CNV-1050 EWM Packing Specifications

Status	Approved
Owner	HASSAN-ext, Shamir
Stakeholders	

Purpose

The purpose of this conversion specification is to define the process, scope, and rules for migrating **Packing Specification master data** from the legacy system to **SAP Extended Warehouse Management (EWM)**.

Packing Specifications (Pack Specs) in SAP EWM define the hierarchical packaging structure and physical characteristics used to pack materials into Handling Units (HUs). They determine how products are grouped, the quantity per packaging level, and the associated handling unit types, dimensions, weights, and capacities.

This conversion ensures that all relevant packing logic currently used in legacy operations is accurately represented in EWM to support the following objectives:

- Standardize packing structures across materials and sites within SAP EWM.
- Enable automatic handling unit creation and proposal during inbound, outbound, and internal processes.
- Provide consistent and accurate weight, volume, and capacity data to support storage bin determination and transportation planning.
- Ensure that system-driven packing proposals mirror current operational practices, reducing manual effort during goods receipt and outbound picking.

Conversion Scope

The scope of this document covers the approach for creating Packing specification in S/4HANA following the EWM Packaging specficiation Master Data Design Standard.

This includes:

- Capturing and using the packaging specification data in data collection template (DCT).
- Applying transformation logic via Syniti to conform with the S/4 HANA data model.
- Loading the transformed data into SAP S/4 HANA while ensuring data integrity.

The data from legacy system includes:

1. N/A (Manual data collection)

The data from legacy system excludes:

1. N/A (Manual data collection)

List of source systems and approximate number of records

Additional Information

Multi-language Requirement

Document Management

Legal Requirement

Special Requirements

Target Design

The technical design of the target for this conversion approach.

Table	Field	Data Element	Field Description	Data Type	Length	Requirement	Notes
PNODID	PNAME	/SCWM/PSPEC_ID	Packaging Specification ID	CHAR	40	Mandatory	Unique Packspec ID; key field for header.
/SCWM/PNPAKH	STATUS	/SCWM/PS_STATUS	Packspec Status	CHAR	1	System Generated	Controls activation (1=Active, 0=Inactive).
PNODTX	PNTEXT	/SCWM/PS_DESC	Packaging Specification Description	CHAR	60	Mandatory	Business-friendly packspec description.
/1CN /CPSSAPBDL01	PS_SEQ	/SCWM/PS_SEQ	Condition Sequence	NUMC	2	Required	Used when Packspec is linked to conditions.
/1CN /CPSSAPBDL01	PS_COND	/SCWM/PS_LOG_COND	Logical Condition	CHAR	20	Optional	Condition expression for packspec selection.
/1CN /CPSSAPBDL01	CREATED_BY	ERNAM	Created By	CHAR	12	System Generated	SAP User who created condition record.
/SCWM/PNPAKH	PS_GROUP	/SCWM/PS_GROUP	Group of Packaging Specifications	CHAR	4	Conditional	Logical grouping of packaging specs.
/SCWM/PNPAKH	LEVEL_SET	/SCWM/PS_LEVELSET	Level Set	NUMC	10	Conditional	Distinguishes layers within Packspec.
/SCWM/PNPAKH	ACTIVATED_BY	ERNAM	Activated By	CHAR	12	System-generated	Tracks who activated the Packspec.
/SCWM/PNPAKH	ACTIVATE_TIME	ERDAT	Activated At	TIMS	15	System-generated	Activation timestamp.
PNODID	LOGSYS	LOGSYS	Logical System	CHAR	10	Mandatory	Source logical system for cross-system IDoc.
/SCWM/PNPAKH	ROUNDING_GOAL	/SCWM /ROUNDING_METHOD	Rounding Method	CHAR	4	Optional	Rounding strategy used (Up/Down /Nearest).
/SCWM/PNPAKH	BAND_UP_REL	/SCWM/UPP_LIMIT	Upper Rounding Limit (% Demand Qty)	DEC	16	Optional	Controls upper variance for rounding.
/SCWM/PNPAKH	BAND_DN_REL	/SCWM/LOW_LIMIT	Lower Rounding Limit (% Demand Qty)	DEC	16	Optional	Controls lower variance for rounding.
/SCWM/PVPAKC	MATID	/SCWM/MATID	Product	CHAR	18	Mandatory	Internal Material GUID for product.
/SCWM/PVPAKC	QUAN	/SCWM/QUANTITY	Quantity	QUAN	31	Mandatory	Quantity per level or per HU.
/SCWM/PVPAKC	REFMIX	/SCWM/REFMIX	Reference Mix Allowed	CHAR	1	Optional	Controls whether different references allowed.
/SCWM/PVPAKC	BATCHMIX	/SCWM/BATCHMIX	Batch Mix Allowed	CHAR	1	Optional	Allows mixing of batches in HU.
J_7LV05	LAENG	/SCWM/LENGTH	Length	DEC	13	Optional	Dimension of HU or product.
J_7LV05	BREIT	/SCWM/WIDTH	Width	DEC	13	Optional	Width in base UoM.
J_7LV05	HOEHE	/SCWM/HEIGHT	Height	DEC	13	Optional	Height in base UoM.
SGT_MARM	BRGEW	BRGEW	Gross Weight	QUAN	13	Optional	Total gross weight of HU/product.
SGT_MARM	NTGEW	NTGEW	Net Weight	QUAN	13	Optional	Net weight excluding packaging.
/SCWM /GMHUITM	CAPA	/SCWM/CAPACITY	Capacity Usage	QUAN	15	Optional	Defines how much capacity is used in HU.
/SCWM/PAPAK	LEVEL_TYPE	/SCWM/LEVEL_TYPE	Level Type	CHAR	4	Mandatory	Defines hierarchy type (e.g., case /pallet).
/SCWM/PAPAK	DISPLAY_SEQ	/SCWM/DISPLAY_SEQ	Level Sequence No.	NUMC	2	Mandatory	Order of the levels in Packspec.
/SCWM/PAPAK	HU_CREATE	/SCWM/HU_CREATE	HU Creation	CHAR	1	Optional	Indicates HU creation rule.
/SCWM/PAPAK	TRGQTY	/SCWM/TRGQTY	Target Quantity	QUAN	15	Optional	Ideal target per level or HU.
/SCWM/PAPAK	MINQTY	/SCWM/MINQTY	Minimum Quantity	QUAN	15	Optional	Minimum allowed quantity.
/SCWM/PAPAK	HUTYP	/SCWM/HUTYP	Handling Unit Type	CHAR	4	Mandatory	EWM HU Type (e.g., PALLET, BOX).
/SCWM/PAPAK	FLAG_DIM	/SCWM/FLAG_DIM	Enter Dimensions Manually	CHAR	1	Optional	Indicates manual dimension entry.
/SCWM/PAPAK	FLAG_VOL	/SCWM/FLAG_VOL	Enter Volume Manually	CHAR	1	Optional	Indicates manual volume entry.
/SCWM/PAPAK	FLAG_WEIGHT	/SCWM/FLAG_WEIGHT	Enter Weight Manually	CHAR	1	Optional	Indicates manual weight entry.
/SCWM/PAPAK	FLAG_CAPA	/SCWM/FLAG_CAPA	Enter Capacity Manually	CHAR	1	Optional	Manual capacity override.
/SCWM/PAPAK	CLOSED_PACKAGE	/SCWM/CLOSED_PACK	Closed Packaging	CHAR	1	Optional	Indicator for sealed/closed pack.
/SCWM/PAPAK	PERFORMER	/SCWM/PERFORMER	Performing Entity	CHAR	10	Optional	Responsible org. unit for packing.
/SCWM/PAPAK	OPERAT_UNIT	/SCWM/OPER_UOM	Operative Unit of Measure	UNIT	3	Optional	Default operational UoM.
/SCWM/PAPAK	PROCS	/SCWM/PROCSTEP	External Storage Process Step	CHAR	4	Optional	Related EWM process step.

/SCWM/PAPAK	PRINT_LTEXT	/SCWM/PRINT_LTEXT	Print Long Text	CHAR	1	Optional	Indicates whether long text is printed.

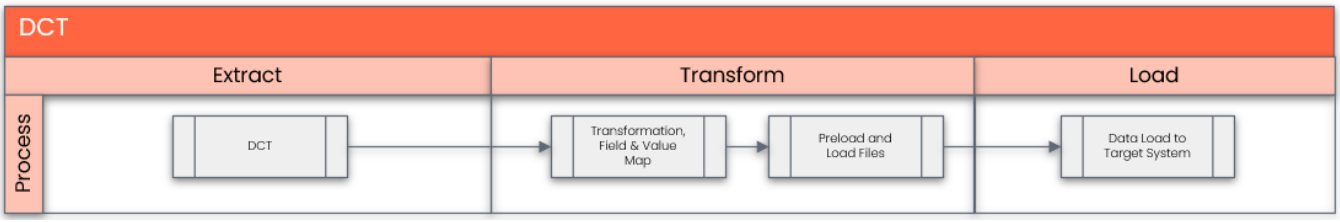
Data Cleansing

ID	Criticality	Error Message/Report Description	Rule	Output	Source System

Conversion Process

The high-level process is represented by the diagram below

Please note that the data may have to be loaded in multiple target systems (US instance, China instance and RoW).



Data Privacy and Sensitivity

Extraction

Extraction Run Sheet

Req #	Requirement Description	Team Responsible
1	Data is populated in the DCT or uploaded from downloaded Excel template	Data owner (Business)
2	If the data is uploaded to DCT in bulk via excel template, any upload errors need to be reviewed and corrected	Data owner (Business), Syniti/ Data Team
3	The data which has passed validation checks in DCT will be used for transformation/further processing	Syniti

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 Packaging specification data

Field	Description / Meaning	SAP Relevance / Usage	Notes for Migration
DL_RECTYPE	Record Type	Identifies the type of record (header, item, condition)	“H” = header, “I” = item; ensures proper mapping
PS Sequence	Pack Spec Sequence	Internal sequence for processing	Maintains order of operations in EWM
DL_LEVEL_SEQ	Level Sequence	Hierarchy level of packing (pallet, layer, box)	Used for structured HU creation
DL_REC_SEQ	Record Sequence	Sequence within a level	Sorting & mapping in migration
DL_FILLER	Filler Field	Reserved, typically blank	Optional
Pack. Spec. Description	Description of Packing Spec	Identification of the spec in EWM	Free text, max length per EWM config
Pack. Spec. Group	Group of Pack Specs	Categorization / reporting / planning	Optional grouping for similar pack specs
CREATED_BY	Created By	User who created the spec	Preserves audit trail
CREATED_AT	Creation Date	Timestamp of creation	Maintain original timestamps
ORIG_SYSTEM	Source System	System origin of the data	Important for traceability
CHANGED_BY	Last Modified By	Last user who changed spec	Optional, for audit
CHANGED_AT	Last Change Date	Timestamp of last change	Optional, for audit
Upper Limit (D.Qty)	Maximum quantity per HU	Validates HU packing limits	Ensures HU not overfilled
Lower Rnd.Lmt(D.Qty)	Lower rounding limit	Rounding down rule	Determines min allowed quantity rounding
Up. Limit (%MnthDem)	Max % of monthly demand	Supply planning indicator	Optional, for replenishment rules
Low. Limit (%MthDem)	Min % of monthly demand	Supply planning indicator	Optional
Min. Qty for Suppl	Minimum qty for replenishment	Used in automatic supply logic	Ensures HU is not underfilled
Rounding Method	Method to round HU qty	Options: up, down, nearest	Used in packing calculation
Documents Exist	Flag for documents attached	Indicates if spec has reference docs	Optional
Level Set	Logical grouping of levels	Used for hierarchy mapping	Optional
Product ID	Material / product number	Critical for mapping	Must match EWM material master
Product Unit Quantity	Quantity per HU	Units per HU	Align with Base Unit
Base Unit	Product unit of measure	Base unit for product	Must match material master
Ref. Mix Allowed	Reference mix allowed	Boolean, allows mixed products	Y/N
Batch Mix Allowed	Batch mixing allowed	Boolean, allows batch mixing	Y/N
Pack. Spec. Level Seq. No.	Level sequence number	Order of levels	Ensures correct HU structure
Target Qty	Planned HU quantity	Used in packing calculation	Optional
Min. Qty	Minimum HU quantity	Prevent underfilling	Optional
Layer Qty	Quantity per layer	Relevant for layered HUs	Optional
Qty Classific.	Quantity classification	Optional reporting / grouping	Optional
HU Type	Handling Unit Type	Must exist in EWM config	Defines packaging unit
Rnd-Up Lim.(%PckSze)	Upper rounding %	Rounding up limit	Optional
Rnd-D. Lim.(%PckSze)	Lower rounding %	Rounding down limit	Optional
Minimum Pack Size	Minimum HU size	Ensures operational feasibility	Optional
Total Weight	Gross weight of HU	Sum of product + packaging	Used for storage & transport

Loading Weight	Max allowed HU weight	Safety limit	Optional
Weight Unit	Unit of measure	kg/lb, must match config	Mandatory
HU Tare Weight	Packaging weight	Used for net/gross weight	Mandatory for accuracy
Total Volume	HU volume	Storage & stacking	m³ / l
Loading Volume	Max allowed volume	Operational limit	Optional
Volume Unit	Unit for volume	m³ / l	Mandatory if volume used
Total Capacity	Total HU capacity	Qty or volume	Optional
Net Capacity	Net HU capacity	Quantity minus tare	Optional
Tare Cap.	Capacity of packaging	Optional	Optional
Length	HU length	Physical dimension	cm / m
Width	HU width	Physical dimension	cm / m
Height	HU height	Physical dimension	cm / m
Maximum Weight	Max HU gross weight	Operational constraint	Optional
Excess Wgt Tolerance	Allowed overweight	Optional	Optional
Tare Wt Var.	Variance of tare weight	Optional	Optional
Max. Volume	Max HU volume	Operational constraint	Optional
Excess Volume Tol.	Allowed overfill	Optional	Optional
Closed Pack. Max. Capacity	Max for closed pack HU	Optional	Optional
Excess Cap. Tol.	Overcapacity tolerance	Optional	Optional
Max. Length	Max HU length	Operational limit	Optional
Max. Width	Max HU width	Operational limit	Optional
Max. Height	Max HU height	Operational limit	Optional
Unit of Measure	UoM for HU	Mandatory	Must align with quantity fields
Minimum Volume	Min volume HU	Operational limit	Optional
Minimum Weight	Min HU weight	Operational limit	Optional
Min. Capacity	Minimum HU capacity	Optional	Optional
Operative UoM	Operational UoM	Mandatory for calculations	Optional if system-calculated
Weight Man.	Manual weight entry	Overrides system	Optional
Volume Man.	Manual volume entry	Overrides system	Optional
Dim. Man.	Manual dimensions	Overrides system	Optional
Capa. Man.	Manual capacity	Overrides system	Optional
Performing Ent.	Responsible entity	Optional	Optional
Print Long Text	Print long text on HU label	Optional	Optional
HU Crea.	Indicator for HU creation	Y/N	Must align with EWM process
External Step Fill Up	External step flag	Optional	Optional
BAND_RND_UP	Upper rounding band	Advanced rounding	Optional
BAND_RND_DOWN	Lower rounding band	Advanced rounding	Optional
BAND_RND_NEAREST	Nearest rounding band	Advanced rounding	Optional
Product HU Relevance	Indicates if product relevant for HU	Optional	Optional
Unit Quantity	Quantity per HU unit	Duplicate of Product Unit Quantity?	Optional, check mapping
Elem. Seq. No.	Element sequence number	For condition logic	Optional
Element Type	Type of element (Qty, Weight, Volume)	Optional	Optional
Work Step	Packing step	Optional	Optional
Elem. Group	Element group	Optional	Optional
Cond.Table	Condition table reference	For advanced logic	Optional

Condition Type	Type of condition (max, rounding, etc.)	Optional	Optional
Valid From	Condition valid from	Mandatory	Mandatory
Valid To	Condition valid to	Mandatory	Mandatory
Condition Seq.	Sequence of condition	Optional	Optional
Log. Condition	Logical condition (AND/OR)	Optional	Optional

The template for the load file is attached below.

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
1	Capture the data for packaging specifications in DCT. Review and correct any errors if bulk uploading data via downloaded excel DCT template.	Business team
2	Ensure the mapping tables which are needed during transformation have been reviewed and signed off by business.	Business team, Data Team (SCM)
3	Obtain DCT Sign-off from Business	Data Team (SCM)

4	Generate Pre-Load reports	Data Team (Syniti)
5	Review and Validate Error and Preload Reports	Data Team (SCM)
6	Log errors as defects, if any and address resolutions.	Data Team (SCM)
7	Re-transform and re-validate the Pre-load reports if necessary.	Data Team (SCM), Data Team (Syniti)
8	Obtain preload validation sign-off from Business	Business + Functional (SCM) + Data Team (SCM)
9	Generate Load Files	Data Team (Syniti)

Transformation Rules

DCT Field / Conversion Spec	SAP EWM Field / Table	Direct Mapping	Notes
Pack. Spec. Description	PNODTX-PNTEXT	Yes	Direct text description
Pack. Spec. Group	/SCWM/PNPAKH-PS_GROUP	Yes	Maps to PS Group in EWM
Level Set	/SCWM/PNPAKH-LEVEL_SET	Yes	Logical grouping of levels
CREATED_BY	/1CN/CPSSAPBDL01-CREATED_BY	Yes	User who created record
CREATED_AT	/SCWM/PNPAKH-ACTIVATE_TIME	Yes	Maps to activation timestamp
ORIG_SYSTEM	PNODID-LOGSYS	Yes	Logical system reference
Rounding Method	/SCWM/PNPAKH-ROUNDING_GOAL	Yes	Direct mapping
Upper Rnd.Lmt(D.Qty)	/SCWM/PNPAKH-BAND_UP_REL	Yes	Upper rounding limit in %
Lower Rnd.Lmt(D.Qty)	/SCWM/PNPAKH-BAND_DN_REL	Yes	Lower rounding limit in %
Up. Limit (%MnthDem)	/SCWM/PNPAKH-BAND_UP_REL_MU	Yes	Upper limit as % monthly demand
Low. Limit (%MthDem)	/SCWM/PNPAKH-BAND_DN_REL_MU	Yes	Lower limit as % monthly demand
Ref. Mix Allowed	/SCWM/PVPAKC-REFMIX	Yes	Boolean flag
Batch Mix Allowed	/SCWM/PVPAKC-BATCHMIX	Yes	Boolean flag
Product ID	/SCWM/PVPAKC-MATID	Yes	Material number
Product Unit Quantity	/SCWM/PVPAKC-QUAN	Yes	Quantity per HU
Base Unit	/SCWM/PVPAKC-QUAN	Yes	Base quantity (UoM alignment)
Length	J_7LV05-LAENG	Yes	Physical dimension
Width	J_7LV05-BREIT	Yes	Physical dimension
Height	J_7LV05-HOEHE	Yes	Physical dimension
Total Volume	J_7LV01-VOLUM	Yes	Volume in m³/l
Gross Weight	SGT_MARM-BRGEW	Yes	Gross weight of HU
Net Weight	SGT_MARM-NTGEW	Yes	Net weight of HU
Capacity Usage	/SCWM/GMHUITM-CAPA	Yes	HU capacity usage
Level Type	/SCWM/PAPAK-LEVEL_TYPE	Yes	Type of packing level
Level Seq. No.	/SCWM/PAPAK-DISPLAY_SEQ	Yes	Sequence within level
HU Creation	/SCWM/PAPAK-HU_CREATE	Yes	Y/N for automatic HU creation
Target Qty	/SCWM/PAPAK-TRGQTY	Yes	Target quantity per HU
Min. Qty	/SCWM/PAPAK-MINQTY	Yes	Minimum quantity per HU
Elem. Group	/SCWM/PAPAK-ELEMENTGROUP	Yes	Element grouping
Element Type	/SCWM/PVPAKL-ELEMENT_TYPE	Yes	Type of element (qty, weight, volume)
Pack. Material	/SCWM/PVPAKL-MATID	Yes	Packaging material number
Quantity	/SCWM/PVPAKL-QUAN	Yes	Quantity per element

HU Relevance	/SCWM/PVPAKL-HURELEVANT	Yes	Boolean relevance for HU
Work Step	/SCWM/S_PS_ELEMENT_INT-WORKSTEP_ID	Yes	Process step reference
HU Tare Weight	/SCWM/PAPAK-T_WEIGHT	Yes	Tare weight of HU
Maximum Weight	/SCWM/PAPAK-MAX_WEIGHT	Yes	Operational maximum weight
Loading Weight	/SCWM/PAPAK-N_WEIGHT	Yes	Loading weight
Total Weight	/SCWM/PAPAK-G_WEIGHT	Yes	Total gross weight
Minimum Weight	/SCWM/PAPAK-MIN_WEIGHT	Yes	Minimum HU weight
Tare Volume	/SCWM/PAPAK-T_VOLUME	Yes	Volume of packaging alone
Max. Volume	/SCWM/PAPAK-MAX_VOLUME	Yes	Maximum HU volume
Loading Volume	/SCWM/PAPAK-N_VOLUME	Yes	Volume used for loading
Total Volume	/SCWM/PAPAK-G_VOLUME	Yes	Total volume of HU
Min. Volume	/SCWM/PAPAK-MIN_VOLUME	Yes	Minimum volume allowed
Excess Weight Tolerance	/SCWM/PAPAK-TOLW	Yes	Allowed over weight HU
Excess Volume Tolerance	/SCWM/PAPAK-TOLV	Yes	Allowed over volume HU
Enter Weight Manually	/SCWM/PAPAK-FLAG_WEIGHT	Yes	Y/N manual entry override
Enter Vol. Manually	/SCWM/PAPAK-FLAG_VOL	Yes	Y/N manual entry override
Closed Packaging Material	/SCWM/PAPAK-CLOSED_PACKAGE	Yes	Closed pack indicator
Enter Dim. Manually	/SCWM/PAPAK-FLG_DIM	Yes	Y/N override
Length	/SCWM/PAPAK-LENGTH	Yes	Physical dimension
Width	/SCWM/PAPAK-WIDTH	Yes	Physical dimension
Height	/SCWM/PAPAK-HEIGHT	Yes	Physical dimension
Max Length	/SCWM/PAPAK-MAX_LENGTH	Yes	Maximum allowed HU length
Max Width	/SCWM/PAPAK-MAX_WIDTH	Yes	Maximum allowed HU width
Max Height	/SCWM/PAPAK-MAX_HEIGHT	Yes	Maximum allowed HU height
Enter Capa. Manually	/SCWM/PAPAK-FLAG_CAPA	Yes	Manual capacity override
Tare Capacity	/SCWM/PAPAK-T_CAPA	Yes	Tare capacity
Max. Capacity	/SCWM/PAPAK-MAX_CAPA	Yes	Max HU capacity
Net Capacity	/SCWM/PAPAK-N_CAPA	Yes	Net capacity
Total Capacity	/SCWM/PAPAK-G_CAPA	Yes	Total capacity HU
Min. Capacity	/SCWM/PAPAK-MIN_CAPA	Yes	Minimum HU capacity
Excess Cap. Tol.	/SCWM/PAPAK-TOLC	Yes	Allowed overcapacity
Performing Ent.	/SCWM/PAPAK-PERFORMER	Yes	Responsible entity
Qty Classific.	/SCWM/PAPAK-QUANCLA	Yes	Classification
Handling Unit Type	/SCWM/PAPAK-HUTYP	Yes	HU Type
Operative UoM	/SCWM/PAPAK-OPERAT_UNIT	Yes	Operational UoM
External Storage Process Step	/SCWM/PAPAK-PROCS	Yes	Process step mapping
Minimum Allowed Pack Size	/SCWM/PAPAK-FLG_MINIMUM_PS	Yes	Minimum pack size indicator
Round-Up Limit	/SCWM/PAPAK-BAND_UP_REL_PS	Yes	Rounding up in % of pack size
Round-Down Limit	/SCWM/PAPAK-BAND_DN_REL_PS	Yes	Rounding down in % of pack size
Print Long Text	/SCWM/PAPAK-PRINT_LTEXT	Yes	Long text printed on HU

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
1	Ensure DCT tables completeness	Data Team (SCM)
2	Value Mappings are according to the latest design	Functional Team (SCM) + Data Team (SCM)
3	SAP Packaging specification is complete	Functional Team (SCM)
4	Dependent Master Data records are loaded	Functional Team (SCM) + Data Team (SCM)

Pre-Load Validation

Project Team

Completeness

Task	Action
Check Values	Validate the pre-load data confirming the values are aligned with target system format
Validate template structure and required field population	Ensure mandatory fields are filled
Verify Record Count	SCM Data Team to verify that the total number of relevant records from the DCT is equal to the total number of records in the Preload and Load Sheets.

Accuracy

Task	Action
Conversion Accuracy	SCM Data Team to verify that all fields below meet pass the checks: 1. Mandatory Fields 2. Field and Value Mapping Correctness 3. Null Checks 4. Text Length Checks
Perform format validation (date, currency, decimal separators)	Standardize format to match SAP accepted input (e.g., YYYYMMDD for dates), cubic volume, weight etc
Review Error Reports	Review and correct the errors. Achieve a zero-error record count as much as possible. Raise defects for data remediated and requiring a correction in the source data.
Conduct dry runs using LTMC or BAPIs and review logs	Analyze load results and correct format or conversion errors

Business

Completeness

Task	Action
Verify Record Count	Business Data Owner/s to verify that the total number of relevant records from the the DCT is equal to the total number of records in the Preload validation file.

Accuracy

Task	Action
Conversion Accuracy	Business Data Owner/s to verify that all the data in the preload validation file is accurate as per endorsed transformation /mapping rules (and signed-off DCT data). Review error reports in tool for any mismatch or missing transformed values.

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

Step	Activity	Responsible Team
1	Ensure the load tools (e.g., conversion templates, migration objects) are transported into the correct system/instance.	Data Team (SCM)
2	Ensure Pre-load sign-offs are obtained from relevant stakeholders.	Data Team (SCM)
3	Execute upload of the DCT directly using **standard transaction `/SCWM/IPU`**.	Data Team (SCM)
4	Validate a few records by accessing standard S/4HANA transactions to ensure data accuracy.	Data Team (SCM)
5	Generate post-load reports from the tool to confirm successful uploads.	Data Team (SCM), Data Team (Syniti)
6	Log any errors as defects; address and resolve issues. Close defects after resolution.	Data Team (SCM)
7	If defects were corrected, re-upload the affected data and regenerate post-load reports as required.	Data Team (SCM), Data Team (Syniti)
8	Business team to validate post-load files, raise data defects if any, or provide post-load sign-off.	Business Team
9	Repeat post-load report generation and defect resolution (Steps 5–7) if necessary.	Data Team (SCM), Data Team (Syniti)

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	Description	Probable Cause	Suggested Resolution
Configuration Error	Invalid or missing EWM configuration required for pack spec upload	Required configuration (e.g., HU types, pack spec groups, level sets) missing or inactive in target system	Ensure all prerequisite configuration exists and is active (HU types, pack spec groups, level sets, rounding settings)
Formatting Error	Key fields such as Product ID, Pack Spec ID, Level Seq, HU Type incorrectly formatted	Data in DCT does not match SAP field specifications (length, numeric vs. alphanumeric, UoM mismatch)	Correct DCT formatting; verify units of measure, numeric fields, and field lengths against SAP master data
Authorization Error	Lack of access to execute `/SCWM/IPU` load or modify packing spec	Executing user lacks roles/authorizations	Assign required SAP roles to executing user; validate access in target client
Transformation Miss	Mandatory transformation logic not applied before load	E.g., rounding rules, weight/volume conversions, or level sequence mapping missing	Apply transformation logic (if any) before upload; ensure all mandatory fields populated according to mapping
Technical Load Failure	DCT file not processed due to syntax error or system issue	System downtime, incorrect file encoding, missing headers, or temporary SAP error	Verify DCT integrity (CSV or Excel format), correct any syntax issues, and re-execute upload; check `/SCWM/IPU` logs
Data Inconsistency	Missing or invalid references in the DCT	Product IDs, HU Types, or Level Sets do not exist in EWM/S/4HANA	Validate all master data exists in target system; correct DCT references
Duplicate Entry	Pack Spec ID or Level Sequence already exists in target system	Same pack spec uploaded previously or duplicate records in DCT	Remove duplicates or adjust sequence numbers before re-upload
Missing Mandatory Field	Required DCT field not populated	Mandatory fields such as Pack Spec Description, HU Type, Level Type, Target Qty, or Min Qty are blank	Populate all mandatory fields per mapping table; validate before upload
Rounding / Limit Errors	Upper/Lower rounding limits, min/max quantities, or weight/volume thresholds invalid	Incorrect percentage values or inconsistent quantity/weight units	Verify rounding limits and capacity fields; ensure co

Post-Load Validation

Project Team

Completeness

Run Fiori app/tcode to check loaded data in SAP	Run Packspec transaction to check if data has been loaded
Compare uploaded data against source file values	Use Custom reconciliation tools e.g. SQL Server or Excel based comparison tools to validate the number of records loaded against the load file record volume
Check for load errors in load tool	Review custom load tool or Legacy Transfer Migration Cockpit LTMC logs for any failures

Accuracy

Task	Action
Compare uploaded data against source file values	Use automated postload validation report or standard reports from S/4 HANA to validate field by field value match across all loaded records

Business

Completeness

Task	Action
Verify Count	Download Postload validation reports from Syniti and verify that the record count loaded in the target S/4 HANA is the same count as of the endorsed load file
Review loaded Transportation lanes	Access the S/4HANA system to view loaded packaging specification

Accuracy

Task	Action
Compare Against Approved Load File	Cross-check data in S/4HANA against the final business-approved load file used for migration
Validate Accuracy of Converted/Transformed Data	Review any transformed fields (e.g., business partner number) for correctness
Log and Report Discrepancies	Use provided discrepancy log format or defect management tool to report any findings

Key Assumptions

- Master Data Standard is up to date as on the date of documenting this conversion approach and data load.
- Packaging specification is in scope based on data design and any exception requested by business.
- Data entries in DCT are target-ready data unless a specific transformation rule is stated for that field in the transformation rules.
- The list of validation checks in transformation section is not exhaustive and may change over time as the design and configuration of the system evolves.

See also

Change log

Version	Published	Changed By	Comment
CURRENT (v. 12)	**Dec 10, 2025 08:22**	**HASSAN-ext, Shamir**	
v. 11	Dec 10, 2025 08:21	**HASSAN-ext, Shamir**	
v. 10	Nov 26, 2025 09:43	**HASSAN-ext, Shamir**	
v. 9	Nov 18, 2025 22:57	**HASSAN-ext, Shamir**	

v. 8	Nov 18, 2025 22:50	**HASSAN-ext, Shamir**
v. 7	Nov 17, 2025 09:43	**DEVRAJ-ext, illayaraja**
v. 6	Nov 05, 2025 07:56	**HASSAN-ext, Shamir**
v. 5	Oct 24, 2025 06:48	**HASSAN-ext, Shamir**
v. 4	Oct 24, 2025 06:44	**HASSAN-ext, Shamir**
v. 3	Oct 23, 2025 08:46	**HASSAN-ext, Shamir**

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Workflow history

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