Data Specification Guidelines: Supplyframe App Modules

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Company Confidential

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Welcome

This document will outline Supplyframe's data feed file requirements that are necessary to start using the Supplyframe App modules. If you have any questions regarding the content of this document, please contact Supplyframe at support@supplyframe.com.

Overview

For a one time initial setup, the method we recommend for populating the Supplyframe App is via data feeds. The Data Feed Recommendations section below will review our collection of best practices.

Data Definitions

The following is our data definitions for your data feeds. Each section will give an overview of the table, cover the contents, specifying the data type and requirement.

Note that *all dates* included in your data feeds should follow the ISO 8601 standard, which is YYYY-MM-DD. For example, December 05, 2020 should be formatted as 2020-12-05.

part_master

Master table containing basic part information. Required fields are cpn. The metadata information (custom field names) are just informative for additional context, and do not directly affect logic or behavior in the application.

Field Name	Type	Required	Definition
cpn	Text	Yes	Unique identifier for item / IPN (CPN)
category	Text	Yes	Part or product category (has to exist in All Part Categories)
Part Description	Text	No	Part Description for an IPN (CPN)
Req. Manufacturer	Text	No	Req. Manufacturer (at IPN level for Non-Electronics)
name	Text	No	Name of the custom property (case sensitive)

part_alternates

This table contains the relationship between cpn and mpns to identify which parts can be used interchangeably for a cpn (equivalent to an AML). MPNs with the same cpn will show up as part master alternatives in the application. Required fields are cpn and mpn.

Field Name	Type	Required	Definition
cpn	Text	Yes	Unique identifier for item / IPN
manufacturer_name	Text	No	Name of manufacturer
mpn	Text	Yes	Part number assigned by manufacturer

plant_exceptions	Text	No	This alternative can't be used for those plants (comma separated list of plant)
lifecycle	Text	No	Multiple Lifecycle values.
sourcing_status	Text	No	Approved/Rejected/Ongoing.
preferred	Text	No	Any value will be considered indicating "Preferred", except for "false" (not case sensitive). Only the first "preferred" MPN within an IPN (CPN) group will be recorded.

contract_pricing

This table contains contract pricing. Required fields are cp_number, **cpn or mpn**, supplier and price.

Field Name	Type	Required	Definition
cpn	Text	No	Unique identifier for item / IPN
item_status	Text	No	Details around supplier qualification
plant	Text	No	Plant for which price is applicable
subcontractor	Text	No	Subcontractor for which price is applicable
currency	Text	No	ISO 4217 standard specifies three-letter ("Alpha-3") codes. Defaults to 'USA' when empty
price	Float	Yes	The **unit contract price** for the item. Greater than 0.
mark_up	Float	No	Amount to be considered in the unit cost price
unit_cost	Float	No	Unit cost includes the unit price and the mark up
target_price	Float	No	Target price
mpn	Text	No	Part number assigned by manufacturer
manufacturer_name	Text	No	Manufacturer name
manufacturer_id	Text	No	Unique identifier for a manufacturer
supplier	Text	Yes	Supplier name as in company who provided the pricing during RFQ (E.g. "Negotiator")
supplier_id	Text	No	Unique identifier for a supplier (max 10 chars)
vendor	Text	No	Company receiving the PO for the items (this is the end supplier if goods will be purchased from a different party than the supplier who responded to the RFQ)
vendor_id	Text	No	Unique identifier for a vendor
effective_date	Date	No	Date from which contract price for item is valid
expiration_date	Date	No	Date at which contract price for item is invalid
price_application	Text	No	Details related to the price application in relation to an order (E.g. New Delivery/New PO)
quantity	Float	No	Quantity for the listed price. When empty, zero will be added.
quota	Integer	No	From 0 to 100, representing percentage of the total quantity
lead_time	Integer	No	Lead time information in days
min	Integer	No	Minimum quantity (MOQ)
mult	Integer	No	Quantity per packing
nc_nr	Boolean	No	Identifies if Non-Cancelable/Non-Refundable applies
package_type	Text	No	Package type
lead_free	Boolean	No	This identifies Lead free compliance
plc_status	Text	No	Product Lifecycle Status

rohs	Boolean	No	RoHS compliance
stock	Integer	No	Stock
uom	Text	No	Unit of measure
tariff	Boolean	No	Tariff information
incoterm	Text	No	Incoterms
incoterm_location	Text	No	Incoterms location
origin_country	Text	No	Country of origin for item

purchase_orders

This table holds transaction data related to prior orders. Required fields are po_number, po_date, **cpn or mpn**, supplier, quantity and price.

Field Name	Type	Required	Definition
po_number	Text	Yes	Unique identifier for purchase order
po_date	Date	Yes	Date of purchase order
plant	Text	No	Plant for which PO is issued
subcontractor	Text	No	Subcontractor for the item
cpn	Text	No	Unique identifier for item / IP
price	Float	Yes	The contract price for the item. Greater than 0.
quota	Integer	No	From 0 to 100, representing percentage of the total quantity
mark_up	Float	No	Amount to be considered in the unit cost price
unit_cost	Float	No	Unit cost includes the unit price and the mark up
mpn	Text	No	Part number assigned by manufacturer
manufacturer_name	Text	No	Manufacturer name
manufacturer_id	Text	No	Unique identifier for a manufacturer
supplier	Text	Yes	Supplier name
supplier_id	Text	No	Unique identifier for a supplier (max 10 chars)
vendor	Text	No	Company receiving the PO for the items (this is the end supplier if goods will be purchased from a different party than the supplier who responded to the RFQ)
currency	Text	No	ISO 4217 standard specifies three-letter ("Alpha-3") codes. Defaults to 'USD' when empty
quantity	Float	Yes	Quantity for the listed price
lead_time	Integer	No	Lead time information in days
min	Integer	No	Minimum quantity (MOQ)
mult	Integer	No	Quantity per packing
nc_nr	Boolean	No	Identifies if Non-Cancelable/Non-Refundable applies
package_type	Text	No	Package type
lead_free	Boolean	No	This identifies Lead free compliance
plc_status	Text	No	Product Lifecycle Status
rohs	Boolean	No	RoHS compliance
stock	Integer	No	Stock
uom	Text	No	Unit of measure
tariff	Boolean	No	Tariff information
incoterm	Text	No	Incoterms

incoterm_location	Text	No	Incoterms location
origin_country	Text	No	Country of Origin

negotiation_type (sourcing level)

This table holds lookup data to be used for populating the sourcing level. Required fields are: manufacturer_name, manufacturer_id and negotiation_type.

Field Name	Type	Required	Definition
Category	Text	No	Part or product category for item
manufacturer_name	Text	Yes	Name of manufacturer
negotiation_type	Text	Yes	Type of negotiation that can be used during supplier assignment via AVL

assignee

This table holds lookup data to be used for populating the assignee. Required fields are: supplier and assignee.

Field Name	Type	Required	Definition
Category	Text	No	Part or product category for item
Supplier	Text	Yes	Supplier name as in company who will respond with pricing during RFQ (E.g. “Negotiator”)
Negotiation Type	Text	No	Type of negotiation that can be used during supplier assignment via AVL
Assignee	Text	Yes	User’s email address

contacts

This table holds basic data for suppliers’ contacts. Email of a supplier contact will be used during supplier assignment to line items. Required fields are supplier_id, name and email.

Field Name	Type	Required	Definition
supplier_id	Text	Yes	Unique identifier for a supplier (max 10 chars)
name	Text	Yes	Name of the contact representing the Supplier during an RFQ (First and Last name)
job_title	Text	No	The job title for a contact
email	Text	Yes	The email address of the contact. This is where the RFQ will be sent
phone_no	Text	No	Business phone number of contact
fax	Text	No	Business fax number of contact
country_code	Text	No	Country code

suppliers

This table holds basic data related to supplier information. Required fields are supplier_id, supplier and type (Subcontractor/Distributor/Manufacturer).

Field Name	Type	Required	Definition
supplier_id	Text	Yes	Unique identifier for a supplier (max 10 chars)
parent_supplier_id	Text	No	Parent supplier allowing grouping of suppliers (max 10 chars)
supplier	Text	Yes	Supplier name
type	Text	Yes	Identify a supplier type. Valid options are: Subcontractor, Distributor, Manufacturer
status	Text	No	Identify a supplier status
url	Text	No	Web site address of supplier
address	Text	No	Street address of supplier
city	Text	No	City of supplier
state	Text	No	State of supplier
zipcode	Text	No	Zip Code of supplier
country	Text	No	Country of supplier
country_code	Text	No	ISO 3 character abbreviation
phone_no	Text	No	Business phone number or a fax number of supplier
duns_code	Text	No	Duns code for a supplier

mapping/lookup tables

Mapping tables can be provided to Supplyframe to be made available as lookup tables for Forecast Templates. These tables are flexible as far as structure.

An example of a mapping/lookup table would be:

L_By_LOB_new.csv

Field Name	Type	Required	Definition
LOB	Text		Value of the attribute
BU	Text		Value of the attribute
Value_Y_N	Text		Value of the attribute

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avl

An Approved Vendor List (AVL) is used during supplier assignment and can be uploaded by users directly in the platform, under the "AVLS" menu. Required fields are: supplier, avl_name and **at least one of**: manufacturer_name, cpn or category.

The AVL works together with the sourcing level, so users can have the following rules:

- If negotiation_type (sourcing level) is G or L, Supplier is assigned from the Manufacturer and to any additional Suppliers found in the AVL for the Manufacturer
- If negotiation_type (sourcing level) is missing, the default will be per the AVL assignment

Field Name	Type	Required	Definition
avl_name	Text	Yes	AVL name can be used if multiple AVLs
cpn	Text	No	Unique identifier for item / IPN
mpn	Text	No	Part number assigned by manufacturer
category	Text	No	Part or product category for item
manufacturer_name	Text	No	Manufacturer name
manufacturer_id	Text	No	Unique identifier for a manufacturer
region	Text	No	Region
supplier	Text	Yes	Supplier name
supplier_id	Text	No	Unique identifier for a supplier (max 10 chars)
plant	Text	No	Plant name

Data Feed Recommendations

The following is a collection of Supplyframe's recommendations and best practices regarding the export, publication, and integration of data feeds.

We will assume that all relevant entities are mapped, relationships between entities are well defined, definitions of all relevant terms are well known, and that the underlying mechanism for storing, querying and manipulating data is a traditional RDBMS.

The file naming conventions, together with the name headers and their order have to be respected. All headers need to be included even if there will be no data provided in some fields.

Feed File Format

Ideally, target feed file format should have the following characteristics:

- The data properly conveys information from the target system (the data is lossless).
- Information type is well defined (e.g. string, binary blob, etc.).
- Encoding is properly defined and respected (e.g. if the data is a string, it should be in UTF8 format; if the data is a blob, it should be a base64 encoded ASCII string).

Most common formats for feeds are **CSV and TSV**. Ideally, files provided should be compressed with standard compression tools using compression algorithms like DEFLATE (zip, gzip) or Burrows–Wheeler algorithm (bzip2).

Exposing Feeds

Feeds should be exposed via FTP, FTPS, SFTP, or HTTP(S). If possible, we recommend using FTPS or SFTP. FTP and HTTP should not be used if other protocols are available.

If using FTP, we prefer that MLSD and MLST extensions are supported. If using HTTPS E-Tag header (or a custom header with a unique value corresponding to that file, derived via a low collision hashing algorithm), a header should be included.

The mechanisms by which feeds are exposed are also important to note. We recommend that atomic updating of the feeds is practiced. For example, the Linux `mv` command atomically moves files on the same filesystem (with some caveats). If the filesystem is non-local to the source filesystem, consider first copying a file as a temporary file to the same filesystem and then rename the file as is appropriate. If a group of files is moved, consider grouping them inside a directory first and then move them as is appropriate. Another possible approach would be to use links via ln(1).

If possible, consider signing and encrypting files. Typically, tools such as GnuPG are used for such purposes. However, a custom encryption and hashing scheme can be agreed upon (provided that standard algorithms are used).

Next Steps

Once your data feeds have been uploaded to the shared location, Supplyframe's job processor will automatically retrieve and process the files. Upon completion, the data you see in the application will reflect the contents of the feed files.

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