

# CNV-1012 Measuring Point

|              |                                                                                                                                                                                              |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Status       | Approved                                                                                                                                                                                     |
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## Purpose

The purpose of this document is to define the conversion approach to create Measuring Point in S/4 HANA.

Measuring point represents a physical or logical place at which a status or measurement is described. E.g. Temperature of the coolant or running hours of a motor.

## Conversion Scope

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

At Syensqo, Measuring Points are used to monitor the condition and usage of assets. They provide critical input to support condition-based and usage-based maintenance strategies. Measuring Points are created on either Functional Locations or Equipment, depending on the asset structure and monitoring requirement.

Syensqo primarily uses the following three types of Measuring Points:

### 1. Static Measuring Points

Static Measuring Points are used to capture snapshot values of an asset's condition at a specific point in time. These readings represent parameters such as temperature, pressure, or vibration. The data collected through measurement documents enables trend analysis, which helps in assessing the health and performance of the asset.

Example: Monitoring equipment temperature over time.

### 2. Counter Measuring Points

Counter Measuring Points are used to capture the cumulative usage of an asset. These points incrementally track metrics such as operating hours, production cycles, or distance travelled. Measurement documents recorded at these points are often used to trigger maintenance plans based on usage, as per the maintenance strategy assigned to the asset.

Example: Tracking total operating hours of a motor.

### 3. Catalog Measuring Points

Catalog Measuring Points utilize predefined catalog codes to record qualitative or classified conditions observed during asset inspections. These codes represent specific condition statuses or fault categories. The selected catalog entry reflects the assessment of the asset's condition, typically after a physical or visual check.

The data from legacy system includes:

- All Measuring Points (IMPTT-MPOBJ) linked to active Functional Locations (IFLOT-OBJNR) assigned to relevant plant (IFLOT-IWERK) in scope, which excludes the following status:
    - Functional Location (IFLOT-TPLNR) with </Start CR0438> Active (JEST-INAC <> 'X') </End CR0438> System Status (JEST-STAT) Inactive "INAC"
    - Functional Location (IFLOT-TPLNR) with </Start CR0438> Active (JEST-INAC <> 'X') </End CR0438> System Status (JEST-STAT) Deletion Flag "DLFL"
  - All Measuring Points (IMPTT-MPOBJ) linked to active Equipment (EQUI-OBJNR) assigned to relevant plant (EQUI-IWERK) in scope, which excludes the following status:
    - Equipment with </Start CR0438> Active (JEST-INAC <> 'X') </End CR0438> System Status (JEST-STAT) Inactive "INAC"
    - Equipment with </Start CR0438> Active (JEST-INAC <> 'X') </End CR0438> System Status (JEST-STAT) Deletion Flag "DLFL"
    - Equipment with </Start CR0438> Active (JEST-INAC <> 'X') </End CR0438> System Status (JEST-STAT) In the warehouse "ESTO"
    - Equipment with </Start CR0438> Active (JEST-INAC <> 'X') </End CR0438> System Status (JEST-STAT) Available "AVLB"
- For the relevant plants in scope, refer to Value Mapping: Plant (Maintenance Plant = Yes)

The data from legacy system excludes:

- Measuring point without active Measurement Document (IMRG-POINT) created within the last 1 year (IMRG-ERDAT)
  - Active means without reversal indicator checked (IMRG-CANCL)
- Measuring Points which are inactive (IMPTT-INACT="X")

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

List of source systems and approximate number of records

| Source | Scope                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Source Approx No. of Records | Target System | Target Approx No. of Records |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------|------------------------------|
| DCT    | <p>Measuring Points will be collected via DCT. An initial extract of the relevant Measurement Documents will be provided in google sheet format to assist business in decision making on including any relevant Measuring Points from PF2 and WP2 as Measuring Points in S/4 HANA.</p> <p>Any additional Measuring Points that need to be created to support the new design may be added in the DCT.</p> <p>Please see an indication of what will be baselined from source systems below and what will be constructed in the DCT.</p> <p>Note: The decision to implement DCT only for Measuring Point and Measurement Document was based on the current business usage in SAP. The business has primarily been collecting relevant data outside of SAP. Additionally, it is not part of the current business process to create these Measuring Points and Measurement Documents in the system. Given that these two objects are not actively utilized and there are only a handful of Counter Based Maintenance Plans involved, the effort required to build the ETL process would not be justified at this time.</p> | 3,000                        | S/4HANA       | 3,000                        |
| DCT    | Measuring points for plants which do not have data existing from WP2 and PF2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | TBD                          | S/4HANA       | TBD                          |

## Additional Information

### Multi-language Requirement

Measuring point object does not have multi language support. Description will be made available in the language required by the respective plant using EN logon.

### 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. Measuring Point (Main)

| Table | Field | Data Element | Field Description                                       | Data Type | Length | Requirement      |
|-------|-------|--------------|---------------------------------------------------------|-----------|--------|------------------|
| IMPTT | POINT | IMRC_POINT   | Measuring Point                                         | CHAR      | 12     | System Generated |
| IMPTT | MPOTY | IMRC_MPOTY   | Measuring Point Object                                  | CHAR      | 3      | Mandatory        |
| EQUI  | EQUNR | EQUNR        | Equipment Number                                        | CHAR      | 18     | Conditional      |
| IFLOT | TPLNR | TPLNR        | Functional Location                                     | CHAR      | 30     | Conditional      |
| IMPTT | MPTYP | IMRC_MPTYP   | Measuring Point Category                                | CHAR      | 1      | Mandatory        |
| IMPTT | INDCT | IMRC_INDCT   | Counter (Yes/No Indicator)                              | CHAR      | 1      | Conditional      |
| IMPTT | PSORT | IMRC_PSORT   | Position (Measuring Point Position)                     | CHAR      | 20     | Mandatory        |
| IMPTT | PTTXT | IMRC_PTTXT   | Measuring Point Description                             | CHAR      | 40     | Mandatory        |
| CABN  | ATNAM | ATNAM        | Characteristic Name (Link to Class/Char)                | CHAR      | 30     | Mandatory        |
| IMPTT | DECIM | IMRC_DECIM   | Number of Decimal Places                                | INT       | 5      | Mandatory        |
| IMPTT | CODGR | IMRC_CODGR   | Code Group                                              | CHAR      | 8      | Conditional      |
| IMPTT | MRMAX | IMRC_MRMAX   | Upper Measurement Range Limit in Measurement Range Unit | CHAR      | 22     | Conditional      |
| IMPTT | MRMIN | IMRC_MRMIN   | Lower Measurement Range Limit in Measurement Range Unit | CHAR      | 22     | Conditional      |

|       |       |            |                                                              |      |    |             |
|-------|-------|------------|--------------------------------------------------------------|------|----|-------------|
| IMPTT | CJUMC | IMRC_CJUMP | Counter Over Reading                                         | FLTP | 16 | Conditional |
| IMPTT | PYEAC | IMRC_PYEAR | Annual Counter Reading                                       | FLTP | 16 | Conditional |
| IMPTT | DESIR | IMRC_DESIR | Measuring Point Target Value                                 | CHAR | 22 | Conditional |
| IMPTT | CDSUF | IMRC_CDSUF | Indicator: Valuation Code Sufficient for Measurmnt. Document | CHAR | 1  | Conditional |

## 2. Measuring Point (Characteristics Values Header)

| Table | Field | Data Element | Field Description                 | Data Type | Length | Requirement                                   |
|-------|-------|--------------|-----------------------------------|-----------|--------|-----------------------------------------------|
| KLAH  | KLART | KLASSENART   | Class Type                        | CHAR      | 3      | Mandatory                                     |
| INOB  | OBTAB | TABELLE      | Name of Database Table for Object | CHAR      | 30     | Mandatory                                     |
| KLAH  | CLASS | KLASSE_D     | Class number                      | CHAR      | 18     | Mandatory                                     |
| IMPTT | POINT | IMRC_POINT   | Measuring Point                   | CHAR      | 12     | Mandatory<br>(Key to link to Measuring Point) |
| KLAH  | STATU | KLSTATUS     | Class Status                      | CHAR      | 1      | Mandatory                                     |

## 3. Measuring Point (Characteristics Values Allocation)

| Table | Field | Data Element | Field Description                 | Data Type | Length | Requirement                                   |
|-------|-------|--------------|-----------------------------------|-----------|--------|-----------------------------------------------|
| KLAH  | KLART | KLASSENART   | Class Type                        | CHAR      | 3      | Mandatory                                     |
| INOB  | OBTAB | TABELLE      | Name of Database Table for Object | CHAR      | 30     | Mandatory                                     |
| KLAH  | CLASS | KLASSE_D     | Class number                      | CHAR      | 18     | Mandatory                                     |
| IMPTT | POINT | IMRC_POINT   | Measuring Point                   | CHAR      | 12     | Mandatory<br>(Key to link to Measuring Point) |
| CABN  | ATNAM | ATNAM        | Characteristic Name               | CHAR      | 30     | Mandatory                                     |
| AUSP  | ATWRT | ATWRT        | Characteristic Value              | CHAR      | 30     | Mandatory                                     |
| AUSP  | POSNR | KPOSNR       | Item Number                       | CHAR      | 3      | Mandatory                                     |

Measuring Point Data strictly adheres to the Master Data Standard. The complete information of the key fields that hold the Measuring Point information follows the Master Data Standard document that is located [here](#).

## Data Cleansing

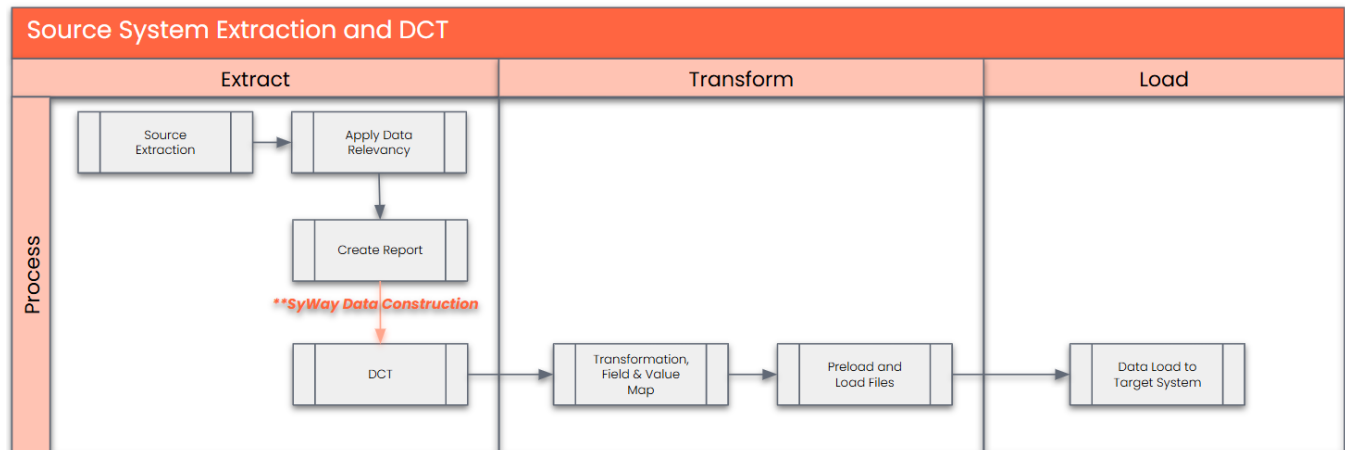
| ID       | Criticality | Error Message /Report Description                                                             | Rule                                                                                                                                                                                                                                                                      | Output                                                                                       | Source System |
|----------|-------------|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------|
| 1012-001 | C3          | Info Report: Duplicate Measuring Point by same Technical Object, Position                     | Measuring Point as per Relevancy Criteria where there is more than one Measuring Point with the same combination of:<br>a) FL Measuring Point = FL + Position<br>b) EQ Measuring Point = EQ + Position                                                                    | Measuring Point, Description, Plant, FL, EQ, Position                                        | PF2, WP2      |
| 1012-002 | C3          | Info Report: Measuring Point which with latest Measurement Document that is older than 1 year | Retrieve the latest active Measurement Document of the Measuring Point and list down all the Measuring points where the Measurement Document is older than 1 year. These Measuring Points will not be loaded unless there is an active measurement document within 1 year | Measuring Point, Description, Plant, FL, EQ, Measurement Document, Measurement Document Date | PF2, WP2      |

Note:

- Where the Plant is required in the output, retrieve the maintenance plant of the linked object:
  - Functional Location (IFLOT-IWERK)
  - Equipment (EQUI-IWERK)
- List of Cleansing is maintained here: [Conversion Specs Register \(DCT & Cleansing Report\)](#).

# Conversion Process

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



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

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

## Data Privacy and Sensitivity

Not Applicable

## Extraction

Extract data from a source into Advanced Data Migration and Management (ADMM). There are 2 possibilities:

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

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  |
| 2     | Google Sheet report pre-populated with PF2 and WP2 information to be generated based on relevancy criteria. | 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 Measuring Point 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. Measuring Point Data Construction Rules

| Field Name   | Field Description                                       | Rule                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ZLEGACYPOINT | Legacy Measuring Point Number                           | Mandatory<br><br>Staging identifier used to uniquely define a Measuring Point.                                                                                                                                                                                                                                                                                                                                                |
| MPOTY        | Measuring Point Object                                  | Mandatory<br><br>Allowed values:<br><br>IEQ: Equipment<br><br>IFL: Functional Location                                                                                                                                                                                                                                                                                                                                        |
| POINT_OBJECT | Measuring Point Technical Object                        | Mandatory<br><br>If Measuring Point Object = IEQ, enter legacy Equipment<br><br>For non WP2/PF2, value must exist in Equipment DCT<br><br>If Measuring Point Object = IFL, for WP2/PF2, enter legacy FL<br><br>If Measuring Point Object = IFL, for non WP2/PF2, enter Category A Functional Location that does not have status "Maintenance Not Allowed"<br><br>For non WP2/PF2, value must exist in Functional Location DCT |
| INDCT        | Counter (Yes/No Indicator)                              | Conditional<br><br>Checkbox<br><br>X = Yes<br><br>Blank = No                                                                                                                                                                                                                                                                                                                                                                  |
| PSORT        | Position (Measuring Point Position)                     | Mandatory<br><br>Measuring Position for the given Technical Object shall be always Unique.                                                                                                                                                                                                                                                                                                                                    |
| PTTXT        | Measuring Point Description                             | Mandatory<br><br>Follow convention: Characteristic Description + Asset Tag.                                                                                                                                                                                                                                                                                                                                                   |
| ATNAM        | Characteristic Name                                     | Mandatory<br><br>Allowed values:<br><br><b>1.</b> Characteristic assigned to Char Group MP_GNRL - Asset Parameter General<br><b>2.</b> Must exist in Characteristics DCT                                                                                                                                                                                                                                                      |
| CODGR        | Code Group                                              | Conditional<br><br>A Code Group with Naming convention U-XX-XX created for Catalog "3" - Usage Decision shall be used, must exist in Code Group DCT.                                                                                                                                                                                                                                                                          |
| MRMAX        | Upper Measurement Range Limit in Measurement Range Unit | Conditional<br><br>Only numeric values allowed.<br><br>Updated only if Counter is not checked.                                                                                                                                                                                                                                                                                                                                |
| MRMIN        | Lower Measurement Range Limit in Measurement Range Unit | Conditional<br><br>Only numeric values allowed.<br><br>Updated only if Counter is not checked.                                                                                                                                                                                                                                                                                                                                |

|                        |                                                              |                                                                                                                                                                                                            |
|------------------------|--------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CJUMC                  | Counter Over Reading                                         | Conditional<br><br>Updated if Counter is checked. Leave blank if Counter is not checked.                                                                                                                   |
| PYEAC                  | Annual Counter Reading                                       | Conditional<br><br>Updated if Counter is checked. Leave blank if Counter is not checked.<br><br>Annual counter cannot be more than 8760 Hr or 365 Days or 1 Year based on the unit of the characteristics. |
| DESIR                  | Measuring Point Target Value                                 | Conditional<br><br>Only numeric values allowed.<br><br>Updated if Counter is not checked. Leave blank if Counter is checked.                                                                               |
| CDSUF                  | Indicator: Valuation Code Sufficient for Measurmnt. Document | Conditional<br><br>Checkbox<br><br>X = Yes<br><br>Blank = No<br><br>Can be updated only if Code Group is populated. Must be blank if Code Group is empty.                                                  |
| CHAR_DISCRETE_TO_ASSET | Discrete to the Asset Characteristic                         | Mandatory<br><br>Allowed values: Yes/No<br><br>Note: If blank, will be defaulted to "No"                                                                                                                   |

## Extraction Dependencies

| Item # | Step Description | Team Responsible |
|--------|------------------|------------------|
|        | Not Applicable   |                  |

## 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 ADMM 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 ADMM
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 – Measuring Point | 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. Measuring Point (Main) - DCT

| Rule # | Source system | Source Table | Source Field | Source Description                                           | Target System | Target Table | Target Field | Target Description                                           | Transformation Logic                                                                                                                                                                                                                                                                                                                                       |
|--------|---------------|--------------|--------------|--------------------------------------------------------------|---------------|--------------|--------------|--------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1      | DCT           | -            | ZLEGACYPOINT | Legacy Measuring Point Number                                | -             | -            | -            | -                                                            | Key for Measuring Point Load                                                                                                                                                                                                                                                                                                                               |
| 2      | DCT           | IMPTT        | MPOTY        | Measuring Point Object                                       | S/4 HANA      | IMPTT        | MPOTY        | Measuring Point Object                                       | If target IMPTT.EQUNR has value, then "IEQ"<br>If target IMPTT.TPLNR has value, then "IFL"                                                                                                                                                                                                                                                                 |
| 3      | DCT           | -            | POINT_OBJECT | Measuring Point Technical Object                             | S/4 HANA      | IMPTT        | EQUNR        | Equipment Number                                             | Value Mapping: Equipment Number where MPOTY="IEQ"<br><br>Note: There is possibility that the legacy Functional Location is migrating to S/4 HANA Equipment. If that is the case:<br><br>Value Mapping: Equipment Number where MPOTY="IFL"                                                                                                                  |
| 4      | DCT           | -            | POINT_OBJECT | Measuring Point Technical Object                             | S/4 HANA      | IMPTT        | TPLNR        | Functional Location                                          | Value Mapping: Functional Location where MPOTY="IFL"<br><br>Note: There is possibility that the legacy Functional Location is migrating to S/4 HANA Equipment. This is indicated by the field "New Technical Object" in the Mapping Table. In this case, ensure that the transformation is performed from Functional Location to Equipment for IMPTT-EQUNR |
| 5      | DCT           | IMPTT        | MPTYP        | Measuring Point Category                                     | S/4 HANA      | IMPTT        | MPTYP        | Measuring Point Category                                     | Default to "M"                                                                                                                                                                                                                                                                                                                                             |
| 6      | DCT           | IMPTT        | INDCT        | Counter (Yes /No Indicator)                                  | S/4 HANA      | IMPTT        | INDCT        | Counter (Yes /No Indicator)                                  | Direct Mapping                                                                                                                                                                                                                                                                                                                                             |
| 7      | DCT           | IMPTT        | PSORT        | Position (Measuring Point Position)                          | S/4 HANA      | IMPTT        | PSORT        | Position (Measuring Point Position)                          | Direct Mapping                                                                                                                                                                                                                                                                                                                                             |
| 8      | DCT           | IMPTT        | PTTXT        | Measuring Point Description                                  | S/4 HANA      | IMPTT        | PTTXT        | Measuring Point Description                                  | Direct Mapping                                                                                                                                                                                                                                                                                                                                             |
| 9      | DCT           | IMPTT        | ATNAM        | Characteristic Name (Link to Class/Char)                     | S/4 HANA      | IMPTT        | ATNAM        | Characteristic Name                                          | Value Mapping: Characteristic A2D                                                                                                                                                                                                                                                                                                                          |
| 10     | DCT           | IMPTT        | DECIM        | Number of Decimal Places                                     | S/4 HANA      | IMPTT        | DECIM        | Number of Decimal Places                                     | Default to "3"                                                                                                                                                                                                                                                                                                                                             |
| 11     | DCT           | IMPTT        | CODGR        | Code Group                                                   | S/4 HANA      | IMPTT        | CODGR        | Code Group                                                   | Direct Mapping                                                                                                                                                                                                                                                                                                                                             |
| 12     | DCT           | IMPTT        | MRMAX        | Upper Measurement Range Limit in Measurement Range Unit      | S/4 HANA      | IMPTT        | MRMAX        | Upper Measurement Range Limit in Measurement Range Unit      | Direct Mapping                                                                                                                                                                                                                                                                                                                                             |
| 13     | DCT           | IMPTT        | MRMIN        | Lower Measurement Range Limit in Measurement Range Unit      | S/4 HANA      | IMPTT        | MRMIN        | Lower Measurement Range Limit in Measurement Range Unit      | Direct Mapping                                                                                                                                                                                                                                                                                                                                             |
| 14     | DCT           | IMPTT        | CJUMC        | Counter Over Reading                                         | S/4 HANA      | IMPTT        | CJUMC        | Counter Over Reading                                         | Direct Mapping                                                                                                                                                                                                                                                                                                                                             |
| 15     | DCT           | IMPTT        | PYEAC        | Annual Counter Reading                                       | S/4 HANA      | IMPTT        | PYEAC        | Annual Counter Reading                                       | Direct Mapping                                                                                                                                                                                                                                                                                                                                             |
| 16     | DCT           | IMPTT        | DESIR        | Measuring Point Target Value                                 | S/4 HANA      | IMPTT        | DESIR        | Measuring Point Target Value                                 | Direct Mapping                                                                                                                                                                                                                                                                                                                                             |
| 17     | DCT           | IMPTT        | CDSUF        | Indicator: Valuation Code Sufficient for Measurmnt. Document | S/4 HANA      | IMPTT        | CDSUF        | Indicator: Valuation Code Sufficient for Measurmnt. Document | Direct Mapping                                                                                                                                                                                                                                                                                                                                             |

## 2. Measuring Point (Characteristics Values Header) - DCT

| Rule # | Source system | Source Table | Source Field | Source Description | Target System | Target Table | Target Field | Target Description | Transformation Logic |
|--------|---------------|--------------|--------------|--------------------|---------------|--------------|--------------|--------------------|----------------------|
| 1      | -             | -            | -            | -                  | S/4 HANA      | KLAH         | KLART        | Class Type         | Default to "037"     |

|   |     |   |              |                               |          |       |       |                                   |                                |
|---|-----|---|--------------|-------------------------------|----------|-------|-------|-----------------------------------|--------------------------------|
| 2 | -   | - | -            | -                             | S/4 HANA | INOB  | OBTAB | Name of Database Table for Object | Default to "IMPTT"             |
| 3 | -   | - | -            | -                             | S/4 HANA | KLAH  | CLASS | Class number                      | Default to "EAM_9999"          |
| 4 | DCT | - | ZLEGACYPOINT | Legacy Measuring Point Number | S/4 HANA | IMPTT | POINT | Measuring Point                   | Value Mapping: Measuring Point |
| 5 | -   | - | -            | -                             | S/4 HANA | KLAH  | STATU | Class Status                      | Default to "1"                 |

### 3. Measuring Point (Characteristics Values Allocation) - DCT

(A\_DISCRETE\_TO\_ASSET)

| Rule # | Source system | Source Table | Source Field           | Source Description                   | Target System | Target Table | Target Field | Target Description                | Transformation Logic                                                  |
|--------|---------------|--------------|------------------------|--------------------------------------|---------------|--------------|--------------|-----------------------------------|-----------------------------------------------------------------------|
| 1      | -             | -            | -                      | -                                    | S/4 HANA      | KLAH         | KLART        | Class Type                        | Default to "037"                                                      |
| 2      | -             | -            | -                      | -                                    | S/4 HANA      | INOB         | OBTAB        | Name of Database Table for Object | Default to "IMPTT"                                                    |
| 3      | -             | -            | -                      | -                                    | S/4 HANA      | KLAH         | CLASS        | Class number                      | Default to "EAM_9999"                                                 |
| 4      | DCT           | -            | ZLEGACYPOINT           | Legacy Measuring Point Number        | S/4 HANA      | IMPTT        | POINT        | Measuring Point                   | Value Mapping: Measuring Point                                        |
| 5      | -             | -            | -                      | -                                    | S/4 HANA      | CABN         | ATNAM        | Characteristic Name               | Value Mapping: A2D Characteristics based on value A_DISCRETE_TO_ASSET |
| 6      | DCT           | -            | CHAR_DISCRETE_TO_ASSET | Discrete to the Asset Characteristic | S/4 HANA      | AUSP         | ATWRT        | Characteristic Value              | Direct Mapping<br>If Blank, default to "No"                           |
| 7      | -             | -            | -                      | -                                    | S/4 HANA      | AUSP         | POSNR        | Item Number                       | Default to "001"                                                      |

UNION

(A\_ALLOWED\_CT)

| Rule # | Source system | Source Table | Source Field | Source Description            | Target System | Target Table | Target Field | Target Description                | Transformation Logic                                                                                                                                                                              |
|--------|---------------|--------------|--------------|-------------------------------|---------------|--------------|--------------|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1      | -             | -            | -            | -                             | S/4 HANA      | KLAH         | KLART        | Class Type                        | Default to "037"                                                                                                                                                                                  |
| 2      | -             | -            | -            | -                             | S/4 HANA      | INOB         | OBTAB        | Name of Database Table for Object | Default to "IMPTT"                                                                                                                                                                                |
| 3      | -             | -            | -            | -                             | S/4 HANA      | KLAH         | CLASS        | Class number                      | Default to "EAM_9999"                                                                                                                                                                             |
| 4      | DCT           | -            | ZLEGACYPOINT | Legacy Measuring Point Number | S/4 HANA      | IMPTT        | POINT        | Measuring Point                   | Value Mapping: Measuring Point                                                                                                                                                                    |
| 5      | -             | -            | -            | -                             | S/4 HANA      | CABN         | ATNAM        | Characteristic Name               | Value Mapping: A2D Characteristics based on value A_ALLOWED_CT                                                                                                                                    |
| 6      | -             | -            | -            | -                             | S/4 HANA      | AUSP         | ATWRT        | Characteristic Value              | If CHAR_DISCRETE_TO_ASSET = "Yes", then leave blank<br><br>If CHAR_DISCRETE_TO_ASSET = "No" or blank, then derive value from Construction Type field (EQUI-SUBMT or IFLOT-SUBMT) of POINT_OBJECT. |
| 7      | -             | -            | -            | -                             | S/4 HANA      | AUSP         | POSNR        | Item Number                       | Default to "001"                                                                                                                                                                                  |

List of Custom Target Reports for this object is maintained here: [Conversion Specification - Custom Reports Register](#).

## Transformation Mapping

| Mapping Table Name          | Mapping Table Description                                                                              |
|-----------------------------|--------------------------------------------------------------------------------------------------------|
| Plant                       | Old Plant to New Plant                                                                                 |
| Characteristic A2D          | Old to New Characteristic A2D                                                                          |
| Measuring Point             | Legacy Measuring Point XREF mapping table<br><br>Note: New Measuring Point available post Load of Data |
| Catalog Code Group and Code | Mapping of legacy Catalog Code Group and Code to S/4 HANA Catalog Code Group and Code                  |
| Equipment Number            | Mapping of legacy Equipment to new Equipment                                                           |



|                     |                                                                  |
|---------------------|------------------------------------------------------------------|
| Functional Location | Mapping of legacy Functional Location to new Functional Location |
|---------------------|------------------------------------------------------------------|

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"> <li>1. Mandatory Fields</li> <li>2. Field and Value Mapping Correctness</li> <li>3. Null Checks</li> <li>4. Text Length Checks</li> </ol> |
| 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 1012 - Measuring Point

Pre-Cutover: 1012a - Measuring Point Characteristics Assignment

*Note: A separate load program may need to be created for 1012a if this becomes a risk to the actual cutover and need to be removed from the critical path. This will be evaluated post Mock 1*

## Configuration

| Item # | Configuration Item             |
|--------|--------------------------------|
| 1      | T370P-Measuring Point Category |
| 2      | TCLA-Class Types               |
| 3      | T370O-Measuring Point Object   |

## Conversion Objects

| Object # | Preceding Object Conversion Approach |
|----------|--------------------------------------|
| 1003     | Functional Location                  |
| 1002     | Equipment                            |
| 1009     | Class                                |
| 1015     | Characteristics                      |
| 1007     | Catalog Code and Code Group          |
| 1010     | PM Assembly / Construction Type      |

## Error Handling

| Error Type | Error Description | Action Taken |
|------------|-------------------|--------------|
|------------|-------------------|--------------|

|               |                                     |                                                                    |
|---------------|-------------------------------------|--------------------------------------------------------------------|
| Configuration | Invalid Measuring Point Category    | Engage Functional team to expedite and fix the error in the system |
| Configuration | Invalid Measuring Point Class Type  | Engage Functional team to expedite and fix the error in the system |
| Configuration | Invalid Measuring Point Object      | Engage Functional team to expedite and fix the error in the system |
| Invalid Data  | Invalid Functional Location         | Expedite whether the master data is available in the system        |
| Invalid Data  | Invalid Equipment                   | Expedite whether the master data is available in the system        |
| Invalid Data  | Invalid Class                       | Expedite whether the master data is available in the system        |
| Invalid Data  | Invalid Characteristics             | Expedite whether the master data is available in the system        |
| Invalid Data  | Invalid Catalog Code and Code Group | Expedite whether the master data is available in the system        |
| Invalid Data  | Invalid Construction Type           | Expedite whether the master data is available 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 Measuring Point 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 Measuring Point 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.
- 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                            |
|-------------------------|---------------------------|----------------------|------------------------------------|
| <b>CURRENT (v. 129)</b> | <b>Apr 06, 2026 15:52</b> | <b>PUN-ext, Eddy</b> | CR0438 - Active (JEST-INAC <> 'X') |
| v. 128                  | Feb 12, 2026 11:24        | PUN-ext, Eddy        |                                    |
| v. 127                  | Jan 22, 2026 09:57        | PUN-ext, Eddy        |                                    |
| v. 126                  | Jan 21, 2026 12:55        | PUN-ext, Eddy        |                                    |
| v. 125                  | Jan 13, 2026 15:16        | PUN-ext, Eddy        |                                    |
| v. 124                  | Dec 12, 2025 14:06        | PUN-ext, Eddy        |                                    |
| v. 123                  | Dec 12, 2025 14:00        | PUN-ext, Eddy        |                                    |
| v. 122                  | Dec 10, 2025 15:11        | PUN-ext, Eddy        |                                    |
| v. 121                  | Dec 10, 2025 15:10        | PUN-ext, Eddy        |                                    |
| v. 120                  | Dec 10, 2025 15:09        | PUN-ext, Eddy        |                                    |

[Go to Page History](#)

Workflow history

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

| Apr 28, 2026  | Actor                                                                                                  | Type  | Activity                                                                                                                                                               | Version |
|---------------|--------------------------------------------------------------------------------------------------------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| Approved      |  TAN-ext, Charmaine | State | changed state to <b>Approved</b> at 7:37 am (State override)<br><br><i>[PMO Comments] Conversion Spec completed as per CS register and functional review completed</i> | v129    |
| Lead Approval |  TAN-ext, Charmaine | State | gave <i>Minor change</i> approval at 7:37 am<br><br><i>[PMO Comments] Conversion Spec completed as per CS register and functional review completed</i>                 |         |
| Apr 15, 2026  |                                                                                                        |       |                                                                                                                                                                        |         |
|               |  MOUSSA-ext, Eva    | State | changed expiry date to '22 Apr, 2026 12:04 am' at 12:04 am                                                                                                             |         |

|                    |                                                                                                   |       |                                                                                                         |                      |
|--------------------|---------------------------------------------------------------------------------------------------|-------|---------------------------------------------------------------------------------------------------------|----------------------|
| Tech Review        |  MOUSSA-ext, Eva | State | changed state to <a href="#">Lead Approval</a> at 12:04 am                                              | <a href="#">v129</a> |
|                    |                                                                                                   | State | <div>gave <i>Syniti Team Review</i> approval at 12:04 am</div> <div><i>v. 129 CR0438 approved</i></div> |                      |
|                    |                                                                                                   | State | changed expiry date to '20 Apr, 2026 12:04 am' at 12:04 am                                              |                      |
|                    |                                                                                                   | State | changed state to <a href="#">Tech Review</a> at 12:04 am                                                | <a href="#">v129</a> |
| Pending adjustment |  MOUSSA-ext, Eva | State | changed state to <a href="#">Pending adjustment</a> at 12:04 am                                         | <a href="#">v129</a> |