

ERP-1497 System Interface - OnHand.tab interface to Maestro

Status	Approved
Owner	BROWN-ext, Kevin
Stakeholders	NARAHARI-ext, Bhargavi GARG-ext, Praful
Jira Request ID	 ERP-1213 - Jira project doesn't exist or you don't have permission to view it.
Jira Development ID	 ERP-1497 - Jira project doesn't exist or you don't have permission to view it.

High- Level Specification

Implementing System	Kinaxis Maestro
Invoked by/Invokes	 ERP-1488 - Jira project doesn't exist or you don't have permission to view it.
Business Process Reference	04.04.06.01. Data provisioning ERP to Maestro

Functional Overview

The **OnHand** table stores inventory quantities and associated attributes for a part at a specific location within a warehouse. It represents the inventory position used by Maestro for planning, allocation, and pegging activities and is synonymous with inventory.

When on-hand inventory is allocated to demands for pegging, higher-priority demands are protected. If no priority is defined, on-hand inventory for a part is consumed based on the following attributes, in order:

- Expiry date (earliest first)
- Date (earliest first)
- Unit cost (lowest cost first)
- Quantity (smallest quantity first)
- Location identifier and warehouse

Scope and Objectives

The scope of this interface is between Global Integration Suite and Maestro. This document includes details of the OnHand.tab object.

The objective is to populate the OnHand and it's referenced tables based on the file provided by Global Integration Suite.

Process Flow Diagram





Source page access restriction: Click the link below to check if the page is accessible.

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Step	Description
1	Global Integration Suite transfers transformed Composites / Rest of World data from S/4, and performs some formatting, and sends the data to Maestro.
2	China Integration Suite transfers transformed China data from S/4, and performs some formatting, and sends the data to Maestro.
3	Transferred files will be sent to Maestro's Client SFTP server. This sits outside of the Maestro firewall and is accessible by client using a user id/ password. Files are transferred from this component to the Planning Server SFTP by a Kinaxis automatic process once the trigger file has been placed (see below)
4	Files are moved to this SFTP server automatically, where they await loading into Maestro.
5	Maestro uses the configured DSM (Data Sources and Mapping) setup to load the data into the OnHand table, with the load initiated either manually or through a scheduled system task.
6	The Data Tables which store information in Maestro

Assumptions

- Two data sources are set up in Maestro
 - Global: Contains data provided by ROW Integration Suite
 - China: Contains data provided by China Integration Suite
- Each data source will provide a unique key. Therefore neither data source will overwrite data provided by the other.

Dependencies

- (SFTP) SFTP credentials needs to be set up, along with the file transfer mechanism.
- Integration suites should provide data in the format described by the Data Sources and Mapping section of this document.

Security, Integrity and Controls

See [Application Architecture Kinaxis Maestro](#) for security requirements for SFTP/REST based authentication and security.

Configuration Requirements

The Data Sources and Mapping for this interface should be configured once, according to the structure in the Data Structure section below.

The Data Model needs to be configured with the Syway-specific fields shown in the Data Model Custom Fields section below.

Special Requirements

None

Design Rationale

The base of this design has been taken from the existing Maestro implementation, as designed during the Advanced Planning System (APS) Project.

A fit-gap analysis was undertaken within Syway, and changes were identified which have been incorporated into the Syway spec as shown.

API Use

The data object provided by either Integration Suite will be **consumed** by Maestro.

For more information see the [Data Integration Document](#).

Data Structure

The following Maestro fields will be populated by the file provided by Integration Suite:

Column Number	Field Name	Technical Field Name	Data Type	Key	Field Type	Auto create	Description
0	BaseKey	BaseKey.Id	String	N	NULL	Default	Optional field that can be used as a key field. In SyWay, this is set to Null.
0	BatchStatus	Batch.Status.Value	Ref String	N	Fixed Value	Y	A unique identifier that describes the status of a batch. Typically used to help determine if a batch is usable or not. For SyWay, this is set to Null.
1	BatchPart	Batch.Part.Name	Ref String	Y	Extra ctField	Default	The part that belongs to this batch record.
1	PartName	Part.Name	Ref String	Y	Extra ctField	Default	The part number of the inventory. Referenced Table: Part
2	BatchPart Site	Batch.Part.Site.Value	Ref String	Y	Extra ctField	Default	The site associated with this part.
2	LocationWarehouse	Location.Warehouse.Site.Value	Ref String	Y	Extra ctField	Y	The warehouse where this location is.
2	Site	Part.Site.Value	Ref String	Y	Extra ctField	Default	The site of the part number of the inventory.
3	Type	Type.Value	Ref String	Y	Extra ctField	N	A value that determines whether the stock or inventory is considered in netting. This field references the OnHandType table. Valid values are 'Net' or 'NoNet'. Referenced Table: OnHandType
4	Location	Location.Id	Ref String	Y	Extra ctField	Default	The stocking or bin location where the inventory is located. Referenced Table: Location
5	Warehouse Id	Location.Warehouse.Id	Ref String	Y	Extra ctField	Default	An Id code for the warehouse
6	Date	Date	Date	N	Extra ctField	Default	Indicates the date at which inventory was received.
7	Quantity	Quantity	Quantity	N	Extra ctField	Default	The amount in stock. (at batch level)
7	TotalQuantity	TotalQuantity	Quantity	N	Extra ctField	Default	Saving the total quantity from SAP before the data automations for reservations, Consignment, and Tolling (at batch level)
8	Expiry Date	ExpiryDate	Date	N	Extra ctField	Default	The date on which this inventory expires (is no longer usable).
9	BatchID	Batch.Id	CString	Y	Extra ctField	Y	The identifier for this batch record.
10	Info	Info	CString	N	Extra ctField	Default	Information coming from SAP

File Formats

See *File Formats - SFTP* section in the [Data Integration Document](#).

Data Model OnHand table settings:

Allow Data update to:		Currency		
Insert, Modify and Delete records	Insert and Modify records only	Allow automatic record creation	Determined by Maestro	Expression
Y	-	N	Y	-

Data Model OnHand custom fields:

Field name	Description	Data type	Key
ReservedQuantity	Used internally in Maestro. Supports the reservation solution by saving the quantity reserved for customers.	Quantity	N
TotalQuantity	Saving the total quantity from SAP before the data automations for reservations, Consignment, and Tolling	Quantity	N
Info	Information coming from SAP	String	N

HoldType	Used to support the reservations for customers or production orders	Reference	N
Referenced table: HoldType			

Processing Logic

See *Processing Logic - SFTP* section in the [Data Integration Document](#).

Delta or Full Load Requirements

The preference is to do a full load.

For more information on the difference between Full and Delta loads, see the *Full Loads and Delta Loads - SFTP* section in the [Data Integration Document](#).

Interface Alert & Monitoring

See the *Interface Alert & Monitoring - SFTP* section in the [Data Integration Document](#),

Language Requirements

None

User Interface Requirements

Not required.

Sequencing

Reference tables to support OnHand table data have to be either loaded manually before loading the OnHand table or at the same time as the OnHand table is loaded or set to be created automatically in data model or in DSM.

Below tables need to be taken into account before OnHand table data load:

Table	SyWay configuration
Batch	Set to allow automatic record creation
Location	Set to allow automatic record creation
Model	Not needed in SyWay. Picks Maestro default value - None
Pool	Not needed in SyWay. Picks Maestro default value - Unpooled
HoldType	Set to allow automatic record creation

Volumetrics

Current APS Volume of OnHand records is 110,000. Because APS makes up approximately 60% of Syway projected records, an expected estimate for Syway is therefore 150,000

This value is expected to grow by 1-2% per year.

Performance Consideration

N/A

Error Handling

See Interface Alert & Monitoring section.

Testing

How to Test

Testing of the interface consists of executing the data load into Maestro and validating the results using standard monitoring and validation tools. After each load, the **Data Import and Update** log is reviewed to confirm successful execution and to identify any errors or warnings generated during the load process.

Loaded data is then validated using a **Data Validation** workbook to ensure data completeness and correctness. Validation checks include confirming that required fields are populated, values are displayed in the correct format, and that data quality issues such as blank fields, incorrect quantities, or zero or invalid unit costs are not present. Additional checks may be performed to ensure consistency across key attributes such as part, location, and quantity.

Any errors or data issues identified during testing are documented in the agreed issue tracking mechanism (for example, in Jira or an action log). Most common error types are duplicate errors, missing references, junk values in input fields.

Duplicate errors need further investigation, in case valid data is flagged as duplicate by Maestro during data load and key field combinations have to be looked into for data uniqueness.

Missing references are to be resolved by either providing the missing data that is required to support the file upload (this could be in the form of a file or Maestro settings to allow for the data to be created automatically) or removing the references from the file.

Required corrections are implemented in the middleware (Integration Suite), and the data is reloaded. Validation steps are repeated until no errors are present (or reasons are fully understood).

Test Conditions and Expected Results

1	Data Load Successful	The Data in the data file matches the data in the Maestro table, and there are no errors.									
2	Data File contains 0 records	The Data Update should fail with a status of Pending.									
3	Data File contains invalid references (or other error)	The Data Update should Fail, the invalid references should be visible in the error log and the records with the error are not loaded into Maestro, and an alert is sent to the Admin team <Or whatever action is needed> Fields for OnHand.tab which should be checked for invalid references are shown in the Data Structure table above as "Ref String" and are: <table><tr><td>Batch.Status.Value</td></tr><tr><td>Batch.Part.Name</td></tr><tr><td>Part.Name</td></tr><tr><td>Batch.Part.Site.Value</td></tr><tr><td>Location.Warehouse.Site.Value</td></tr><tr><td>Part.Site.Value</td></tr><tr><td>Type.Value</td></tr><tr><td>Location.Id</td></tr><tr><td>Location.Warehouse.Id</td></tr></table>	Batch.Status.Value	Batch.Part.Name	Part.Name	Batch.Part.Site.Value	Location.Warehouse.Site.Value	Part.Site.Value	Type.Value	Location.Id	Location.Warehouse.Id
Batch.Status.Value											
Batch.Part.Name											
Part.Name											
Batch.Part.Site.Value											
Location.Warehouse.Site.Value											
Part.Site.Value											
Type.Value											
Location.Id											
Location.Warehouse.Id											
4	Data file contains duplicates	Duplicates for OnHand.tab are permitted technically as there are no keys, so no duplicate errors should exist, but a manual comparison test should be performed to ensure that no 2 rows are the same.									

Test Considerations/Dependencies

Dependent files should already be loaded into Maestro for these tests to complete. See Sequencing section above.

Other Information

Development Details

Package

Package Name	Parent Package

Other Development Objects

Object Type	Object Name	Purpose/High Level Logic	Design Rationale Reference

Appendix

See also

File	Modified
No files shared here yet.	

Change log

Version	Published	Changed By	Comment
CURRENT (v. 30)	Apr 06, 2026 15:13	KAVLEK AR-ext, Nihaal	Updated the Delta or Full load Requirement section and Process Flow diagram
v. 29	Feb 10, 2026 14:54	NARAH RI-ext, Bhargavi	
v. 28	Feb 05, 2026 12:18	BROWN- ext, Kevin	
v. 27	Feb 04, 2026 12:12	BROWN- ext, Kevin	
v. 26	Jan 29, 2026 15:11	BROWN- ext, Kevin	
v. 25	Jan 28, 2026 17:55	BROWN- ext, Kevin	Moved some information to Integration Architecture
v. 24	Jan 28, 2026 17:29	BROWN- ext, Kevin	

v. 23	Jan 28, 2026 16:24	BROWN-ext, Kevin	Included standard sections from Reference doc and updated as per Dhiraj/Patrick comments
v. 22	Jan 16, 2026 10:47	KAVLEKAR-ext, Nihaal	
v. 21	Jan 14, 2026 13:06	BROWN-ext, Kevin	

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Workflow history

This view shows the 5 most recent entries. The complete workflow log is available from the 'Document Activity' menu item.

Apr 07, 2026	Actor	Type	Activity	Version
Approved	 JAIN-ext, Dhiraj	State	changed state to Approved at 8:39 am	v30
Revision under Review	 JAIN-ext, Dhiraj	State	gave <i>Minor change</i> approval at 8:39 am	
Apr 06, 2026				
	 KAVLEKAR-ext, Nihaal	Edit	updated the page at 3:13 pm Updated the Delta or Full load Requirement section and Process Flow diagram	
		State	changed state to Revision under Review at 1:14 pm Updated the Process Flow Diagram and Delta or Full load requirement	v30
Revision in progress	 KAVLEKAR-ext, Nihaal	State	changed state to Revision in progress at 1:13 pm	v30
Feb 10, 2026				
Approved	 NARAHARI-ext, Bhargavi	Edit	updated the page at 2:54 pm	
		State	changed state to Approved at 1:54 pm	v29