Leaf Data Systems
State of Washington
1.37.5 Release Changes for Integrators

Published by:

MJ Freeway®, LLC

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RELEASE HIGHLIGHTS:

1.37.5 WORKFLOW IMPROVEMENTS AND ISSUE RESOLUTION:

- Waste Reporting:
    - Added workflow for reporting "Daily Plant Waste"
    - Refined ability to report waste during harvest-related workflows:
        - Harvest Batch
        - Cure Batch
        - Finish Batch
    - Resolved issues related to waste reporting when performing Conversions
- Inventory Type Attributes:
    - Added ability to capture 'Weight per unit' for weight-based discrete items
    - Added ability to capture 'Serving Size' for infused discrete items
    - Added ability to capture 'Servings per Unit' for infused discrete items
- Lab Results:
    - Refined business logic surrounding lab results requirements
    - Resolved threshold and validation issues with individual lab tests
    - Lab retest workflow for failed product
    - *NOTE: Only Testing Lab Facilities can add or update lab result records*
- Inventory Transfers:
    - Lab outsourcing workflow
    - Resolved issue causing incorrect recipients on transfers from Retailers
    - Refined data validation in order to minimize ability for invalid data entry
- Sales:
    - Added ability to adjust previously entered sales data (unit price)

1.37.5 GENERAL IMPROVEMENTS:

- Numeric Standardization:
  - Decimal values pertaining to weights are all now to two decimal places
  - (Exception) Lab Result values are saved to three decimal places
- Drop-down Menus:
  - Traditional drop-down menus replaced with "type-ahead" search fields
    - Batches
    - Inventories
    - Inventory Types

SUMMARY OF CHANGES:

Following is a list of the items being released with 1.37.5.

Terminology Used in Table Below

Issue/Solution	*denotes an instance where the system was not functioning as designed, and the corresponding solution to resolve the issue*
Workflow Gap/ Improved Workflow	*describes a situation where licensees/integrators have used a procedural system workaround to accomplish a workflow that they perform along with the corresponding solution implemented to address the gap*
Update	*new/improved/enhanced functionality that represents new requirements implemented*

	Summary of Work	**Extended Description of Solution Implemented**
BATCHES	**Batches/Add:** creation of 'type'='plant' populates 'harvest_stage' and 'harvested_at'	**Issue:** When creating a plant batch, the 'harvest_stage' and 'harvested_at' fields are automatically populated. **Solution:** The 'harvest_stage' and 'harvested_at' fields will no longer be populated automatically upon creation of a plant batch.
	Batches/Add: missing or invalid strain/area should fail call and return error message	**Issue:** When creating a batch, invalid strain and area global IDs are able to be sent. **Solution:** When creating a batch, validation has been added to fail any call without valid strain and area global IDs.
	Batches/Add: 'type'='propagation material' generates invalid 'inventory type' for resulting inventory lot	**Issue:** When creating a propagation material batch, the inventory type created is incorrect. **Solution:** When creating a propagation material batch, an inventory type of "Immature Plant" with the origin equal to the 'intermediate_type' is created.
	Batches/Add: valid types should include 'intermediate/ end product' instead of 'extraction'	**Update:** In the API, the parameter within the Batches endpoint called "extraction" has been renamed to "intermediate/ end product".
	Batches/Cure: add ability to report waste during cure	**Workflow Gap:** When curing a batch of harvested material, user is unable to associate waste with this process. **Improved Workflow:** During the "cure batch" and "finish batch" functions, waste can be reported that will be associated with the harvest batch. This will cause the creation of a destruction record as well as the related inventory lot record representing the waste.
	Batches/Delete: block ability if active plants/inventory associated	**Workflow Gap:** Batches with associated plants and inventory can be deleted, which corrupts the associated records.

	Summary of Work	Extended Description of Solution Implemented
		Improved Workflow: Batches that have plants or inventory (active or inactive) associated with them cannot be deleted. Attempting to delete a batch that is in use will cause the request to fail, and an error message to be returned.
	Batches/Edit: for 'type'='propagation material' or 'plants', missing or invalid 'num_plants'/'origin should fail call and return error message	**Issue:** Upon creation of a propagation material or plant batch, the system does not validate the number of plants entered. **Solution:** Upon creation of a propagation material or plant batch, if the 'num_plants'/origin is missing, the call will fail and an error message will be returned.
	Batches/Edit: remove ability to update a deleted record	**Issue:** Deleted batch records can be updated. **Solution:** Deleted batch records can no longer be updated.
	Batches/Edit: unable to update records with 'mother_plant_id' associated	**Issue:** When a received batch has a mother plant ID associated, the record cannot be updated. **Solution:** Received batches with associated mother plants can now be updated.
	Batches/Finish: inventory lot creation validation	**Workflow Gap:** Harvest batches being finished into inventory can be changed into different inventory types. **Improved Workflow:** When finishing harvest batches into inventory, user must select the 'material_type' that they are creating, which results in the system validating which inventory types are appropriate based on this data.
	Batches/Finish: 'qty_packaged_flower' behavior is incorrect	**Issue:** The quantity packaged flower parameter is not incremented when harvest batches are "finished" into inventory. **Solution:** The "packaged" weights are incremented correctly based on the amounts "finished".
	Batches/Finish: waste creation workflow	**Workflow Gap:** When finishing a batch of harvested material, user is unable to associate waste with this process. **Improved Workflow:** During the "cure batch" and "finish batch" functions, waste can be reported that will be associated with the harvest batch. This will cause the creation of a destruction record as well as the related inventory lot record representing the waste.
	Batches/Harvest: 'external_id' value is not saved	**Issue:** When using the harvest batch workflow function, external ID value is not saved. **Solution:** When using the harvest batch workflow function, user has the option of saving an external ID that will be associated with the harvest batch created.
	Batches/Harvest: generates incorrect origin	**Issue:** When using the harvest batch workflow function, the origin value is saved incorrectly.

	Summary of Work	Extended Description of Solution Implemented
		Solution: When using the harvest batch workflow function, the origin value is captured from the plant batch being harvested and is saved to the harvest batch created.
	Batches/Harvest: remove ability to modify batch	**Update:** Users will no longer be able to modify batch information for harvest type batches and must follow appropriate batch workflows to log information changes.
	Batches/Listing: no record returned once 'status'='closed'	**Issue:** Currently, closed batches cannot be retrieved. **Solution:** The ability to retrieve closed batches via API has been restored.
	Batches/Listing: 'num_plants' shows plants with 'transferred' and 'inventory' stage.	**Issue:** Upon retrieving the information associated with a batch, the number of plants includes plants that have been transferred or moved to inventory. **Solution:** The number of plants associated with a batch has been corrected to exclude plants that have been transferred to inventory.
	Batches: 'qty_cure' & 'dry_weight' values have different datatype lengths	**Update:** Numeric standardization throughout the system will provide consistencies with decimal values entered. With the exception of lab results, all decimal values will be saved to two places past the decimal. Lab Results will be saved to three places past the decimal.
CONVERSIONS	**Conversions/Add:** associate 'waste' with conversion output	**Issue:** Waste created through a conversion is associated with the input lots, causing the creation of extraneous waste lots. **Solution:** Waste created through a conversion is associated with the output lot. Upon entering a waste value when performing a conversion, a destruction record and associated waste inventory lot are created automatically.
	Conversions/Add: input item with lab result creates new item with lab result without attestation	**Issue:** When completing a conversion, the lab results associated with the inventory are inherited by the output lot, even when the attestation is not selected. **Solution:** QA Inheritance has been corrected.
	Conversions/Add: input of 'qty'='0' creates medically compliant product	**Issue:** When completing a conversion, a quantity of "0" entered for the input causes the output inventory to be marked as "medically compliant". **Solution:** Data validation has been added to conversions, removing the ability to perform a conversion with a zero quantity input.
	Conversions/Add: waste created for 'qty_waste_total' for each item converted if multiple inputs	**Issue:** Upon completing a conversion with waste associated, the waste item created is multiplied by the number of inputs when it should be related to the output. **Solution:** Waste created through a conversion is associated with the output lot. Upon entering a waste value when performing a conversion, a destruction record and associated waste inventory lot are created automatically.

	Summary of Work	Extended Description of Solution Implemented
DESTRUCTIONS	**Destructions/Add/Edit:** remove "actual date of destruction" field, "disposal_at" parameter is now a returned value	**Update:** The actual date of destruction is captured based on the workflow rather than entered by the end user.
	Destructions/Add: 'daily waste' workflow	**Workflow Gap:** Users do not have the ability to enter "Daily Waste" associated with a particular area at the facility. **Improved Workflow:** Users have the ability to create a destruction record with a source of "Daily Plant Waste" and a reason of "daily waste".
	Destructions/Add: record should accept date and time	**Issue:** Destruction records currently only log the date, and not the time, of the transaction. **Solution:** Destruction records capture both the date and time of the transaction.
	Destructions/Dispose Item: creating inventory with negative quantity	**Issue:** Waste packages are being presented with "0" inventory, so when they are disposed of the quantity becomes negative. **Solution:** Waste packages created represent the correct quantity, so when they are disposed of they are decremented to zero.
	Destructions/Inventory: waste creation workflow	**Update:** The workflows regarding waste creation for inventory are being reworked to align with the harvest workflows.
GENERAL	**General/Numeric Standardization:** integer, decimal, varchar limits not validated upon input; validate weight-based calls, decimal(14,2)	**Update:** Numeric standardization is occurring throughout the system, which will provide consistencies with decimal values entered. With the exception of lab results, all decimal values will be saved to two places past the decimal. Lab Results will be saved to three places past the decimal.
	General: ability to correct mistakes	**Issue:** Licensee must be able to correct mistakes for all data entered into Leaf. **Solution:** All records entered can be updated, when appropriate.
	General: null date format has changed, should be ""	**Issue:** Null dates are returned in the improper format. **Solution:** The null date format returned has been corrected.
INVENTORIES	**Inventories/Listing:** filtering by 'mme_code' returns 500 error	**Issue:** The Inventory Report returns a 500 error upon loading when filtered by 'mme_code'. **Solution:** The Inventory Report loads properly.
	Inventories/Listing: GET with 'global_id' filter does not read whole 'global_id'	**Issue:** When retrieving inventory information, only the portion of the global ID after the "." is validated. **Solution:** When retrieving inventory information, the full global ID entered will be validated upon submission of the request.
	Inventories/Listing: 'global_lab_result_id' is null on inventory with associated lab result	**Issue:** Lab result records are not following appropriate inheritance rules and being associated with child inventory correctly. **Solution:** Lab result inheritance has been corrected.

	Summary of Work	Extended Description of Solution Implemented
	Inventories/Move Inventory To Plants: ability to move plants into an existing batch	**Update:** For the "move inventory to plants" workflow, users will have the option to either create a new batch or add plants to an existing batch.
	Inventories: un-require 'net_weight' upon form submission	**Issue:** Net weight field is required upon submission of form. **Solution:** The net weight (net_weight) field has been deprecated, and unrequired for inventory creation. "Quantity" should be used instead.
	Inventories: 'type'='waste' should be restricted from all actions except 'area' modification	**Update:** Waste inventory will have restrictions applied to the actions that can be performed to it.
INVENTORY ADJUSTMENTS	**Inventory Adjustments/Add:** invalid or missing 'uom' should fail/return error message	**Issue:** Invalid "uom" values are accepted. **Solution:** "uom" will be validated upon submission of an inventory adjustment.
INVENTORY TRANSFERS	**Inventory Transfers/Add:** add ability to track 'origin'/'propagation source' of plant from sender to receiver [State Users, Producer Licensee Users]	**Update:** As packaged plants are transferred from one facility to another, they maintain their original "propagation source" value.
	Inventory Transfers/Add: transfer from lab to lab can be completed without restrictions [Testing Lab Users]	**Update:** Inventory can be transferred from one lab to another without restrictions to support the "Lab Test Outsourcing" workflow.
	Inventory Transfers/Receive: invalid data error messaging upon submission of duplicate 'global_id' values	**Issue:** When a transfer is created with multiple inventory lots with the same global ID, a non-descriptive error message is returned. **Solution:** Multiple inventory lots with the same global ID will caused the call to fail and a descriptive error message to be returned.
	Inventory Transfers/Receive: inventory type ID is not created automatically	**Issue:** Upon receipt of inventory, the system is not accurately creating a correctly associated inventory type. **Solution:** Upon receipt of inventory, the receiving facility will have an appropriate inventory type automatically created by the system.
	Inventory Transfers/Update: modifying price on inventory transfer adds additional sale record	**Issue:** When an inventory transfer is modified and the price of a line item changes, an additional sale record is created. **Solution:** Additional sale records will not be created when a transfer is updated.
	Inventory Transfers/Void: upon void of transfer, associated sale should be voided	**Issue:** When an inventory transfer record is voided, the associated sale record remains. **Solution:** When an inventory transfer record is voided, the associated sale record is voided, also.

	Summary of Work	Extended Description of Solution Implemented
	Inventory Transfers: ability for transfer to lab with partial lab results associated [Testing Lab Users]	**Update:** Inventory with partial lab results can be transferred from one lab to another without restrictions to support the "Lab Test Outsourcing" workflow.
	Inventory Transfers: ability to transfer to a different lab for test results [Testing Lab Users]	**Update:** Inventory can be transferred from one lab to another without restrictions to support the "Lab Test Outsourcing" workflow.
INVENTORY TYPES	**Inventory Types/Add:** ability to capture 'servings_per_unit' for discrete items	**Update:** Users are able to capture "Servings per Unit" for inventory types.
	Inventory Types/Add: ability to capture/print 'Weight Per Unit (gm)' for weight-based items	**Update:** Users are able to capture "Weight Per Unit (gm)" for inventory types.
	Inventory Types/Add: invalid 'uom' for end product should fail call, return error message	**Issue:** Invalid "uom" values are accepted. **Solution:** "uom" will be validated upon submission of an inventory type.
	Inventory Types/Add: only allow integer inputs for 'uom'='ea'	**Update:** When an inventory type with a unit of measure "ea" is created, all associated inventory will only be able to have quantity values that are integers, not decimals.
	Inventory Types/Edit: missing or invalid 'type'/'intermediate_type' should fail call and return error message	**Issue:** Invalid "type" or "intermediate type" values are accepted. **Solution:** For Inventory Types, "type" and "intermediate_type" will be validated upon submission.
LAB RESULTS	**Lab Results/Add:** cannabinoid potency and THC calculation	**Update:** The calculations for Total THC are being reworked/corrected.
	Lab Results/Add: extraction capable inventory	**Update:** Lab results validation will now trigger inventory to have a designation called "eligible for extraction", which will be deemed true or false based on lab results entered.
	Lab Results/Add: heavy metals testing	**Update:** Lab results thresholds and behavior are being addressed in a series of tickets dedicated to lab result workflows and validation.
	Lab Results/Add: microbial inspection thresholds	**Update:** Lab results thresholds and behavior are being addressed in a series of tickets dedicated to lab result workflows and validation.
	Lab Results/Add: moisture analysis limits	**Update:** Lab results thresholds and behavior are being addressed in a series of tickets dedicated to lab result workflows and validation.
	Lab Results/Add: pesticide testing issues	**Update:** Lab results thresholds and behavior are being addressed in a series of tickets dedicated to lab result workflows and validation.

	Summary of Work	Extended Description of Solution Implemented
	Lab Results/Add: pesticides and heavy metals test thresholds	**Update:** Lab results thresholds and behavior are being addressed in a series of tickets dedicated to lab result workflows and validation.
	Lab Results/Add: remove ability to create lab results for 'other_material' and 'other material lots'	**Update:** Lab results thresholds and behavior are being addressed in a series of tickets dedicated to lab result workflows and validation.
	Lab Results/Add: required test results for medical/recreational usable marijuana end product	**Update:** Lab results thresholds and behavior are being addressed in a series of tickets dedicated to lab result workflows and validation.
	Lab Results/Add: required tests for infused mix end products	**Update:** Lab results thresholds and behavior are being addressed in a series of tickets dedicated to lab result workflows and validation.
	Lab Results/Add: required tests for medical/recreational co2 concentrate intermediate product	**Update:** Lab results thresholds and behavior are being addressed in a series of tickets dedicated to lab result workflows and validation.
	Lab Results/Add: required tests for medical/recreational concentrate for inhalation end products	**Update:** Lab results thresholds and behavior are being addressed in a series of tickets dedicated to lab result workflows and validation.
	Lab Results/Add: required tests for medical/recreational ethanol concentrate intermediate product	**Update:** Lab results thresholds and behavior are being addressed in a series of tickets dedicated to lab result workflows and validation.
	Lab Results/Add: required tests for medical/recreational flower	**Update:** Lab results thresholds and behavior are being addressed in a series of tickets dedicated to lab result workflows and validation.
	Lab Results/Add: required tests for medical/recreational flower lots	**Update:** Lab results thresholds and behavior are being addressed in a series of tickets dedicated to lab result workflows and validation.
	Lab Results/Add: required tests for medical/recreational food grade solvent concentrate intermediate product	**Update:** Lab results thresholds and behavior are being addressed in a series of tickets dedicated to lab result workflows and validation.
	Lab Results/Add: required tests for medical/recreational hydrocarbon concentrate intermediate product	**Update:** Lab results thresholds and behavior are being addressed in a series of tickets dedicated to lab result workflows and validation.
	Lab Results/Add: required tests for medical/recreational infused cooking medium intermediate product	**Update:** Lab results thresholds and behavior are being addressed in a series of tickets dedicated to lab result workflows and validation.

	Summary of Work	Extended Description of Solution Implemented
	Lab Results/Add: required tests for medical/recreational intermediate concentrate for inhalation	**Update:** Lab results thresholds and behavior are being addressed in a series of tickets dedicated to lab result workflows and validation.
	Lab Results/Add: required tests for medical/recreational liquid edible end product	**Update:** Lab results thresholds and behavior are being addressed in a series of tickets dedicated to lab result workflows and validation.
	Lab Results/Add: required tests for medical/recreational marijuana mix intermediate product	**Update:** Lab results thresholds and behavior are being addressed in a series of tickets dedicated to lab result workflows and validation.
	Lab Results/Add: required tests for medical/recreational non-solvent based concentrate intermediate product	**Update:** Lab results thresholds and behavior are being addressed in a series of tickets dedicated to lab result workflows and validation.
	Lab Results/Add: required tests for medical/recreational solid edible end product	**Update:** Lab results thresholds and behavior are being addressed in a series of tickets dedicated to lab result workflows and validation.
	Lab Results/Add: required tests for medical/recreational suppositories end products	**Update:** Lab results thresholds and behavior are being addressed in a series of tickets dedicated to lab result workflows and validation.
	Lab Results/Add: required tests for medical/recreational topical end product	**Update:** Lab results thresholds and behavior are being addressed in a series of tickets dedicated to lab result workflows and validation.
	Lab Results/Add: required tests for packaged marijuana mix end products	**Update:** Lab results thresholds and behavior are being addressed in a series of tickets dedicated to lab result workflows and validation.
	Lab Results/Cannabinoid: testing occurs per serving, for discrete items	**Update:** Lab results thresholds and behavior are being addressed in a series of tickets dedicated to lab result workflows and validation.
	Lab Results/Edit: block ability for user to edit results entered by a different lab facility [Testing Lab Users]	**Update:** For the "Lab Test Outsourcing" workflow, when inventory is sent from Lab A to Lab B for test results, when Lab B updates the test result record they will be able to modify any tests that have not yet been completed, but will not be able to modify previously entered results.
	Lab Results/Listing: calculate and implement 'high THC' and 'high CBD' product designations	**Update:** 'High THC' and 'High CBD' designations will be calculated based on lab result values and assigned in Leaf, if applicable.

	Summary of Work	Extended Description of Solution Implemented
	Lab Results/Retest Workflow: 'Eligible for Retest' status	**Update:** Lab results validation will now trigger inventory to have a designation called "eligible for retest", which will be deemed true or false based on previous lab results entered.
	Lab Results/Re-test Workflow: inventory association with lab results	**Update:** To support the "Lab Retest" workflow, up to three separate lab result records will be able to be captured in association with an inventory record.
	Lab Results/Re-test Workflow: threshold automation	**Update:** To support the "Lab Retest" workflow, all lab results will be automatically queried to determine which inventory is eligible for retest based on existing lab result records.
	Lab Results/Re-test: threshold automation	**Update:** To support the "Lab Retest" workflow, all lab results will be automatically queried to determine which inventory is eligible for retest based on existing lab result records.
	Lab Results: ability for additional labs to enter test results [Testing Lab Users]	**Update:** Inventory can be transferred from one lab to another to support the "Lab Test Outsourcing" workflow, and user from the second lab may update existing lab results with the test results from testing they perform.
	Lab Results: ability for lab results to state lab that entered each section [Testing Lab Users]	**Update:** To support the "Lab Test Outsourcing" workflow, each section of testing will capture the lab facility that performed the test.
	Lab Results: ability to enter partial results [Testing Lab Users]	**Update:** To support the "Lab Test Outsourcing" workflow, labs my transfer inventory to another lab after having only entered partial test results.
	Lab Results: ability to pull in lab results with multiple labs [Licensee Users]	**Update:** To support the "Lab Test Outsourcing" workflow, labs my transfer inventory to another lab after having only entered partial test results.
	Lab Results: 'batch_id'='0' for some records	**Issue:** Currently, some lab result records are showing a value of "0" for "batch_id", which is incorrect behavior. **Solution:** Records with incorrect "batch_id" values have been corrected.
	Lab Results: medical designation for end products	**Update:** Lab results thresholds and behavior are being addressed in a series of tickets dedicated to lab result workflows and validation.
PLANTS	**Plants/Move Plants To Inventory:** limit ability to move plants of differing strains simultaneously	**Update:** For the "move plants to inventory" function which packages plants for transfer, plants of different strains should not be packaged together.
	Plants/Delete: 500 error upon submission	**Issue:** When a plant is deleted, a 500 error occurs. **Solution:** Plants can be deleted.
SALES	**Sales/Add:** incorrect behavior upon submission of invalid items	**Issue:** A sale record entered with an invalid item causes the sale record to fail, but the valid inventory items to be decremented. **Solution:** Sale items are validated upon submission.

Summary of Work	Extended Description of Solution Implemented
Sales/Add: required IDs for medical sales	**Update:** For medical sales at Retailer facilities, the patient ID will be required, whereas the caregiver ID will be optional.
Sales/Add: 'status' field should be required	**Update:** When creating a sale, the 'status' field is required.
Sales/Adjustment: ability to capture 'adjustment_date'	**Update:** Users can update sales records.