
State of Iowa Dispensary API guide

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Change Log

Version	Date	End Point	Change Note
1.3	02/14/2019	Dispensary Return	Added Return Field to designate Return transaction
2.0	04/11/2019	All	Added page numbers, overview corrected, clarified event and field descriptions, did not change field names due to existing Leaf Logix API and mapping by 365
2.1	04/22/2019	Sales	Change the definition and picklist for returns
3.0	10/10/2019	All	Update of URL end points
3.1	11/8/2019	Return	Clarify Return values
4.0	8/31/2020	Inventory Reconciliation	Clarified requirement for the External ID of the related manufacturer Package Lot in inventory reconciliation
4.1	10/13/2020	Adjustment; Create/Update Transfer; Add Products to the Transfer; Update Products on the Transfer	Add Status to the Adjustment; Added endpoints: Create/Update Transfer, Add Products to the Transfer; Update Products on the Transfer enabling dispensaries to create and update transfers from the dispensary to a licensed manufacturer

Middleware API Overview

The system provided by the Iowa Department of Health through OstriJ is a one-way API where each event that needs to be reported to the state system is a unique end point. This document reviews each event, the end point details, the fields with data type and if a field is required or optional. Events may occur in a different order based on each dispensary's process. Data Integration will consist of data being posted or updated from the manufacturer system to the state compliance system. The state system will not make outbound calls to the dispensary and the data containing in the state system cannot be queried.

All external ID's will have a dispensary prefix, and an object indicator following the prefix, to indicate the organization and ensure unique IDs are used across the statewide program. Each record will have a unique ID that is generated by the dispensary's system. External IDs will be alpha numeric and not less than 16 characters. External ID's can be reused in the sandbox and production systems. There is a separate API document for testing in the sandbox environment.

Response Details

200: Success - Create

201: Success - Update

500: System Error

401: Malformed Data

404: URL Does Not Exist

Request Details

POST Format `http://52.74.242.136/sip/runflow/{!FlowId}`

Content-Type – application/Json

Authentication – Not needed. Each Flow ID is encrypted, and authentication is handled in middleware.

Parameters – See events below for expected parameters per request.

Example Request:

POST [http:// OstriJ.io/runflow/NDE4NzkwM2VkMGMMy](http://OstriJ.io/runflow/NDE4NzkwM2VkMGMMy)

HEADER Content-Type application/json

BODY [for Multiple records]

```
[
  {
    "Room_ID": {},
    "Immature_Plant_Group_ID": {},
  },
  {
    "Room_ID": {},
    "Immature_Plant_Group_ID": {},
  },
  {
    "Room_ID": {},
    "Immature_Plant_Group_ID": {},
  }
]
```

HEADER Content-Type application/json
 BODY [When sending multiple items in one object]

```
[
  {
    "Sales_ID": "313",
    "Caregiver_ID": "789456123",
    "Patient_ID": "456789123",
    "Dispensary_ID": "787",
    "Purchase_Date": "2018-05-12T10:22:22Z",
    "Line": [
      {
        "Line_ID": "445",
        "Sales_ID": "313",
        "Product_ID": "65234432",
        "Product_Name": "CBD Oil",
        "Package_Lot": "789648",
        "Tracking_Number": "987stg8764",
        "Product_Lot": "456789",
        "Quantity": "1",
        "Amount": "30.50"
      },
      {
        "Line_ID": "446",
        "Sales_ID": "313",
        "Product_ID": "652346852",
        "Product_Name": "CBD Tincture",
        "Package_Lot": "7896569",
        "Tracking_Number": "987stat8766",
        "Product_Lot": "456755",
        "Quantity": "2",
        "Amount": "68.00"
      }
    ]
  }
]
```

Pre-populated Data

A licensee's initial employee list is pre-populated in the State System. Once loaded, the dispensary manages this employee table through a dispensary management system provided via OstriJ.

The Company ID of the dispensary is generated by the State System. The ID is provided by request along with URLs for integration testing in the sandbox.

Add a Product

Event Description – Finished Good products are referenced throughout the system. This end point is designed to map the product ID to the products available for each dispensary.

Dependencies – Company must exist

POST URL – [See URL Reference](#)

Parameters:

Field Name	Data Type	Required	Description
Company_ID	Text (255)	Y	External System ID for the company related to this record
Product_ID	Text (255)	Y	External System ID for the product
SKU	Text (255)	Y	Product SKU
Product_Name	Text (255)	Y	Plain name for the product
Type	Text (255)	Y	Form of the product (Capsule, Vaporizable, Tincture, Topical, Suppository)

Dispensary Purchase

Event Description – Patient or caregiver makes a purchase. Sales are calculated as Amount (Unit Price) of each item X Quantity of each item. Example: \$100 is unit price of product bottle and 3 bottles were sold = \$300 sale.

Dependencies – Dispensary, Item, Package Lot, Product Lot and patient / caregiver must exist in the state system

POST URL – See URL Reference

Parameters:

Field Name	Data Type	Required	Description
Sale Details			
Sales_ID	Text (255)	Y	ID of the transaction including all items in a single purchase
Patient_ID	Text (255)	Y	State assigned ID number of the patient purchasing product or having product purchased for them by their caregiver
Caregiver_ID	Text (255)	N	State assigned ID number of the caregiver purchasing on behalf of the patient above
Dispensary_ID	Text (255)	Y	The company ID for the dispensary
Sale_Date_Time	Date/Time	Y	Date and Time of completed sale <ul style="list-style-type: none"> • YYYY-MM-DDThh:mm:ss.sssZ
Employee_ID	Text (255)	Y	State assigned Employee ID of the person making the sale
Product Details			
Amount	Currency (4,2)	Y	Unit price of each individual item in a sale
Quantity	Number (2,0)	Y	Quantity of each item sold in a transaction
Product_ID	Text (255)	Y	Each unique product sold in a single transaction mapped to product list available at the dispensary
Package_Lot_ID	Text (255)	Y	The lot number of the product

Dispensary Return/Void

Event Description – A patient or caregiver returns a product or the dispensary chooses to void a sale. Returned products must be placed in quarantine inventory (separate from inventory available for sale) and returned to the manufacturer.

A dispensary may void a sale to correct an entry error. The original sale containing the error is voided, and a corrected sale with a new ID is then processed. For a voided sale, it is critical that this same endpoint reflects (Field name = Return, Text = Void) or the void may be recorded as a return or vice versa.

Dependencies – Dispensary, Item, Package Lot, Product and patient / caregiver must exist in the state system

POST URL – [See URL Reference](#)

Parameters:

Field Name	Data Type	Required	Description
Sale Details			
Original_Sales_ID	Text (255)	Y	ID of the transaction including all items in a single purchase
Return_ID	Text (255)	Y	External ID of the return transaction
Return_Date_Time	Date/Time	Y	Date and Time of the return <ul style="list-style-type: none"> YYYY-MM-DDThh:mm:ss.sssZ
Employee_ID	Text (255)	Y	Employee ID of the person processing the return
Return	Text (Return, Void)	Y	Indicate if this is a return or a voided transaction
Product Details			
Amount	Currency (4,2)	Y	Unit price of each individual item in a sale
Quantity	Number (2,0)	Y	Quantity of each item sold in a transaction
Product_ID	Text (255)	Y	Each unique product sold in a single transaction mapped to product list available at the dispensary
Package_Lot_ID	Text (255)	Y	The lot number of the product

Inventory Adjustment made at dispensary

Event Description – Product at the dispensary has been damaged, stolen, or is defective. Adjustments also cover items that were not entered correctly during the sale and need to be adjusted up or down for correct inventory management.

Dependencies – Item_ID (Product_ID) and Package_Lot_ID

POST URL – [See URL Reference](#)

Parameters:

Field Name	Data Type	Required	Description
Adjustment_ID	Text(255)	Y	External ID of the inventory adjustment record
Adjustment_Date_Time	Date/Time (MM/DD/YYYYTHH:MM:tt.sssZ)	Y	Date and time adjustment was reported/occurred (MM/DD/YYYYTHH:MM:tt.sssZ)
Quantity_Add	Number (2,0)	N	Quantity of each affected item
Quantity_Reduce	Number (2,0)	N	Quantity of each affected item
Dispensary_ID	Text (255)	Y	The company ID for the dispensary
Product_ID	Text (255)	Y	The ID of the product being adjusted
Package_Lot_ID	Text (255)	Y	Lot number of the product
Adjustment_Reason	Text (255)	Y	Reason for each adjustment
Status	Picklist (Active, Return)	Y	Indicate the type of inventory being adjusted

Every adjustment requires either Quantity_Add OR Quantity_Reduce or no inventory adjustment will occur.

Inventory Reconciliation

Event Description – Weekly reconciliation of on hand physical inventory. Each week, a list of all item counts by package lot and status should be sent to the state system.

Dependencies – Dispensary, Item, Package Lot, Product must exist in the state system

POST URL – [See URL Reference](#)

Parameters:

Field Name	Data Type	Required	Description
Reconciliation Details			
Reconciliation_ID	Text (255)	Y	External ID of the reconciliation record
Employee_ID	Text (255)	Y	Employee ID of the person accountable for the reconciliation
Retry	Boolean (True, False)	N	Retry or Not
Dispensary_ID	Text (255)	Y	The company ID for the dispensary
Inventory Details			
Product_ID	Text (255)	Y	Each unique product in the dispensary's inventory
Status	Picklist(Active, Return)	Y	Active, salable inventory or product in quarantine that will be returned to the manufacturer
Quantity	Number (2,0)	Y	Total count of each item by status
Package_Lot_ID	External ID	Y	The lot number of the product

Create / Update Transfer

Object definition: Once products are ready to be shipped a transfer must be created indicating the driver and the vehicle information that will be used for transfer. The State of Iowa uses a mobile transfer application for the driver to track chain of custody throughout the transfer.

Event Description – The transfer object is the starting point for the preparation of setting up a transport to another approved facility.

Dependencies – Company ID, Recipient ID and Employee ID must exist

POST URL – [See URL Reference](#)

Parameters:

Field Name	Data Type	Required	Description
Company_ID	Text (255)	Y	External System ID for the shipping company
Transfer_Lot_ID	Text (255)	Y	External System ID for the origin transfer
Recipient_ID	Text (255)	Y	External System ID for the receiving company
Driver_ID	Text (255)	N	Employee ID for the driver
Employee_ID	Text (255)	Y	Employee ID for dispensary employee creating the transfer
Vehicle_Make	Text (255)	N	The make of the transport vehicle to be used for this transfer
Vehicle_Model	Text (255)	N	The Model of the transport vehicle to be used for this transfer
Vehicle_License_Plate	Text (255)	N	The License Plate of the transport vehicle to be used for this transfer
License_Plate_State	Text (255)	N	The state of the license plate of the transport vehicle to be used for this transfer

Add Products to the Transfer

Object definition: The transfer object is used to transfer inventory from the licensed dispensary back to the licensed manufacturer. The status of the inventory must be indicated “Active” or “Return” in order to reduce the correct, corresponding inventory at the dispensary.

Event Description – Each transfer must contain all products, package lots of all items that will be transferred to the Lab or Dispensary.

Dependencies – Process Lot, Product Lot, Employee and Package Lot must exist. Line Item ID must be system unique to allow for updates.

POST URL – [See URL Reference](#)

Parameters:

Field Name	Data Type	Required	Description
Company_ID	Text (255)	Y	External System ID for the company related to this record
Transfer_Lot_ID	Text (255)	Y	External System ID for the origin transfer
Package_Lot_ID	Text (255)	Y	External System ID for the Package lot
Product_ID	Text (255)	Y	External System ID for the Product
Line_Item_ID	Text (255)	Y	System Unique External ID for this item on this transfer
Quantity	Number (10, 2)	Y	The count of individual units that are being transferred for sale or testing
Total List Price	Currency	N	The total list price of individual sellable units that are being transferred = unit price X quantity (above)
Status	Picklist (Active, Return)	Y	Indicate the type of inventory being transferred

Update Products on the Transfer

Object definition: Update existing product on an existing transfer

Event Description – If a change to quantity of a product on an existing transfer needs to be done this end point allows for that change. The line item ID must be unique in the system. Removal of an item is done by updating quantity to 0. The item will remain listed on the Transfer but with zero quantity and price.

Dependencies – Line Item ID must exist and be system unique to allow for updates.

POST URL – [See URL Reference](#)

Parameters:

Field Name	Data Type	Required	Description
Line_Item_ID	Text (255)	Y	System Unique External ID for this item on this transfer
Quantity	Number (10, 2)	Y	The count of individual units that are being transferred for sale or testing
Total List Price	Currency	N	The total list price of individual sellable units that are being transferred = unit price X quantity (above)