

2.1.4.1.3. Include PO

2.1.4.1.3.1. Checkbox

2.1.4.1.3.2. If this is checked, the label will include the PO # entered in the PO # field

2.1.4.1.4. Include Material

2.1.4.1.4.1. Checkbox

2.1.4.1.4.2. If this is checked, the label will include the Material entered in the Material field

2.1.4.1.5. Include Lot

2.1.4.1.5.1. Checkbox

2.1.4.1.5.2. If this is checked, the label will include the Lot Number entered in the Lot Number field

2.1.4.1.5.2.1. When multiple Lot Numbers are entered, this should display the first Lot Number entered (the one on top).

2.1.4.1.6. Include Weight

2.1.4.1.6.1. Checkbox

2.1.4.1.6.2. If this is checked, the label will include the Weight per bag associated with the type of bag entered in the Type of Bag field

2.1.4.1.7. Include Origin

2.1.4.1.7.1. Checkbox

2.1.4.1.7.2. If this is checked, the label will include the origin entered in the Origin field

2.1.4.1.8. Drag and Drop

2.1.4.1.8.1. The user can reorder the hierarchy of "Include" fields by dragging and dropping them above and below each other. Doing so will change the order in which they're shown on the Sample Label

2.1.4.1.9. Other Notes

2.1.4.1.9.1. If text is typed into this field, the label will include the text written in this field.

2.1.4.2. Custom Label

2.1.4.2.1. If this radio button is selected, then the label printed on the bag will be whatever is typed into the Custom Label text box

2.1.4.2.2. Radio Button (Mutually exclusive with "Automated Label")

2.1.4.2.3. When the custom label radio button is clicked, the Label Text field will be pre-populated with all the automated Label information, so that the user doesn't have to enter it themselves, but they can still edit it from there.

2.1.4.2.4. Label Text

- 2.1.4.2.4.1. Whatever text is typed into this field will be the exact label printed on the bag.
- 2.1.4.3. Sample Label
 - This is a sample of what the label printed on the bag will look like, given the selections made in the Label Information section
 - 2.1.4.3.1. If the Automated Label radio button is selected, then create the label that corresponds to the options checked, and any notes typed in to the notes field.
 - 2.1.4.3.2. If the Custom Label radio button is selected, then display the label that corresponds only with the Custom Label Text Box
- 2.1.5. Attach Original Order
 - 2.1.5.1. Attach Customer's Original Order
 - 2.1.5.1.1. This box enables the user to save one or more PDFs or other types of files of images of the actual Packaging Instruction Entry (to double check the order was entered correctly).
 - 2.1.5.1.2. File formats required to be accepted and viewed
 - 2.1.5.1.2.1. PDF
 - 2.1.5.1.2.2. Word .doc or .docx
 - 2.1.5.1.2.3. Excel xls or xlsx
 - 2.1.5.1.2.4. Outlook email .msg
 - 2.1.5.1.3. Outlook integration
 - 2.1.5.1.3.1. Allow the user to easily drag and drop an outlook email message to save as part of the Original Order
 - 2.1.5.1.3.2. Allow the user to easily drag and drop attachments from Outlook email messages to save as part of the Original Order
 - 2.1.5.1.4. File Upload integration
 - 2.1.5.1.4.1. Browse Button
 - 2.1.5.1.4.1.1. Clicking the Browse button will bring up a standard file selection window, allowing the user to select the file or files that they wish to attach.
 - 2.1.5.1.4.2. Alternatively, the user should be able to simply drag and drop a file from another program into the box in order to select it.
 - 2.1.5.1.4.3. Once the file is selected, it should automatically begin to upload
 - 2.1.5.1.4.3.1. The name of the file that is uploaded should be displayed, along with a progress bar and a red "x"
 - 2.1.5.1.4.3.1.1. Clicking on the red "x" will bring up a popup to ask the user "Do you want to cancel this upload" Two buttons should give the user their choice:
 - 2.1.5.1.4.3.1.1.1. "Yes, Cancel It" or "No, continue uploading"
 - 2.1.5.1.4.3.2. When the file is finished uploading, a red "x" should appear next to the filename allowing the user to delete the file.
 - 2.1.5.1.4.3.3. If the red "x" is clicked, a confirmation box should appear, and if confirmed, the file should be deleted from the server, and the filename should be deleted from the list of files uploaded.
- 2.1.6. Buttons
 - 2.1.6.1. Submit Button
 - This button enables the user to submit all the information input into the system
 - 2.1.6.1.1. If a file is still uploading, the user should get a warning box that states:
 - 2.1.6.1.1.1. "A file is still uploading. Please wait until the upload is complete before submitting."

2.1.6.1.2. If one or more mandatory fields are not filled in, the user should get a warning box that states:

2.1.6.1.2.1. "One or more mandatory fields are not filled in."

2.1.6.1.2.2. The mandatory fields that are not filled in should be outlined in red

2.1.6.1.2.3. The mandatory fields are every field except for the notes field

2.1.6.1.3. If all the mandatory fields are filled in, and there are no files to be uploaded, then the information should be uploaded to the server.

2.1.6.1.4. Once the information is uploaded, the system should return to the Packaging Instruction Detail Page.

2.1.6.2. Cancel Button

2.1.6.2.1. If the user clicks the Cancel button, the system should return to the Packaging Instruction Detail Page without making any changes to the Packaging Instruction.

2.2. Packaging Instruction View/Select

2.2.1. This page is used to view, sort, and filter the Packaging Instructions in the system, so that the user can easily select the Packaging Instruction he's looking for.

2.2.2. This page will be the basis for many different saved views and reports, and as a result must the user must be able to use it to flexibly look at the data in the database in a great number of different ways.

2.2.3. Saved Views Dropdown

2.2.3.1. The user can choose from several different saved views

2.2.3.1.1. There will be company-wide defined views, defined by the admin, and available to all users

2.2.3.1.2. There will be user defined views, defined by the particular user, and available only to that particular user

2.2.3.1.3. Each user can choose their own default view that will open when the page is opened.

2.2.3.1.4. There will be an option in the dropdown for "Edit current view" which will bring up a pop-up window that will enable each user to create new views for themselves and save them.

2.2.3.1.4.1. Users will be able to create views that save particular filters, search criteria, sorting, grouping, etc.

2.2.3.1.4.2. The user will be able to share a view they've defined with other individual users, or the company as a whole

2.2.3.2. The default view for all users upon first opening the window will be:

2.2.3.2.1. Grouped by customer (All Collapsed)

2.2.3.2.2. Grouped within customer by PO# (All Collapsed)

2.2.3.2.3. Sorted within those groups by Railcar# (Ascending)

2.2.4. Order List

2.2.4.1. The orders will be displayed according to the view selected in the Saved Views Dropdown

2.2.4.2. The list can be sorted by clicking on any column heading's sort button

2.2.4.2.1. Ctrl-clicking on a sort button will keep the current sort, but sub-sort by the new criteria that was Ctrl-clicked on.

2.2.4.3. The columns can be rearranged in any order by dragging and dropping

2.2.4.4. An individual column's width can be changed by dragging the separator between columns

2.2.4.5. The Fields that should be on the default view are:

2.2.4.5.1. ARB Location

2.2.4.5.2. Customer

- 2.2.4.5.3. PO Number
- 2.2.4.5.4. Railcar Number
- 2.2.4.5.5. Lot Number
- 2.2.4.5.6. Material
- 2.2.4.5.7. Packaging Instruction Confirmed?
- 2.2.4.5.8. Railcar Arrived?
 - 2.2.4.5.8.1. Whether the railcar has arrived or not.
- 2.2.4.5.9. Shipment Received?
 - 2.2.4.5.9.1. Whether there is a Shipment that has been associated with the Packaging Instruction or not
- 2.2.4.5.10. Cutoff Date
- 2.2.4.5.11. Railcar Weight
- 2.2.4.5.12. Number of Bags (ready to ship) - wrong definition**
 - 2.2.4.5.12.1. **The number of bags associated with a Shipment that has been entered in the system, but not loaded yet. In other words, it includes the number of bags associated with a particular Lot Number with a status of Unconfirmed, Confirmed, or Queued. Once a Shipment is marked Loaded, then the Number of Bags (ready to ship) is decreased by the amount of bags that have already been Loaded.**
- 2.2.4.5.13. Number of Bags (shipped) wrong definition**
 - 2.2.4.5.13.1. **The number of bags that have been packaged already against actual shipments**
 - 2.2.4.5.13.1.1. **This will start at "0" and increase with every set of bags that is entered into Inventory.**

2.2.5. Group By Dropdown

- 2.2.5.1. The orders that appear under the column headings can be grouped by selecting a column from the "Group By" dropdown.
 - 2.2.5.1.1. The groups can be sub-grouped by Ctrl-clicking on a column from the "Group By" dropdown (or by some other method to allow sub-groups)
 - 2.2.5.1.2. When grouped, there will be an option to "collapse all/expand all"

2.2.6. Filters

- 2.2.6.1. The left side of the screen should display filters for each of the columns displayed in the Order List (Plus those that could be displayed, but aren't), enabling the user to easily filter the order list and find the order they want. (See kayak.com flight filtering for a good UI example.)
- 2.2.6.2. AR Bulk Location
 - 2.2.6.2.1. The user will be able to filter only those orders that appear at a particular AR Bulk Location.
- 2.2.6.3. Customer
 - 2.2.6.3.1. Filters for all the customers with active Packaging Instructions will appear
 - 2.2.6.3.2. Checking a particular box will display the customer. Unchecking a particular box will hide the customer
 - 2.2.6.3.3. When hovering over a particular customer, the word "only" will appear.
 - 2.2.6.3.3.1. Clicking on "only" will de-select all the boxes except for that customer.
 - 2.2.6.3.4. Customers will be listed in alphabetical order
 - 2.2.6.3.5. When too many customers need to be listed, only the top 8 customers with the most active orders in the systems should be listed alphabetically.
 - 2.2.6.3.5.1. The remaining customers can be accessed by clicking on the "...More" link at the bottom of the list.
- 2.2.6.4. PO#

- 2.2.6.4.1. The user will be able to search for a particular PO# by typing in a portion of the PO# into the search box
 - 2.2.6.4.1.1. The search should be intelligent. That is, typing in a set of characters "6753" should find any PO# that has that sequence of numbers anywhere in the PO#. (the system should treat the beginning and end of the sequence as wildcards.)
- 2.2.6.5. Railcar#
 - 2.2.6.5.1. Railcar# filter will have identical functionality to PO# filter
- 2.2.6.6. Lot#
 - 2.2.6.6.1. Lot# filter will have identical functionality to PO# filter
- 2.2.6.7. Confirmed?
 - 2.2.6.7.1. The user will be able to filter only those orders that have been confirmed, or only those orders that have not been confirmed.
- 2.2.6.8. Arrived?
 - 2.2.6.8.1. The user will be able to filter only those orders for which the railcar has arrived, or only those orders for which the railcar has not arrived.
- 2.2.6.9. Shipment Received?
 - 2.2.6.9.1. The user will be able to filter only those orders that have Shipments received, or only those orders that do not have Shipments received.
- 2.2.6.10. Cutoff Date
 - 2.2.6.10.1. The user will be able to set a range of cutoff dates by which to filter the orders.
- 2.2.6.11. Entered Date Range
 - 2.2.6.11.1. The user will be able to filter only those orders that were entered between 2 specific dates
- 2.2.6.12. Completed Date Range
 - 2.2.6.12.1. The user will be able to filter only those orders that were completed between 2 specific dates
- 2.2.6.13. Status
 - 2.2.6.13.1. The user will be able to filter only those orders that are associated with one or more particular status states.
- 2.2.7. Filters applied
 - 2.2.7.1. A summary of the filters applied should appear on the top of the order list
 - 2.2.7.2. Each filter should have an "x" which, when clicked, will clear the filter
 - 2.2.7.3. There will be an option to "Clear all filters"
- 2.2.8. Selection
 - 2.2.8.1. Clicking on any one of the lines that display the order will open up the order and lead to the Packaging Instruction Detail screen.
- 2.2.9. Selection Shortcut
 - 2.2.9.1. There will be selection checkboxes next to each order
 - 2.2.9.2. Selecting multiple orders will allow the user to shortcut to a particular screen depending on the button that is pressed.
- 2.2.10. Buttons
 - 2.2.10.1. View
 - 2.2.10.1.1. Clicking the View button will bring the user to the Packaging Instruction Detail screen
 - 2.2.10.2. Edit
 - 2.2.10.2.1. Clicking the edit button will bring the user to the Packaging Instruction Edit screen
 - 2.2.10.3. Confirm

- 2.2.10.3.1. Clicking the confirm button will bring the user to the Packaging Instruction Confirmation screen
- 2.2.10.4. Add to Queue
 - 2.2.10.4.1. Clicking the Add To Queue button will change the status of the order from “unqueued” to “queued”
- 2.2.10.5. Print Bagging Instructions
 - 2.2.10.5.1. Clicking the Print Bagging Instructions button will print the bagging instructions for an order.
 - 2.2.10.5.2. Bagging instructions that print will be slightly different depending on the Type of Packaging (bag/box/bulk)
- 2.2.10.6. Print
 - 2.2.10.6.1. Clicking the Print button will print the orders on the screen in a report

2.3. Packaging Instruction Detail

- 2.3.1. This page displays the details of a Packaging Instruction to the user, includes all the inventory and shipment history for the order, and enables the user to edit the order, confirm the order, add the order to the queue, and print the bagging instruction order.
- 2.3.2. This page lists the detail of the order at the Railcar level, OR the PO Number level (aggregating several railcars together on the same page), OR the Customer level (aggregating all the PO Numbers for a customer on the Same Page).
- 2.3.3. Packaging Detail
 - 2.3.3.1. A summary of the details of the order will be displayed on the screen in four parts
 - 2.3.3.2. General order information
 - 2.3.3.2.1. ARB Location, Customer
 - 2.3.3.2.2. PO#
 - 2.3.3.2.3. Railcar #
 - 2.3.3.2.4. Lot#
 - 2.3.3.2.5. Material
 - 2.3.3.2.6. Confirmed?
 - 2.3.3.2.7. Arrived?
 - 2.3.3.2.8. Shipments received?
 - 2.3.3.2.9. Cutoff Date
 - 2.3.3.2.10. Railcar Weight
 - 2.3.3.2.11. Number of Bags To Ship
 - 2.3.3.2.12. Number of Bags in Inventory
 - 2.3.3.2.13. Status
 - 2.3.3.2.14. If the page is displaying the Packaging Instructions for a particular PO Number, all the railcars associated with that PO Number will be displayed
 - 2.3.3.2.15. If the packaging information for the different railcars within a particular PO Number is NOT the same, then the screen will display the individual instructions for each set of different railcars.
 - 2.3.3.3. Bagging information
 - 2.3.3.3.1. Bag Type, Pallet Type, Bags per Pallet, Stretch Wrap, Origin
 - 2.3.3.4. Label Information
 - 2.3.3.4.1. What will appear on the label, according to the label fields selected on the Packaging Instruction Entry page
 - 2.3.3.5. Stamp Confirmation
 - 2.3.3.5.1. This field will indicate whether the stamp was confirmed during the packaging process
 - 2.3.3.5.2. Checkbox

2.3.3.6. Back button

- 2.3.3.6.1. Clicking the back button will bring the user back to the Packaging Instruction View Page

2.3.3.7. Order selection buttons

- 2.3.3.7.1. When this page is used to view multiple orders, two order selection buttons (back/forward arrows) will be displayed to allow the user to page forward and backward through a sequential list of orders

2.3.3.8. Edit button

- 2.3.3.8.1. Clicking the edit button will bring the user to the Packaging Instruction Edit page

2.3.3.9. Confirm button

- 2.3.3.9.1. Clicking the confirm button will bring the user to the Packaging Instruction Confirmation page

- 2.3.3.9.2. When the status of the Packaging Instruction is Confirmed, this button should not be displayed.

2.3.3.10. Add to Queue button

- 2.3.3.10.1. Clicking the Add To Queue button will change the status of the order from "unqueued" to "queued" and take the user to the Packaging Instruction Queue Entry screen

- 2.3.3.10.2. When the status of the Packaging Instruction is In Inventory, this button should not be displayed.

2.3.3.11. Print Bagging Instructions

- 2.3.3.11.1. Clicking this button will print the bagging instructions for the particular Packaging Instruction

- 2.3.3.11.2. When the status of the Packaging Instruction is In Inventory, this button should not be displayed.

2.3.4. Inventory Detail

2.3.4.1. Inventory Card expansion button

- 2.3.4.1.1. By clicking the Inventory Card expansion/collapse button, the entire inventory section can be collapsed and expanded (to be hidden from view).

- 2.3.4.1.2. The last state of the window (expanded/collapsed) should be remembered for each user and should be used the next time the page is opened.

2.3.4.2. Current Inventory

- 2.3.4.2.1. This area will display the number of packaged bags, and the total weight of those bags in each inventory location, as well as the gain/loss in weight from railcar to bags

2.3.4.2.2. Inventory Location

- 2.3.4.2.2.1. This field indicates the inventory location in the warehouse in which the bags are stored.

2.3.4.2.3. Bags

- 2.3.4.2.3.1. This field indicates the number of bags that are stored at the particular inventory location.

2.3.4.2.4. Weight

- 2.3.4.2.4.1. This field indicates the total weight of the bags stored at the particular inventory location.

2.3.4.2.5. TOTAL Line

- 2.3.4.2.5.1. The last line shows the total number of bags stored in inventory, and the total weight of those bags.

2.3.4.2.6. Railcar Weight

- 2.3.4.2.6.1. This field displays the Railcar weight that was entered on the Packaging Instruction. It is a duplicate of the Railcar Weight field shown at the top of the page.
 - 2.3.4.2.7. Lot Number
 - 2.3.4.2.7.1. If the Packaging Instruction Detail screen is for an entire PO Number or Customer, the Lot Number field will also be displayed.
 - 2.3.4.2.8. PO Number
 - 2.3.4.2.8.1. If the Packaging Instruction Detail screen is for an entire Customer, the PO Number field will also be displayed.
 - 2.3.4.2.9. Packaged Weight
 - 2.3.4.2.9.1. This field displays the total packaged weight of all the bags ever entered into inventory. This number does NOT decrease as bags are pulled out of inventory.
 - 2.3.4.2.10. Gain/Loss
 - 2.3.4.2.10.1. This field displays the difference between the Railcar Weight and the Packaged Weight
 - 2.3.4.2.11. Packaging Complete checkbox
 - 2.3.4.2.11.1. When this is checked, it indicates that all the material from a particular railcar or PO Number has been packaged. If it is not checked, then there is still some material that needs to be packaged.
 - 2.3.4.2.11.2. This is view only. It is editable in the Inventory Edit mode.
 - 2.3.4.2.12. Edit Inventory button
 - 2.3.4.2.12.1. Clicking this button will display the additional functionality shown on the Packaging Instruction Inventory Edit page (to add items to and from inventory)
- 2.3.4.3. Inventory Location History
 - 2.3.4.3.1. This area will display all the changes made to Inventory that results in the Current Inventory numbers.
 - 2.3.4.3.2. This area is almost identical to the Inventory History, with the exception that it is broken down by Inventory Location (so internal inventory moves ARE included in this list)
 - 2.3.4.3.3. Expand/Collapse button
 - 2.3.4.3.3.1. By clicking the Expand/Collapse button, the entire Inventory Location History section can be collapsed and expanded (to be hidden from view).
 - 2.3.4.3.3.2. This will default to collapsed
 - 2.3.4.3.3.3. The system will remember the user's last choice and default to that
 - 2.3.4.3.4. Inventory Location
 - 2.3.4.3.4.1. This field displays the inventory location affected by the record
 - 2.3.4.3.5. Bags
 - 2.3.4.3.5.1. This field displays the number of bags (positive OR negative) that were deposited or removed from inventory.
 - 2.3.4.3.6. Weight
 - 2.3.4.3.6.1. This field displays the amount of weight (positive OR negative) that was added to or removed from inventory.
 - 2.3.4.3.7. Lot Number
 - 2.3.4.3.7.1. If the Packaging Instruction Detail screen is for an entire PO Number or Customer, the Lot Number field will also be displayed.
 - 2.3.4.3.8. PO Number
 - 2.3.4.3.8.1. If the Packaging Instruction Detail screen is for an entire Customer, the PO Number field will also be displayed.

- 2.3.4.3.9. Date/Time Entered
 - 2.3.4.3.9.1. This field displays the date and time the change was made
- 2.3.4.3.10. Notes
 - 2.3.4.3.10.1. This field displays the notes that were entered with the inventory change
- 2.3.4.4. Inventory History
 - 2.3.4.4.1. This area will display all the shipments tied to a particular Railcar Number (Or a particular PO Number or Customer, depending on the view level of the record being shown on the screen)
 - 2.3.4.4.2. This area will include the initial packaging instruction that entered the material into inventory, as well as every shipment that removed material from inventory.
 - 2.3.4.4.3. Cycle Counts of inventory will also be included here to confirm the right amount of material is still available.
 - 2.3.4.4.4. Inventory increases or decreases, due to broken bags or other reasons, will also be included in the Inventory History
 - 2.3.4.4.5. This area is almost identical to the Inventory Location History, with the exception that it is not broken down by Inventory Location (so internal inventory moves are not included in this list)
 - 2.3.4.4.6. Date
 - 2.3.4.4.6.1. The date that the material was removed from inventory
 - 2.3.4.4.7. PO Number
 - 2.3.4.4.7.1. The PO Number that was used to put the material into inventory (the same PO# at the top of the page)
 - 2.3.4.4.7.2. A particular line will have either a PO number, if it was added to inventory, OR a PO Number and a Release Number, if it was removed from inventory.
 - 2.3.4.4.8. Release Number
 - 2.3.4.4.8.1. The Release Number that was used to remove the material from inventory for shipping
 - 2.3.4.4.9. Number of Bags
 - 2.3.4.4.9.1. The number of bags that were either added to inventory or removed from inventory
 - 2.3.4.4.10. Bag Balance
 - 2.3.4.4.10.1. The cumulative number of bags that have been added to or removed from inventory. The last value should equal the total number of bags listed in the Current Inventory area.
- 2.3.4.5. Pending Shipments
 - 2.3.4.5.1. This area shows all the Shipments that have been entered against a particular railcar (or PO or Customer, depending on the screen), but have not yet been shipped.
 - 2.3.4.5.2. Date Entered
 - 2.3.4.5.2.1. The date the Release Number was entered in the system
 - 2.3.4.5.3. Release Number
 - 2.3.4.5.4. Number of Bags
 - 2.3.4.5.5. Bag Balance
 - 2.3.4.5.5.1. The resulting balance of bags that will be in inventory once the release is shipped.
 - 2.3.4.5.6. Logic

- 2.3.4.5.6.1.1. If the number of bags associated with Pending Shipments is larger than the remaining bags in inventory, then a warning will be displayed:
"There are not enough bags in inventory for pending shipments!"

2.4. Packaging Instruction Inventory Edit

- 2.4.1. This page is identical to the Packaging Instruction Inventory Detail page, but includes the additional functionality that is shown once the "Edit Inventory" button is clicked on the Packaging Instruction Inventory Detail page.
- 2.4.2. This page allows the user to input the number and location of bags that have been packaged for a particular Packaging Instruction.
- 2.4.3. Add to Inventory
 - 2.4.3.1. The way the inventory is added to inventory is slightly different depending upon the Type of Packaging (Bags/Boxes/Bulk)
 - 2.4.3.2. Process for Bags
 - 2.4.3.2.1. # of Bags
 - 2.4.3.2.1.1. This field defines how many bags were stored in a particular inventory location
 - 2.4.3.2.1.2. Numeric
 - 2.4.3.2.2. Inventory Location
 - 2.4.3.2.2.1. This field defines the location in the warehouse where the bags were placed.
 - 2.4.3.2.2.2. Alpha
 - 2.4.3.2.2.3. Constrained to pre-defined values
 - 2.4.3.2.2.3.1. The Inventory locations should be defined ahead of time by the admin, and the valid entries in this field should be limited to those locations.
 - 2.4.3.2.2.3.2. These locations will be filtered by ARB Location
 - 2.4.3.2.3. Weight
 - 2.4.3.2.3.1. This field defines the total weight of all the bags being entered into inventory during this entry.
 - 2.4.3.2.4. This field pre-populates with an estimate of the weight, given by the formula $(\# \text{ of Bags}) * (\text{Average weight per bag})$
 - 2.4.3.2.5. The user can override the weight by typing over it.
 - 2.4.3.3. Process for Boxes
 - 2.4.3.3.1. Identical to the process for Bags, except there should be TWO data entry lines: one line for multiple boxes, and one line for the partially packed box with a different weight.
 - 2.4.3.3.2. The first line should pre-populate with an estimate of the weight, given by the formula $(\# \text{ of boxes}) * (\text{Average weight per box})$
 - 2.4.3.3.3. The second line should pre-populate the # of Bags field with the number "1", and leave the weight field empty.
 - 2.4.3.4. Process for Bulk
 - 2.4.3.4.1. Identical to the Process for Bags, except:
 - 2.4.3.4.2. The Number of Bags field should prepopulate with "1"
 - 2.4.3.4.3. The Weight field will remain blank
 - 2.4.3.5. Add Button
 - 2.4.3.5.1. Pushing the Add button submits the Number of Bags, Inventory Location, and Weight into the Current Inventory summary, and updates the Inventory History list as well.
 - 2.4.3.5.2. Once the first record is added to a Packaging Instruction, the status of the Packaging Instruction should change from Queued to Partially Packaged

2.4.3.5.3. Once the record is added, the appropriate type and amount of Packaging Material should be deducted from the Packaging Material inventory. Ex: If 60 Bags are added to inventory, 55 specific bags, 1 pallet, and a certain amount of shrink-wrap should automatically be deducted from inventory.

2.4.3.5.4. Each line added to the Current Inventory summary should remain its own line (the quantities should not be aggregated by Aisle). That is, if the user enters 550 bags on Aisle 44, and 10 bags on Aisle 44, it should be shown on two lines with that information, NOT on one line as 560 bags on Aisle 44. (The purpose of this is to show partial pallets and partial boxes separately).

2.4.4. Edit Inventory

2.4.4.1. When the user clicks on a line in the Current Inventory summary, the fields will become editable

2.4.4.2. A Notes field will be available, to add a note for the reason for the inventory change, such as a "broken bag" or a "Cycle Count"

2.4.4.2.1. If there is no change to the inventory, but a note is added, that will be treated as an inventory change (for instance, a cycle count for which no inventory was lost)

2.4.4.2.2. The user can change the inventory location if all the bags moved to a different inventory location

2.4.4.2.3. The user can change the number of bags in a particular inventory location if they were mistakenly entered earlier, or if some bags got lost or broken.

2.4.4.2.4. The user can shift SOME bags from one inventory location to another inventory location by clicking the plus sign

2.4.4.2.4.1. Plus sign

2.4.4.2.4.1.1. When the user clicks on a plus sign, it will allow the user to split a row into two separate rows. For example, a row indicating 100 bags in Aisle 9 could be split into 60 bags in Aisle 4 and 40 bags in Aisle 8.

2.4.4.2.4.2. Green Checkmark

2.4.4.2.4.2.1. Clicking the green checkmark will enter the edits into the system.

2.4.4.2.4.3. Red X

2.4.4.2.4.4. Clicking the red "x" will cancel the changes.

2.4.4.3. Packaging Complete checkbox

2.4.4.3.1. When all the pallets have been entered into the system, the user will check the Packaging Complete checkbox to indicate there are no more pallets to be entered.

2.4.4.3.2. Logic

2.4.4.3.2.1. If the checkbox is completed, and the total weight packaged is more than a certain percentage different from the total weight of the railcar, a warning will be displayed

2.4.4.3.2.2. The warning will read: "Total weight packaged is significantly different than the total weight of the railcar."

2.4.4.3.2.3. The percentage difference will be determined by the admin in the admin interface.

2.4.4.3.3. Status

2.4.4.3.3.1. Once the Packaging Complete checkbox has been checked, the status of the order will change from "Partially Packaged" to "In Inventory"

2.4.4.4. Submit button

2.4.4.4.1. The submit button will save all the data entered into the Pallet Summary, and return the user to the Packaging Instruction View page

2.4.4.5. Cancel button

2.4.4.5.1. The Cancel button will leave the record unchanged and return the user to the Packaging Instruction View page.

2.5. Packaging Instruction Edit

2.5.1. This page allows the user to edit or delete a particular Packaging Instruction for a particular PO Number. There is also an option to edit the Packaging Instructions for a specific railcar within a PO Number.

2.5.2. This page is identical to the Packaging Instruction Entry page, with the following exceptions/additions

2.5.2.1. Packaging Instruction selection buttons

2.5.2.1.1. When multiple Packaging Instructions are selected from the Packaging Instruction View page, two Packaging Instruction selection buttons (back/forward arrows) will be displayed to allow the user to page forward and backward through a sequential list of orders

2.5.2.1.2. Pushing the order selection button will also "Submit" the changes to the system.

2.5.2.2. Delete button

2.5.2.2.1. Pressing the delete button will enable the user to delete the particular Packaging Instruction

2.5.2.2.2. A confirmation dialog box should appear when the button is pressed:

2.5.2.2.2.1. "Are you sure you wish to delete this record?"

2.5.2.2.2.1.1. Yes

2.5.2.2.2.1.1.1. If the user pushes "Yes", the record should be deleted

2.5.2.2.2.1.1.2. If multiple orders have been selected, the screen should advance to the next record

2.5.2.2.2.1.1.3. If only a single order has been selected, the screen should return to the Packaging Instruction View page

2.5.2.2.2.1.2. No

2.5.2.2.2.1.2.1. If the user pushes "No", the pop-up should disappear and no action should be taken.

2.6. Packaging Instruction Confirmation

2.6.1. This page will enable the user to view the original Packaging Instruction from the customer alongside the order entered into the system, and confirm that each field was entered correctly.

2.6.2. This page will display all the fields from the Packaging Instruction (but not the label selection fields)

2.6.3. This page will also display the label that will be printed on the bag

2.6.4. Confirmation

2.6.4.1. Next to each field and the sample label will be a confirmation check box.

2.6.4.1.1. Once the box is checked, the user's name will appear next to the checkbox to emphasize that the user is personally vouching that the information is correct.

2.6.4.2. If all boxes are checked, the status of the order's "Confirmation" field will change from "No" to "Yes"

2.6.5. Original Order Display

2.6.5.1. The original order will appear in a frame to allow users to compare the entered information with the original order

2.6.5.2. When the mouse is hovered over the original order, a zoom frame will appear so the user can see the order more closely.

2.6.5.3. If an order has not been attached, this window will display the text "The original order has not been uploaded"

2.6.6. View Original Order button

2.6.6.1. Clicking the "View Original Order" button will display a separate pop-up window with an image of the original order, so the user can adjust the window as needed when confirming the order.

2.6.6.2. This window will default to "always on top"

2.6.6.3. The user will be able to zoom in and out of the image, and scroll around the image using a "grabbing hand" interface (as well as scrollbars).

2.6.6.4. The window will be resizable by the user by dragging the corners.

2.6.6.5. NOTE: If there is a better User Interface suggestion for this, we should discuss.

2.6.7. Submit Button

2.6.7.1. Clicking the submit button will submit the confirmation changes and bring the user back to the Packaging Instruction View Page

2.6.8. Cancel Button

2.6.8.1. Clicking the cancel button will bring the user back to the Packaging Instruction View Page without saving any of the work done on the page

2.6.9. Order selection buttons

2.6.9.1. When this page is used to confirm multiple orders, two order selection buttons (back/forward arrows) will be displayed to allow the user to page forward and backward through a sequential list of orders

2.6.9.2. Pushing the order selection button will also "Submit" the changes to the system.

2.7. Railcar Arrival Entry

2.7.1. This screen is used by the user to update the status of a railcar when it actually arrives at the warehouse.

2.7.2. This screen is based on the Packaging Instruction View screen except:

2.7.2.1. It includes the following fields: Customer, PO Number, Railcar Number, Lot Number, Material, Confirmed?, Arrived?

2.7.2.2. It does not show any of the buttons from that screen, just an "Arrived" button

2.7.3. Filtering

2.7.3.1. This screen only shows railcars with an "Arrived" status of "N"

2.7.3.2. It includes railcars that have been confirmed AND that have NOT been confirmed

2.7.4. Selection

2.7.4.1. The selection checkboxes lie to the right of every order displayed

2.7.4.2. The user will select which railcars have arrived by checking the box next to the appropriate order with that railcar#

2.7.4.3. There will be an option to select or deselect all the orders

2.7.5. Railcar Arrival Date

2.7.5.1. This field will allow the user to input the date that the railcars selected should be marked "arrived" (once the "Arrived" button has been clicked).

2.7.6. Arrived button

2.7.6.1. Once the user has checked off the appropriate selection checkboxes, and included an "Arrival Date" hitting the Arrived button will

2.7.6.1.1. Enter the Railcar Arrival Date into the Railcar record

2.7.6.1.2. Change the Arrived status of those orders from "N" to "Y"

2.7.6.1.3. Redisplay the Railcar Arrival Input page as it was before, only without including the orders that were just marked "arrived". (to enable the user to submit the changes in parts, instead of all at once.)

2.7.7. Back button

2.7.7.1. Clicking the Back button will bring the user back to the Packaging Instruction View page

2.7.7.2. If boxes have been checked before hitting the Back button, the system will display a pop-up warning:

2.7.7.2.1. "You haven't saved your work. Do you want to mark these railcars as "arrived"?"

2.7.7.2.2. Two buttons should appear "No, cancel without saving my work" and "Yes, mark the railcars as arrived"

2.7.7.2.2.1. No

2.7.7.2.2.1.1. Return to the Packaging Instruction View page without changing the status of any orders

2.7.7.2.2.1.2. Yes

2.7.7.2.2.1.3. Change the Arrived field of the appropriate orders to "Y" and return to the Packaging Instruction View page

2.8. Packaging Instruction Queue View/Edit

2.8.1. This page will enable users to define the queue to prioritize the order in which orders are packaged.

2.8.2. View mode

2.8.2.1. This page will display all the active orders in the system that have been added to the queue (with the status of "queued")

2.8.2.2. The latest orders to be added to the queue will appear at the bottom of the queue initially

2.8.2.3. The fields to be displayed will be almost the same as the default fields on the Packaging Instruction View page, with a few not needed. The fields are:

2.8.2.3.1. ARB Location

2.8.2.3.2. Customer

2.8.2.3.3. PO Number

2.8.2.3.4. Railcar Number

2.8.2.3.5. Lot Number

2.8.2.3.6. Material

2.8.2.3.7. Release Received?

2.8.2.3.8. Cutoff Date

2.8.2.3.9. Weight

2.8.2.3.10. Number of Bags (Ready to ship)

2.8.2.3.11. Number of Bags (In Inventory)

2.8.2.3.12. Selection Boxes

2.8.2.4. Double clicking on a particular order will display the Packaging Instruction Detail screen for that order

2.8.2.5. Buttons

2.8.2.5.1. Edit

2.8.2.5.1.1. Clicking the Edit button will switch the user into Edit mode, which allow the user to re-order the queue.

2.8.2.5.1.2. If a user doesn't have permissions to edit the queue, the edit button will not appear.

2.8.2.5.2. Back

2.8.2.5.2.1. Clicking the Back button will bring the user back to the Packaging Instruction View screen.

2.8.3. Edit Mode

- 2.8.3.1. When in Edit Mode, the user will be able to drag and drop orders vertically to re-order the queue as preferred.
- 2.8.3.2. Buttons
 - 2.8.3.2.1. Save
 - 2.8.3.2.1.1. Clicking the Save button will save the changes made to the queue and bring the user back to view mode.
 - 2.8.3.2.2. Cancel
 - 2.8.3.2.2.1. Clicking the cancel button will cancel the changes made to the queue and bring the user back to view mode.

2.9. Railcar Departure Input

- 2.9.1. This page will allow us to confirm when railcars have departed the premises by being picked up by the rail company.
- 2.9.2. This screen is almost identical to the Railcar Arrival Input page, except that:
 - 2.9.2.1. It only includes railcars that have been marked "In Inventory".
 - 2.9.2.2. It replaces the Railcar Arrival Date field with the Railcar Departure Date field
 - 2.9.2.3. It replaces the Arrived button with the Departed button

3. Shipments

3.1. Shipment Entry

- 3.1.1. This screen is used to input the information from a customer's Shipment
- 3.1.2. Customer Name
 - 3.1.2.1. Alpha
 - 3.1.2.2. Dropdown
- 3.1.3. Release#
 - 3.1.3.1. This field is the customer's release number supplied on the Shipment
 - 3.1.3.2. Alpha
- 3.1.4. Number of Containers
 - 3.1.4.1. This field represents the number of containers that the customer would like shipped for a particular Release Number
 - 3.1.4.2. Numeric
- 3.1.5. Number of Bags
 - 3.1.5.1. This field represents the total Number of Bags to be loaded for a particular Release Number
- 3.1.6. Number of Bags per Container
 - 3.1.6.1. Once the Number of Containers and the Number of Bags are entered, the Number of Bags per Container should be displayed.
- 3.1.7. PO Number
 - 3.1.7.1. This field is the customer's PO# supplied on the Shipment
 - 3.1.7.2. Alpha
 - 3.1.7.3. Dropdown
 - 3.1.7.3.1. Only PO Numbers that are active and have already been entered into the system for this particular customer should be able to be selected
 - 3.1.7.4. Multiple PO Numbers for a particular Shipment (Release #) are permitted, and enabled by clicking on the "+" sign next to the Purchase Order Number field.
- 3.1.8. Lot Number
 - 3.1.8.1. This field is the customer's Lot # supplied on the Shipment
 - 3.1.8.2. Alpha
 - 3.1.8.3. Dropdown

- 3.1.8.3.1. Only Lot Numbers that are active and have already been entered into the system for this particular customer and PO Number should be able to be selected.
- 3.1.8.4. Lot Number is optional. (It's possible that a customer doesn't care which Lot Number is packaged from a particular PO Number)
- 3.1.8.5. Multiple Lot Numbers for a particular Purchase Order Number are permitted, and enabled by clicking on the "+" sign next to the Lot Number field.
- 3.1.9. Number of Bags For Lot
 - 3.1.9.1. This field is the number of bags to be loaded from the particular Lot Number that it is associated with.
 - 3.1.9.2. Optional
 - 3.1.9.3. Although the field is optional, if it IS used, the Number of Bags for Lot, across all the Lot Numbers, must total to the Number of Bags listed for the Release Number overall (above).
 - 3.1.9.3.1. If it does not total, an error should be returned and the Shipment cannot be entered.
- 3.1.10. Material
 - 3.1.10.1. Once the Lot Number is entered, the Material for that particular Lot Number is displayed to the right of each Lot Number
- 3.1.11. Number of Bags in Inventory
 - 3.1.11.1. Once the Lot Number is entered, the Number of Bags in Inventory for that particular Lot Number should be displayed.
 - 3.1.11.2. With each additional line entered for each Lot Number, the Number of Bags in Inventory should display a different number, subtracting bags that have been allocated to the lines above.
- 3.1.12. View Domestic/Canadian Options button
 - 3.1.12.1. Clicking this button will toggle the fields that can be viewed below. It defaults to the international options, but clicking this button will switch to Domestic/Canadian options.
- 3.1.13. International Options
 - 3.1.13.1. Booking #
 - 3.1.13.1.1. This field is the customer's Booking # for the shipment
 - 3.1.13.1.2. Alpha
 - 3.1.13.2. Freight Forwarder
 - 3.1.13.2.1. This field is the name of the Freight Forwarder used by the customer
 - 3.1.13.2.2. Alpha
 - 3.1.13.2.3. A text field that auto-suggests (as you type) Freight Forwarders that are already entered in the system.
 - 3.1.13.2.4. If the Freight Forwarder is not already found, then a new entry should be made in the list of Freight Forwarders as a result of this entry.
 - 3.1.13.3. Container Type
 - 3.1.13.3.1. This field represents the type of container that the material should be packed in.
 - 3.1.13.3.2. Alpha
 - 3.1.13.3.3. Dropdown
 - 3.1.13.3.3.1. The container should be selected from a set of pre-defined types of containers set by the admin.
 - 3.1.13.4. Steamship Line
 - 3.1.13.4.1. This field represents the steamship line that will receive and ship the container

- 3.1.13.4.2. Alpha
 - 3.1.13.4.3. Dropdown
 - 3.1.13.4.3.1. The steamship line should be selected from a set of pre-defined steamship lines set by the admin.
- 3.1.13.5. Steamship Vessel
 - 3.1.13.5.1. This field represents the name of the actual ship that the container will be shipped on
 - 3.1.13.5.2. Alpha
- 3.1.13.6. Earliest Return Date (ERD)
 - 3.1.13.6.1. This field represents the earliest date and time that the container can be delivered to the steamship line
 - 3.1.13.6.2. Date and Time
- 3.1.13.7. Doc Cutoff Date
 - 3.1.13.7.1. This field represents the last date and time that the steamship line can be notified of the shipment
 - 3.1.13.7.2. Date and Time
 - 3.1.13.7.3. Optional
- 3.1.13.8. Cargo Cutoff Date
 - 3.1.13.8.1. This field represents the last date that the steamship line can receive the shipment
 - 3.1.13.8.2. Date and Time
- 3.1.13.9. Number of Free Days Per Container
 - 3.1.13.9.1. This field represents the number of free days granted for each container
 - 3.1.13.9.2. Numeric
- 3.1.13.10. Container Pickup Location
 - 3.1.13.10.1. This field represents the location that the container will be picked up from
 - 3.1.13.10.2. Alpha
- 3.1.13.11. Container Return Location
 - 3.1.13.11.1. This field represents the location that the container will be delivered to
 - 3.1.13.11.2. Alpha
- 3.1.13.12. Notes
 - This field allows the user to add any additional notes to the order
 - 3.1.13.12.1. Alpha
 - 3.1.13.12.2. Optional
- 3.1.14. Domestic Options
 - 3.1.14.1. Type of Shipment
 - 3.1.14.1.1. This field represents the type of shipment (ex: Customer Pickup, Truckload, LTL, etc.)
 - 3.1.14.1.2. Dropdown
 - 3.1.14.1.3. The admin will define the options in this window
 - 3.1.14.2. Shipping Reference Number
 - 3.1.14.2.1. This field represents the shipping reference number given by the Customer
 - 3.1.14.2.2. Alphanumeric
 - 3.1.14.3. Recipient
 - 3.1.14.3.1. This field represents the company name that is getting the shipment
 - 3.1.14.4. Recipient Contact
 - 3.1.14.4.1. This field represents the name of the person at the company who is getting the shipment
 - 3.1.14.5. Recipient Telephone Number

- 3.1.14.5.1. This field represents the telephone number of the Recipient Contact
- 3.1.14.6. Ship To Address1
 - 3.1.14.6.1. This represents the street address of the ship-to recipient
 - 3.1.14.6.2. If multiple lines are needed, the plus sign can be clicked to add additional lines (Ship To Address2, Ship To Address3, etc.)
- 3.1.14.7. Ship To Zip Code
 - 3.1.14.7.1. This represents the Zip Code of the ship-to recipient
 - 3.1.14.7.1.1. Populating the Zip Code should auto-populate the Ship To City and Ship To State.
- 3.1.14.8. Ship To City
 - 3.1.14.8.1. This represents the city of the Ship-To recipient
 - 3.1.14.8.2. This should auto-populate once the zip code is entered, although it can always be overwritten by typing.
- 3.1.14.9. Ship To State
 - 3.1.14.9.1. This represents the State of the Ship-To recipient
 - 3.1.14.9.2. This should auto-populate once the zip code is entered, although it can always be overwritten by typing.
- 3.1.14.10. Carrier
 - 3.1.14.10.1. The trucking line that will ship the shipment
- 3.1.14.11. Carrier Account Number
 - 3.1.14.11.1. The Customer's account number that should be given to the Carrier
- 3.1.14.12. Shipping Payment Type
 - 3.1.14.12.1. This field indicates the way the customer would like to pay ARB
 - 3.1.14.12.2. Dropdown
 - 3.1.14.12.2.1. Options: Prepaid, Collect or Customer Pickup
- 3.1.14.13. Shipping Paid by
 - 3.1.14.13.1. This field indicates the party that is paying for the shipping
 - 3.1.14.13.2. Alphanumeric
- 3.1.14.14. Requested Ship Date
 - 3.1.14.14.1. This field indicates the date that the customer has requested that we ship by
 - 3.1.14.14.2. Date
 - 3.1.14.14.3. Optional
- 3.1.14.15. Requested Delivery Date
 - 3.1.14.15.1. This field indicates the date that the customer has requested that we deliver by
 - 3.1.14.15.2. Date
 - 3.1.14.15.3. Optional
- 3.1.14.16. Logic
 - 3.1.14.16.1. Once a domestic shipment is entered, the system should automatically allocate one (1) container to that shipment using the carrier entered in the "Carrier" field as the trucker. (this is normally done for international shipments on the Shipment Detail - Container Edit page, but is not required for domestic shipments.)
 - 3.1.14.16.2. Furthermore, the status of the container should immediately be marked as "Arrived"
- 3.1.15. Logic
 - 3.1.15.1. Once the Lot Numbers, the Number of Containers, and the Number of Bags are entered, the system should check the inventory numbers for all the Lot

Numbers and determine whether there are enough bags In Inventory to fill the order.

3.1.15.1.1. If yes, then do nothing.

3.1.15.1.2. If not, then a notification should appear:

3.1.15.1.2.1. "There is not enough material in inventory to fulfill this order"

3.1.16. Attach Customer's Original Order

3.1.16.1. This box enables the user to save a PDF or other type of file of an image of the actual Shipment (to double check the order was entered correctly).

3.1.16.1.1.1. This should have the same functionality as the Attach Customer's Original Packaging Instructions from the Packaging Instructions Entry page.

3.1.17. Save Button

3.1.17.1. This button enables the user to Save all the information input into the system

3.1.17.2. If a file is still uploading, the user should get a warning box that states:

3.1.17.2.1. "A file is still uploading. Please wait until the upload is complete before submitting."

3.1.17.3. If one or more mandatory fields are not filled in, the user should get a warning box that states:

3.1.17.3.1. "One or more mandatory fields are not filled in."

3.1.17.3.2. The mandatory fields that are not filled in should be outlined in red

3.1.17.4. After Saving, return the user to the Shipment View page.

3.1.18. Save and Allocate Containers

3.1.18.1. This button does everything the Save button does, but it then brings the user to the Container Allocation Entry page.

3.2. Shipment View/Select

3.2.1. This functionality will be similar to the functionality of the Packaging Instruction View/Select page, but with different fields.

3.2.2. Fields to display

3.2.2.1. ARB Location

3.2.2.2. Customer Name

3.2.2.3. Release Number

3.2.2.4. Booking Number

3.2.2.5. PO Number

3.2.2.6. Lot Number

3.2.2.7. Material

3.2.2.8. Confirmed?

3.2.2.9. Forwarder

3.2.2.10. Container Type

3.2.2.11. Container Quantity

3.2.2.12. Containers Allocated

3.2.2.13. Enough Containers?

3.2.2.13.1. This field computes Container Quantity-Containers Allocated and if the number is not equal to zero, it should return "No" (indicating that the Shipment needs more containers allocated to it)

3.2.2.14. Number of Bags (requested)

3.2.2.15. Number of Bags (shipped)

3.2.2.16. Earliest Return Date (ERD)

3.2.2.17. Cutoff Date

3.2.2.18. Vessel

3.2.2.19. Steamship Line

3.2.2.20. P/U Location

- 3.2.2.21. Return Location
- 3.2.2.22. Docs Cutoff Date
- 3.2.2.23. Status
- 3.2.2.24. Trucker
- 3.2.3. Using different saved views, the user can define other fields to display from the Shipment record if desired
- 3.2.4. View Button
 - 3.2.4.1. Clicking the View button will bring the user to the Shipment Detail page of any Shipment selected
- 3.2.5. Edit Button
 - 3.2.5.1. Clicking the Edit button will bring the user to the Shipment Edit page of any Shipment selected
- 3.2.6. Confirm Button
 - 3.2.6.1. Clicking the Confirm button will bring the user to the Shipment Confirmation page of any Shipment selected
- 3.2.7. Allocate Containers button
 - 3.2.7.1. Clicking the Allocate Containers button will bring the user to the Container Allocation/Arrival Entry page of any Shipment selected
- 3.2.8. Add to Queue
 - 3.2.8.1. Clicking the Add to Queue button will add the selected Shipments to the Shipment Queue, and take the user to the Shipment Queue page
- 3.2.9. Print Load Orders
 - 3.2.9.1. Clicking the Print Load Orders button will print the Load Orders for the selected Shipments
 - 3.2.9.2. The system will only print Load Orders for containers with the status of Arrived

3.3. Shipment Detail

- 3.3.1. This functionality will be similar to the functionality of the Packaging Instruction Detail page, but with different fields tied to the Release Number
- 3.3.2. This page will not only display the details of the Shipment associated with the Release Number, but also display the packaging details of the PO# associated with the Release Number
- 3.3.3. This page will also display the Containers associated with this Shipment
- 3.3.4. Shipment Details
 - 3.3.4.1. This line of data will include all the fields associated with the Release Number:
 - 3.3.4.1.1. ARB
 - 3.3.4.1.2. Customer
 - 3.3.4.1.3. Release Number
 - 3.3.4.1.4. Booking Number
 - 3.3.4.1.5. PO Numbers
 - 3.3.4.1.5.1. All the PO Numbers associated with the Release Number will be shown
 - 3.3.4.1.6. Material
 - 3.3.4.1.7. Confirmed?
 - 3.3.4.1.8. In Inventory?
 - 3.3.4.1.8.1. This indicates whether the status of the PO# associated with the Release Number is In Inventory, or whether it still needs to be packaged from a railcar.
 - 3.3.4.1.9. Cutoff Date

- 3.3.4.1.10. Quantity
- 3.3.5. Shipment Summary
 - 3.3.5.1. Shipment Info
 - 3.3.5.1.1. The Shipment Summary will include all the details of the release order, including:
 - 3.3.5.1.2. Container Type
 - 3.3.5.1.3. Number of Containers
 - 3.3.5.1.4. Number of Bags/Container
 - 3.3.5.1.5. Steamship Line
 - 3.3.5.1.6. Steamship Vessel
 - 3.3.5.1.7. Freight Forwarder
 - 3.3.5.1.8. Earliest Return Date
 - 3.3.5.1.9. Doc Cutoff Date
 - 3.3.5.1.10. Cutoff Date
 - 3.3.5.1.11. Pickup Location
 - 3.3.5.1.12. Return Location
 - 3.3.5.1.13. Recipient
 - 3.3.5.1.13.1. For Domestic orders only
 - 3.3.5.1.14. Notes
 - 3.3.5.2. Packaging info
 - 3.3.5.2.1. The Shipment Summary will include all the details of the Packaging Instructions associated with the PO Number, including:
 - 3.3.5.2.2. Bag Type
 - 3.3.5.2.3. Pallet Type
 - 3.3.5.2.4. Bags per Pallet
 - 3.3.5.2.5. Stretch Wrap
 - 3.3.5.2.6. Origin
 - 3.3.5.3. Lot Numbers Allowed
 - 3.3.5.3.1. The Shipment will include all the possible Lot Numbers that can be shipped as part of this Release Number
 - 3.3.5.4. Shipment Complete Checkbox
 - 3.3.5.4.1. This will be checked when the Shipment is considered complete (When all the containers for the Release Number are at the status of Delivered)
- 3.3.6. Container Summary
 - 3.3.6.1. The Container Summary will be collapsible with a "+/-" button, in case the user doesn't want to see this information.
 - 3.3.6.1.1. The system will remember the last collapse state of this page view, and will always revert to that collapse state upon opening the page.
 - 3.3.6.2. Fields
 - 3.3.6.2.1. Container Status
 - 3.3.6.2.2. Trucker
 - 3.3.6.2.3. Number of Containers
 - 3.3.6.2.4. Container Number
 - 3.3.6.2.5. Chassis Number
 - 3.3.6.2.6. Seal Number
 - 3.3.6.2.7. Number of Bags
 - 3.3.6.2.8. Weight of Bags
 - 3.3.6.2.9. Selection checkboxes
 - 3.3.6.2.10. TOTALS for Number of Containers, Number of Bags, and Weight of Bags
 - 3.3.6.3. Containers listed

- 3.3.6.3.1. The Container Summary will include the details of all the containers that are at each different status state that a container can be at:
- 3.3.6.3.2. Unallocated
 - 3.3.6.3.2.1. This represents the total number of containers that have not yet been allocated
 - 3.3.6.3.2.2. If there are Unallocated containers for a shipment, an error should be displayed: "More containers are required to be allocated to this Shipment!"
 - 3.3.6.3.2.3. Once the number of Unallocated containers drops to 0, this line should disappear.
- 3.3.6.3.3. Allocated
 - 3.3.6.3.3.1. This represents the total number of containers that have been allocated to a particular Shipment by each Trucker
 - 3.3.6.3.3.2. It will only have populated fields for Trucker and Number of Containers
 - 3.3.6.3.3.3. This number will NOT decrease as the containers move through the process. (So the user can compare the total number of containers "delivered" by each trucker to the total number of containers "allocated" to each trucker to see if the order is complete yet.)
- 3.3.6.3.4. Not Arrived
 - 3.3.6.3.4.1. This represents the containers that have the status of Not Arrived.
 - 3.3.6.3.4.2. It will only have populated fields for Trucker and Number of Containers
- 3.3.6.3.5. Arrived
 - 3.3.6.3.5.1. This represents the containers that have the status of Arrived or Queued
 - 3.3.6.3.5.2. Each line represents an individual container
 - 3.3.6.3.5.3. Each line will have the fields populated for Trucker, Number of Containers (always 1), Container Number, and Chassis Number
- 3.3.6.3.6. Loaded
 - 3.3.6.3.6.1. This represents the containers that have the status of Loaded.
 - 3.3.6.3.6.2. Each line represents an individual container
 - 3.3.6.3.6.3. Each line will have the fields populated for all the possible fields
- 3.3.6.3.7. In Transit
 - 3.3.6.3.7.1. This represents the containers that have the status of In Transit.
 - 3.3.6.3.7.2. Each line represents an individual container
 - 3.3.6.3.7.3. Each line will have the fields populated for all the possible fields
- 3.3.6.3.8. Delivered
 - 3.3.6.3.8.1. This represents the containers that have the status of Delivered.
 - 3.3.6.3.8.2. Each line represents an individual container
 - 3.3.6.3.8.3. Each line will have the fields populated for all the possible fields
- 3.3.6.4. Buttons (for Container Summary)
 - 3.3.6.4.1. View button
 - 3.3.6.4.1.1. If the status for the selected Container is Not Arrived, clicking this button will do nothing (because there is nothing more to view)
 - 3.3.6.4.1.2. If the status for the selected Container is anything other than Not Arrived, clicking this button will take the user to the Container detail page for the selected containers
 - 3.3.6.4.2. Edit button
 - 3.3.6.4.2.1. Clicking this button will enable editing functionality on the Container Summary (see the Container Allocation Entry page)
 - 3.3.6.4.2.2. This button does not use the selection checkboxes, but rather, simply enables the user to enter edit mode.

3.3.6.4.3. Add to Queue button

3.3.6.4.3.1. Clicking this button will add the selected containers to the Container Queue

3.3.6.4.4. Print Load Orders button

3.3.6.4.4.1. Clicking this button will print Load Orders for the selected containers

3.3.7. Buttons (For Shipment Detail page)

3.3.7.1. Back button

3.3.7.1.1. Clicking the Back button will take the user back to the Shipment View page

3.3.7.2. Shipment selection buttons

3.3.7.2.1. When this page is used to view multiple shipments, two shipment selection buttons (back/forward arrows) will be displayed to allow the user to page forward and backward through a sequential list of shipments.

3.3.7.3. Edit

3.3.7.3.1. Clicking the Edit button will take the user to the Shipment Edit page

3.3.7.4. Confirm

3.3.7.4.1. Clicking the Confirm button will take the user to the Shipment Confirmation page.

3.3.8. Allocate Containers button

3.3.8.1. Clicking the Allocate Containers button will enable editing functionality on the Container Summary (see the Container Allocation Entry page)

3.4. Shipment Edit

3.4.1. This functionality will be similar to the functionality of the Packaging Instruction Edit page, but with different fields.

3.5. Shipment Confirmation

3.5.1. This functionality will be similar to the functionality of the Packaging Instruction Confirmation page, but with different fields.

4. Container Tracking

4.1. Shipment Detail - Container Edit

4.1.1. This page is the Shipment Detail Page, but with the Allocation Entry and Container Edit functionality for the Container Summary activated.

4.1.2. Allocation Entry

4.1.2.1. Fields

4.1.2.1.1. Trucker

4.1.2.1.1.1. This field is the Trucking Company that will bring the containers for this particular Shipment

4.1.2.1.2. Number of Containers

4.1.2.1.2.1. This field is the Number of Containers that each Trucking Company will bring for this particular Shipment

4.1.2.2. Add Button

4.1.2.2.1. Clicking on the Add button will add the Trucker and Number of Containers entered into the Container Summary as Allocated (and with a status of Not Arrived)

4.1.3. Edit Functionality

4.1.3.1. Clicking on any line of the Container Summary that contains a Container (or Allocation) will enable the user to edit or enter the details of that line.

4.1.3.2. Allocated edit

4.1.3.2.1. Clicking on a Container on the Allocated line will enable the user to make changes to the Trucker or the Number of Containers

- 4.1.3.2.2. A green checkmark will appear to allow the user to submit the changes, and a red X will appear to allow the user to cancel the changes.
- 4.1.3.3. Not Arrived edit
 - 4.1.3.3.1. Clicking on a Container on the Not Arrived line will take the user to the Container Arrival Entry/Edit page
 - 4.1.3.3.2. The Booking Number and Trucker fields will be passed to the Container Arrival Entry/Edit page so the user doesn't have to enter them.
- 4.1.3.4. Arrived edit
 - 4.1.3.4.1. Clicking on a Container on the Arrived line will take the user to the Container Edit (Load Order) page
- 4.1.3.5. Loaded/In Transit/Delivered edit
 - 4.1.3.5.1. Clicking on a Container on either the Loaded, In Transit, or Delivered lines will take the user to the Container Edit (Load Order) page
- 4.1.4. Back Button
 - 4.1.4.1. Clicking the Back button will exit Edit Mode and return the user to the Shipment Detail screen in View mode.

4.2. Container Arrival Entry/Edit

- 4.2.1. This page allows the user to enter the information for a container that just arrived.
- 4.2.2. This page can be reached by clicking through a Container Allocation from the Shipment Detail page or Container View page, or directly from the Main Menu
- 4.2.3. Container Information
 - 4.2.3.1. Booking Number
 - 4.2.3.1.1. This field allows the user to select from the current active booking numbers in the system
 - 4.2.3.1.2. Alphanumeric
 - 4.2.3.1.3. Dropdown
 - 4.2.3.1.3.1. Typing in numbers/letters will filter the list to only Booking Numbers that start with those numbers/letters
 - 4.2.3.1.3.2. The system will display the International fields and information below by default. However, if the Booking Number chosen is "Domestic", then the fields and information displayed will change to the Domestic fields and information listed below rather than the International fields
- 4.2.4. International
 - 4.2.4.1. Fields
 - 4.2.4.1.1. Dropoff Trucker
 - 4.2.4.1.1.1. This field allows the user to select which trucker to choose that is associated with a particular booking number
 - 4.2.4.1.1.2. Only truckers that are associated with the Booking Number chosen will appear in this list
 - 4.2.4.1.1.3. If only one trucker is associate with the Booking Number, that trucker will be the default.
 - 4.2.4.1.1.4. Alphanumeric
 - 4.2.4.1.1.5. Dropdown
 - 4.2.4.1.2. Pickup Trucker
 - 4.2.4.1.2.1. This field represents the Trucker that will pick up the container
 - 4.2.4.1.2.2. This field always defaults to the Dropoff Trucker
 - 4.2.4.1.2.3. The dropdown field allows all the Truckers in the system to be chosen here, not just the ones associated with the Booking Number
 - 4.2.4.1.2.4. Alphanumeric
 - 4.2.4.1.2.5. Dropdown

- 4.2.4.1.3. Container Number
 - 4.2.4.1.3.1. This field represents the Container Number of the container that has just arrived
 - 4.2.4.1.3.2. Alphanumeric
 - 4.2.4.1.3.3. The same Container Number might be associated with different Shipments, since the container may return a week later for new material. These Container Numbers should be treated as if they were different containers, NOT aggregated together.
- 4.2.4.1.4. Chassis Number
 - 4.2.4.1.4.1. This field represents the Chassis Number of the chassis that has just arrived
 - 4.2.4.1.4.2. Alphanumeric
 - 4.2.4.1.4.3. The same Chassis Number might be associated with different Shipments, since the chassis may return a week later for new material. These Chassis Numbers should be treated as if they were different chassis, NOT aggregated together.
- 4.2.4.1.5. Container Tare Weight
 - 4.2.4.1.5.1. This field represents the Container Tare Weight of the container that just arrived
 - 4.2.4.1.5.2. Numeric
- 4.2.4.1.6. Container Type
 - 4.2.4.1.6.1. Once the Booking Number is chosen, the Container Type will be displayed so the user can confirm it matches the Container that arrived.
- 4.2.4.1.7. Container Type Confirmed checkbox
 - 4.2.4.1.7.1. This checkbox indicates that the user has compared the Container Type on the screen with the Container Type that just arrived.
 - 4.2.4.1.7.2. Checkbox
- 4.2.4.1.8. Steamship Line
 - 4.2.4.1.8.1. Once the Booking Number is chosen, the Steamship Line will be displayed so the user can confirm it matches the Steamship Line of the Container that arrived.
- 4.2.4.1.9. Container Steamship Line Confirmed checkbox
 - 4.2.4.1.9.1. This checkbox indicates that the user has compared the Steamship Line on the screen with the Steamship Line of the container that just arrived.
- 4.2.4.1.10. Container Arrived checkbox
 - 4.2.4.1.10.1. This checkbox indicates that the container entered above has arrived on the premises. If it is unchecked, the container is being checked in before arriving.
 - 4.2.4.1.10.2. Checkbox
 - 4.2.4.1.10.3. This checkbox should default to checked.
- 4.2.4.2. Shipment Info
 - 4.2.4.2.1. Once the Booking Number is chosen, the Shipment Information for that booking should display.
 - 4.2.4.2.2. The fields that should display are:
 - 4.2.4.2.2.1. Booking Number
 - 4.2.4.2.2.2. Container Type
 - 4.2.4.2.2.3. Number of Containers
 - 4.2.4.2.2.4. Number of Bags per Container
 - 4.2.4.2.2.5. Steamship Line

- 4.2.4.2.2.6. Steamship Vessel
- 4.2.4.2.2.7. Freight Forwarder
- 4.2.4.2.2.8. Earliest Return Date
- 4.2.4.2.2.9. Doc Cutoff Date
- 4.2.4.2.2.10. Cutoff Date
- 4.2.5. Domestic
 - 4.2.5.1. Fields
 - 4.2.5.1.1. Different fields will be displayed for shipments with a Booking Number that is "Domestic"
 - 4.2.5.1.1.1. CHANGED ON 2/7/2017. There will be NO booking number for domestic shipments. Only a release number. And on container arrival entry for domestic shipments, the first field will display a dropdown of all open release numbers for domestic shipments.
 - 4.2.5.1.2. Customer
 - 4.2.5.1.2.1. This field will list all the customers that have active domestic shipments in the system
 - 4.2.5.1.2.2. Dropdown
 - 4.2.5.1.3. PO Number
 - 4.2.5.1.3.1. This field will list all the available PO Numbers for the particular customer chosen above.
 - 4.2.5.1.3.2. Once the PO Number is chosen, the Shipment Info and Material will appear
 - 4.2.5.1.3.3. Dropdown
 - 4.2.5.1.4. Material
 - 4.2.5.1.4.1. One the PO number is chosen, the Material associated with that PO number will be displayed
 - 4.2.5.1.5. Dropoff Trucker
 - 4.2.5.1.5.1. This field allows the user to select which trucker to choose that is associated with the Domestic shipment
 - 4.2.5.1.5.2. Only truckers that are associated with Domestic shipments will appear in this list
 - 4.2.5.1.5.3. This will default to the Carrier field chosen in the Domestic Shipment record
 - 4.2.5.1.5.4. Alphanumeric
 - 4.2.5.1.5.5. Dropdown
 - 4.2.5.1.6. Pickup Trucker
 - 4.2.5.1.6.1. This field represents the Trucker that will pick up the container
 - 4.2.5.1.6.2. This field always defaults to the Dropoff Trucker
 - 4.2.5.1.6.3. Alphanumeric
 - 4.2.5.1.6.4. Dropdown
 - 4.2.5.1.7. Container Number
 - 4.2.5.1.7.1. Alphanumeric
 - 4.2.5.1.7.2. Optional
 - 4.2.5.1.8. Tracking Number
 - 4.2.5.1.8.1. Alphanumeric
 - 4.2.5.1.8.2. Optional
 - 4.2.5.1.9. Container Arrived checkbox
 - 4.2.5.1.9.1. This checkbox indicates that the container entered above has arrived on the premises. If it is unchecked, the container is being checked in before arriving.

- 4.2.5.1.9.2. Checkbox
 - 4.2.5.1.9.3. This checkbox should default to checked.
- 4.2.5.2. Shipment Info
 - 4.2.5.2.1. Once the PO Number is chosen, the Shipment Information for that PO Number should display.
 - 4.2.5.2.2. The fields that should display are:
 - 4.2.5.2.2.1. Eligible Lot Numbers
 - 4.2.5.2.2.1.1. All the Eligible Lot Numbers for the associated PO Number should display
 - 4.2.5.2.2.2. Type of Shipment
 - 4.2.5.2.2.3. Shipping Reference Number
 - 4.2.5.2.2.4. Recipient
 - 4.2.5.2.2.5. Recipient Contact
 - 4.2.5.2.2.6. Recipient Telephone Number
 - 4.2.5.2.2.7. Ship To Address1
 - 4.2.5.2.2.8. Ship to City
 - 4.2.5.2.2.9. Ship to State
 - 4.2.5.2.2.10. Ship to Zip Code
 - 4.2.5.2.2.11. Carrier
 - 4.2.5.2.2.12. Carrier Account Number
 - 4.2.5.2.2.13. Shipping Payment Type
 - 4.2.5.2.2.14. Shipping Paid By
 - 4.2.5.2.2.15. Requested Ship Date
 - 4.2.5.2.2.16. Requested Delivery Date
- 4.2.6. Save button
 - 4.2.6.1. Clicking the Save Button will save the information entered and return the user to the Shipment Detail page
- 4.2.7. Cancel button
 - 4.2.7.1. Clicking the Cancel button will ignore the information entered and return the user to the Shipment Detail page

4.3. Container View

- 4.3.1. This functionality will be similar to the functionality of the Packaging Instruction View/Select page, but with different fields.
- 4.3.2. Fields to display
 - 4.3.2.1. ARB Location
 - 4.3.2.2. Customer
 - 4.3.2.3. Release Number
 - 4.3.2.4. Booking Number
 - 4.3.2.5. Container Number
 - 4.3.2.5.1. Container allocations will display the total number of containers allocated under the Container Number field
 - 4.3.2.6. Trucker
 - 4.3.2.7. Arrived?
 - 4.3.2.8. Steamship Line
 - 4.3.2.9. Container Type
 - 4.3.2.10. Selection Box
- 4.3.3. Default Grouping
 - 4.3.3.1. Initially the information will be grouped first by Customer, then by Release Number
- 4.3.4. View button

4.3.4.1. Clicking this button will take the user to the Container detail page for the selected record.

4.3.5. Edit button

4.3.5.1. Clicking this button will take the user to the appropriate edit page given the status of the container listed.

4.3.5.2. The appropriate edit page will be the same as those described on the Shipment Detail - Container Edit page under the section Edit Functionality

4.3.6. Add to Queue button

4.3.6.1. Clicking this button will add the selected containers to the Container Queue and take the user to the Container Queue page

4.3.6.2. Only containers with a status of Arrived may be added to the Container Queue

4.3.7. Print Load Order button

4.3.7.1. Clicking this button will print the load orders for the selected containers

4.3.8. Print Bill of Lading (BOL) button

4.3.8.1. Clicking this button will print the Bills of Lading for the selected containers

4.4. Container Detail

4.4.1. This page displays all the relevant information for a particular Container, including the associated Container Load information, Container Information, Shipment information, and Packaging information.

4.4.2. There are slightly different versions of this page depending on whether the shipment type is International or Domestic.

4.4.3. It contains all the same information as the Shipment Detail page, plus the following information:

4.4.4. Container Information (for International)

4.4.4.1. Container Number

4.4.4.2. Chassis Number

4.4.4.3. Seal Number

4.4.4.4. Material Net Weight

4.4.4.5. Container Tare Weight

4.4.4.6. Packaging Material Weight

4.4.4.7. Container Type Confirmed?

4.4.4.8. Container Steamship Line Confirmed?

4.4.4.9. Confirmed Loaded?

4.4.4.10. Confirmed in Transit?

4.4.4.11. Confirmed Delivered?

4.4.5. Container Information (for Domestic)

4.4.5.1. Container Number

4.4.5.2. Tracking Number

4.4.5.3. Seal Number

4.4.5.4. Material Net Weight

4.4.5.5. Packaging Material Weight

4.4.5.6. Confirmed Loaded?

4.4.5.7. Confirmed in Transit?

4.4.5.8. Confirmed Delivered?

4.4.6. Container Load Information

4.4.6.1. Inventory Location

4.4.6.2. Number of Bags

4.4.6.3. Weight of Bags

4.4.6.4. PO Number

4.4.6.5. Lot Number

4.4.6.6. TOTALS for Number of Bags and Weight of Bags

4.4.7. Buttons

4.4.7.1. Back button

4.4.7.1.1. Brings the user back to the Container View page

4.4.7.2. Edit button

4.4.7.2.1. Brings the user to the Container Edit (Load Order) Page

4.4.7.3. Add to Queue button

4.4.7.3.1. Clicking this button will add the container to the Container Queue and take the user to the Container Queue page

4.4.7.3.2. Only containers with a status of Arrived may be added to the Container Queue

4.4.7.4. Print Load Order button

4.4.7.4.1. Clicking this button will print the load order for the container

4.4.7.5. Print Bill of Lading (BOL) button

4.4.7.5.1. Clicking this button will print the Bill of Lading for the container

4.5. Container Queue View/Edit

4.5.1. This page will enable users to define the queue to prioritize the order in which containers are loaded.

4.5.2. View mode

4.5.2.1. This page will display all the active containers in the system that have been added to the queue (with the status of "queued")

4.5.2.2. The latest orders to be added to the queue will appear at the bottom of the queue initially

4.5.2.3. The fields to be displayed will be the following:

4.5.2.3.1. ARB

4.5.2.3.2. Customer

4.5.2.3.3. Release Number

4.5.2.3.4. Booking Number

4.5.2.3.5. Container Number

4.5.2.3.6. Trucker

4.5.2.3.7. Arrived?

4.5.2.3.8. Steamship Line

4.5.2.3.9. Type

4.5.2.3.10. Count

4.5.2.3.11.

4.5.2.4. Double clicking on a particular Shipment will take the user to the Container View page

4.5.2.5. Buttons

4.5.2.5.1. Back button

4.5.2.5.1.1. Takes the user back to the Container View page

4.5.2.5.2. View button

4.5.2.5.2.1. Takes the user to the Container Detail page for the selected Containers

4.5.2.5.2.2. Double clicking on a line will also take the user to the Container Detail page

4.5.2.5.3. Edit Queue button

4.5.2.5.3.1. Clicking the Edit button will switch the user into Edit mode, which allow the user to re-order the queue.

4.5.2.5.3.2. If a user doesn't have permissions to edit the queue, the edit button will not appear.

4.5.2.5.4. Print Container Load Order button

4.5.2.5.4.1. Prints the Container Load Order for the selected Containers

4.5.2.5.5. Mark Loaded

4.5.2.5.5.1. Changes the status for the selected containers from Arrived to Loaded, and refreshes the page

4.5.3. Edit Mode

4.5.3.1. When in Edit Mode, the user will be able to drag and drop shipments vertically to re-order the queue as preferred.

4.5.3.2. Buttons

4.5.3.2.1. Save

4.5.3.2.1.1. Clicking the Save button will save the changes made to the queue and bring the user back to view mode.

4.5.3.2.2. Cancel

4.5.3.2.2.1. Clicking the cancel button will cancel the changes made to the queue and bring the user back to view mode.

4.6. Container Edit (Load Order)

4.6.1. This page displays all the information for a particular Container, allows the user to choose which bags from inventory will be loaded onto the container, and allows the user to change the status of the Container.

4.6.2. This page is similar to the Container Detail page, with the following exceptions:

4.6.3. Container Load Information

4.6.3.1. The Container Load Information window details which bags from which inventory locations and which lots will be loaded on a particular container.

4.6.3.2. The system will automatically choose the best bags to load on a particular Container, but allow the user to edit them as necessary

4.6.3.3. Automatic Loading Rules

4.6.3.3.1. The system will consider inventory within all the Lot Numbers associated with the particular Shipment.

4.6.3.3.2. It will first choose bags that have been in inventory the longest

4.6.3.3.3. It will then choose bags in a way that will result in the most bags coming from the fewest number of inventory locations

4.6.3.3.4. It will then choose bags that result in the fewest number of partial pallets

4.6.3.4. Editing the Container Load Information

4.6.3.4.1. If the user doesn't like the inventory that was chosen for the container, the user can modify the inventory chosen.

4.6.3.4.2. Moving Inventory to/from Container

4.6.3.4.2.1. To move inventory from the Container to Inventory, the user will first select a line of inventory from the Container Load Information, then click the Right Arrow button to move it back to Current Inventory

4.6.3.4.2.2. To move inventory from Inventory to the Container, the user will first select a line of inventory from Current Inventory, then click the Left Arrow button to move it to the Container.

4.6.3.4.2.3. Ctrl-select will enable the user to select multiple lines at once.

4.6.3.4.3. Changing a line of inventory in the Container

4.6.3.4.3.1. The user can edit a line of inventory that is already in the container

4.6.3.4.3.2. To edit the inventory line, the user will first select a line of inventory

4.6.3.4.3.3. The selected line of inventory will allow the user to change the number of bags.

- 4.6.3.4.3.4. Once the number of bags are changed, the user can click the green checkmark to save the change, or the red X to cancel the change.
- 4.6.3.4.3.5. If the change is saved, the remaining bags left after the change will be returned to Current Inventory.
- 4.6.3.4.4. Choosing inventory from other lots not included on the original release order
 - 4.6.3.4.4.1. The user can select other lots from the same customer that have the same Material by using the dropdown menu.
 - 4.6.3.4.4.2. The user can select multiple lots by clicking the Plus sign next to the dropdown menu.
- 4.6.4. Container Number (Domestic Only)
 - 4.6.4.1. This field allows the user to enter in the Container Number OR Trailer Number of the truck that picked up the shipment
- 4.6.5. Tracking Number (Domestic Only)
 - 4.6.5.1. This field allows the user to enter the Tracking Number for the shipment
- 4.6.6. Seal Number
 - 4.6.6.1. This field allows the user to enter the seal number for the container
- 4.6.7. Confirmed Loaded checkbox
 - 4.6.7.1. This field allows the user to mark the Container as Loaded
 - 4.6.7.2. When checked, the status of the Container will change from Queued to Loaded
 - 4.6.7.3. Checkbox
- 4.6.8. Confirmed In Transit checkbox
 - 4.6.8.1. This field allows the user to mark the Container as In Transit
 - 4.6.8.2. When checked, the status of the Container will change from Loaded to In Transit
 - 4.6.8.3. Checkbox
- 4.6.9. Confirmed Delivered checkbox
 - 4.6.9.1. This field allows the user to mark the Container as Delivered
 - 4.6.9.2. When checked, the status of the Container will change from In Transit to Delivered
 - 4.6.9.3. Checkbox
 - 4.6.9.4. When all the bags from a particular Shipment are in containers with a status of Delivered, then the Shipment status will change from Loaded to Completed
 - 4.6.9.5. When all the bags from a particular PO Number are in containers with a status of Delivered, then the Purchasing Instruction Status will change from In Inventory to Shipped.
- 4.6.10. Buttons
 - 4.6.10.1. Save button
 - 4.6.10.1.1. Saves the changes to the container
 - 4.6.10.2. Cancel button
 - 4.6.10.2.1. Cancels the changes to the container
 - 4.6.10.3. Add to Queue
 - 4.6.10.3.1. Adds the container to the Container Queue
 - 4.6.10.4. Print Load Order
 - 4.6.10.4.1. Prints the Load Order for the Container
 - 4.6.10.5. Print Bill of Lading
 - 4.6.10.5.1. Prints the Bill of Lading for the Container

5. Reporting/Email

5.1. Universal Requirements

- 5.1.1. The user should have full view-only access to the major "view" pages, and should be able to create saved views and save them as "reports" on an independent Report page
- 5.1.2. Reports to be developed should be built off of current "written" templates (referred to by the EX number) and modified as necessary given the different process needs.
- 5.1.3. Reports should be available on screen, printed on paper, saved as PDF, or included in a well-formatted email.
- 5.1.4. The following specialized reports should be pre-built and accessible to every user for printing.

5.2. Bagging Instruction Order

- 5.2.1. EX-2
- 5.2.2. For Bags
 - 5.2.2.1. 5 other supporting forms (To be provided by ARB)
- 5.2.3. For Boxes
 - 5.2.3.1. 2 other supporting forms (To be provided by ARB)
- 5.2.4. For Bulk
 - 5.2.4.1. 2 other supporting forms (To be provided by ARB)

5.3. Load Order

- 5.3.1. EX-9
 - 5.3.1.1. The number of blank slots under the fields "Lot #" and "Pallet #" should be equal to the number of pallets predicted to be used.

5.4. Bill of Lading

- 5.4.1. EX-10
 - 5.4.1.1. The Bill of Lading must look almost identical to the way it looks now.

5.5. Bagging Summary

- 5.5.1. EX-5

5.6. Shipment Summary

- 5.6.1. EX-8

5.7. Container Summary

- 5.7.1. EX-11

5.8. Inventory Report

- 5.8.1. EX-12

5.9. PO Activity

- 5.9.1. EX-14
 - 5.9.1.1. The format of this report, as it is, is not as good as it could be. Instead send them a copy of the Packaging Instruction Detail (Inventory by Railcar#, PO# and/or Customer) page, with the following exceptions:
 - 5.9.1.2. Exclude: Current Inventory area, and exclude the Inventory Location History area (Customers don't need to see that)

5.10. Send Emails

- 5.10.1. The user should be able to send any report above at the push of a button as either a PDF, or in the text of a formatted email.
- 5.10.2. The system should integrate with Outlook, Gmail, or both.
- 5.10.3. The emails should automatically type in the email address of the right contact at a particular company (from the Customer record).
- 5.10.4. The emails should be personalizable by name (Hi Bob,)

6. Outside User Accounts

6.1. Universal Requirements

6.1.1. Outside Users

6.1.1.1. All outside users will require a username and password

6.1.2. Permissions

6.1.2.1. Outside Users will be put in groups that define their permissions

6.1.2.2. The groups initially will be Customers and Truckers, but new Outside User group permissions should be able to be set by the Admin

6.1.2.2.1. Customers and Truckers will be given View-Only access to the information shared with them

6.1.3. Saved Views

6.1.3.1. Customer will be able to create Saved Views for themselves for "View" pages for Packaging Instructions View, Shipment View, and Container View.

6.2. Customer Packaging Instruction View

6.2.1. This page will be accessible by Customers and allow them to view all their Packaging Instructions.

6.2.2. This page is almost identical to the Packaging Instruction View page, but filtered by Customer

6.3. Customer Packaging Instruction Detail

6.3.1. This page will be accessible by Customers and allow them to view all their Packaging Instructions details

6.3.2. This page is almost identical to the Packaging Instruction Detail page, but filtered by Customer

6.4. Customer Shipment View

6.4.1. This page will be accessible by Customers and allow them to view all their Shipments.

6.4.2. This page is almost identical to the Shipment View page, but filtered by Customer.

6.5. Customer Shipment Detail

6.5.1. This page will be accessible by Customers and allow them to view all their Shipments' details.

6.5.2. This page is almost identical to the Shipment Detail page, but filtered by Customer.

6.6. Container View

6.6.1. This page will be accessible by Customers and allow them to view all their Containers.

6.6.2. This page is almost identical to the Container View page, but filtered by Customer.

6.7. Trucker Bookings

6.7.1. This page will be accessible by Truckers and allow them to view all their Bookings and Containers

6.7.2. This page will display all the following fields for the Trucker:

6.7.2.1. Booking Number

6.7.2.2. Number of Containers Allocated

6.7.2.3. Number of Containers Delivered (received by ARB)

6.7.2.4. Number of Containers Owed to ARB

6.7.2.5. Container Type

6.7.2.6. Pickup Location

6.7.2.7. Dropoff Location

6.7.2.8. Steamship Line

6.7.2.9. Vessel

6.7.2.10. Freight Forwarder

6.7.2.11. ERD

6.7.2.12. Doc Cutoff

6.7.2.13. Cargo Cutoff

6.7.2.14. Selection Box

6.7.3. View button

6.7.3.1. Selecting one or more Booking Numbers and clicking the View button will take the user to the Trucker Booking Detail page

6.7.3.2. Double clicking on a particular line will also take the user to the appropriate Trucker Booking Detail page

6.8. Trucker Booking Detail

6.8.1. This page will be accessible by Truckers and allow them to view the details of each of their Bookings and Containers

6.8.2. This page will display all the information from the Trucker Booking page, plus a summary of all the containers and their different statuses, including the following Fields

6.8.2.1. Status

6.8.2.2. Free Days Left

6.8.2.3. Pull Date

6.8.2.4. Date/Time In

6.8.2.5. Container Number

6.8.2.5.1. For Not Arrived containers, this will contain the aggregate number of containers with status of Not Arrived

6.8.2.6. Chassis Number

6.8.2.7. Steamship Line

6.8.2.8. Type

6.8.2.9. Seal Number

6.8.2.10. Net Weight

6.8.2.11. Date/Time Out

6.8.2.12. Ingated?

6.8.3. Back button

6.8.3.1. This will take the user back to the Trucker Bookings page

7. Admin

7.1. View Change History

7.1.1. An interface to view, filter, and sort all the changes made to the system, the dates the changes were made, and the user who made them.

7.2. Edit Records

7.2.1. An interface to edit records after they have already been entered.

7.2.2. In particular, the user must have the ability to change the Customer Name, PO Number, and/or Lot Number for a file.

7.2.2.1. This is necessary for when a new customer takes over the inventory for an old customer and assigns their own PO Numbers.

7.2.3. Change History records should be recorded so that the system keeps track of what each order used to be.

7.3. Dropdown box field entry

7.3.1. Company-wide fields

7.3.1.1. Customers

7.3.1.2. Truckers

7.3.1.3. AR Bulk (ARB) Locations

7.3.1.3.1. NJ

7.3.1.3.2. SC

- 7.3.1.4. Container Types
- 7.3.1.5. Origins
 - 7.3.1.5.1. Made in the USA
 - 7.3.1.5.2. Made in Canada
- 7.3.2. AR Bulk Location Specific Fields
 - 7.3.2.1. Default number of Bags per Pallet
 - 7.3.2.1.1. NJ
 - 7.3.2.1.1.1. 55 Bags per pallet
 - 7.3.2.1.2. SC
 - 7.3.2.1.2.1. 60 Bags per pallet
 - 7.3.2.2. Inventory Locations
 - 7.3.2.2.1. NJ
 - 7.3.2.2.1.1. Aisle 1,2,3, etc.
 - 7.3.2.2.2. SC
 - 7.3.2.3. Packaging weight discrepancy percentage tolerance
 - 7.3.2.3.1. This is the percentage difference allowed between the total weight of the bags packaged, and the total weight of the railcar.
 - 7.3.2.3.2. When this percentage is exceeded, a warning will appear on the Pallet Info Input page when the order is marked complete.
 - 7.3.2.3.3. NJ
 - 7.3.2.3.4. SC

7.4. View/Select Saved Views

- 7.4.1. Admin will be able to create custom views that are available company wide, to users at a specific ARB Location, or to specific users anywhere. Examples:
 - 7.4.1.1. Grouped by customer, sorted by PO#
 - 7.4.1.2. Grouped by confirmed, grouped by customer, sorted by PO#
 - 7.4.1.3. Grouped by Arrived, grouped by customer, sorted by PO#
 - 7.4.1.4. Sorted by cutoff date (Earliest first)
- 7.4.2. Admin will select which of his views to share by checking boxes in the Saved View window.
- 7.4.3. Admin can sort and organize the saved views into folders, and that hierarchy will be shared with users (much like one does with bookmarks in a browser)

7.5. User permissions

- 7.5.1. Set permissions, by user for different screens
 - 7.5.1.1. EX: Some users should ONLY be able to view things, and enter certain items of data, but not have editing or entry permissions on other items of data.
- 7.5.2. Each user should have an ARB Location set for them (NJ or SC), and every screen should initially default to entering and viewing data ONLY from that location.
 - 7.5.2.1. When a user enters data for a different ARB Location, a warning should pop up on the screen: "Wrong Location! Are you sure the ARB Location is correct?"
 - 7.5.2.2. EX: If a SC user is entering a Shipment for Inventory that resides in NJ, a warning should appear.

7.6. Customers

- 7.6.1. Name
- 7.6.2. Address
- 7.6.3. Billing info
- 7.6.4. Contacts
 - 7.6.4.1. Phone
 - 7.6.4.2. Email
- 7.6.5. Preferences

7.6.5.1. This will list the Customer's preference with respect to what services they typically need from us

7.6.6. Notes

7.7. Truckers

7.7.1. Name

7.7.2. Address

7.7.3. Billing info

7.7.4. Contacts

7.7.4.1. Phone

7.7.4.2. Email

7.7.4.3. Notes

7.7.5. Notes

7.8. Packaging Materials Tracking

7.8.1. Admin will be able to enter packaging material into inventory and the system will track the packaging material and notify users when new materials need to be ordered.

7.8.2. The tracking will be done by tracking the number of bags, pallets, and approximate amount of shrink wrap used on each order, subtracting it from a running total of each packaging material, and sending an update when inventory gets low.

7.8.3. Admin should be able to add new Types of Packaging material as well as new Bags, Boxes, or Bulk Bags.

7.8.4. New Packaging Material Entry

7.8.4.1. To track the Material, we'll use the following fields:

7.8.4.1.1. ARB Location

7.8.4.1.2. Company Material?

7.8.4.1.2.1. Yes or No, depending on whether the material is unique to a particular Customer or can be used across all Customers

7.8.4.1.3. Customer

7.8.4.1.3.1. If it is not company material, this is the Customer that it is used for.

7.8.4.1.4. Type of Packaging

7.8.4.1.4.1. There are groups of packaging material that should be treated differently than other groups. There are:

7.8.4.1.4.2. Holders (Would love to come up with a better name for this)

7.8.4.1.4.2.1. These are bags, boxes, supersacks, or other things that hold material. They include:

7.8.4.1.4.2.2. Bags

7.8.4.1.4.2.3. Boxes

7.8.4.1.4.2.4. Bulk Liners

7.8.4.1.4.3. Seals

7.8.4.1.4.4. Pallets

7.8.4.1.4.5. Pallet Material

7.8.4.1.4.5.1. Shrink Wrap

7.8.4.1.4.5.2. Pallet Liners

7.8.4.1.4.6. Each type of packaging has its own unique set of business rules that go with it.

7.8.4.1.4.7. Bag

7.8.4.1.4.7.1. Each bag that is put into inventory on the packaging instruction detail page, should remove one bag from the packaging inventory balance for that bag.

- 7.8.4.1.4.7.2. Each bag that is put into a container, should contribute two weights toward that container (to be printed on the Bill of Lading): the weight of the bag itself, and the weight of the material inside the bag.
- 7.8.4.1.4.8. Box
 - 7.8.4.1.4.8.1. Each box that is put into inventory on the packaging instruction detail page, should remove one box from the packaging inventory balance for that box.
- 7.8.4.1.4.9. Bulk Liners
 - 7.8.4.1.4.9.1. Each Bulk Liner that is put into inventory on the packaging instruction detail page, should remove one Bulk Liner from the packaging inventory balance for that bulk liner.
- 7.8.4.1.4.10. Seals
 - 7.8.4.1.4.10.1. Each container shipped should remove one seal from the packaging inventory balance for seals.
- 7.8.4.1.4.11. Pallets
 - 7.8.4.1.4.11.1. Pallets are stacked differently in each location. So the amount subtracted from inventory will be different for pallets in NJ versus those in SC.
 - 7.8.4.1.4.11.2. The number of pallets taken out of inventory is tied to a particular number of bags, and is defined in the Packaging Instructions with the field "Number of bags per pallet".
 - 7.8.4.1.4.11.3. One pallet should be subtracted for any number of bags less than or equal to the "Number of bags per pallet" That is, if the Number of Bags per Pallet is 55, and only 32 bags are put into inventory, then 1 pallet should be subtracted from the pallet balance. If 60 bags are put into inventory, then 2 pallets should be subtracted from the pallet balance. ALSO, if 20 bags are put into inventory in one location, and 20 bags are put into inventory in a separate location, then TWO pallets should be subtracted from the pallet balance (since each location needs a pallet).
- 7.8.4.1.4.12. Shrink Wrap
 - 7.8.4.1.4.12.1. When entering Shrink Wrap as a new inventory item, it should be entered in number of linear feet (i.e. 350 feet).
 - 7.8.4.1.4.12.2. Each shrink wrap inventory item should have the following fields:
 - 7.8.4.1.4.12.2.1. Number of Feet Used per Pallet for Full Wrap
 - 7.8.4.1.4.12.2.2. Number of Feet Used per Pallet for Half Wrap
 - 7.8.4.1.4.12.3. For every pallet packaged, the appropriate number of feet of shrink wrap should be subtracted from the Shrink Wrap balance (given the entries in the above fields)
- 7.8.4.1.4.13. Pallet Liners
 - 7.8.4.1.4.13.1. Each Pallet Liner should include the following field
 - 7.8.4.1.4.13.1.1. Number of Liners per Pallet
- 7.8.4.1.5. Packaging name
 - 7.8.4.1.5.1. Some customers supply multiple bags, and this will act as an identifier as to which bag it is. Or we might stock different types of Pallets.
 - 7.8.4.1.5.1.1. Examples: Ravago Blue Bag, Ravago Green Bag
- 7.8.4.1.6. Estimated weight per empty bag
 - 7.8.4.1.6.1. Measured in pounds
 - 7.8.4.1.6.2. This will be used in the Bill of Lading weight calculation

- 7.8.4.1.7. Average weight of material in bag
 - 7.8.4.1.7.1. Measured in Kilograms
 - 7.8.4.1.7.2. When this is not applicable, in cases like Pallets, or Shrink Wrap, the user will simply enter “0”. Or the field will not be shown when the Packaging Type is not of the “Holder” type.
- 7.8.4.1.8. Active/Inactive
 - 7.8.4.1.8.1. A way to hide discontinued bags from the list of available bags so only current bags need to be seen.
- 7.8.4.1.9. Reorder Threshold
 - 7.8.4.1.9.1. The user can enter a number of Bags, for which, when the Number of Bags drops below this number, the User will get an alert or an email.
- 7.8.4.1.10. Notes
- 7.8.4.2. Packaging Material View
 - 7.8.4.2.1. This page will allow you to see all active (and inactive, if selected) packaging materials in inventory.
 - 7.8.4.2.2. It is structured similar to the other view screens
 - 7.8.4.2.3. It includes the following fields
 - 7.8.4.2.3.1. ARB Location
 - 7.8.4.2.3.2. Customer
 - 7.8.4.2.3.3. Packaging Type
 - 7.8.4.2.3.4. Packaging Name
 - 7.8.4.2.3.5. Quantity (in inventory)
 - 7.8.4.2.3.6. Reorder Threshold
 - 7.8.4.2.3.7. Under Threshold
 - 7.8.4.2.3.7.1. Logic, if Quantity is less than Reorder Threshold, then this = “Y”, otherwise, “N”
 - 7.8.4.2.3.8. Selection Box
 - 7.8.4.2.4. Print
 - 7.8.4.2.4.1. Prints the selected rows, or all rows if none selected
 - 7.8.4.2.5. Edit
 - 7.8.4.2.5.1. Brings the user back to the selected item’s Packaging Material Entry page to edit the specifics of the item
 - 7.8.4.2.6. View
 - 7.8.4.2.6.1. Brings the user to the selected item’s Packaging Material Detail page
- 7.8.4.3. Packaging Material Detail
 - 7.8.4.3.1. This page shows the user the inventory history for the item, and allows the user to enter new items into inventory
 - 7.8.4.3.2. The top line of the inventory History allows the user to input a new entry into inventory, much like in a checkbook register in Quickbooks.
 - 7.8.4.3.3. The lower lines show the history of when items were put into inventory and taken out of inventory.
 - 7.8.4.3.3.1. When bags are placed in inventory, entries will be made automatically by the system to subtract the appropriate items from inventory. These lines are not editable directly in this screen.
 - 7.8.4.3.3.2. Manually entered lines, when inventory adjustments are made from inventory counts or purchases, CAN be edited by first clicking the “edit button”
 - 7.8.4.3.4. It displays the following fields
 - 7.8.4.3.4.1. Date
 - 7.8.4.3.4.2. Event

- 7.8.4.3.4.2.1. For manually entered items, the user can type in why they are changing the inventory
- 7.8.4.3.4.2.2. For automatically entered items, the PO# is listed
- 7.8.4.3.4.3. Debit
 - 7.8.4.3.4.3.1. If the quantity is subtracting from inventory
- 7.8.4.3.4.4. Credit
 - 7.8.4.3.4.4.1. If the quantity is adding to inventory
- 7.8.4.3.4.5. Balance
 - 7.8.4.3.4.5.1. The resulting balance of items in inventory
- 7.8.4.3.4.6. Note
 - 7.8.4.3.4.6.1. Any note manually entered by the user.80

Database Structure

- All tables should include automatic date fields that record time of entry and editing.
- Database Structure has NOT BEEN UPDATED since v1 of the requirements, and so there are many differences that might not reflect the requirements above. They are included below to give an idea of a possible Database Structure.

Packaging

Customer Info

Field Name	Field Type	Notes	Possible Values	Example
Customer UID	Numeric	A unique identifier assigned by the system to a particular company. PRIMARY FIELD (one to one)		
Customer	Alpha	Name of the customer		Dow Exxon
Customer Info				

Customer Purchase Orders

Field Name	Field Type	Notes	Possible Values	Example
Customer UID		PRIMARY FIELD (one to many)		Dow Exxon
Order UID	Numeric	A unique identifier assigned by the system to a particular order		

Purchase Order Lots

Field Name	Field Type	Notes	Possible Values	Example
Order UID	Numeric	PRIMARY FIELD		
Customer PO number	Alpha	The Purchase Order number that the customer provides(one to one)		
Lot UID	Numeric	A unique identifier assigned by the system to a particular Lot. (one to many with Order UID:Lot UID)		

Lot Railcars

Field Name	Field Type	Notes	Possible Values	Example
Lot UID	Numeric	PREVIOUSLY DEFINED		

Customer lot number	Alpha	The lot number associated with a particular PO that the customer provides.		
Railcar UID	Numeric	A unique identifier assigned by the system to a particular railcar. (one to many with Lot UID:Railcar UID)		

Railcar Info

Field Name	Field Type	Notes	Possible Values	Example
Railcar UID	Numeric	A unique identifier assigned to each railcar by the system.		
Railcar number	Alpha	The railcar number that the material arrives on. This is provided by the client.		DOWX022311 CCBX072747
Material	Alpha	The type of material arriving in the railcar. Provided by the client.		LLDPE 1647C Soybeans
Railcar weight	Numeric	The weight of the railcar upon arrival. Provided by the client. Default: Measured in pounds.		193,962
Railcar date logged	Date	The date the railcar was entered into the system		
Railcar date arrived	Date	The date the railcar arrived at ARBulk		
Railcar date package start	Date	The date the railcar began to be packaged. (The earliest date of all the pallets associated with the railcar)		
Railcar date package end	Date	The date the railcar was finished being packaged (The latest date of all the pallets associated with the railcar)		

Packaging Instruction Info

Field Name	Field Type	Notes	Possible Values	Example
Railcar UID		PREVIOUSLY DEFINED		
Packaging Instruction Status	Alpha	Is the railcar ready to be packaged?	Ready Not Ready	
Packaging Queue Priority	Numeric	If the Packaging Instruction status is ready, where in the packaging queue is the current railcar? This is assigned by the user in the Packaging Instruction queue manager. This should default to FIFO.		
Bag type	Alpha	The type of bag the material is to be packaged in.	25 KG	
Pallet type	Alpha	The type of pallet the material is to be loaded on.		
Bags per Pallet	Alpha	How many bags should be packaged on each pallet		
Stretch Wrap	Alpha	How should the pallet be wrapped?	Full/Half	
Labelinclude lot number	Y/N	Should the label include the lot number?	Y/N	
Labelinclude material	Y/N	Should the label include the type of material?	Y/N	

Labelinclude bag weight	Y/N	Should the label include the bag weight?	Y/N	
Labelinclude bag weight type	Alpha	How should the weight of the bag be measured, in pounds or kilograms?	Pounds Kilograms	
Order Notes	Alpha	What other client information is important to know for the bagging order?		"Please use heat-treated pallets"

Railcar Pallets

Field Name	Field Type	Notes	Possible Values	Example
Railcar UID		PREVIOUSLY DEFINED.		
Pallet UID	Numeric	A unique identifier assigned by the system to each pallet. (one to many with Railcar UID:Pallet UID)		

Pallet Info

Field Name	Field Type	Notes	Possible Values	Example
Pallet UID	Numeric	A unique identifier assigned by the system to each pallet.		
Pallet number	Alpha	A number printed on the pallet to track each pallet.		
Pallet status	Alpha	The current status of the pallet	Inventory Shipped	
Pallet bags	Numeric	The number of bags on the pallet		
Pallet weight	Numeric	The weight of the pallet (in lbs.)		
Pallet Inventory Location	Alpha	The warehouse location that the pallet was placed into inventory.		Aisle 44
Pallet date packed	Date	The date that the pallet was packed and placed into inventory		
Pallet date removed	Date	The date that the pallet was removed from inventory		
Pallet date checked	Date	The date that the pallet was last checked on during a cycle count. Defaults to Pallet date packed.		

Packaging Materials

Customer Packaging Records

Field Name	Field Type	Notes	Possible Values	Example
Customer UID		PRIMARY FIELD		
Packaging Materials Change UID		A unique identifier associated with a particular packaging change entry for a Customer UID		

Packaging Materials Changes

Field Name	Field Type	Notes	Possible Values	Example
Packaging Materials Change UID		PRIMARY FIELD		
Packaging Material Inventory Change Date	Date	The date that a packaging material inventory change is being made		
Packaging Material Type	Alpha	The type of packaging material to be tracked	25 Kg Bags Pallets Slipsheets	

			Topsheets	
Packaging Material Inventory Change	Numerical	The number of packaging material items being added or subtracted to a customer's inventory.		
Packaging Material Inventory Change Note	Alpha	Any explanation or note that should be associated with a packaging change		"Balance adjustment for lost bags"

Shipping

Customer Shipping Orders

Field Name	Field Type	Notes	Possible Values	Example
Customer UID		PRIMARY FIELD		Ravago
Shipping Order UID	Numeric	A unique identifier associated with a particular shipping order for a Customer UID		

Shipping Order Info

Field Name	Field Type	Notes	Possible Values	Example
Shipping Order UID	Numeric	PRIMARY FIELD		
Customer Release Number	Alpha	The release number sent by the customer/Freight Forwarder to release the goods.		
Booking Number	Alpha	The booking number for the Steamship line		ZIMUORF0628215
Freight Forwarder	Alpha	The name of the freight forwarder		MTS
Shipping Order Material		The Material that is to be shipped. This must match the material of the lot numbers associated with the order, otherwise, an error flag should be issued.		
Shipping Container	Alpha	The type of container needed to ship in	40' HC	FCL/4x40DV
Shipping Container Quantity	Numeric	The number of shipping containers to fill		
Shipping Bag Quantity	Numeric	The number of bags to load on each shipping container. Probably has a default value of 990 (or more) since we usually want to fill a container. MEASURED IN BAGS, NOT PALLETS.		990
Steamship Line	Alpha	The name of the steamship line that the booking number is associated with.	Zim MSC Maersk Etc.	Zim MSC Maersk
Steamship Vessel	Alpha	The name of the vessel that will carry the container.		Sealand Washington Zim Texas MSC Methoni
Earliest Return Date	Date	The earliest date that the container can be returned to the steamship line.		
Cutoff Date	Date	The latest date that the container can be returned to the steamship line.		

Doc Cutoff Date	Date	The date by which we need to report the containers we need to turn in to the steamship line		
Pickup Location	Alpha	The location at which to pickup the containers		Maher
Return Location	Alpha	The location at which to return the containers		Maher
Shipping Order Location Status	Alpha	The location status of the Shipping Order		

Shipping Order Lots

Shipping Order UID		PRIMARY FIELD		
Lot UID		PREVIOUSLY DEFINED This includes all the lot #'s that are allowed to be shipped under a particular shipping order.		

Shipping Order Containers

Shipping Order UID		PRIMARY FIELD		
Container UID	Alpha	A unique identifier associated with a particular container. (one to many with Shipping order UID:Container UID)		

Container Info

Container UID		PRIMARY KEY		
Container Number	Alpha	The number of the container		
Container Steamship Line	Alpha	The steamship line that owns the container.	MSC Maersk Etc.	
Container Reporting Status	Alpha	Whether the container has been reported to the steamship line or not	Reported Not Reported	
Container Chassis Number	Alpha	The number of the chassis that the container is transported on.		APM2 5234626
Container Seal Number	Alpha	The seal number assigned by ARB for a particular container		8637065

Container Pallets

Container UID		PRIMARY KEY		
Pallet UID		PREVIOUSLY DEFINED		