

CNV-1070 Fixed Assets (incl. Sub Assets)

| | |
|---------------------|---|
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Purpose

The purpose of this document is to define the conversion approach to create Bill of Material (Usage = 4 (Plant Maintenance BOM) in S/4 HANA.

In Syensqo's SAP S/4HANA environment, the Plant Maintenance Bill of Materials (BOM) defines the structured list of components required to perform a specific maintenance task or build an assembly. Each BOM represents a hierarchical breakdown of items - materials, assemblies, or parts - along with their respective quantities and usage context.

In the maintenance and asset management domain, three types of BOMs are utilized:

- Functional Location BOM – Linked to a specific technical location, outlining the parts typically required for maintenance activities at that location.
- Equipment BOM – Associated with a particular equipment asset, detailing spare parts and components relevant to its structure or maintenance.
- Material BOM – Tied to a material number, commonly used in manufacturing or for assemblies that are consumed or produced.

For rotatable materials—such as repairable or reusable components—always refer to the corresponding Equipment or Functional Location Bill of Materials (BOM). Only components that are specific to that individual Equipment or Functional Location and not commonly used across other similar assets, should be included. This ensures that the BOM accurately reflects asset-specific configurations and supports targeted maintenance planning.

Conversion Scope

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

A Bill of Materials (BOM) is a structured list of components, spare parts, or assemblies required for maintenance activities on technical objects like equipment or functional locations. It helps streamline maintenance planning, spare parts procurement, and work order execution.

The data from legacy system includes:

1. BOM Category (STKO-STLTY):
 - a. E-Equipment BOM (EQST-EQUNR) for relevant Equipment
 - b. M-Material BOM (MAST-MATNR) for relevant Assembly
 - c. T-Functional Location BOM (TPST-TPLNR) for relevant Functional Location where the To-Be Category (IFLOT-FLTYP) = "A" and EquipmentInstallationIsAllowed (ILOA-IEQUI) = "X"
2. BOM Usage (EQST-STLAN/MAST-STLAN/TPST-STLAN) = Plant Maintenance
3. BOM Item Category (STPO-POSTP) = I (Assembly) , L (Stock Material) or N (Non-Stock Material)
4. Material BOM with the latest Alternative BOM (MAST-STLAL), if multiple alternative BOMs exist
5. BOM Component (STPO-IDNRK) for relevant Material / Assembly
6. BOM Component (STPO-IDNRK) for non-Assembly is extended to the relevant plant based on the BOM Header Plant (TPST-WERKS/EQST-WERKS/MAST-WERKS)
 - For the relevant plants in scope, refer to Value Mapping: Plant (Maintenance Plant = Yes)
7. BOM Component (STPO-IDNRK) for non-Assembly, only Material Type (MARA-MTART) with the following to-be values based on Material Type Mapping:
 - ZIND (Indirect Materials)
 - NLAG (Non-Stock Material)
 - UNBW (Non-Valuated Material)

The data from legacy system excludes:

1. BOM with BOM Item where there is no relevant Material / Assembly in the Component field (STPO-IDNRK)
2. BOM where the BOM Header (MAST-MATNR) is Assembly (Material with Material Type relevant for Assembly) and all the BOM items (STPO-IDNRK) are Assembly (Material with Material Type relevant for Assembly)
3. BOM Header with deletion indicator checked (STKO-LKENZ="X")
4. BOM Header with deletion flag checked (STKO-LOEKZ="X")
5. BOM Item with deletion indicator checked (STPO-LKENZ="X")
6. Previous Alternative BOM (MAST-STLAL) for Material BOM with more than one Alternative BOM

For further explanation, a Material BOM for relevant Assembly excludes BOM Assembly Header (MAST-MATNR) that are not assigned to Functional Location (IFLOT-SUBMT), Equipment (EQUZ=SUBMT) or Task List (PLKO-ISTRU).

The following are not in scope for BOM Conversion:

1. Document Info Record
2. Long Text
3. BOM Item Category T (Text Item)

List of Tables to extract for this object is maintained here: [Extract Table Register](#).

Scenarios for Migration from Legacy (PF2,WP2)

| Scenario | Legacy | To-Be Approach |
|----------|---|---|
| 1 | Functional Location BOM or Equipment BOM with at least 1 BOM Component which has relevant Material (not Assembly). | Migrate BOM as-is, with the legacy values mapped to the to-be values. |
| 2 | Material BOM (where Header is relevant Assembly) and the Assembly is assigned to relevant Functional Location / Equipment / Task List. There is at least 1 BOM Component which has relevant Material (not Assembly). | <ol style="list-style-type: none"> 1. Migrate BOM as-is. (The Assembly in the BOM Header is migrated as a Sub Assembly. A new Construction Type is created in the Construction Type DCT) and assigned to the Functional Location / Equipment / Task List. 2. Create a new BOM in the BOM DCT with the Construction Type (above) as the BOM Header and Sub Assembly (above) as the BOM Item. |
| 3 | <p>Material BOM (where Header is relevant Assembly) and the Assembly is a sub-item of another BOM. There is at least 1 BOM Component which has relevant Material (not Assembly)</p> <p>This BOM is a sub item of another BOM, and the top level BOM is assigned to relevant Functional Location / Equipment / Task List.</p> <p><u>Example:</u></p> <p>BOM Level 1 > Assigned to relevant Functional Location</p> <p>BOM Level 2 > BOM Header and BOM Components are Assembly</p> <p>...</p> <p>Lowest Level BOM > BOM Header is Assembly, BOM Component is relevant Material</p> | <ol style="list-style-type: none"> 1. A new Construction Type is created in the Construction Type DCT) and assigned to the Functional Location / Equipment / Task List. 2. Create a new BOM in the BOM DCT with the lowest level BOM - Sub Assembly as the BOM Header 3. Create a new BOM in the BOM DCT with the Construction Type (above) as the BOM Header and Sub Assembly (above as the BOM Item. <p><u>Notes:</u></p> <p>To-Be Design of BOM only allows maximum 3 levels of BOM:</p> <ol style="list-style-type: none"> 1. Level 1 - Construction Type 2. Level 2 - Sub Assembly 3. Level 3 - Material (Stocked / Non-Stocked) |
| 4 | <p>Material BOM (where Header is Material with Material Type relevant for Assembly) and the Assembly is a sub-item of another BOM. There is at least 1 BOM Component which has relevant Material (not Material Type relevant for Assembly)</p> <p>This BOM is a sub item of another BOM, however the top level BOM is not assigned to relevant Functional Location / Equipment / Task List.</p> <p><u>Example:</u></p> <p>BOM Level 1 > Not assigned to relevant Functional Location / Equipment / Task List</p> <p>BOM Level 2 > BOM Header and BOM Components are Assembly (Material with Material Type relevant for Assembly)</p> <p>...</p> <p>Lowest Level BOM > BOM Header is Assembly, BOM Component is relevant Material</p> | <p>BOM and all levels of BOMs are not relevant for migration.</p> <p>If required, Level 1 BOM Header needs to be assigned to a relevant Functional Location / Equipment / Task List.</p> |
| 5 | Material BOM (where Header is Assembly - Material with Material Type relevant for Assembly) and the Assembly is not assigned to Functional Location / Equipment / Task List. | <p>BOM is not relevant for migration.</p> <p>If required, BOM Header needs to be assigned to a relevant Functional Location / Equipment / Task List.</p> |

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 | Relevant BOM will be extracted from PF2 and WP2 | 10,000 | S/4 HANA | 10,000 |
| DCT | BOM for plants which do not have data existing from PF2 and PF2 Additional BOM originating from PF2 and WP2 (if required). | 10,000 | S/4HANA | 10,000 |

Additional Information

Multi-language Requirement

BOM does not have multi language support. BOM texts will be migrated using EN logon using desired language i.e User log on language (ie based on language assigned to the BOM Plant).

Document Management

Not Applicable

Legal Requirement

Not Applicable

Special Requirements

Not Applicable

Target Design

The technical design of the target for this conversion approach.

1. BOM Header

| Table | Field | Data Element | Field Description | Data Type | Length | Requirement |
|---|-------|--------------|-------------------------|-----------|--------|---------------------------------------|
| Fields specific to Functional Location BOM | | | | | | |
| TPST | TPLNR | TPLNR | Functional Location | CHAR | 30 | Mandatory for Functional Location BOM |
| TPST | WERKS | WERKS_D | Plant | CHAR | 4 | Mandatory for Functional Location BOM |
| TPST | STLAN | STLAN | BOM Usage | CHAR | 1 | Mandatory for Functional Location BOM |
| Fields specific to Equipment BOM | | | | | | |
| EQST | EQUNR | EQUNR | Equipment | CHAR | 18 | Mandatory for Equipment BOM |
| EQST | WERKS | WERKS_D | Plant | CHAR | 4 | Mandatory for Equipment BOM |
| EQST | STLAN | STLAN | BOM Usage | CHAR | 1 | Mandatory for Equipment BOM |
| Fields specific to Material BOM | | | | | | |
| MAST | MATNR | MATNR | Material Number | CHAR | 40 | Mandatory for Material BOM |
| MAST | WERKS | WERKS_D | Plant | CHAR | 4 | Mandatory for Material BOM |
| MAST | STLAN | STLAN | BOM Usage | CHAR | 1 | Mandatory for Material BOM |
| Generic fields for BOM Header | | | | | | |
| STKO | DATUV | DATUV | Valid-From Date | DATS | 8 | Mandatory |
| STKO | BMENG | BASMN | Base quantity | QUAN | 13 | Mandatory |
| STKO | STLST | STLST | Bill of Material Status | CHAR | 2 | Mandatory |
| STZU | ZTEXT | CSTEXT | BOM Description | CHAR | 40 | Mandatory |

2. BOM Item

| Table | Field | Data Element | Field Description | Data Type | Length | Requirement |
|-------|-------|--------------|-------------------|-----------|--------|-------------|
|-------|-------|--------------|-------------------|-----------|--------|-------------|

| Fields specific to Functional Location BOM | | | | | | |
|--|-------|----------|------------------------------------|------|----|--|
| TPST | TPLNR | TPLNR | Functional Location | CHAR | 30 | Mandatory for Functional Location BOM Key to link to BOM Header |
| TPST | WERKS | WERKS_D | Plant | CHAR | 4 | Mandatory for Functional Location BOM Key to link to BOM Header |
| Fields specific to Equipment BOM | | | | | | |
| EQST | EQUNR | EQUNR | Equipment | CHAR | 18 | Mandatory for Equipment BOM Key to link to BOM Header |
| EQST | WERKS | WERKS_D | Plant | CHAR | 4 | Mandatory for Equipment BOM Key to link to BOM Header |
| Fields specific to Material BOM | | | | | | |
| MAST | MATNR | MATNR | Material Number | CHAR | 40 | Mandatory for Material BOM Key to link to BOM Header |
| MAST | WERKS | WERKS_D | Plant | CHAR | 4 | Mandatory for Material BOM Key to link to BOM Header |
| Generic Fields for BOM Item | | | | | | |
| STPO | POSNR | SPOSN | BOM Item Number | CHAR | 4 | Mandatory |
| STPO | POSTP | POSTP | Item category (Bill of Material) | CHAR | 1 | Mandatory |
| STPO | IDNRK | IDNRK | BOM component | CHAR | 40 | Mandatory |
| STPO | MENGE | KMPMG | Component Quantity | QUAN | 13 | Mandatory |
| STPO | MEINS | KMPME | Component Unit of Measure | UNIT | 3 | Mandatory |
| STPO | POTX1 | POTX1 | BOM Item Text (Line 1) | CHAR | 40 | Conditional |
| STPO | POTX2 | POTX2 | BOM Item Text (Line 2) | CHAR | 40 | Conditional |
| STPO | SANKA | CS_SANKA | Indicator for Relevancy to Costing | CHAR | 1 | Mandatory |
| STPO | STKKZ | STKKZ | PM assembly indicator | CHAR | 1 | Conditional |

Data Cleansing

| ID | Criticality | Error Message/Report Description | Rule | Output | Source System |
|----------|-------------|---|--|--|---------------|
| 1001-001 | C1 | Relevant BOM Component Quantity is Zero or Negative. | Relevant Bill of Material with BOM Item where the Material is not blank and Quantity <= 0. | BOM Header, Plant, BOM Item Number, Material, Component Quantity | PF2/WP2 |
| 1001-002 | C3 | No Component linked to Bill of Material. These BOMs are not relevant for migration. | Bill of Material whereby there is no BOM Item with relevant Material / Assembly as BOM Component. | Functional Location, Equipment, Material, Plant, BOM Category, Usage, Item Number, Item Category, Material Number, Quantity, Document Type Document Part, Document Version, Document Number, Item Text 1, Item Text 2. | PF2/WP2 |
| 1001-003 | C3 | Relevant BOM with BOM Component which is not relevant. These BOMs are migrated but the selected components are not relevant for migration. | Relevant Bill of Material whereby the BOM Component is a Material which is not relevant for migration. | Functional Location, Equipment, Material, Plant, BOM Category, Usage, Item Number, Item Category, Material Number, Quantity | PF2/WP2 |
| 1001-004 | C3 | Relevant BOM with BOM Component where Material is not extended to the BOM Header plant. | Relevant Bill of Material whereby the BOM Component is a Material not extended to the BOM Header Plant. | Functional Location, Equipment, Material, Plant, BOM Category, Usage, Item Number, Item Category, Material Number, Quantity | PF2/WP2 |
| 1001-005 | C3 | Functional Location BOM assigned to non-relevant Functional Location (based on Category and Equipment Installation check). These BOMs are not relevant for migration. | Bill of Material for relevant Plant with BOM Category (T-Functional Location) and with no Deletion Indicator but are assigned to non relevant Functional Location. | Functional Location, Plant, BOM Category, Usage | PF2/WP2 |

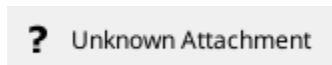
| | | | | | |
|----------|----|--|---|---|----------|
| 1001-006 | C3 | Equipment BOM assigned to non-relevant Equipment. These BOMs are not relevant for migration. | Bill of Material for relevant Plant with BOM Category (E-Equipment) and with no Deletion Indicator but are assigned to non relevant Equipment. | Equipment, Plant, BOM Category, Usage | PF2/WP2 |
| 1001-007 | C3 | Relevant Functional Location BOM with blank Plant. For these BOMs, the Plant will be defaulted from the Functional Location Plant. | Bill of Material with BOM Category (T-Functional Location) assigned to relevant Functional Location with blank Plant | Functional Location, FL Plant, BOM Category, Usage | PF2/WP2 |
| 1001-008 | C3 | Relevant Equipment BOM with blank Plant. For these BOMs, the Plant will be defaulted from the Equipment Plant. | Bill of Material with BOM Category (E-Equipment) assigned to relevant Equipment with blank Plant | Equipment, EQ Plant, BOM Category, Usage | PF2/WP2 |
| 1001-009 | C3 | Material BOM with previous Alternative BOM are not relevant for migration. | Bill of Material with BOM Category (M-Material) for relevant plant with more than 1 Alternative BOM, report all the previous Alternative BOM except for the latest | Material, Plant, BOM Category, Usage, Alternative BOM | PF2,WP2 |
| 1001-010 | C3 | Material BOM with at least one BOM Item with Stocked / Non-Stocked Material whereby the Header Material is not a relevant Assembly. These BOMs are not relevant for migration. | Bill of Material with BOM Category (M-Material) for relevant plant with 1 or more Stocked / Non-Stocked Material whereby the Header Material is not a relevant Assembly | Material, Plant, BOM Category, Usage, Alternative BOM, Item Number, Item Category, Material Number, Quantity | PF2, WP2 |
| 1001-011 | C3 | Relevant BOM with BOM Item Category D (Document Item). These BOMs are migrated but the selected Document Items are not relevant for migration. | Bill of Material whereby the BOM Item is a Document Item and not relevant to be migrated. | Functional Location, Equipment, Material, Plant, BOM Category, Usage ,Item Number, Item Category, Material Number, Quantity, Document Type Document Part, Document Version, Document Number | PF2/WP2 |
| 1001-012 | C3 | Relevant BOM with BOM Item Category T (Text Item). These BOMs are migrated but the selected Text Items are not relevant for migration. | Bill of Material whereby the BOM Item is a Text Item and not relevant to be migrated. | Functional Location, Equipment, Material, Plant, BOM Category, Usage,Item Number, Item Category, Material Number, Quantity, Item Text 1, Item Text 2 | PF2/WP2 |

Note: List of Cleansing is maintained here: [Conversion Specs Register \(DCT & Cleansing Report\)](#)

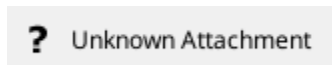
Conversion Process

The high-level process is represented by the diagrams below.

The following represents the high-level process for Source System Extraction:



The following represents the high-level process for DCT:



Collection will be done manually in the Data Collection Template for the following scenarios:

- For sites not on SAP-PF2 or WP2 systems
- For new BOMs that need to be created to support the to-be design

Data Privacy and Sensitivity

Not Applicable.

Extraction

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

1. The data exists. Syniti Migrate connects to the source and loads the data into Syniti Migrate. 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 Syniti Migrate 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 Syniti Migrate. This is to be conducted using DCT (Data Collection Template) in Syniti Migrate

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 |
|-------|--|------------------|
| 1 | Extract data from source system based on relevancy rule. | SyWay Data Team |

Selection Screen

| Selection Ref Screen | Parameter Name | Selection Type | Requirement | Value to be entered/set |
|----------------------|----------------|----------------|-------------|-------------------------|
| Not Applicable | | | | |

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.

Delta Data Management: Initial collection will be done via the report and one-time load to the DCT will be performed. Any delta after the initial collection within the DCT will require business to take due diligence to ensure any subsequent delta cleansing is verified and aligned within the DCT.

Note: All rules specified below should be documented as a **tooltip** in the DC Page.

Format:

- **Line 1:** Mandatory / Conditional
- **Line 2:** Remaining text

1. BOM Construction Rules

| Field Name | Field Description | Rule |
|---|------------------------|--|
| Fields specific to Functional Location BOM | | |
| TPLNR | Functional Location | Mandatory for Functional Location BOM FL BOMs can only be created for relevant FL with category 'A' where Equipment Installation allowed Flag is Not Checked. |
| Fields specific to Equipment BOM | | |
| EQUNR | Equipment | Mandatory for Equipment BOM Must be relevant Equipment |
| Fields specific to Material BOM | | |
| MATNR | Material Number | Mandatory for Material BOM Must be a relevant Assembly |
| Generic fields for BOM | | |
| WERKS | Plant | Mandatory for Material BOM Allowed values: List from Value Mapping - Plant where Maintenance Plant = Yes |
| BMENG | Base quantity (Header) | Mandatory Must be non-0 positive numeric value. If the user does not provide a value, this will be defaulted to "1" |

| | | |
|-------|----------------------------------|---|
| ZTEXT | BOM Description | Mandatory If the user does not provide a value, <ul style="list-style-type: none"> • For Material BOM - Assembly Description will be the BOM Description • For Equipment BOM - Equipment Description will be the BOM Description • For Functional Location BOM - Functional Location Description will be the BOM Description |
| POSNR | BOM Item Number | Mandatory Numbers must be in sequential order (eg: 0010, 0020, 0030 ...) If the numbers provide are not in the required sequential order, this will be overwritten during data migration. |
| POSTP | Item category (Bill of Material) | Mandatory Allowed values: L (Stock Item), N (Non Stock Item), I (Material is Assembly) |
| IDNRK | BOM component | Mandatory Must be relevant Assembly / Material. <ol style="list-style-type: none"> 1. Duplication of BOM Component not allowed 2. To be populated based on the Item Category: <ul style="list-style-type: none"> • L - Material Type ZIND, UNBW • N - Material Type NLAG • I - Material Type IBAU (Assembly) with Sub Assembly Characteristics = "Yes" |
| MENGE | Component Quantity | Mandatory Must be non-0 positive numeric value. |
| MEINS | Component Unit of Measure | Non-Editable To display the S4 Unit of Measure of the selected BOM Component |
| POTX1 | BOM Item Text (Line 1) | Conditional Free Text |
| POTX2 | BOM Item Text (Line 2) | Conditional Free Text |

Note: List of DCTs is maintained here: [Conversion Specs Register \(DCT & Cleansing Report\)](#).

Extraction Dependencies

| Item # | Step Description | Team Responsible |
|--------|--|-------------------------|
| 1 | Relevancy Criteria for Functional Location | SyWay A2D Data Team |
| 2 | Relevancy Criteria for Equipment | SyWay A2D Data Team |
| 3 | Relevancy Criteria for PM Assembly / Construction Type | SyWay A2D Data Team |
| 4 | Relevancy Criteria for Material Master (Basic Data View) | SyWay S2P Data Team |
| 5 | Relevancy Criteria for Material Master (General Plant Data / S.Loc Data) | SyWay P2F-SCM Data Team |

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 Syniti Migrate 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 Syniti Migrate
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 | Obtain DCT Sign-off from Business. | SyWay Data Team |
| 2 | In dspMigrate, select the wave – S4/HANA – Plant Maintenance | Syniti |
| 3 | Go to Process Area Launch and Process the Object – BOM | Syniti |
| 4 | Review and Validate Error and Preload Reports | Syniti |
| 5 | Execute the transformation to prepare the target tables | Syniti |
| 6 | Validate data from pre-load and error reports | Business/Data owner |
| 7 | Generate load files | Syniti |

Transformation Rules

1. BOM Header - DCT

| Rule # | Source system | Source Table | Source Field | Source Description | Target System | Target Table | Target Field | Target Description | Transformation Logic |
|--------|---------------|--------------|--------------|---------------------|---------------|--------------|--------------|-------------------------|--|
| 1 | DCT | TPST | TPLNR | Functional Location | S/4 HANA | TPST | TPLNR | Functional Location | Only applicable for Functional Location BOM Value Mapping: Functional Location |
| 2 | DCT | - | WERKS | Plant | S/4 HANA | TPST | WERKS | Plant | Only applicable for Functional Location BOM Direct Mapping |
| 3 | - | - | - | - | S/4 HANA | TPST | STLAN | BOM Usage | Only applicable for Functional Location BOM Default to "4" |
| 4 | DCT | EQST | EQU NR | Equipment | S/4 HANA | EQST | EQU NR | Equipment | Only applicable for Equipment BOM Value Mapping: Equipment |
| 5 | DCT | - | WERKS | Plant | S/4 HANA | EQST | WERKS | Plant | Only applicable for Equipment BOM Direct Mapping |
| 6 | - | - | - | - | S/4 HANA | EQST | STLAN | BOM Usage | Only applicable for Equipment BOM Default to "4" |
| 7 | DCT | MAST | MATNR | Material Number | S/4 HANA | MAST | MATNR | Material Number | Only applicable for Material BOM Value Mapping: Assembly and Construction Type |
| 8 | DCT | - | WERKS | Plant | S/4 HANA | MAST | WERKS | Plant | Only applicable for Material BOM Direct Mapping |
| 9 | - | - | - | - | S/4 HANA | MAST | STLAN | BOM Usage | Only applicable for Material BOM Default to "4" |
| 10 | - | - | - | - | S/4 HANA | STKO | DATUV | Valid-From Date | Derive the date as per Value Mapping: OTH_Migration_Date Relevant Values A2D (using Object ID "1009" and Field Name = "KLAH-VONDT". |
| 11 | DCT | STKO | BMENG | Base quantity | S/4 HANA | STKO | BMENG | Base quantity | If has value in DCT, Direct Mapping. If blank, default to "1" |
| 12 | - | - | - | - | S/4 HANA | STKO | STLST | Bill of Material Status | Default to "01" |

| | | | | | | | | | |
|----|-----|------|-------|-----------------|----------|------|-------|-----------------|---|
| 13 | DCT | STZU | ZTEXT | BOM Description | S/4 HANA | STZU | ZTEXT | BOM Description | <p>If has value in DCT, Direct Mapping.</p> <p>If Blank:</p> <ul style="list-style-type: none"> For Material BOM, derive from Material Description (MAKT-MAKTX) of BOM Header Material for the language key based on the BOM Header Plant (lookup T001W-SPRAS) For Functional Location BOM, derive from Functional Location Description (FLOT-PLTXT) for the language key based on the BOM Header plant (lookup T001W-SPRAS) For Equipment BOM, derive from Equipment Description (EQUI-SHTXT) for the language key based on the BOM Header plant (lookup T001W-SPRAS) |
|----|-----|------|-------|-----------------|----------|------|-------|-----------------|---|

2. BOM Header - ECC

| Rule # | Source system | Source Table | Source Field | Source Description | Target System | Target Table | Target Field | Target Description | Transformation Logic |
|--------|---------------|--------------------|-----------------------|--|---------------|--------------|--------------|-------------------------|--|
| 1 | PF2, WP2 | TPST | TPLNR | Functional Location | S/4 HANA | TPST | TPLNR | Functional Location | Only applicable for Functional Location BOM Value Mapping: Functional Location |
| 2 | PF2, WP2 | TPST | WERKS | Plant | S/4 HANA | TPST | WERKS | Plant | Only applicable for Functional Location BOM Value Mapping: Plant |
| 3 | - | - | - | - | S/4 HANA | TPST | STLAN | BOM Usage | Only applicable for Functional Location BOM Default to "4" |
| 4 | PF2, WP2 | 1. EQST 2. TPST | 1. EQU NR 2. TPLNR | 1. Equipment 2. Functional Location | S/4 HANA | EQST | EQU NR | Equipment | Only applicable for Equipment BOM Value Mapping: Equipment Note: There is possibility that the legacy Functional Location is migrating to S/4 HANA Equipment. |
| 5 | PF2, WP2 | EQST | WERKS | Plant | S/4 HANA | EQST | WERKS | Plant | Only applicable for Equipment BOM Value Mapping: Plant |
| 6 | - | - | - | - | S/4 HANA | EQST | STLAN | BOM Usage | Only applicable for Equipment BOM Default to "4" |
| 7 | PF2, WP2 | MAST | MATNR | Material Number | S/4 HANA | MAST | MATNR | Material Number | Only applicable for Material BOM Value Mapping: Assembly and Construction Type |
| 8 | PF2, WP2 | MAST | WERKS | Plant | S/4 HANA | MAST | WERKS | Plant | Only applicable for Material BOM Value Mapping: Plant |
| 9 | - | - | - | - | S/4 HANA | MAST | STLAN | BOM Usage | Only applicable for Material BOM Default to "4" |
| 10 | - | - | - | - | S/4 HANA | STKO | DATUV | Valid-From Date | Derive the date as per Value Mapping: OTH_Migration_Date Relevant Values A2D (using Object ID "1009" and Field Name = "KLAH-VONDT"). |
| 11 | PF2, WP2 | STKO | BMENG | Base quantity | S/4 HANA | STKO | BMENG | Base quantity | Direct Mapping |
| 12 | PF2, WP2 | STKO | STLST | Bill of Material Status | S/4 HANA | STKO | STLST | Bill of Material Status | Default to "01" |
| 13 | PF2, WP2 | STZU | ZTEXT | BOM Description | S/4 HANA | STZU | ZTEXT | BOM Description | <p>Direct Mapping.</p> <p>If Blank:</p> <ul style="list-style-type: none"> For Material BOM, derive from Material Description (MAKT-MAKTX) of BOM Header Material for the language key based on the BOM Header Plant (lookup T001W-SPRAS) For Equipment BOM, derive from Equipment Description (EQUI-SHTXT) for the language key based on the BOM Header Plant (lookup T001W-SPRAS) For Functional Location BOM, derive from Functional Location Description (FLOT-PLTXT) for the language key based on the BOM Header Plant (lookup T001W-SPRAS) |

3. BOM Item - DCT

| Rule # | Source system | Source Table | Source Field | Source Description | Target System | Target Table | Target Field | Target Description | Transformation Logic |
|--------|---------------|--------------|--------------|----------------------------------|---------------|--------------|--------------|------------------------------------|---|
| 1 | DCT | TPST | TPLNR | Functional Location | S/4 HANA | TPST | TPLNR | Functional Location | Key to link to BOM Header Only applicable for Functional Location BOM Value Mapping: Functional Location |
| 2 | DCT | - | WERKS | Plant | S/4 HANA | TPST | WERKS | Plant | Key to link to BOM Header Only applicable for Functional Location BOM Direct Mapping |
| 3 | DCT | EQST | EQU NR | Equipment | S/4 HANA | EQST | EQU NR | Equipment | Key to link to BOM Header Only applicable for Equipment BOM Value Mapping: Equipment |
| 4 | DCT | - | WERKS | Plant | S/4 HANA | EQST | WERKS | Plant | Key to link to BOM Header Only applicable for Equipment BOM Direct Mapping |
| 5 | DCT | MAST | MATNR | Material Number | S/4 HANA | MAST | MATNR | Material Number | Key to link to BOM Header Only applicable for Material BOM Value Mapping: Assembly and Construction Type |
| 6 | DCT | - | WERKS | Plant | S/4 HANA | MAST | WERKS | Plant | Key to link to BOM Header Only applicable for Material BOM Direct Mapping |
| 7 | - | - | - | - | S/4 HANA | STPO | POSNR | BOM Item Number | Generate based on sequence (eg "0010", "0020", "0030" ... etc) Note: If the records are combined due to duplicates, then this logic should be performed after the records are combined (refer to rule for BOM Component). |
| 8 | DCT | STPO | POSTP | Item category (Bill of Material) | S/4 HANA | STPO | POSTP | Item category (Bill of Material) | Direct Mapping |
| 9 | DCT | STPO | IDNRK | BOM component | S/4 HANA | STPO | IDNRK | BOM component | Value Mapping: Material Note: If after mapping, there is more than one BOM Item with the same BOM Component, combine the records into single record. |
| 10 | DCT | STPO | MENGE | Component Quantity | S/4 HANA | STPO | MENGE | Component Quantity | Direct Mapping Note: If the BOM Component records are combined due to duplicates (refer to rule for BOM Component), sum up the Component Quantity of the records with the same BOM Component (eg if there are 2 records for BOM Component with the same material with Quantity 2 and 1, after combining the result should be summed up to 3) |
| 11 | - | - | - | - | S/4 HANA | STPO | MEINS | Component Unit of Measure | Derive from MARA-MEINS based on BOM Component |
| 12 | DCT | STPO | POTX1 | BOM Item Text (Line 1) | S/4 HANA | STPO | POTX1 | BOM Item Text (Line 1) | Direct Mapping |
| 13 | DCT | STPO | POTX2 | BOM Item Text (Line 2) | S/4 HANA | STPO | POTX2 | BOM Item Text (Line 2) | Direct Mapping |
| 14 | - | - | - | - | S/4 HANA | STPO | SANKA | Indicator for Relevancy to Costing | Default to "X" |
| 15 | - | - | - | - | S/4 HANA | STPO | STKKZ | PM assembly indicator | If Item Category = "I", then this field is checked. |

4. BOM Item - ECC

| Rule # | Source system | Source Table | Source Field | Source Description | Target System | Target Table | Target Field | Target Description | Transformation Logic |
|--------|---------------|--------------|--------------|---------------------|---------------|--------------|--------------|---------------------|--|
| 1 | PF2, WP2 | TPST | TPLNR | Functional Location | S/4 HANA | TPST | TPLNR | Functional Location | Key to link to BOM Header Only applicable for Functional Location BOM Value Mapping: Functional Location |

| | | | | | | | | | |
|----|----------|--------------------|--------------------------|--|----------|------|-------|------------------------------------|---|
| 2 | PF2, WP2 | TPST | WERKS | Plant | S/4 HANA | TPST | WERKS | Plant | Key to link to BOM Header Only applicable for Functional Location BOM Value Mapping: Plant |
| 3 | PF2, WP2 | 1. EQST 2. TPST | 1. EQU NR 2. TPLNR | 1. Equipment 2. Functional Location | S/4 HANA | EQST | EQUNR | Equipment | Key to link to BOM Header Only applicable for Equipment BOM Value Mapping: Equipment Note: There is possibility that the legacy Functional Location is migrating to S/4 HANA Equipment. |
| 4 | PF2, WP2 | 1. EQST 2. TPST | WERKS | Plant | S/4 HANA | EQST | WERKS | Plant | Key to link to BOM Header Only applicable for Equipment BOM Value Mapping: Plant |
| 5 | PF2, WP2 | MAST | MATNR | Material Number | S/4 HANA | MAST | MATNR | Material Number | Key to link to BOM Header Only applicable for Material BOM Value Mapping: Assembly and Construction Type |
| 6 | PF2, WP2 | MAST | WERKS | Plant | S/4 HANA | MAST | WERKS | Plant | Key to link to BOM Header Only applicable for Material BOM Value Mapping: Plant |
| 7 | - | - | - | - | S/4 HANA | STPO | POSNR | BOM Item Number | Generate based on sequence (eg "0010", "0020", "0030" ... etc) Note: If the records are combined due to duplicates, then this logic should be performed after the records are combined (refer to rule for BOM Component). |
| 8 | PF2, WP2 | STPO | POSTP | Item category (Bill of Material) | S/4 HANA | STPO | POSTP | Item category (Bill of Material) | Direct Mapping |
| 9 | PF2, WP2 | STPO | IDNRK | BOM component | S/4 HANA | STPO | IDNRK | BOM component | Value Mapping: Material Note: If after mapping, there is more than one BOM Item with the same BOM Component, combine the records into single record. |
| 10 | PF2, WP2 | STPO | MENGE | Component Quantity | S/4 HANA | STPO | MENGE | Component Quantity | Direct Mapping Note: 1. If the legacy STPO-MEINS is different compared to S/4 HANA STPO-MEINS, perform required conversion (eg if legacy is Dozen, and S/4 HANA is Each, then the component should be multiplied by 12 based on SAP Standard Conversion Rule) 2. If the BOM Component records are combined, sum up the Component Quantity of the records with the same BOM Component (eg if there are 2 records for BOM Component with the same material with Quantity 2 and 1, after combining the result should be summed up to 3) |
| 11 | - | - | - | - | S/4 HANA | STPO | MEINS | Component Unit of Measure | Derive from MARA-MEINS based on BOM Component |
| 12 | PF2, WP2 | STPO | POTX1 | BOM Item Text (Line 1) | S/4 HANA | STPO | POTX1 | BOM Item Text (Line 1) | Direct Mapping |
| 13 | PF2, WP2 | STPO | POTX2 | BOM Item Text (Line 2) | S/4 HANA | STPO | POTX2 | BOM Item Text (Line 2) | Direct Mapping |
| 14 | - | - | - | - | S/4 HANA | STPO | SANKA | Indicator for Relevancy to Costing | Default to "X" |
| 15 | - | - | - | - | S/4 HANA | STPO | STKKZ | PM assembly indicator | If Item Category = "I", then this field is checked. |

Transformation Mapping

| Mapping Table Name | Mapping Table Description |
|--------------------------------|--|
| Material Type | Mapping of legacy Material Types to target system value |
| Functional Location | Mapping of legacy Functional Location to new Functional Location |
| Equipment | Mapping of legacy Equipment to new Equipment |
| Assembly and Construction Type | Mapping of legacy Assembly and Construction Type to new Assembly and Construction Type |

| | |
|-------|--------------------------------------|
| Plant | Mapping of legacy Plant to new Plant |
|-------|--------------------------------------|

List of Transformation Mappings with additional details is maintained here: [Transformation Mappings](#).

Transformation Dependencies

List the steps that need to occur before transformation can commence

| Item # | Step Description | Team Responsible |
|--------|--|------------------|
| 1 | Ensure DCT tables completeness | SyWay Data Team |
| 2 | Ensure all Transformation mappings are up to date. | SyWay Data Team |

Pre-Load Validation

Project Team

Completeness

| Task | Action |
|---------------------|---|
| Verify Record Count | Data team to verify that the total number of relevant records from the source systems is equal to the total number of records in the Preload and Load Sheets. |

Accuracy

| Task | Action |
|----------------------|--|
| Conversion Accuracy | Data team to verify that all fields below meet pass the checks: <ol style="list-style-type: none"> 1. Mandatory Fields 2. Field and Value Mapping Correctness 3. Null Checks 4. Text Length Checks |
| 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. |

Business

Completeness

| Task | Action |
|---------------------|---|
| Verify Record Count | Business team to verify that the total number of relevant records from the source systems is equal to the total number of records in the Preload and Load Sheets. |

Accuracy

| Task | Action |
|---------------------|--|
| Conversion Accuracy | Business to verify that all the data in the load table/file is accurate as per endorsed transformation/mapping rules (and signed-off data) |

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 |
|--------|---|------------------|
| 1 | Ensure Pre-load sign-offs are obtained. | SyWay Data team |
| 2 | Go to the load tool and select the correct load Program. | SyWay Data team |
| 3 | Proceed with Data load. | SyWay Data team |
| 4 | Validate few records loaded by accessing standard transactions | SyWay Data team |
| 5 | Generate the post load reports in the tool. | SyWay Data team |
| 6 | Log errors as defects, if any and address resolutions. Close defects. | SyWay Data team |
| 7 | Resolve defects by reupload and re-generate post load reports if necessary. | SyWay Data team |
| 8 | Business to validate the post load files as part of post-load validation, raise data defects or provide the post-load sign-off. | Business |
| 9 | Repeat steps 5 to 7 if necessary. | SyWay Data team |

Load Phase and Dependencies

Pre-Cutover

Configuration

| Item # | Configuration Item |
|--------|-------------------------------|
| 1 | T001W-Plants/Branches |
| 2 | T006-Units of Measurement |
| 3 | T415S-Bill of Material Status |

Conversion Objects

| Object # | Preceding Object Conversion Approach |
|----------|---|
| 1003 | Functional Location |
| 1002 | Equipment |
| 2019 | Materials - Basic Data View |
| 2010 | Material - General Plant Data / SLoc Data |
| 1010 | PM Assembly / Construction Type |

Error Handling

| Error Type | Error Description | Action Taken |
|---------------|-----------------------------|--|
| Configuration | Invalid Plant | Engage Functional team to expedite and fix the error in the system |
| Configuration | Invalid Unit of Measurement | Engage Functional team to expedite and fix the error in the system |
| Configuration | Invalid BOM Status | Engage Functional team to expedite and fix the error in the system |
| Invalid Data | Invalid Functional Location | Expedite whether the master data is changed in the system |

| | | |
|--------------|---|---|
| Invalid Data | Invalid Equipment | Expedite whether the master data is changed in the system |
| Invalid Data | Invalid Material | Expedite whether the master data is changed in the system |
| Invalid Data | Invalid Material Plant | Expedite whether the master data is changed in the system |
| Invalid Data | Invalid PM Assembly / Construction Type | Expedite whether the master data is changed in the system |

Post-Load Validation

Project Team

Completeness

| Task | Action |
|--------------|---|
| Verify Count | Data team to verify the record count created in target S/4 HANA by accessing post load reports in dspMigrate or standard reports from S/4 HANA. |
| Verify Logs | Check if there is data that failed to load and perform the necessary actions (e.g. register as post load issue, or attempt to load the record again, etc.). |

Accuracy

| Task | Action |
|---------------------|---|
| Conversion Accuracy | Data team to verify that the Bill of Material data in target S/4 HANA were loaded correctly via dspMigrate post load reports or standard reports from S/4 HANA. |

Business

Completeness

| Task | Action |
|--------------|---|
| Verify Count | Download Post Load Reports from dspMigrate and verify that the record count loaded in the target S/4 HANA is the same count as of the endorsed load file. |

Accuracy

| Task | Action |
|---------------------|--|
| Conversion Accuracy | Verify that the Bill of Material data in target S/4 HANA were loaded correctly via dspMigrate post load reports or standard reports from S/4 HANA. |

Key Assumptions

- Master Data Standard is up to date as on the date of documenting this conversion approach and data load.
- BOM is in scope based on data design and any exception requested by business.
- Data cleansing has met the required percentage threshold for the specified mock cycle and all preparation activities have been completed.
- Data entries in DCT are target-ready data unless a specific transformation rule is stated for that field in the transformation rules.

See also

Change log

| Version | Published | Changed By | Comment |
|-------------------------|---------------------------|-----------------------------|---------|
| CURRENT (v. 115) | Apr 07, 2026 12:05 | GOTTIPATI-ext, Madhu | |
| v. 114 | Apr 02, 2026 11:58 | GOTTIPATI-ext, Madhu | |
| v. 113 | Apr 02, 2026 11:55 | GOTTIPATI-ext, Madhu | |
| v. 112 | Feb 27, 2026 09:51 | GOTTIPATI-ext, Madhu | |
| v. 111 | Feb 26, 2026 11:23 | GOTTIPATI-ext, Madhu | |
| v. 110 | Jan 26, 2026 12:58 | GOTTIPATI-ext, Madhu | |
| v. 109 | Jan 26, 2026 12:57 | GOTTIPATI-ext, Madhu | |
| v. 108 | Jan 26, 2026 12:53 | GOTTIPATI-ext, Madhu | |
| v. 107 | Dec 09, 2025 12:43 | PILLAY-ext, Lawrence | |
| v. 106 | Nov 26, 2025 11:24 | TJAHJO-ext, Maytingsari | |

[Go to Page History](#)

Workflow history

| Title | Last Updated By | Updated | Status |
|-------|-----------------|---------|--------|
|-------|-----------------|---------|--------|

There are no pages at the moment.
