



PUBLIC

How to Enable MDG Data Quality Management for Custom Attributes

Applicable Releases:

SAP Master Data Governance (MDG) on SAP S/4HANA 2020 onwards.

This document is designed for SAP MDG consultants, partners, and key users of SAP MDG solutions.

For more information, visit the SAP Master Data Management homepage:

<http://scn.sap.com/community/mdm/master-data-governance>,
<https://blogs.sap.com/2020/10/08/benefit-from-sap-master-data-governance-on-sap-s-4hana-2020/>

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September 2024

Document History

Document Version	Description
1.0	First official release of this guide
1.2	Format updates

Table of contents

Introduction4

Add and Publish Custom Fields.....4

Synchronize the Custom Field into the MDC Process Model5

Define Data Quality Rule for Custom Field.....6

Mine Rules for Custom Fields8

Data Quality Evaluation Results and Remediate Data Quality Issue9

Introduction

With the release of SAP S/4HANA 2020, SAP Master Data Governance provides a powerful new data quality management function. (See more details in this blog).

Most customers have their own custom fields to maintain their business-critical information. In the SAP S/4HANA environment, key users can use the Custom Field and Logic app to manage these fields. Once you publish custom fields in the relevant context, you can use them in related apps and APIs. In MDG, Data Quality Management has also integrated with SAP S/4HANA extensibility. This How To guide explains how MDG Data Quality Management supports these custom fields.

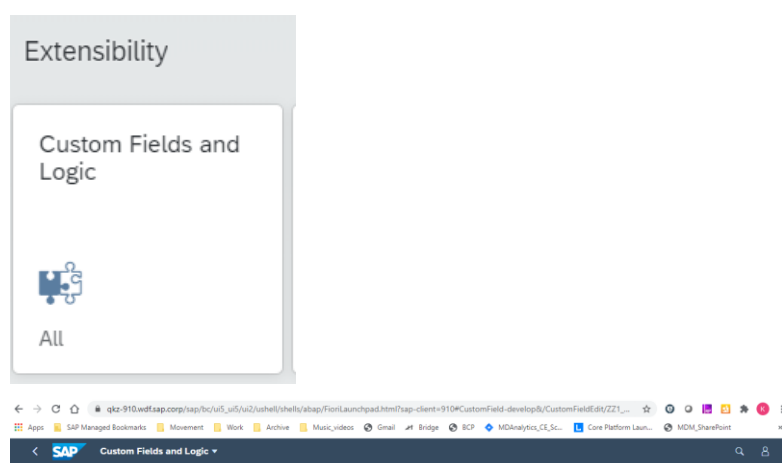
Add and Publish Custom Fields

You can access the **Custom Fields and Logic** app using the role SAP_BR_ADMINISTRATOR. The app is delivered in Fiori Catalog SAP_BASIS_BC_EXT.

Create a new custom field and publish it.

For details on how to use this app see [document](#).

In this example, one custom field is created in the Business Partner Core View, which will be part of the business partner header data.



The screenshot displays the SAP Custom Fields and Logic application interface. The top section shows the app title "Custom Fields and Logic" with a puzzle piece icon and the word "All". Below this, the browser address bar shows the URL: "qlx-910.wdf.sap.corp/sap/bc/u5_u5/u2/ushell/shells/abap/FioriLaunchpad.html?app-client=910&CustomField-developId/CustomFieldId/ZZ1...". The main content area displays the details for the custom field "ZEXT_WKF1", which is published. It lists the code list "ZZ1_ZEXT_WKF1" and the business partner core view. The "General Information" tab is active, showing details such as the label "ZEXT_WKF1", tooltip "ZEXT_WKF1", length "3", creation date "13.08.2020" by "Kefeng Wang", and original language "English". Below the details, the "List Values (3)" section shows a table with three entries:

Code Value	Description	Disabled
101	Value 101 Description	<input type="checkbox"/>
102	Value 102 Description	<input type="checkbox"/>
103	Value 103 Description	<input type="checkbox"/>

At the bottom of the interface, there are buttons for "Save", "Publish", "Discard Changes", "Delete", and "Cancel".

CAI. DT Judge

Code List (3)

ZZ1_ZEXT_WKF1

Master Data: Business Partner (BP_CUSTVEND1)

Published

General Information

Uis and Reports (7)

Email Templates (0)

Form Templates (0)

Business Scenarios (0)

OData APIs (0)

SOAP APIs (3)

BAPIs (0)

IDocs (0)

Uis and Reports

Data Source	Description	Visibility Control	Behavior	Search Relevance	Field Usage
I_BUSINESSPARTNER	Business Partner				Enabled

Disable Usage

Leave about 10-20 minutes after publishing.

Check the attribute in the database table.

In this example, it is extended in the Business Partner header table BUT000. You can review the new field in transaction SE11.

Dictionary: Display Table

Transparent Table

BUT000

Active

Short Description

BP: General data I

Attributes

Delivery and Maintenance

Fields

Entry help/check

Currency/Quantity Fields

Indexes

Field	Key	Int...	Data element	Data Type	Length	Decim...	KoordSystem	Short Description
.INCLUDE			BUS000ADAT	STRU		0		0 CDP: General Data (not dep. on Part. Cat.
BP_SORT1			BU_SORT1	CHAR	20	0		0 Search term 1 for business partner
BP_SORT2			BU_SORT2	CHAR	20	0		0 Search term 2 for business partner
SOURCE			BU_SOURCE	CHAR	4	0		0 Data Origin Types
TITLE			AD_TITLE	CHAR	4	0		0 Form-of-Address Key
XDELE			BU_XDELE	CHAR	1	0		0 Central Archiving Flag
XBLCK			BU_XBLCK	CHAR	1	0		0 Central Block for Business Partner
ADGRP			BU_ADGRP	CHAR	4	0		0 Authorization Group
TITLE LET			BU_TITLE LET	CHAR	50	0		0 Salutation
BU LOGSYS			LOGSYS	CHAR	10	0		0 Logical system
CONTACT			BU_CONTACT	CHAR	1	0		0 Business Partner: Contact Permission
NOT RELEASED			BU_XNOT RELEASED	CHAR	1	0		0 Indicator: Not Released
NOT LG COMPETENT			BU_NOT_LEG_COMP.	CHAR	1	0		0 Indicator: Not Legally Competent
PRINT_MODE			BU_PRINT_MODE	CHAR	1	0		0 Business Partner Print Format
.INCLUDE			INCL_EEW_BUT000	STRU		0		0 EEW Extension of BUT000 (Contains CI)
BP_EEW_HNNMV			HNNMV	CHAR	1	0		0 Dummy function in length 1
.APPEND			ZZ1_GOT2AOJCE2C.	STRU		0		0 ZZ1_ZEXT_WKF1
ZZ1_ZEXT_WKF1 BUS			ZZ1_ZEXT_WKF1	CHAR	3	0		0 Ext. BP Stage
.APPEND			ZZ1_HXSVH4HW7UY.	STRU		0		0 ZZ1_EXT_TEST_NUM
ZZ1_EXT_TEST_NUM BUS			ZZ1_EXT_TEST_NUM	DEC	10	2		0 EXT_TEST_NUM
.APPEND			ZZ1_HYHGMFT6AKL.	STRU		0		0 ZZ1_ZEXT_GENDER
ZZ1_ZEXT_GENDER BUS			ZZ1_ZEXT_GENDER	CHAR	3	0		0 Gender
.APPEND			ZZ1_LAOY2RSDCKN.	STRU		0		0 ZZ1_MarketingCode

Synchronize the Custom Field into the MDC Process Model

Before the custom field can be used in Data Quality Management, you must synchronize the custom field into the Process Model in MDG customizing.

Go to transaction MDCIMG, then navigate to *Configure Process Models and Field Properties* → *Configure Process Models*

In this example, the field is extended on business partner (Business Object Type 147).

Display IMG

Existing BC Sets BC Sets for Activity Activated BC Sets for Activ

Structure

- Master Data Governance, Consolidation and Mass Processing
 - Configure Process Models and Field Properties
 - Configure Process Models
 - Specify Table and Field Properties
 - Specify Adapters
 - Define Rules Using the Business Rule Framework plus
 - Configure Scope

Change View "Configure Process Models": Overview

New Entries

Dialog Structure

- Business Object Type
 - Tables
 - Display folder contents
 - Join Fields
 - Table Fields
 - Suites
 - Models
 - Extra Fabric
 - BO Type Specific Keepers

Bus. Obj. Type 147

Table	Table Alias
BP1012	Rating
BP1030	Financial Services Reportin
BPTAXC	Tax Compliance
BUT000	General
BUT020	Technical Link Table for A
BUT021_FS	Address Usage
BUT022	Address-Dependent Interr

Change View "Configure Process Models": Overview

Dialog Structure

- Business Object Type
 - Tables
 - Join Fields
 - Table Fields
 - Suites
 - Models
 - Extra Fabric
 - BO Type Specific Keepers

Bus. Obj. Type 147

Table BUT000

Synchronize Fields

Field Name	Field Description	Technical
BIRTHDT_STATUS	Date of Birth: Status	<input checked="" type="checkbox"/>
BIRTHPL	Birthplace of business partner	<input type="checkbox"/>
BPEXT	Business Partner Number in External System	<input type="checkbox"/>
BPKIND	Business Partner Type	<input type="checkbox"/>
BP_EEW_DUMMY	Dummy function in length 1	<input checked="" type="checkbox"/>
BP_SORT	Sort Field for Phonetic Search; Obsolete	<input type="checkbox"/>
BU_GROUP	Business Partner Grouping	<input type="checkbox"/>
BU_LANGU	Business partner: Language	<input type="checkbox"/>
BU_LOGSYS	Logical system	<input type="checkbox"/>

On the Table Field of BUT000, we choose Synchronize Fields.

Define Data Quality Rule for Custom Field

Now we can define a validation rule for the custom field.

In the Data Quality Rule app, you can find the custom field on the available list for Check Field.

For more information about the app see: [Data Quality Rules for Business Partners](#)

Data Quality Rules

Business Partners

	<div><div>Data Quality Rules (1)ExportDeleteCreateShow Details</div><div><div><input type="checkbox"/> Rule</div><div><input type="checkbox"/> RULEID</div></div><div>RULENAME _Test_ExtendedField</div><div>Base Table: General (BUT000)</div><div>Checked Field: Ext. BP Stage (BUT000-ZZ1_ZEXT_WKF1_BUS)</div></div>								
<div><div>Before the custom field can be used in rule implementation in a BRF+ expression, we need to refresh the data binding.</div><div>Go to transaction code BRF+, Search for the Application ZMDQ_147</div><div>Go to Data Object → Structure → BUT000 Key and Attribute Structure.</div><div>In the Define Data Binding section, choose Refresh Binding</div></div>	<div><div><div>RepositoryCatalog</div><div>Search</div><div><div>Favorites</div><div>Search</div></div><div><div>avorites</div><div>S...</div></div><div><div>ZMDQ_147</div><div>■</div></div><div><div>Data Object</div><div>Element</div><div>Structure</div><div><div>BUT000 Key and Attribute Str</div><div>■</div></div><div>Uses</div><div>Where Used</div><div>Evaluation Context</div><div>Structure for BRFPlus Rule Re</div><div>Master Data Consolidation: Pr</div></div></div><div><div>Structure: BUT000_DQ_STR, BUT000</div><div>BackDisplayCheckSaveActivate</div><div>General</div><div>Detail</div><div>Define Data Binding</div><div>Binding Type: Bind to Stru...Refresh Bin...</div><div>DDIC Type N...: BUT000_DQ_STRWhere-Use...</div><div>Structure Definition</div><div><table><thead><tr><th>Component Name</th><th>Text</th></tr></thead><tbody><tr><td><input type="checkbox"/> ZZLICENSE</td><td>Year Started</td></tr><tr><td><input type="checkbox"/> ZZ1_ZEXT_WKF1_BUS</td><td>Ext. BP Stage</td></tr><tr><td><input type="checkbox"/> ZZ1_TESTSK_BP_BUS</td><td>TESTSK_BP</td></tr></tbody></table></div></div></div>	Component Name	Text	<input type="checkbox"/> ZZLICENSE	Year Started	<input type="checkbox"/> ZZ1_ZEXT_WKF1_BUS	Ext. BP Stage	<input type="checkbox"/> ZZ1_TESTSK_BP_BUS	TESTSK_BP
Component Name	Text								
<input type="checkbox"/> ZZLICENSE	Year Started								
<input type="checkbox"/> ZZ1_ZEXT_WKF1_BUS	Ext. BP Stage								
<input type="checkbox"/> ZZ1_TESTSK_BP_BUS	TESTSK_BP								
<div><div>Now, you can use the custom field in the BRF+ rule implementation.</div><div>For more information see: Example: Creating a Data Quality Rule for Business Partner</div></div>	<div><div><div>RepositoryCatalog</div><div>Search</div><div><div>Search Result</div><div>S...</div></div><div><div>RULEID</div><div>RULENAME _Test_ExtendedField</div></div><div><div>ageImplementationMessage</div></div><div><div>Scope</div><div>Expression: RULEID_SCP</div></div><div><div>Search Result</div><div>S...</div></div><div><div>Uses</div><div>Data Object</div><div>Element</div><div><div>Boolean</div><div>■</div></div><div><div>Ext. BP Stage</div><div>■</div></div></div><div><div>Where Used</div><div>Rule</div><div><div>RULEID</div><div>■</div></div></div></div><div><div>Boolean: RULEID_CON</div><div>BackEditCheckSave</div><div>General</div><div>Detail</div><div>Context OverviewStart Simulation</div><div>Boolean Logic Schema: <1></div><div>If</div><div><div>BUT000 K....Ext. BP Stage</div><div>is equal to 101 (Val</div><div>or is initial</div></div><div>Then Boolean is true, else it is false</div></div></div>								

Mine Rules for Custom Fields

After the custom field is extended and filled with business partner data, you can use the Rule Mining function from data quality management to discover new data quality rules.

See details of the rule mining solution in this [blog](#).

<div>Open the Manage Rule Mining app.</div> <div>Create a new Mining run.</div>	<div><div>Data Quality Management for Business Partners</div><div><div>Manage Rule Mining Business Partners</div><div>Process Rules from Rule Mining Business Partners</div></div></div>
<div>Select the table which is extended with the custom field.</div> <div>In this example, it is BUT000, and in the Field Selection, add new Field. In the popup, you will see the custom field.</div>	<div><div><div>Manage Rule Mining for Business Partners</div><div><div>Rule Mining on Custom Fields</div><div><div>Header</div><div>General</div><div>Tables</div><div>Parameters</div><div>Administrative Data</div></div><div><div>Description</div><div>Rule Mining on Custom Fields</div><div>Status: New</div><div>Total Rules: 0</div><div>Accepted Rules: 0</div><div>Set to Review: 0</div></div><div><div>General</div><div>General</div><div>Stat:</div></div><div><div>Tables</div><div>Selected Tables (1)</div><div><div>Table</div><div>General (0)</div></div></div></div></div><div><div>Select Fields</div><div>Stage</div><div><div>Ext. BP Stage (ZZ1_ZEXT_WKF1_BUS)</div></div><div><div>Select</div><div>Cancel</div></div></div></div>

Rule Mining on Custom Fields

EditCopyDr

9

GeneralTablesFocus AreaFieldsParametersAdministrative Data

Selected Tables (1)

Table	
General BUT000	>

Focus Area

Filters (1)

Table	Field
General (BUT000)	Search term 1 for business partner (BU_SORT1)
Operator: is	
Value: MING	

Fields

Selected Fields (4)

Table	Field	Condition o...	Checked
General (BUT000)	Authorization Group (AUGRP)	Yes	No
General (BUT000)	Business Partner Grouping (BU_GROUP)	Yes	No
General (BUT000)	Business Partner Category (TYPE)	Yes	No
General (BUT000)	Ext. BP Stage (ZZ1_ZEXT_WKF1_BUS)	No	Yes

After the Rule mining run executes successfully, rules for the custom fields can be discovered.

The custom field is treated like a normal field in the table, and data quality rules can be created based on it.

See details of the rule mining solution in this [blog](#).

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Standard* ▾

ID: Focus Area Field: Checked Field: Checked Field Value: Status:

Rules (4)

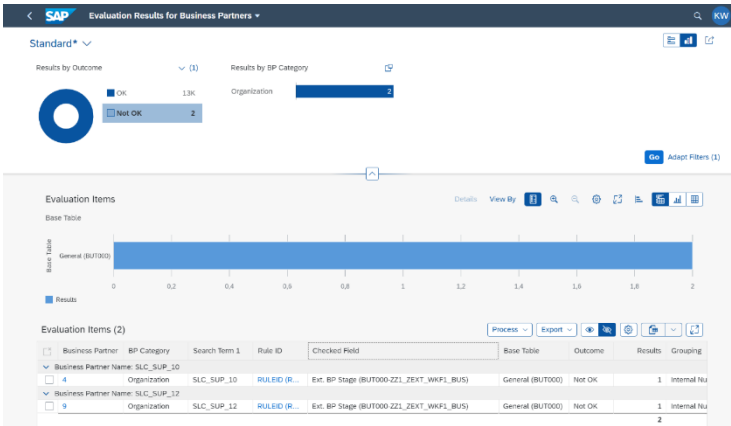
<input type="checkbox"/> Description	Focus Area	Data Evaluation	ID	Checked Field
<input type="checkbox"/> IF Business Partner Category = 2 THEN Ext. BP Stage = 101	Search term 1 for business partner = MING	<div><div style="width: 42.9%;">42.9%</div><div style="width: 57.1%;">57.1%</div></div>	164	Ext. BP Stage
<input type="checkbox"/> IF Business Partner Category = 1 THEN Ext. BP Stage = 102	Search term 1 for business partner = MING	<div><div style="width: 42.9%;">42.9%</div><div style="width: 42.9%;">42.9%</div></div>	165	Ext. BP Stage
<input type="checkbox"/> IF Business Partner Grouping = 0001 THEN Ext. BP Stage = 102	Search term 1 for business partner = MING	<div><div style="width: 57.1%;">57.1%</div><div style="width: 42.9%;">42.9%</div></div>	166	Ext. BP Stage
<input type="checkbox"/> IF Business Partner Grouping = 0001 THEN Ext. BP Stage = 101	Search term 1 for business partner = MING	<div><div style="width: 57.1%;">57.1%</div><div style="width: 42.9%;">42.9%</div></div>	167	Ext. BP Stage

Data Quality Evaluation Results and Remediate Data Quality Issue

In Data Quality Management, data quality evaluation applies all rules to the active data in the system. You are provided with an overview page app and an evaluation results app to view where your master data violates your defined rules.

The rule violation information for your extended fields is also available in these apps and from there you can trigger data remediation.

In our example, after executing the data quality evaluation, the rule violation items appear in the Evaluation Results for Business Partners app.



Select the items and choose Process. The Mass Processing app opens to correct the selected objects.

In the scope, it is possible to select the custom field.

Record Identification	Business Partner	Search term 1	Ext. BP Stage
SLC_SUP_10	0000000004	SLC_SUP_10 SLC_SUP_10_C	103 103
SLC_SUP_12	0000000009	SLC_SUP_12 SLC_SUP_12	102 102