



Retail Orbit Integration Documentation

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Introduction

Integration Paths

There are two paths of integration with Retail Orbit.

- 1) **API integration** - If you cannot supply an ODBC connection, or you wish to manage the process yourself you can choose this integration path.
- 2) **SQL Query via ODBC** - If you have a Windows based system and can supply an ODBC connection to your data, then you could choose to use Shuttle. Shuttle is our export platform , that would use the queries you design to send data to our servers.

API Integration

Retail Orbit is an advanced retail analytics platform that allows external data feeds. There are two supported data formats :

- 1) Class Level
 - a) Text Format
 - b) XLSX Format
- 2) Sku Level

Data format descriptions

1. Class Level
 - a. Class Level is available in two formats.
 - i. A flat text file , which is space delimited.
 - ii. An XLSX file..
2. Sku Level
 - a. Sku level is available in three formats.
 - i. A flat text file, which is comma delimited
 - ii. A flat text file ,which is tab delimited
 - iii. A XLSX file.

When possible , it is preferred to have the Sku Level format used for data exchange , as it allows the greatest granularity in reporting.

Data Upload

There are two endpoints available for the upload of data. One for each data format. Each endpoint requires a client code and password for authentication. A successful upload will receive an HTTP Status Code of 200. A failed upload will receive an HTTP Status Code of 500.

SKU Data Format

API Information

Title	SKU Data API
URL	https://www.retailorbit.com/api/skudata/uploadfiles
Method	POST
URL Params (required)	<p>u=[string] Example: u=SD123 This is the client code.</p> <p>p=[string] Example: p=d912974a-0c11-4b4c-b71b-0f08b9e1f412 This is the authentication code for the client.</p>
Data Params	None
Success Response	200
Error Response	500
Sample Call	Sample calls available upon request.
Notes	You may compress your upload file into a zip file prior to sending the data.

File Format:

Delimiting Character

When using the flat text file format , a comma or tab delimiter is supported.

Naming Convention

The file shall be named in the following convention {Retail Orbit Client Code}_{Transaction Date}.txt

Column Headers

Regardless of the format you are using , you must have a valid column header for each column.

It is strongly recommended that you upload each day in a separate file. This is to eliminate a file being too large to process in a timely manner.

SKU Data Grouping

SKUData is to be grouped by the following logic:
Each SKU (unique inventory item) , per location, per day.

Field Listing:

- **Client** : String : Retail Orbit Client Code. This will be the same for all records. Minimum length 4 digits.
- **Location** : String : Retail Orbit Location Code.
- **Period** : String : Period for data being reported. Can only be one month. Format should be YYYYMM.
- **TransactionDate** : Date : Actual date for Transaction. ISO date format 8601, YYYY-MM-DD.
- **DateThrough** : Date : iso date format 8601, YYYY-MM-DD. Ending Date of the Query.
- **Class** : String : Retail Orbit Class Code.
- **Department** : String : Inventory Classification of this item.
- **PosId** : String : Unique POS identifier for this Item. System level Identifier that cannot be changed.
- **Sku** : String : Human Readable POS Identifier for this Item.
- **UPC** : String : Primary UPC code for this item.
- **Name** : String : Common Transaction description for this Item.
- **Description** : String : Full Description of the Item.
- **Vendor** : String : Primary Vendor Code for this Item. Supplier of the item.
- **SizeGroup** : String: Common Value for multiple sizes.
- **Size** : String : Size Code for this Item.
- **ColorGroup** : String : Common Value for various colors.
- **Color** : String : Color Code for this Item.
- **Sales** : Decimal : Retail Sales per sku per day
- **SalesCost** : Decimal : Net sum of the cost for the sku per day.
- **MarkdownsPointOfSale** : Decimal : Original Price subtract discounted Price for item from Sales Transactions. Markdown returned as a Positive value.
- **MarkdownsInventory** : Decimal : Retail valuation adjustment for this item in inventory due to adjustments to price. Permanent mark down.
- **Inventory** : Decimal : On hand retail value for this sku. Units x Retail Price.
- **InventoryCost** : Decimal : On Hand Cost total for this sku. Units x Cost of sku.
- **InventoryAdjustment** : Decimal : Retail Total of inventory adjustments to this sku when quantities are adjusted, such as an inventory count. Supports negative numbers.
- **InventoryAdjustmentCost** : Decimal : Cost Total of inventory adjustments to this item when quantities are adjusted, such as an Inventory count. Supports negative numbers.
- **ReceivingRetail** : Decimal : Retail Total of the sku in receiving transactions from vendors.
- **ReceivingCost** : Decimal : Cost Total of the sku in receiving transactions from vendors.
- **TransfersOut** : Decimal : Retail Total of this item for transfers leaving this location.
- **TransfersOutCost** : Decimal : Cost Total of this Item for transfers leaving this location.
- **TransfersIn** : Decimal : Retail Total of this Item for transfers arriving at this location. In – Transit is not supported, so good must appear as if they have arrived in the destination location immediately.
- **TransfersInCost** : Decimal : Cost Total of this item for transfers arriving at this location.

- **ReturnsRetail** : Decimal : Retail total of this item for return to vendor transactions.
- **ReturnsCost** : Decimal : Cost total of this item for return to vendor transactions.
- **OnOrderRetail** : Decimal : On order retail inventory total for this item.
- **OnOrderCost** : Decimal : On order retail cost total for this Item.
- **Sales** : Decimal : Unit Sales. Supports negative numbers.
- **Inventory** : Decimal : Total units of inventory for sku at end of day for transaction Date.
- **InTransitUnits** : integer :
- **InTransitRetail** : Decimal : Retail x IntransitUnits as defined above.

Class Data Excel Format

Summary

Retail Orbit summary data is used to come to the initial understanding of a client's inventory management position. This data is summed at the store, year and month combined, and then department level.

For example, if you have two stores ,each with a women's tops department you would have the following data.

Women's Tops	Store 1	201707	<Data>
Women's Tops	Store 2	201707	<Data>





Data Format

An Excel (xlsx) file is preferred.





















All currency values should be in USD.

Column headers can be in any order, but must be one of the keywords listed.

Data grouping chart

Data Type	Required	Example
Store		1 New York
POS Classification		WMNSTOPS
Year and Month		201707
Received Goods		0.00

Data values chart

Data Type	Retail Value Required	Cost Value Required	Date Range Filtering Required	Data Format	Example
Markdown Amounts				Double	0.00
Inventory Adjustments				Double	0.00
Inventory On Hand				Double	0.00
Received Goods				Double	0.00
Sold Goods				Double	0.00
Transferred Out Goods				Double	0.00
Transferred In Goods				Double	0.00
Vendor Returned Goods				Double	0.00
Purchase Order Goods Outstanding				Double	0.00

Field Reference Legend

Keywords: Valid column header labels

Description: A brief explanation of the field

Type: The data type required , usually either text or number.

Validation Requirement: What is required for the data to be valid.

Example: An example from our system.

Example Sheet: Which column you will find this on the spreadsheet.

Field Reference

Client

Keywords: client, clientcode, client code

Description:

This is the Management One client id. This will be constant value for each row in the file.

Type: Text

Validation Requirement: This field must exist within the Management One servers prior to your upload.

Example: SD123

Example Sheet: Column A

class

Keywords: class,classcode,class code

Description:

This is the Management One class that data is being reported to.

Type: Text

Validation Requirement: This field must exist within the Management One servers prior to your upload.

Example: 100

Example Sheet: Column B

Location

Keywords:location,locationcode,location code

Description:

This is the Management One location. If you have multiple stores, then you will have multiple location values.

Type: Text

Validation Requirement: This field must exist within the Management One servers prior to your upload.

Example: 001

Example Sheet: Column C

Period

Keywords:period

Description:

This is the year and month This will be constant value for each row in the file.(Except for On Order

Type: Text

Validation Requirement: This is the date that you are reporting data for. The format is YYMM.

Example: 1603 for March 2016

Example Sheet: Column D

Markdowns

Keywords:markdowns

Description:

This is the amount in markdowns being reported in that class. Markdowns are a positive value, and are the total of POS markdowns (discounts on a sale) , as well as permanent markdowns (price reductions in inventory).

Type: Number

Validation Requirement: This field must be a positive , and a numeric field. A negative markdown will be moved to adjustments as a positive value.

Example: 100

Example Sheet:Column E

Inventory adjustments

Keywords:adjustment,inventoryadjustments,inventory adjustments

Description:

This value represents the amount that was adjusted in a class at retail. This is typically caused by physical inventories.

Type: Number

Validation Requirement: This number must be a valid number.

Example: 100 or -100

Example Sheet: Column F

Inventory

Keywords:inventory,onhand,on hand

Description:

This is the inventory value of this class , in retail . It should be a positive number. A negative inventory will be converted to a value of 1.

Type: Number

Validation Requirement: This field must be a valid number.

Example: 100

Example Sheet: Column G

On order cost

Keywords:onordercost,on order cost, onorder cost,on ordercost

Description:

This is the value of the goods on order for this class at cost , for that period.

Type: Number

Validation Requirement: This field must be a valid number.

Example: 100

Special Note: The On Order Cost and On Order Retail are the only two data points that look forward. Also, any on order cost that was due in the past (and is still valid) must be added to the current month. For example, if you are reporting information for March 2016 , and had \$500.00 of goods (at cost) due in February 2016 that have not arrived , this value must be added to the March 2016 value.

Example Sheet: Column H

On order retail

Keywords: onorderretail, on order retail, onorder retail

Description:

This is the value of the goods on order for this class at retail, for that period.

Type: Number

Validation Requirement: This field must be a valid number.

Special Note: The On Order Cost and On Order Retail are the only two data points that look forward. Also, any on order cost that was due in the past (and is still valid) must be added to the current month. For example, if you are reporting information for March 2016, and had \$500.00 of goods (at cost) due in February 2016 that have not arrived, this value must be added to the March 2016 value.

Example Sheet: Column I

Example: 200

Receiving Cost

Keywords: receivingcost, receiving cost

Description:

This is the field that represents the total value of goods received at cost for that class.

Type: Number

Validation Requirement: This field must be a positive value, and must be a valid number.

Example: 100

Example Sheet: Column J

Receiving Retail

Keywords: receivingretail, receiving retail

Description:

This is the field that represents the total value of goods received at retail for that class.

Type: Number

Validation Requirement: This field must be a positive value, and must be a valid number.

Example: 200

Example Sheet: Column K

Sales

Keywords:sales

Description:

This is the Management One client id. This will be constant value for each row in the file.

Type: Number

Validation Requirement: This field must be a positive value, and must be a valid number.

Example: 200

Example Sheet: Column L

Transfers In

Keywords:transfersin,transfers in

Description:

This is the amount in retail, that was transferred-in to that location and class.

Type: Number

Validation Requirement: This field must be a positive value, and must be a valid number. Your total transfers of in and out should balance, with no goods unaccounted for.

Example: 100

Example Sheet: Column M

Transfers Out

Keywords:transfersout,transfers out

Description:

This is the amount in retail, that was transferred-out from that location and class.

Type: Number

Validation Requirement: This field must be a positive value, and must be a valid number. Your total transfers of in and out should balance, with no goods unaccounted for.

Example: 100

Example Sheet: Column N

Vendor Returns Retail

Keywords:returnsretail,returns retail

Description:

This is the amount of goods, in that class that have been returned to the vendor. This is at retail.

Type: Number

Validation Requirement: This field must be a positive value, and must be a valid number.

Example: 100

Example Sheet: Column O

Vendor Returns Cost

Keywords:returnscost,returns cost

Description:

This is the amount of goods, in that class that have been returned to the vendor. This is at cost.

Type: Number

Validation Requirement: This field must be a positive value, and must be a valid number.

Example: 100

Example Sheet: Column P

Date

Keywords:date

Description:

This is the date that the file was produced.

Type: Text

Validation Requirement:This field must be in the format of YYYY-MM-DD.

Example: 2016-03-30 for March 30, 2016

Example Sheet: Column Q

Type

Keywords:type,recordtype,record type

Description:

This is the Management One type ID field. A type of 1 indicates any information other than On Order Cost or On Order Retail. A type of 2 indicates an On Order Cost or On Order Retail row.

Type: Number

Validation Requirement: This field must be a valid number, and can only be 1 or 2.

Example: 1 or 2

Example Sheet: Column R

Class Level Text Format

API Information

Title	Class Level Data API
URL	https://www.retailorbit.com/api/shuttle/upload
Method	POST
URL Params (required)	<p>u=[string] Example: u=SD123 This is the client code.</p> <p>p=[string] Example: p=d912974a-0c11-4b4c-b71b-0f08b9e1f412 This is the authentication code for the client.</p>
Data Params	None
Success Response	200
Error Response	500
Sample Call	Sample calls available upon request.
Notes	

Summary

Retail Orbit summary data is used to come to the initial understanding of a client's inventory management position. This data is summed at the store, year and month combined, and then department level.

For example, if you have two stores ,each with a women's tops department you would have the following data.

Women's Tops	Store 1	201707	<Data>
Women's Tops	Store 2	201707	<Data>

Data Format

A txt extension on the upload file is required.

All currency values should be in USD.

Column headers can be in any order, but must be one of the keywords listed.

Any text containing a space must be surrounded by double quotes.

Each text file can only contain data for one month. You cannot span months in a text file.

Each line must be terminated with a carriage return and line feed.

Data must appear in the correct column order as there are no headers to identify values.

Record Type

In the class level text format there is a concept of record type. This is the last field on each line. The record type can be two values:





















Value: 1 - A value of one indicates transactional data , and cannot contain any purchase order information.

Value: 2 - A value of two indicates on order data, and cannot contain any transactional information such as sales, inventory , etc.

Data grouping chart

Data Type	Required	Example
Store		1 New York
POS Classification		WMNSTOPS
Year and Month		201707

Data values chart

Data Type	Retail Value Required	Cost Value Required	Date Range Filtering Required	Data Format	Example
Markdown Amounts				Double	0.00
Inventory Adjustments				Double	0.00
Inventory On Hand				Double	0.00
Received Goods				Double	0.00
Sold Goods				Double	0.00
Transferred Out Goods				Double	0.00
Transferred In Goods				Double	0.00
Vendor Returned Goods				Double	0.00
Purchase Order Goods Outstanding				Double	0.00

Field Reference Legend

Description: A brief explanation of the field

Type: The data type required , usually either text or number.

Validation Requirement: What is required for the data to be valid.

Example: An example from our system.

Column Number: Which column you will find this on the spreadsheet.

Field Reference

Client

Description:

This is the Management One client id. This will be constant value for each row in the file.

Type: Text

Validation Requirement: This field must exist within the Management One servers prior to your upload.

Example: SD123

Column Number: Column 1

Class

Description:

This is the Management One class that data is being reported to.

Type: Text

Validation Requirement: This field must exist within the Management One servers prior to your upload.

Example: 100

Column Number: Column 2

Location

Description:

This is the Management One location. If you have multiple stores, then you will have multiple location values.

Type: Text

Validation Requirement: This field must exist within the Management One servers prior to your upload.

Example: 001

Column Number: Column 3

Period

Description:

This is the year and month This will be constant value for each row in the file.(Except for On Order

Type: Text

Validation Requirement: This is the date that you are reporting data for. The format is YYMM.

Example: 1603 *for March 2016*

Column Number: Column 4

Markdowns

Description:

This is the amount in markdowns being reported in that class. Markdowns are a positive value, and are the total of POS markdowns (discounts on a sale) , as well as permanent markdowns (price reductions in inventory).

Type: Number

Validation Requirement: This field must be a positive , and a numeric field. A negative markdown will be moved to adjustments as a positive value.

Example: 100

Column Number:Column 5

Inventory adjustments

Description:

This value represents the amount that was adjusted in a class at retail. This is typically caused by physical inventories.

Type: Number

Validation Requirement: This number must be a valid number.

Example: 100 *or* -100

Column Number: Column 6

Inventory

Description:

This is the inventory value of this class , in retail . It should be a positive number. A negative inventory will be converted to a value of 1.

Type: Number

Validation Requirement: This field must be a valid number.

Example: 100

Column Number: Column 7

On Order cost

Description:

This is the value of the goods on order for this class at cost , for that period.

Type: Number

Validation Requirement: This field must be a valid number.

Example: 100

Special Note: The On Order Cost and On Order Retail are the only two data points that look forward. Also, any on order cost that was due in the past (and is still valid) must be added to the current month. For example, if you are reporting information for March 2016 , and had \$500.00 of goods (at cost) due in February 2016 that have not arrived , this value must be added to the March 2016 value.

Column Number: Column 8

On Order retail

Description:

This is the value of the goods on order for this class at retail, for that period.

Type: Number

Validation Requirement: This field must be a valid number.

Special Note: The On Order Cost and On Order Retail are the only two data points that look forward. Also , any on order cost that was due in the past (and is still valid) must be added to the current month. For example, if you are reporting information for March 2016 , and had \$500.00 of goods (at cost) due in February 2016 that have not arrived , this value must be added to the March 2016 value.

Column Number: Column 9

Example: 200

Receiving Cost

Description:

This is the field that represents the total value of goods received at cost for that class.

Type: Number

Validation Requirement: This field must be a positive value, and must be a valid number.

Example: 100

Column Number: Column 10

Receiving Retail

Description:

This is the field that represents the total value of goods received at retail for that class.

Type: Number

Validation Requirement: This field must be a positive value, and must be a valid number.

Example: 200

Column Number: Column 11

Sales

Description:

This is the Management One client id. This will be constant value for each row in the file.

Type: Number

Validation Requirement: This field must be a positive value, and must be a valid number.

Example: 200

Column Number: Column 12

Transfers In

Description:

This is the amount in retail, that was transferred-in to that location and class.

Type: Number

Validation Requirement: This field must be a positive value, and must be a valid number. Your total transfers of in and out should balance, with no goods unaccounted for.

Example: 100

Column Number: Column 13

Transfers Out

Description:

This is the amount in retail, that was transferred-out from that location and class.

Type: Number

Validation Requirement: This field must be a positive value, and must be a valid number. Your total transfers of in and out should balance, with no goods unaccounted for.

Example: 100

Column Number: Column 14

Vendor Returns Retail

Description:

This is the amount of goods, in that class that have been returned to the vendor. This is at retail.

Type: Number

Validation Requirement: This field must be a positive value, and must be a valid number.

Example: 100

Column Number: Column 15

Vendor Returns Cost

Description:

This is the amount of goods, in that class that have been returned to the vendor. This is at cost.

Type: Number

Validation Requirement: This field must be a positive value, and must be a valid number.

Example: 100

Column Number: Column 16

Pos System Name

Description:

The abbreviated name of the retail system uploading the data.

Type: String

Validation Requirement: Cannot contain spaces. 8 characters or less.

Example: "ACME"

Column Number: Column 16

Upload Date

Description:

This is the date that the file was produced.

Type: Text

Validation Requirement: This field must be in the format of YYYY-MM-DD.

Example: 2016-03-30 for March 30, 2016

Column Number: Column Q

Terminal Identification

Description:

This is a fixed value of 100

Type: Number

Validation Requirement: This value must be 100.

Column Number: Column 16

Export System Identifier

Description:

The abbreviated name of the retail system uploading the data.

Type: String

Validation Requirement: Cannot contain spaces. 8 characters or less.

Example: "ACME"

Column Number: Column 16

Processed Date

Description:

This is the date that the file was produced.

Type: Text

Validation Requirement: This field must be in the format of YYYY-MM-DD.

Example: 2016-03-30 for March 30, 2016

Column Number: Column Q

Uploaded Date

Description:

This is the date that the file was uploaded.

Type: Text

Validation Requirement: This field must be in the format of YYYY-MM-DD.

Example: 2016-03-30 for March 30, 2016

Column Number: Column Q

Dept

Description:

This is a required static field.

Type: Text

Validation Requirement: This field must be set to a value of 100

Example: 100

Column Number: Column Q

Type

Description:

This is the Management One type ID field. A type of 1 indicates any information other than On Order Cost or On Order Retail. A type of 2 indicates an On Order Cost or On Order Retail row.

Type: Number

Validation Requirement: This field must be a valid number, and can only be 1 or 2.

Example: 1 or 2

Column Number: Column R