CNV-1047 Batch Characteristics of Class Type: 023

Status	Approved
Owner	RAYUDU-ext, Narasimha Kumar
Stakeholders	

Purpose

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

In both legacy systems, batch characteristics (class type 023) are used to hold key information related to Logistics & Quality information. Currently, there are more than 1,000 characteristics where these are duplicated with identical descriptions and assigned to different classes. To enable effective global utilization and reporting purposes, these characteristics need to be standardized. SyWay program to harmonize and standardize these characteristics across the organization.

Conversion Scope

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

SAP Batch Characteristics are specific data fields used within the SAP system to describe and manage the properties of a batch of materials. They are part of the SAP Classification System and are typically associated with **class type 023** (Batch Class).

Material Batches capture detailed information about each batch, such as production date, quality parameters, supplier details, or any other relevant property and enable traceability; allow track and trace batches throughout the supply chain with structured data for analysis and reporting.

The data from legacy system includes:

1. Characteristics assigned to Classes with below Class Type
    - 023 – Batch Class (PF2, WP2)
2. Batch Characteristics assigned to Active Classes of 023.
3. Valid from [Current Date]
4. Status = 1 (Released)

The data from legacy system excludes:

1. Characteristics for Deletion (Deletion Indicator = X)

List of source systems and approximate number of records

Source	Scope	Source Approx No. of Records	Target System	Target Approx No. of Records
PF2	Batch Characteristics will be collected via DCT. An extract of the relevant Characteristics will be provided to assist business in standardizing the Characteristics from PF2 and WP2. If Any additional Characteristics that need to be created to support the new design may be added in the DCT.	4285	SAP S/4 HANA	
WP2	Batch Characteristics will be collected via DCT. An extract of the relevant Characteristics will be provided to assist business in standardizing the Characteristics from PF2 and WP2. If Any additional Characteristics that need to be created to support the new design may be added in the DCT.	1179	SAP S/4 HANA	

Additional Information

Multi-language Requirement

Characteristics descriptions are maintained in different languages. TBD on the Language Keys

Document Management

NA

Legal Requirement

NA

Special Requirements

NA

Target Design

The technical design of the target for this conversion approach.

Characteristics Definitions

Table	Field	Data Element	Field Description	Data Type	Length	Requirement
CABN	ATNAM	ATNAM	Characteristic	CHAR	30	Mandatory
CABN	DATUV	DATUV	Valid From	DATS	8	Mandatory
CABNT	ATBEZ	TEXT30	Description	CHAR	30	Mandatory
CABN	ATKLA	ATKLA	Characteristic Group	CHAR	10	Conditional
CABN	ATMST	ATMST	Status	CHAR	1	Mandatory
CABN	ATFOR	ATFOR	Data Type	CHAR	4	Mandatory
CABN	ANZST	ANZST	Number of Characters	INT2	5	Mandatory
CABN	ATKLE	ATKLE	Case Sensitive	CHAR	1	Optional
CABN	ATSCH	ATSCH	Template	CHAR	30	Optional
CABN	ANZDZ	ANZDZ	Decimal places	INT2	5	Optional But if Data Type is CURR, this is Mandatory
CABN	CURRENCY	WAERS_CURC	Currency	CUKY	1	Mandatory (For Currency related Characteristics) / Optional
CABN	ATEIN	ATEIN	Value Assignment	CHAR	1	Mandatory
CABN	MSEHI	MSEHI	Unit of Measure	UNIT	3	Mandatory
CABN	ATDIM	ATDIM	Exponent display	INT2	5	Mandatory
CABN	ATINT	ATINT	Interval values allowed	CHAR	1	Optional
CABN	ATVOR	ATVOR	Negative values allowed	CHAR	1	Optional
CABN	ATERF	ATERF	Entry Required	CHAR	1	Optional
CABNT	SPRAS	SPRAS	Language	LANG	1	Mandatory
CABN	ATSON	ATSON	Additional Values	CHAR	1	Optional
CABN	ATPRT	ATPRT	Check Table	CHAR	30	Conditional
CABN	ATTAB	ATTAB	Reference Table	CHAR	30	Optional
CABN	ATFEL	ATFEL	Reference Field	CHAR	30	Optional
CABN	ATINP	ATINP	Not ready for input	CHAR	1	Optional
CABN	ATVIE	ATVIE	No display	CHAR	1	Optional
CABN	ATWRD	ATWRD	Display Allowed Values	CHAR	1	Optional
CABN	ATFOD	ATFOD	Unformatted Entry	CHAR	1	Optional
CABN	ATVSC	ATVSC	Propose Template	CHAR	1	Optional

Characteristics Values (SAP Standard and Custom Defined)

Table	Field	Data Element	Field Description	Data Type	Length	Requirement

CAWN	ATINN	ATINN	Internal characteristic	NUMC	10	Mandatory
CAWN	ATZHL	ATZHL	Int counter	NUMC	4	System Generated
CAWN	ATWRT	ATWRT	Characteristic Value	CHAR	70	Optional
CAWN	DEC_FROM	CAWN_DEC_FROM	Lower Boundary for Numeric Field	DECFLOAT34	34	Optional
CAWN	DEC_TO	CAWN_DEC_TO	Upper Boundary for Numeric Field	DECFLOAT34	34	Optional

> *There are certain characteristics in system which are assigned as a Function Module (For Eg: Characteristic: LOBM_UDCODE) and these Characteristics values are deriving from Configuration. TBD to discuss with Functional for detail design.*

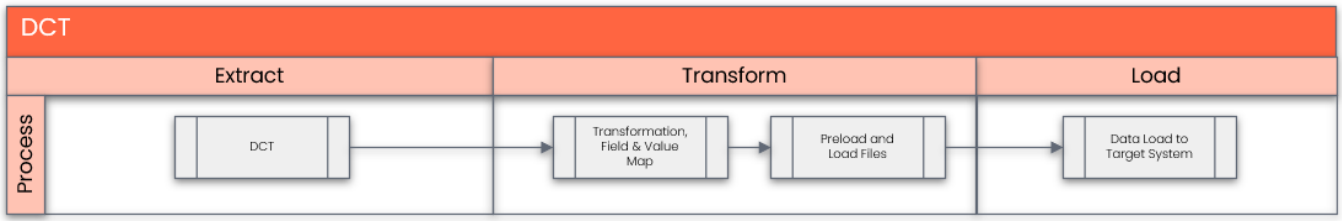
Data Cleansing

No data cleansing is required within the source systems. Standardization and cleansing activities will be carried out outside of the Syniti tool, and the finalized characteristics will be populated in the DCT.

ID	Criticality	Error Message/Report Description	Rule	Output	Source System
	NA	NA	NA	NA	NA

Conversion Process

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



Data Privacy and Sensitivity

NA

Extraction

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

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

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

Extraction Run Sheet

Req #	Requirement Description	Team Responsible
1	Legacy System Extraction (PF2 & WP2) based on the Relevancy Rules from Table: CABN & CABNT	SyWay Data Team

Selection Screen

NA

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 Batch Characteristics data with exception of some fields which require transformation as mentioned in the transformation rule.

Batch Characteristics Definition - DCT Rules

Field Name	Field Description	Rule
ATNAM	Characteristic	Mandatory TBD Characteristics Name - Need to follow the naming Convention which will distinguish across different functions (Eg; Vendor Classification or EAM Characteristics)
DATUV	Valid From	Mandatory When the Load File is generated, Current Date should be captured
ATBEZ	Description	• Descriptions need to follow a standard naming convention across all characteristics. • Use similar formats for similar types of characteristics • Avoid abbreviations unless they are commonly accepted by Syensqo
ATKLA	Characteristic Group	Conditional Need to select the appropriate characteristics group for the batch characteristics. As these are configurable values, these are TBD until Functional defines it.
ATMST	Status	Mandatory Fixed Value as 1 - Released
ATFOR	Data Type	Mandatory Below are list of values used: • Character format (CHAR): for characteristic values that consist of a character string • Numeric format (NUM): for numeric characteristic values • Date format (DATE): for characteristic values that represent a date • Time format (TIME): for characteristic values that represent a time • Currency format (NUM): for characteristic values that are entered in a currency
ANZST	Number of Characters	Mandatory • If a characteristic has data type "character" (CHAR), you can maintain a language-dependent description for values. This description can be up to 30 characters long, regardless of the number you enter here. • If a characteristic has data type "Currency" (CURR), No of Characters to be maximum 15 • If a characteristic has data type "Number" (CURR), No of Characters to be maximum 15
ATKLE	Case Sensitive	Conditional Indicator to set the characteristic values entered are automatically converted into upper-case letters.

ATSCH	Template	Optional If these are defined in Configuration for "character" (CHAR)for Need to use the specific template for this Characteristics. If these are defined in Configuration for "Currency" (CURR), it is automatically populated.
ANZDZ	Decimal places	When CURR is selected, Decimal Places are automatically populated
CURRENCY	Currency	Mandatory If CURR Data type is selected, Fill in the Currency of the characteristic.
ATEIN	Value Assignment	Two options are possible: • Single Values • Multiple Values
MSEHI	Unit of Measure	Conditional. This can be filled, when data type chosen NUM
ATDIM	Exponent display	Conditional. This can to be filled, when data type chosen NUM List of Values: 0: No exponent 1: Standard 2: Exponent entered 3: Scientific exponent
ATINT	Interval values allowed	Conditional. Indicator (check box). This can be marked, when data type chosen CURR, DATE, NUM, TIME
ATVOR	Negative values allowed	Conditional. Indicator (check box).
ATERF	Entry Required	Conditional. Indicator (check box).
SPRAS	Language	TBD
ATSON	Additional Values	Conditional. Indicator (check box). Once the language key is selected, the description field should be filled in the corresponding language.
ATTAB	Reference Table	Conditional If the format of the Characteristics need to refer from Table, this is filled in
ATPRT	Check Table	Conditional Transparent Table (Check Table is maintained so that Characteristics Values are used from the Table in Transaction Data)
ATFEL	Reference Field	Conditional If the format of the Characteristics need to refer from Table-Field, this is filled in
ATINP	Not ready for input	Conditional - If Reference Table and Field are not provided Mandatory - If the format of the characteristics needs to be referenced from a table, this information should be provided here.
ATVIE	No display	Conditional. Indicator (check box).
ATWRD	Display Allowed Values	Conditional. Indicator (check box).

ATFOD	Unformatted Entry	Conditional. Indicator (check box).
ATVSC	Propose Template	Conditional. Indicator (check box).

Characteristics Values - DCT Rules

Field Name	Field Description	Rule
ATINN	Internal characteristic	Mandatory TBD This should be assigned from CABN-ATNAM
ATZHL	Int counter	System Generated. System creates a internal sequential number for each Characteristic Value
ATWRT	Characteristic Value	Optional Characteristics values are defined here if these are created in Characters.
DEC_FROM	Lower Boundary for Numeric Field	Optional From Characteristics values are defined here if these are created in Numeric For Eg: 0 % - 100% Etc.
DEC_TO	Upper Boundary for Numeric Field	To Characteristics values are defined here if these are created in Numeric For Eg: 0 % - 100% Etc.

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 – Characteristics	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

Batch Characteristics Definition - DCT Rules

Rule #	Source system	Source Table	Source Field	Source Description	Target System	Target Table	Target Field	Target Description	Transformation Logic
1	DCT	CABN	ATNAM	Characteristic	S/4 HANA	CABN	ATNAM	Characteristic	Direct Mapping
3	DCT	CABN	DATUV	Valid From	S/4 HANA	CABN	DATUV	Valid From	If has value in DCT, Direct Mapping. If blank, default to Creation Date.
4	DCT	CABNT	ATBEZ	Description	S/4 HANA	CABNT	ATBEZ	Description	Direct Mapping
5	DCT	CABN	ATKLA	Characteristic Group	S/4 HANA	CABN	ATKLA	Characteristic Group	Direct Mapping
6	DCT	CABN	ATMST	Status	S/4 HANA	CABN	ATMST	Status	Direct Mapping
8	DCT	CABN	ATFOR	Data Type	S/4 HANA	CABN	ATFOR	Data Type	Direct Mapping Need Dropdown in DCT. 1) CHAR 2) NUM 3) CURR
9	DCT	CABN	ANZST	Number of Characters	S/4 HANA	CABN	ANZST	Number of Characters	Direct Mapping
10	DCT	CABN	ATKLE	Case Sensitive	S/4 HANA	CABN	ATKLE	Case Sensitive	Direct Mapping
11	DCT	CABN	ATSCH	Template	S/4 HANA	CABN	ATSCH	Template	Direct Mapping
12	DCT	CABN	ANZDZ	Decimal places	S/4 HANA	CABN	ANZDZ	Decimal places	Direct Mapping Valid for only Data Type CURR
13	DCT	CABN	CURRENCY	Currency	S/4 HANA	CABN	CURRENCY	Currency	Direct Mapping
14	DCT	CABN	ATEIN	Value Assignment	S/4 HANA	CABN	ATEIN	Value Assignment	Direct Mapping
15	DCT	CABN	MSEHI	Unit of Measure	S/4 HANA	CABN	MSEHI	Unit of Measure	Direct Mapping
16	DCT	CABN	ATDIM	Exponent display	S/4 HANA	CABN	ATDIM	Exponent display	Direct Mapping
17	DCT	CABN	ATINT	Interval values allowed	S/4 HANA	CABN	ATINT	Interval values allowed	Direct Mapping
18	DCT	CABN	ATVOR	Negative values allowed	S/4 HANA	CABN	ATVOR	Negative values allowed	Direct Mapping
20	DCT	CABN	ATERF	Entry Required	S/4 HANA	CABN	ATERF	Entry Required	Direct Mapping
21	DCT	CABNT	SPRAS	Language	S/4 HANA	CABNT	SPRAS	Language	Direct Mapping
22	DCT	CABN	ATSON	Additional Values	S/4 HANA	CABN	ATSON	Additional Values	Direct Mapping
23	DCT	CABN	ATTAB	Reference Table	S/4 HANA	CABN	ATTAB	Reference Table	Direct Mapping
24	DCT	CABN	ATFEL	Reference Field	S/4 HANA	CABN	ATFEL	Reference Field	Direct Mapping
25	DCT	CABN	ATPRT	Check Table	S/4 HANA	CABN	ATPRT	Check Table	Direct Mapping If check table is assigned then Characteristics Values are not populated in Characteristic Values DCT.
26	DCT	CABN	ATINP	Not ready for input	S/4 HANA	CABN	ATINP	Not ready for input	Direct Mapping
27	DCT	CABN	ATVIE	No display	S/4 HANA	CABN	ATVIE	No display	Direct Mapping
28	DCT	CABN	ATWRD	Display Allowed Values	S/4 HANA	CABN	ATWRD	Display Allowed Values	Direct Mapping

29	DCT	CABN	ATFOD	Unformatted Entry	S/4 HANA	CABN	ATFOD	Unformatted Entry	Direct Mapping
30	DCT	CABN	ATVSC	Propose Template	S/4 HANA	CABN	ATVSC	Propose Template	Direct Mapping

Characteristics Values - DCT Rules

Rule #	Source system	Source Table	Source Field	Source Description	Target System	Target Table	Target Field	Target Description	Transformation Logic
1	DCT	CAWN	ATINN	Internal characteristic	S/4 HANA	CAWN	ATINN	Internal characteristic	Direct Mapping
2	DCT	CAWN	ATZHL	Int counter	S/4 HANA	CAWN	ATZHL	Int counter	Direct Mapping
3	DCT	CAWN	ATWRT	Characteristic Value	S/4 HANA	CAWN	ATWRT	Characteristic Value	Direct Mapping
4	DCT	CAWN	DEC_FROM	Lower Boundary for Numeric Field	S/4 HANA	CAWN	DEC_FROM	Lower Boundary for Numeric Field	Direct Mapping
5	DCT	CAWN	DEC_TO	Upper Boundary for Numeric Field	S/4 HANA	CAWN	DEC_TO	Upper Boundary for Numeric Field	Direct Mapping

Transformation Mapping

Mapping Table Name	Mapping Table Description

Transformation Dependencies

List the steps that need to occur before transformation can commence

Item #	Step Description	Team Responsible
1	Ensure DCT tables completeness	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

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: 1. Mandatory Fields 2. Field and Value Mapping Correctness 3. Null 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 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

Pre Cutover

Configuration

Item #	Configuration Item
1	V_CMG - Characteristics Group
2	T002 - Language Keys

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: CT04 or Table: CABN/CABNT.

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
CURRENT (v. 29)	**Nov 19, 2025 15:29**	**RAYUDU-ext, Narasimha Kumar**	
v. 28	Nov 18, 2025 17:48	**RAYUDU-ext, Narasimha Kumar**	
v. 27	Nov 18, 2025 17:05	**RAYUDU-ext, Narasimha Kumar**	
v. 26	Oct 30, 2025 18:23	**RAYUDU-ext, Narasimha Kumar**	Field ATPRT added.
v. 25	Oct 15, 2025 13:54	**RAYUDU-ext, Narasimha Kumar**	Copy Paste Issue for Char Values
v. 24	Oct 08, 2025 14:15	**RAYUDU-ext, Narasimha Kumar**	Added CAWN as there are standard and non standard Characteristics values in system.

v. 23	Sept 26, 2025 13:14	**RAYUDU-ext, Narasimha Kumar**
v. 22	Sept 26, 2025 12:36	**RAYUDU-ext, Narasimha Kumar**
v. 21	Sept 26, 2025 12:33	**RAYUDU-ext, Narasimha Kumar**
v. 20	Sept 26, 2025 12:30	**RAYUDU-ext, Narasimha Kumar**

Go to Page History

Workflow history

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

From Nov 18, 2025 to Nov 19, 2025	Actor	Type	Activity	Version
Approved	RAYUDU-ext, Narasimha Kumar	Edit	updated the page at 5:05 pm	
Nov 06, 2025				
	MCARDLE-ext, Edward	State	changed state to Approved at 2:13 pm	v26
Lead Approval	MCARDLE-ext, Edward	State	changed expiry date to '13 Nov, 2025 02:13 pm' at 2:13 pm	
		State	gave *Minor change* approval at 2:13 pm	
		State	changed state to Lead Approval at 2:13 pm	v26
Tech Review	MCARDLE-ext, Edward	State	gave *Syniti Team Review* approval at 2:13 pm	
From Oct 08, 2025 to Oct 30, 2025				
	RAYUDU-ext, Narasimha Kumar	Edit	updated the page at 2:15 pm	