

Audit Trial Extraction – AP LAM

Status	Approved
Owner	HANCOCK-ext, John
Stakeholders	

Purpose

The purpose of this document is to define the conversion approach to create Materials - Basic Data View in S/4 HANA.

Conversion Scope

The scope of this document covers the approach for converting active Materials - Basic Data View from Legacy Source Systems into S/4HANA following the Materials Master Data Design Standard.

From the current system landscape, Material data exists separately in the legacy systems (PF2 and WP2), with potential discrepancies in both organizations. Harmonization and validation are required to ensure accurate and consolidated data in S/4HANA. While PF2 and WP2 serve as source systems, extensive mapping and transformation logic will be necessary to produce properly formatted load templates in line with the target design.

The data from legacy system may include:

1. Uncleansed data or duplicated records

The data from legacy system excludes:

1. All materials flagged for deletion
2. Any blocked or obsolete materials
3. Any inactive materials that are out of scope

List of source systems and approximate number of records

Source	Scope	Source Approx No. of Records	Target System	Target Approx No. of Records
PF2,WP2	The Material Master Records will be extracted/collected via DCT. An initial extract of the relevant data will be provided in Google Sheet format to assist business in decision making on including any relevant data from Source Systems. Any additional data that need to be created to support the new design may be added in the DCT. A data review and standardization will be done across all Info Records in the DCT.	500,000	S4H	500,000

Additional Information

Multi-language Requirement

Material Master will have a default description available in English.

Multi language is supported for Materials. Login via a different language will show the description displayed in the logon language if the language key is maintained.

Document Management

Not Applicable

Legal Requirement

Not Applicable

Special Requirements

Target Design

The technical design of the target for this conversion approach.

Table	Field	Data Element	Field Description	Data Type	Length	Requirement
S_MARA	MATNR		Material Number	Automatic		Mandatory
S_MARA	MTART		Material Type	Configured		Mandatory
S_MARA	MATKL		Material Group	Configured		Mandatory
S_MARA	MBRSH		Industry Sector	Configured		Mandatory
S_MARA	MAKTX		Description	Text	40	Mandatory
S_MARA	SPRAS		Language Key	Configured		Mandatory
S_MARA	MEINS		Base Unit of Measure (ISO Format)	Configured		Mandatory
S_MARA	AENNR		Change Number	Text	80	Optional
S_MARA	REVLV		Revision Level	Text	80	Optional
S_MARA	EAN11		GTIN	Text	18	Optional
S_MARA	NUMTP		GTIN Category	Text	80	Optional
S_MARA	SPART		Division	Configured		Mandatory
S_MARA	BISMT		Old Material Number	Text	40	Mandatory
S_MARA	PRDHA		Product Hierarchy	Configured		TBD
S_MARA	BRAND_ID		Brand	Text	80	TBD
S_MARA	XCHPF		Batch Management Required Ind.	Text	1	TBD
S_MARA	MLGUT		Has Empties	Text	1	TBD
S_MARA	DATA8		Valid From	Date		TBD
S_MARA	LIQDT		Deletion Date	Date		TBD
S_MARA	KUNNR		Competitor	Text	80	Not required
S_MARA	NORMT		Industry Standard Description	Text	18	Optional
S_MARA	GROES		Size/Dimensions	Text	32	Optional
S_MARA	LABOR		Laboratory / Design Office	Text	80	Optional
S_MARA	INHAL		Net Contents	Number	13	Not required
S_MARA	INHME		Net Contents Unit (ISO Format)	Text	80	Not required
S_MARA	INHBR		Gross Contents	Number	13	Not required
S_MARA	VPREH		Comparison Price Unit	Number	5	Not required
S_MARA	EXTWG		External Product Group	Text	80	Optional
S_MARA	MTPOS_MARA		General Item Category Group	Text	80	TBD
S_MARA	BEGRU		Authorization Group	Text	4	Not required
S_MARA	MSTAE		Cross-Plant Product Status	Text	80	Optional
S_MARA	MSTDE		Valid-From Date	Date		TBD
S_MARA	SERLV		Level of Explicitness for Serial Number	Text	80	TBD
S_MARA	QMPUR		Quality Manag. in Procurement Is Active	Text	1	TBD
S_MARA	ANIMAL_ORIGIN		Animal Origin	Text	1	Not required
S_MARA	ANP		ANP Code	Text	80	TBD
S_MARA	BRGEW		Gross Weight	Number	13	Optional
S_MARA	NTGEW		Net Weight	Number	13	Optional
S_MARA	GEWEI		Unit of Weight (ISO Format)	Text	80	Optional
S_MARA	LAENG		Length	Number	13	Optional
S_MARA	BREIT		Width	Number	13	Optional
S_MARA	HOEHE		Height	Number	13	Optional
S_MARA	MEABM		Unit for Length/Width/Height(ISO Format)	Text	80	Optional

S_MARA	VOLUM		Volume	Number	13	Optional
S_MARA	VOLEH		Volume Unit	Text	80	Optional
S_MARA	CAPAUSE		Capacity Usage	Number	15	TBD
S_MARA	CHML_CMPLNC_RLVNCE_IND		Compliance Relevant	Text	80	TBD
S_MARA	KZKFG		Product Is Configurable	Text	1	TBD
S_MARA	BSTME		Order Unit of Measure (ISO Format)	Text	80	Mandatory
S_MARA	EKWSL		Purchasing Value Key	Text	80	Mandatory
S_MARA	VABME		State of Variable Purchase Order Unit	Text	80	Optional
S_MARA	BMATN		Internal Product Number	Text	80	TBD
S_MARA	MFRPN		Manufacturer Part Number	Text	40	Optional
S_MARA	MFRNR		Manufacturer Number	Text	80	Optional
S_MARA	MPROF		Manufacturer Part Profile	Text	80	Optional
S_MARA	TRAGR		Transportation Group	Text	80	TBD
S_MARA	MSTAV		Cross-Distribution Chain Product Status	Text	80	TBD
S_MARA	MSTDV		Valid From Date for Status	Date		TBD
S_MARA	PMATA		Pricing Reference Product	Text	80	TBD
S_MARA	SPROF		Pricing Profile for Variants	Text	80	TBD
S_MARA	ALLOW_PMAT_IGNO		Variant Price Allowed	Text	1	TBD
S_MARA	SOM_CYCLE		Billing Cycle	Text	80	TBD
S_MARA	SOM_CYCLE_RULE		Billing Cycle Determination Rule	Text	80	TBD
S_MARA	SOM_TC_SCHEMA		Assignment Schema	Text	80	TBD
S_MARA	BBTYP		Assortment List Type	Text	80	TBD
S_MARA	SERVV		Service Agreement	Text	80	TBD
S_MARA	MAGRV		Product Group: Packaging Materials	Text	80	TBD
S_MARA	VHIART		Packaging Product Type	Text	80	TBD
S_MARA	ERGEW		Allowed Packaging Weight	Number	13	TBD
S_MARA	ERGEI		Unit of Allowed Packaging Weight	Text	80	TBD
S_MARA	GEWTO		Excess Weight Tolerance for HU	Number	3	TBD
S_MARA	ERVOL		Allowed Packaging Volume	Number	13	TBD
S_MARA	ERVOE		Unit of Allowed Packaging Volume	Text	80	TBD
S_MARA	KZGVH		Packaging Product Is Closed Packaging	Text	1	TBD
S_MARA	VOLTO		Excess Volume Tolerance for HU	Number	3	TBD
S_MARA	IPRKZ		Period Indicator for Shelf Life	Text	80	TBD
S_MARA	RAUBE		Storage Conditions	Text	80	TBD
S_MARA	TEMPB		Temperature Conditions Indicator	Text	80	TBD
S_MARA	BEHVO		Container Requirements	Text	80	TBD
S_MARA	STOFF		Hazardous Product Number	Text	40	TBD
S_MARA	ETIAR		Label Type	Text	80	TBD
S_MARA	ETIFO		Label Form	Text	80	TBD
S_MARA	WESCH		Number of Goods Receipt/Issue Slips	Number	13	TBD
S_MARA	XGCHP		Indicator: Approved Batch Rec. Required	Text	1	TBD
S_MARA	MHDHB		Total Shelf Life	Number	4	TBD
S_MARA	MHDRZ		Minimum Remaining Shelf Life	Number	4	TBD
S_MARA	SLED_BBD		Indi. for the Shelf Life Expiration Date	Text	80	TBD
S_MARA	MHDLP		Storage Percentage	Number	3	TBD
S_MARA	RDMHD		Rounding Rule for Calculation of SLED	Text	80	TBD
S_MARA	HNDLCODE		Handling Indicator	Text	80	TBD

S_MARA	WHMATGR		Warehouse Product Group	Text	80	TBD
S_MARA	WHSTC		Warehouse Storage Condition	Text	80	TBD
S_MARA	HUTYP_DFLT		Standard Handling Unit Type	Text	80	TBD
S_MARA	SERIAL		Serial Number Profile	Text	80	TBD
S_MARA	PILFERABLE		Pilferable	Text	1	TBD
S_MARA	HAZMAT		Relevant for Hazardous Substances	Text	1	TBD
S_MARA	QQTIME		Quarantine Period	Number	3	TBD
S_MARA	QQTIMEUOM		Time Unit for Quarantine Period	Text	80	TBD
S_MARA	QGRP		Quality Inspection Group	Text	80	TBD
S_MARA	HUTYP		Handling Unit Type	Text	80	TBD
S_MARA	MAXC		Maximum Capacity	Number	15	TBD
S_MARA	MAXC_TOL		Overcapacity Tolerance	Number	3	TBD
S_MARA	TARE_VAR		Variable Tare Weight	Text	1	TBD
S_MARA	MAXL		Max. Pack. Length	Number	15	TBD
S_MARA	MAXDIM_UOM		UoM for Max. Pack. Length (ISO Format)	Text	80	TBD
S_MARA	MAXB		Max. Pack. Width	Number	15	TBD
S_MARA	MAXH		Max. Pack. Height	Number	15	TBD
S_MARA	RBNRM		Catalog Profile	Text	80	TBD
S_MARA	SSTUF		Assortment Grade	Text	80	TBD
S_MARA	LSTVZ		Listing Procedure	Text	80	TBD
S_MARA	LDVZL		Listing Period Start Date	Date		TBD
S_MARA	LDBZL		Listing Period End Date	Date		TBD
S_MARA	LSTFL		Listing Procedure	Text	80	TBD
S_MARA	LDVFL		Listing Period Start Date	Date		TBD
S_MARA	LDBFL		Listing Period End Date	Date		TBD
S_MARA	VDVZL		Sales Period Start Date	Date		TBD
S_MARA	VDBZL		Sales Period End Date	Date		TBD
S_MARA	VDVFL		Sales Period Start Date	Date		TBD
S_MARA	VDBFL		Sales Period End Date	Date		TBD
S_MARA	WAUSM		Delivery Unit of Measure (ISO Format)	Text	80	TBD
S_MARA	WVRKM		Sales Unit of Measure (ISO Format)	Text	80	TBD
S_MARA	WMAAB		ABC Indicator	Text	80	TBD
S_MARA	WBKLA		Valuation Class	Text	80	Mandatory
S_MARA	WHERL		Country/Region of Origin	Text	80	Optional
S_MARA	WHERR		Region of Origin	Text	80	Optional
S_MARA	EKGRP		Purchasing Group	Text	80	Mandatory
S_MARA	BWSCL		Source of Supply	Text	80	Not required
S_MARA	TAKLV		Tax Classification	Text	80	Mandatory
S_MARA	WLADG		Loading Group	Text	80	TBD
S_MARA	WBWSP		Valuation Margin	Number	6	Not required
S_MARA	PSTATQ		Indicator: Quality	Text	1	Automatic
S_MARA	PSTATV		Indicator: Sales	Text	1	Automatic
S_MARA	PSTATL		Indicator: Storage	Text	1	Automatic
S_MARA	PSTATE		Indicator: Purchasing	Text	1	Automatic

Data Cleansing

ID	Criticality	Error Message/Report Description	Rule	Output	Source System
2019-001	C1	English description missing	All materials require English description by default		
2019-002	C1	Material Types remapping	All materials to be mapped to S4 list		
2019-003	C1	Material Groups remapping	All materials to be mapped to S4 list		
2019-004	C1	UoM alignment	All materials to reflect S4 list		
2019-005	C1	Procurement Type	Confirm correct Procurement Type against Material Type		
2019-006	C1	Check Gross and Net Weights	Check for missing weights and that Gross Weight >= Net		
2019-007	C1	Check for missing Product Hierarchy	For FERT/HAWA - mandatory field		
2019-008	C1	Duplicate materials excluded	Refer to document		
2119-009	C1	Country of Origin	Required for all procured materials		

Conversion Process

The high-level process is represented by the diagram below:

Data Privacy and Sensitivity

Extraction

Extract data from a source into . There are 2 possibilities:

1. The data exists. connects to the source and loads the data into . There are 3 methods:
 - a. Perform full data extraction from relevant tables in the source system(s).
 - b. Perform extraction through the application layer.
 - c. Only if ; cannot connect to the source, data is loaded to the repository from the provided source system extract/report.
2. The data does not exist (or cannot be converted from its current state). The data is manually collected by the business directly in . This is to be conducted using DCT (Data Collection Template) in

The agreed Relevancy criteria is applied to the extracted records to identify the records that are applicable for the Target loads

Extraction Run Sheet

Req #	Requirement Description	Team Responsible

Selection Screen

Selection Ref Screen	Parameter Name	Selection Type	Requirement	Value to be entered/set

Data Collection Template (DCT)

Target Ready Data Collection Template will be created for data with exception of some fields which require transformation as mentioned in the transformation rule.

DCT Rules

Field Name	Field Description	Rule

Extraction Dependencies

Item #	Step Description	Team Responsible

Transformation

The Target fields are mapped to the applicable Legacy field that will be its source, this is a 3-way activity involving the Business, Functional team and Data team. This identifies the transformation activity required to allow to make the data Target ready:

1. Perform value mapping and data transformation rules.
 - a. Legacy values are mapped to the to-be values (this could include a default value)
 - b. Values are transformed according to the rules defined in
2. Prepare target-ready data in the structure and format that is required for loading via prescribed Load Tool. This step also produces the load data ready for business to perform Pre-load Data Validation

Transformation Run Sheet

Item #	Step Description	Team Responsible

Transformation Rules

Rule #	Source system	Source Table	Source Field	Source Description	Target System	Target Table	Target Field	Target Description	Transformation Logic

Transformation Mapping

Mapping Table Name	Mapping Table Description

Transformation Dependencies

List the steps that need to occur before transformation can commence

Item #	Step Description	Team Responsible

Pre-Load Validation

Project Team

Completeness

Task	Action

Accuracy

Task	Action

Business

Completeness

Task	Action

Accuracy

Task	Action

Load

The load process includes:

1. Execute the automated data load into target system using load tool or product the load file if the load must be done manually
2. Once the data is loaded to the target system, it will be extracted and prepared for Post Load Data Validation

Load Run Sheet

Item #	Step Description	Team Responsible

Load Phase and Dependencies

Configuration

Item #	Configuration Item

Conversion Objects

Object #	Preceding Object Conversion Approach
	list the exact title of the conversion object of only the immediate predecessor – this will then confirm the DDD (Data Dependency Diagram)

Error Handling

Error Type	Error Description	Action Taken

Post-Load Validation

Project Team

Completeness

Task	Action

Accuracy

Task	Action

Business

Completeness

Task	Action

Accuracy

Task	Action

Key Assumptions

- Master Data Standard is up to date as on the date of documenting this conversion approach and data load.
- is in scope based on data design and any exception requested by business.

See also

Change log

Version	Published	Changed By	Comment
CURRENT (v. 4)	Apr 30, 2026 14:20	HANCOCK-ext, John	
v. 315	Apr 30, 2026 09:59	HANCOCK-ext, John	
v. 314	Apr 29, 2026 14:44	HANCOCK-ext, John	
v. 313	Apr 28, 2026 13:55	HANCOCK-ext, John	
v. 312	Apr 27, 2026 07:42	HANCOCK-ext, John	
v. 311	Apr 21, 2026 08:04	HANCOCK-ext, John	
v. 310	Apr 21, 2026 08:01	HANCOCK-ext, John	
v. 309	Apr 21, 2026 07:51	HANCOCK-ext, John	
v. 308	Apr 10, 2026 12:02	HANCOCK-ext, John	
v. 307	Apr 09, 2026 14:07	HANCOCK-ext, John	

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Workflow history

Title	Last Updated By	Updated	Status
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There are no pages at the moment.

Workflow history

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

Sept 22, 2020	Actor	Type	Activity	Version
Published	 Jose Da Silva Trindade	State	gave <i>Approvers</i> approval at 3:25 pm	
		State	changed state to Published at 3:25 pm	v4
To be approved	 Jose Da Silva Trindade	State	gave <i>Approvers</i> approval at 3:25 pm	
	 Flavia Magalhaes	State	assigned approval <i>Approvers</i> to  Jose Da Silva Trindade at 2:17 pm	
Sept 18, 2020				
	 SUZANY BIANCHI BARAO CORREIA	State	changed state to To be approved at 4:54 pm	v4
For Review	 SUZANY BIANCHI BARAO CORREIA	State	gave <i>Reviewers</i> approval at 4:54 pm	