

# CNV-1046 Classes Type: 023 ( Batch)

Status	Approved
Owner	RAYUDU-ext, Narasimha Kumar
Stakeholders	

## Purpose

The purpose of this document is to define the conversion approach to create Batch Classes (Class Type: 023) in S/4 HANA.

Currently, in the legacy systems, batch classes are created and assigned to materials to capture logistics and quality-related information through characteristic values. However, there may be multiple duplicate classes existing within the system, which need to be standardized across both legacy systems as part of the SyWay Design.

Batch Class 023 in SAP is designed to store and manage characteristics relevant to batches, supporting both logistics and quality requirements for effective batch management and traceability.

## Conversion Scope

The scope of this document covers the approach for converting active and valid Batch Classes from Legacy Source Systems (PF2 & WP2) into S/4HANA following the Batch Class (Class Type: 023) Master Data Design Standard.

Standardizing these Batch Classes ensures a consistent structure for batch data across materials and processes.

The data from legacy system includes:

1. Batch Class of Class Type: 023
2. Class Validity (Valid From and Valid To), Valid Date to be considered as Data of Extraction.
3. Class Groups
4. Characteristics Assignment
5. Status as "1" - Released

The data from legacy system excludes:

1. Status as "0" - In Preparation
2. Status as "2" - Locked
3. No Characteristics Assignment

List of source systems and approximate number of records

Source	Scope	Source Approx No. of Records	Target System	Target Approx No. of Records
PF2	Only Valid Batch Class and with Characteristics Assignment	1816	SyWay - ERP	TBD
WP2	Only Valid Batch Class and with Characteristics Assignment	34	SyWay - ERP	TBD

## Additional Information

### Multi-language Requirement

Not Applicable

### Document Management

Not Applicable

### Legal Requirement

Not Applicable

### Special Requirements

Not Applicable

# Target Design

The technical design of the target for this conversion approach.

## Batch Class

Table	Field	Data Element	Field Description	Data Type	Length	Requirement
KLAH	KLART	KLASSENART	Class Type	CHAR	3	Mandatory
KLAH	CLASS	KLASSE_D	Class Number	CHAR	18	Mandatory
KLAH	VONDT	VONDAT	Valid From	DATS	8	System Default
KLAH	BISDT	BISDAT	Valid To	DATS	8	System Default
SWOR	KSCHL	KSCHL	Description	CHAR	40	Mandatory
KLAH	STATU	KLSTATUS	Class status	CHAR	1	Mandatory
KLAH	KLAGR	KLASSENGR	Class Group	CHAR	10	Conditional
KLAH	PRAUS	GLKLAFZ	Same Classification/ Do Not Check	CHAR	1	Mandatory
KSML	IMERK	ATINN	Internal characteristic	NUMC	10	Mandatory

Characteristics Assignments

Table	Field	Data Element	Field Description	Data Type	Length	Requirement
KLAH	CLASS	KLASSE_D	Class Number	CHAR	18	Mandatory
KSML	IMERK	ATINN	Internal characteristic	NUMC	10	Mandatory

## Batch Class Descriptions and Keywords

Table	Field	Data Element	Field Description	Data Type	Length	Requirement
KLAH	CLASS	KLASSE_D	Class number	CHAR	18	Mandatory
KLAH	KLART	KLASSENART	Class Type	CHAR	3	Mandatory
SWOR	SPRAS	SPRAS	Language Key	LANG	1	Mandatory
SWOR	KSCHL	KSCHL	Keyword	CHAR	40	Mandatory

Class must have 1 Description for each language, which also serves as the primary keyword. The required languages are English, French, Italian, Mandarin, Brazilian Portuguese, German and Spanish.

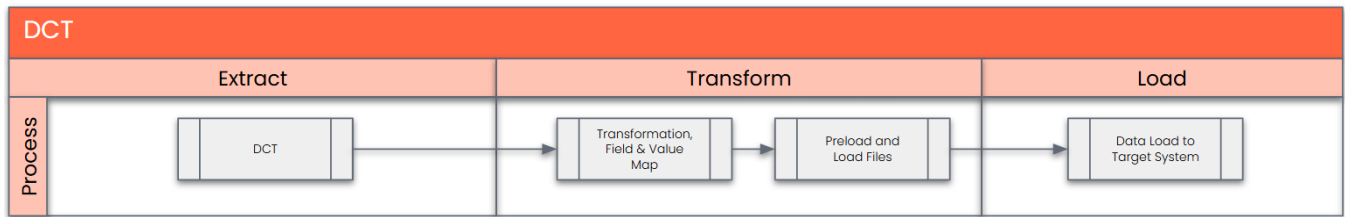
## Data Cleansing

Data cannot be cleansed in Legacy Systems as there is already Classes assigned to materials and transaction data also exists and considering this, all class need to be standardized Globally and will be populated in Data Collection Template(DCT).

## Conversion Process

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

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



## Data Privacy and Sensitivity

Not Applicable

## Extraction

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
NA				

## 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.

## Batch Class DCT Rules

Field Name	Field Description	Rule
KLART	<p>Class Type</p> <p>The top-level unit of control for classes. Each class must be assigned to exactly one class type. There is no connection between the individual class types. You maintain class types in Customizing for Classification.</p> <p>Possible entries for class type: 001 = Material Class 017 = Document Management 023 = Batch Class 200 = Material (Configurable Objects) Class 300 = Variants Class 052 = Customer-material info record</p>	<p>Mandatory</p> <p>Fixed Value - 023</p>

CLASS	<p>Class Number</p> <p>Number used to uniquely identify a change master record.</p> <p>Need to follow the naming Convention which will distinguish across different functions</p> <p>For Eg:</p> <p>Function - XX (QM, SC, Etc.)</p> <p>Business Unit - XXX (NOV -Nova Care SPL - Specialty Polymers)</p> <p>Product Type - XXXX (POLY, RESI Etc., )</p> <p>Sequential Number - XXX (001, 002...999)</p> <p>QM-NOV-POLY-001</p>	<p>Mandatory</p> <p>Class Name - Need to follow the naming Convention which will distinguish across different functions (Eg; Vendor Classification or EAM Characteristics)</p>
KSCHL	<p>Description</p> <p>For each class, the first record of each language will be processed as description, and the other records of this language will be processed as keywords.</p> <p>For example, if you input three records of language 'EN' in a class number, then the first record will be processed as description, the second and the third one will be processed as keywords.</p>	<ul style="list-style-type: none"> <li>• Descriptions need to follow a standard naming convention across all characteristics.</li> <li>• Use similar formats for similar types of characteristics</li> <li>• Avoid abbreviations unless they are commonly accepted by Syensqo</li> </ul>
STATU	<p>Class status</p> <p>This key determines:</p> <ul style="list-style-type: none"> <li>•whether a class can be maintained</li> <li>•whether objects can be allocated to a class</li> <li>•whether the class can be used for selecting objects</li> </ul> <p>Possible values are dependent on the class type:</p> <p>'0' = In preparation</p> <p>'1' = Released</p> <p>'2' = Locked</p> <p>If it is not filled, the released value '1' will be set automatically</p>	<p>Mandatory</p> <p>Fixed Value as 1 - Released</p>
KLAGR	<p>Class Group</p> <p>The class group is used to group together related classes.</p> <p>The class group is used for finding classes quickly via a match code.</p>	<p>Conditional</p> <p>Need to select the appropriate characteristics group for the batch characteristics. As these are configurable values, these are TBD until Functional defines it.</p>
VONDT	<p>Valid-From Date</p> <p>The class validity starts from this date. If it is not set the current system date will be used as valid-from date.</p>	<p>Mandatory</p> <p>System Default as Current Date</p> <p>When the load file is generated, Current Date should be captured.</p>
BISDT	<p>Valid-to date</p> <p>The date until the class can be used. If it is not set, HIGH-Date (31.12.9999) will be used as valid-to date.</p>	<p>Mandatory</p> <p>System Default as 31.12,2999</p>
PRAUS	<p>Same Classification/ Do Not Check</p> <p>This field is to define the system check for identical characteristic values. An activated check, checks if the class with the same values was already assigned to different objects.</p> <p>Possible entries for the field 'Check for Same Classification':</p> <p>empty(no entry) - No Check for Same Classification</p> <p>'W' - Check for Same Classification with Warning</p> <p>'E' - Check for Same Classification with Error Message</p>	<p>Optional</p> <p>3 Values exists</p> <ul style="list-style-type: none"> <li>• Do not check (System Default) - System defaults to this option</li> <li>• Warning Message</li> <li>• Check with Error</li> </ul>

#### Characteristic Assignment DCT Rules

CLASS	<p>Class number</p> <p>Number used to uniquely identify a change master record.</p> <p>Need to follow the naming Convention which will distinguish across different functions</p> <p>For Eg:</p> <p>Function - XX (QM, SC, Etc.)</p> <p>Business Unit - XXX (NOV -Nova Care SPL - Specialty Polymers)</p> <p>Product Type - XXXX (POLY, RESI Etc., )</p> <p>Sequential Number - XXX (001, 002...999)</p> <p>QM-NOV-POLY-001</p>	<p>Mandatory.</p> <p>Class Number as per Class DCT.</p>
IMARK	<p>Internal characteristic</p> <p>Name that uniquely identifies a characteristic.</p>	<p>Mandatory.</p> <p>Characteristic Name as per Characteristic DCT. Relevant Characteristics need to selected by Business.</p>

**Class Descriptions Keyword Data Construction Rules**

CLASS	<p>Class number</p> <p>Number used to uniquely identify a change master record.</p> <p>Need to follow the naming Convention which will distinguish across different functions</p> <p>For Eg:</p> <p>Function - XX (QM, SC, Etc.)</p> <p>Business Unit - XXX (NOV -Nova Care SPL - Specialty Polymers)</p> <p>Product Type - XXXX (POLY, RESI Etc., )</p> <p>Sequential Number - XXX (001, 002...999)</p> <p>QM-NOV-POLY-001</p>	<p>Mandatory.</p> <p>Class Number as per Class DCT.</p>
KLART	<p>Class Type</p> <p>The top-level unit of control for classes. Each class must be assigned to exactly one class type. There is no connection between the individual class types. You maintain class types in Customizing for Classification.</p> <p>Possible entries for class type:</p> <p>001 = Material Class</p> <p>017 = Document Management</p> <p>023 = Batch Class</p> <p>200 = Material (Configurable Objects) Class</p> <p>300 = Variants Class</p> <p>052 = Customer-material info record</p>	<p>Mandatory.</p> <p>Should be from the values defined below</p> <p>023-Batch Class</p>

SP RAS	Language Key Please enter here the language of your description (ISO format).	EN - English FR - French IT - Italian ZH - Mandarin PT - Portuguese DE - German ES - Spanish XX - Brazilian Portuguese
KS CHL	Keyword For each class, the first record of each language will be processed as description, and the other records of this language will be processed as keywords. For example, if you input three records of language 'EN' in a class number, then the first record will be processed as description, the second and the third one will be processed as keywords.	Mandatory. Keywords should be on the Title Case.

## Extraction Dependencies

Item #	Step Description	Team Responsible
1	Extract data from source systems PF2 and WP2	Syniti
2	Populate in a report in a Downloadable format	Syniti
3	Data is populated in the DCT or uploaded from downloaded Excel template	Business/Data Owners
4	If the data is uploaded to DCT in bulk via excel template, any upload errors need to be reviewed and corrected	Business/Data Owners
5	The data which has passed validation checks in DCT will be used for transformation/further processing	Business/Data Owners

## Transformation

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

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

## Transformation Run Sheet

Item #	Step Description	Team Responsible
1	Obtain DCT Sign-off from Business.	SCM Data Team
2	In dspMigrate, select the wave – S4/HANA – P2F-SCM	Syniti
3	Go to Process Area Launch and Process the Object – Batch Class	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

Rule #	Source system	Source Table	Source Field	Source Description	Target System	Target Table	Target Field	Target Description	Transformation Logic
1	PF2&WP2	KLAH	KLART	Class Type	SyWay - ERP	KLAH	KLART	Class Type	Direct Mapping
2	PF2&WP2	KLAH	CLASS	Class Number	SyWay - ERP	KLAH	CLASS	Class Number	Direct Mapping
3	PF2&WP2	SWOR	KSCHL	Description	SyWay - ERP	SWOR	KSCHL	Description	Direct Mapping
4	PF2&WP2	KLAH	STATU	Class status	SyWay - ERP	KLAH	STATU	Class status	Direct Mapping
5	PF2&WP2	KLAH	KLAGR	Class Group	SyWay - ERP	KLAH	KLAGR	Class Group	Direct Mapping
6	PF2&WP2	KLAH	VONDT	Valid-From Date	SyWay - ERP	KLAH	VONDT	Valid-From Date	Direct Mapping
7	PF2&WP2	KLAH	BISDT	Valid-to date	SyWay - ERP	KLAH	BISDT	Valid-to date	Direct Mapping
8	PF2&WP2	KLAH	PRAUS	Same Classification/ Do Not Check	SyWay - ERP	KLAH	PRAUS	Same Classification/ Do Not Check	Direct Mapping
12	PF2&WP2	KSML	IMERK	Internal characteristic	SyWay - ERP	KSML	IMERK	Internal characteristic	Direct Mapping

## Transformation Mapping

Mapping Table Name	Mapping Table Description
KSML	Characteristics of a Class
KLAH	Class Header Data
SWOR	Classification System: Keywords

## Transformation Dependencies

List the steps that need to occur before transformation can commence

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

## Pre-Load Validation

### Project Team

### Completeness

Task	Action
Verify DCT & Load File Count	SCM Data Team to verify that the total number of relevant records from the DCT is equal to the total number of records in the Preload and Load Sheets.
Verify Consent	Verify the appropriate consents for the records have been obtained by the business/Data Owners and properly recorded

### Accuracy

Task	Action
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Conversion Accuracy	SCM Data team to verify that all the data in the load table/file is accurate as per signed-off DCT contents and transformation rules with below 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> </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 Data Owner/s to verify that the total number of relevant records from the the DCT is equal to the total number of records in the Preload and Load Sheets.
Verify Consent	Verify that the appropriate consents for the records have been obtained by the business and properly recorded

### Accuracy

Task	Action
Conversion Accuracy	Business Data Owner/s to verify that all the data in the load table/file is accurate as per endorsed transformation/mapping rules (and signed-off DCT 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
3. Load approach: Migration Cockpit using Staging Tables

### Load Run Sheet

Item #	Step Description	Team Responsible
1	Ensure Pre-load sign-offs are obtained.	SCM Data team
2	Go to the load tool and select the correct load Program.	SCM Data team
3	Proceed with Data load.	SCM Data team
4	Validate few records loaded by accessing standard transactions.	SCM Data team
5	Generate the post load reports in the tool.	SCM Data team
6	Log errors as defects, if any and address resolutions. Close defects.	SCM Data team
7	Resolve defects by re-upload and re-generate post load reports if necessary.	SCM 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.	SCM Data team

### Load Phase and Dependencies

## Configuration

Item #	Configuration Item
1.	KLAGR - Class Group. Table/View: V_CLG (Class Groups) SAP Customizing Implementation Guide -> Cross-Application Components -> Classification System -> Classes -> Define Class Groups

## Conversion Objects

Object #	Preceding Object Conversion Approach
NA	NA

## Error Handling

Error Type	Error Description	Action Taken
Configuration	<configuration> is not valid/missing	If it is a missing configuration item, then engage Functional team to expedite and fix the error in the system.
Invalid Data	<parameter> is not valid.	The parameter entry needs to be reviewed If it is an invalid data, business needs to review and correct the source of the data either in PE1 or if it's mapped in DCT.
Technical Setup	Interface / Connection issue within target system's landscape	N/A – the data will be loaded directly to S/4HANA environment

## Post-Load Validation

### Project Team

### Completeness

Task	Action
Verify the count	Verify that the record count in the post-load file is the same as the record count based on the relevancy (including any deduplication) results

### Accuracy

Task	Action
Data Accuracy	SCM Data team to verify that all the data in the post load table/file is accurate as per signed-off transformation rules and DCT contents
Error Reports	Verify that all necessary error reports have been validated, and that errors have been addressed.
Data Consistency	Verify that the data loaded is correctly reflected in T-Code: CL01 or Table: KSML/KLAH.

## Business

## Completeness

Task	Action
Verify Count	Verify that the record count in the post load file is the same as the record count based on the relevancy (including deduplication) results
Validate Loaded Data	Validate, as per the load files signed-off, that all records were created

## Accuracy

Task	Action
Data Accuracy	Verify that all the data in the S/4HANA table is accurate as per signed-off DCT contents and transformation rules For mock loads, the post load data validation will be as per scrambled data, thus data accuracy is not to be checked against DCT which holds the actual data. Post-load data to be validated against the pre-load report (scrambled data).
Verify Relationships	Verify that each Vendor have been assigned to the appropriate Business Partner correctly

## Key Assumptions

- The Master Data Standards document is a evolving document where value mappings/validation checks are still being finalized as we are currently in the detailed phase as of September 2025.
- Batch Characteristics is in scope based on data design and any exception requested by business.

## See also





## Change log

Version	Published	Changed By	Comment
<b>CURRENT (v. 23)</b>	<b>Nov 18, 2025 18:07</b>	<b>RAYUDU-ext, Narasimha Kumar</b>	
v. 22	Nov 18, 2025 17:59	RAYUDU-ext, Narasimha Kumar	Tooltip Updated.
v. 21	Oct 15, 2025 13:58	RAYUDU-ext, Narasimha Kumar	
v. 20	Oct 15, 2025 13:50	RAYUDU-ext, Narasimha Kumar	Language & Chars Assignment
v. 19	Oct 08, 2025 14:18	RAYUDU-ext, Narasimha Kumar	Added Config Item dependencies
v. 18	Oct 02, 2025 14:56	RAYUDU-ext, Narasimha Kumar	Updated Peer Review comments
v. 17	Oct 02, 2025 00:35	RAYUDU-ext, Narasimha Kumar	
v. 16	Oct 01, 2025 15:10	RAYUDU-ext, Narasimha Kumar	
v. 15	Oct 01, 2025 13:27	RAYUDU-ext, Narasimha Kumar	
v. 14	Oct 01, 2025 11:31	RAYUDU-ext, Narasimha Kumar	

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## Workflow history

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

May 08, 2026	Actor	Type	Activity	Version
Approved	 MCARDLE-ext, Edward	State	changed state to <b>Approved</b> at 11:14 am	v23
Revision under Review	 MCARDLE-ext, Edward	State	gave <i>Minor change</i> approval at 11:14 am	
		State	changed state to <b>Revision under Review</b> at 11:14 am	v23
<b>Mar 18, 2026</b>				
Revision in Progress	WENNINGER-ext, Sascha	State	changed state to <b>Revision in Progress</b> at 5:41 pm	v23
<b>Nov 18, 2025</b>				
Edited following Approval	 RAYUDU-ext, Narasimha Kumar	Edit	updated the page at 5:59 pm	
	 RAYUDU-ext, Narasimha Kumar	State	changed state to <b>Edited following Approval</b> at 4:59 pm	v22