ERP-1500 System Interface - SourceConstraint.tab interface to Maestro

Status	Approved
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Jira Request ID	ERP-1213 - Jira project doesn't exist or you don't have permission to view it.
Jira Development ID	ERP-1500 - 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-1483 - 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

This table supports the Constraint Manager application, and defines constraint factors for part sources. Each record in this table defines the fixed and variable amounts of a constraint needed to produce supply from a given part source. If constraint factors are not expected to change over time, then only one SourceConstraint record is required for a given constraint and part source combination. Otherwise, if constraint factors on a part source vary over time, then multiple time-phased SourceConstraint records can be defined.

Therefore, the combination of the Constraint, PartSource and EffectiveInDate fields must be unique for each record in this table. Otherwise, data integrity is violated and the record is not imported into this table.

Scope and Objectives

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

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

Process Flow Diagram

draw.io

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

/display/ER/System+Interface+-+Reference+Specification+for+Maestro

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.
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 SourceConstraint table, with the load initiated either manually or through a scheduled system task.
6	The Data Tables which store information in Maestro

Assumptions

- Data will only come from Global Integration Suite into the Global Data Source, set up in Maestro.

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	Autocreate	Description
0	ConstraintName	Constraint.Name	String	**Y**	ExtractField	Default	Name of the constraint (resource) associated with the production source.

1	ConstraintSite	Constraint.Site.Value	String	**Y**	ExtractField	Default	Site / plant where the constraint (resource) is defined.
2	ProductionVersionId	PartSource.Source.ID	String	**Y**	ExtractField	Default	Production version identifier linking the constraint to a specific production method or source definition.
3	PartName	PartSource.Part.Name	String	**Y**	ExtractField	Default	Material / part code associated with the production source.
4	BaseKey	PartSource.BaseKey	String	**Y**	ExtractField	Default	Unique technical key identifying the related PartSource record.
5	PartSite	PartSource.Part.Site.Value	String	**Y**	ExtractField	Default	Production plant where the part is manufactured.
6	DestinationSite	PartSource.Source.DestinationSite.Value	String	**Y**	ExtractField	Default	Destination site where the produced material is received.
6	SupplierId	PartSource.Source.Supplier.Id	String	**Y**	ExtractField	Default	Supplier associated with the production source (if externally supplied or subcontracted).
7	EffectiveInDate	EffectiveInDate	Date	**Y**	ExtractField	Default	Date from which this constraint-to-source relationship becomes effective.
8	ConstraintFactor	ConstraintFactor	Quantity	N	ExtractField	Default	Variable constraint factor applied to capacity calculations for this source.
9	FixedConstraintFactor	FixedConstraintFactor	Quantity	N	ExtractField	Default	Fixed constraint value applied regardless of production quantity.

File Formats

See *File Formats - SFTP* section in the Data Integration Document.

Data Model SourceConstraint 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 SourceConstraint custom fields:

There are no custom fields for this table.

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 SourceConstraint table data have to be either loaded manually before loading the SourceConstraint table or at the same time as the SourceConstraint 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
Constraint	To be loaded before or with this table
PartSource	To be loaded before or with this table

Volumetrics

Current APS Volume of SourceConstraint records is 54000.

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 duplicates	Duplicates for SourceConstraint.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. 7)	**Apr 02, 2026 14:24**	**KAVLEKAR-ext, Nihaal**	Updated the Delta or Full load Requirement section
v. 6	Mar 19, 2026 14:24	**KAVLEKAR-ext, Nihaal**	
v. 5	Mar 12, 2026 09:39	**KAVLEKAR-ext, Nihaal**	
v. 4	Mar 03, 2026 18:21	**MOHAMOUD-ext, Ahmed**	
v. 3	Feb 26, 2026 20:22	**GARG-ext, Praful**	
v. 2	Feb 11, 2026 17:23	**MOHAMOUD-ext, Ahmed**	
v. 1	Feb 11, 2026 17:19	**MOHAMOUD-ext, Ahmed**	

Workflow history

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

Apr 10, 2026	Actor	Type	Activity	Version
Approved	NARAHARI-ext, Bhargavi	State	changed state to Approved at 6:09 pm	v7
Lead Approval	NARAHARI-ext, Bhargavi	State	gave *POD Lead Review* approval at 6:09 pm	
Apr 07, 2026				
	JAIN-ext, Dhiraj	State	changed expiry date to '14 Apr, 2026 08:41 am' at 8:41 am	
		State	changed state to Lead Approval at 8:41 am	v7
Tech Review	JAIN-ext, Dhiraj	State	gave *Tech Review* approval at 8:41 am	
From Mar 03, 2026 to Apr 02, 2026				
	MOHAMOUD-ext, Ahmed and KAVLEKAR-ext, Nihaal	Edit	multiple updates from MOHAMOUD-ext, Ahmed and KAVLEKAR-ext, Nihaal	