



PUBLIC

How-To: Enterprise Search in MDG

Applicable Releases:

All

Version 2.0

April 2024

Document History

Document Version	Description
1.0	First official release of this guide (June 2019)
2.0	Layout update (April 2024)

1	INTRODUCTION.....	4
2	ADDITIONAL DOCUMENTATION.....	4
2.1	SAP Online Help for SAP NetWeaver 7.5 Enterprise Search.....	4
2.2	Road Map.....	4
2.3	Blogs and Community	4
2.4	Components for Incidents (BC-EIM-ESH, CA-MDG-APP-MM).....	5
2.5	Transaction Codes for ES	5
3	OVERVIEW OF SEARCH IN MDG	6
3.1	User Interfaces for Search.....	6
3.1.1	MDG.....	6
3.1.2	Enterprise Search.....	7
3.1.3	Quick Launch with SAP Business Client	8
3.1.4	SAP FIORI Launchpad.....	9
3.2	Known Differences Between Search Provider Feature Support in MDG.....	10
3.3	Getting Started with SAP HANA-Based Search or Enterprise Search in MDG-M.....	11
4	CONFIGURING ENTERPRISE SEARCH FOR MDG.....	12
4.1	Result of the Delivered Search Templates in ERP	12
4.2	Extending Search Model MDG_MATERIAL.....	12
4.2.1	Link Navigation Depending on UI Technology	13
4.2.2	Model Properties	14
4.2.3	Model Requests	15
4.2.4	Node Response	16
4.2.5	Update Search Connector.....	18
4.3	Extending Search Model MATERIAL	19
4.4	Extend MDG Homepage with ESH Search Field.....	21
4.5	Enterprise Search in the SAP Fiori Launchpad.....	22
5	SETTING UP CROSS SYSTEM SEARCH.....	23
5.1	Another possible search Technology	23
6	ADDITIONAL INFORMATION	24
6.1	Further Reading	24
6.1.1	Information on SAP MDG on SAP S/4HANA	24
6.1.2	SAP Roadmap Explorer	24
6.1.3	Related Information.....	24
6.2	SAP Notes.....	24

1 Introduction

SAP Master Data Governance (MDG) provides business processes to find, create, change, and mark master data for deletion. It supports the governance of master data in a central hub and the distribution to connected operational and business intelligence systems.

The processes are workflow-driven and can include several approval and revision phases, and the collaboration of all users participating in the master data maintenance.

MDG offers change request (CR)-based processing of master data with integrated workflow, staging, approval, activation, and distribution.

This guide describes Enterprise Search in general and its use in Master Data Governance for Material (MDG-M). It does not explain all the features of the Enterprise Search that are available as these are explained in the SAP Help Portal. Nevertheless, links to the most important Enterprise Search documentation are provided here, based on SAP NetWeaver 7.5.

There are two possible system landscape variants you may be using: Either you are using SAP HANA as your database, or you are using one of the other databases listed in the PAM for SAP Business Suite. ([https://apps.support.sap.com/sap\(bD1IbZjPTAwMQ==\)/support/pam/pam.html#ts=13&s=erp&filter=&o=most_viewed%7Cdesc&st=l&rpp=20&page=1](https://apps.support.sap.com/sap(bD1IbZjPTAwMQ==)/support/pam/pam.html#ts=13&s=erp&filter=&o=most_viewed%7Cdesc&st=l&rpp=20&page=1)).

This guide concentrates on variant 1, using SAP HANA as your database.

2 Additional documentation

2.1 SAP Online Help for SAP NetWeaver 7.5 Enterprise Search

In release SAP NetWeaver 7.5, the name of the search function contained in SAP NetWeaver Application Server for ABAP has changed from Embedded Search to the new name SAP Enterprise Search on HANA (short form: **Enterprise Search**).

[SAP Online Help for Enterprise Search](#) and https://help.sap.com/docs/SAP_NETWEAVER_750?version=latest

The functions of the old Embedded Search have been extended considerably since development first began, and the old name no longer reflected this. For simplicity and clarity, this document mainly uses the short form **Enterprise Search**.

Note that Enterprise Search (the new name for Embedded Search) is not to be confused with the previously available **SAP NetWeaver Enterprise Search**. This required a separate license, which was not included in the scope of SAP NetWeaver Application Server for ABAP (see SAP Online Help for [SAP NetWeaver Enterprise Search](#)).

2.2 Road Map

All road maps can be found here <https://www.sap.com/products/roadmaps.html>. The road map for Enterprise Search is included in the SAP Fiori Road Map.

2.3 Blogs and Community

You can find interesting blogs and guides about Enterprise Search topics in the SAP Community Network <https://www.sap.com/community.html> and <https://community.sap.com/t5/c-khhcw49343/SAP+NetWeaver+Enterprise+Search/pd-p/01200314690800000221>.

You can find interesting blogs and guides about MDG topics in the SAP Community Network here: <https://www.sap.com/community/topics/master-data-governance.html>

A similar guide for Enterprise Search in Enterprise Asset Management (EAM) can be found here: <https://blogs.sap.com/2016/07/01/eam-enterprise-search-how-to-guide/>.

2.4 Components for Incidents (BC-EIM-ESH, CA-MDG-APP-MM)

If you want to open a customer incident regarding the Enterprise Search, please use component BC-EIM-ESH for issues concerning the search itself. For issues with the MDG-M search models, connectors, and results, use component CA-MDG-APP-MM. You can also search for SAP Notes on these components.

2.5 Transaction Codes for ES

ESH_ADM_SERVER_GROUP	Set Server Group
ESH_ADM_TREX_DEST	Set TREX Destination
ESH_COCKPIT	Connector Administration Cockpit
ESH_MODELER	Search & Analytics Modeler
ESH_SEARCH	Enterprise Search UI (only ERP)
ESH_TEST_SEARCH	Test Search

3 Overview of Search in MDG

The following options are delivered in **MDG-M**:

You can use **SAP HANA-based search**.

- You can use it in a side-by-side approach or fully embedded if MDG itself runs on an SAP HANA database.
- Follow the Configuration Guide available under [SAP Help for ERP](#) or in S/4 [SAP Help](#).
- With SAP HANA-based search for MDG, the federated search is not supported. If you require search capabilities across systems and beyond the MDG system, Enterprise Search can still be used.

You can use **Enterprise Search**.

- You have installed and connected Enterprise Search either in embedded or federated form.

The following option is not delivered:

You can use **Database Search** in exceptional cases if the two delivered options are not feasible.

- Note that Database Search is not intended to be used for live systems in the context of master data governance for material, it is only intended to be used as a temporary workaround for POC/Test purposes.
- Please follow the How-To Guide [Replace Enterprise Search by DB or alternative search provider](#) which also lists the limited capabilities.

The following options are delivered in **MDG-BP**:

You can use **Database Search** standard providers:

You can use **Enterprise Search**.

You can use **SAP HANA-based search**.

You can use Fuzzy search via BAS-DES (e.g., SAP Data Quality Management)

The following options are delivered in **MDG-F**:

You can use **Database Search** standard providers:

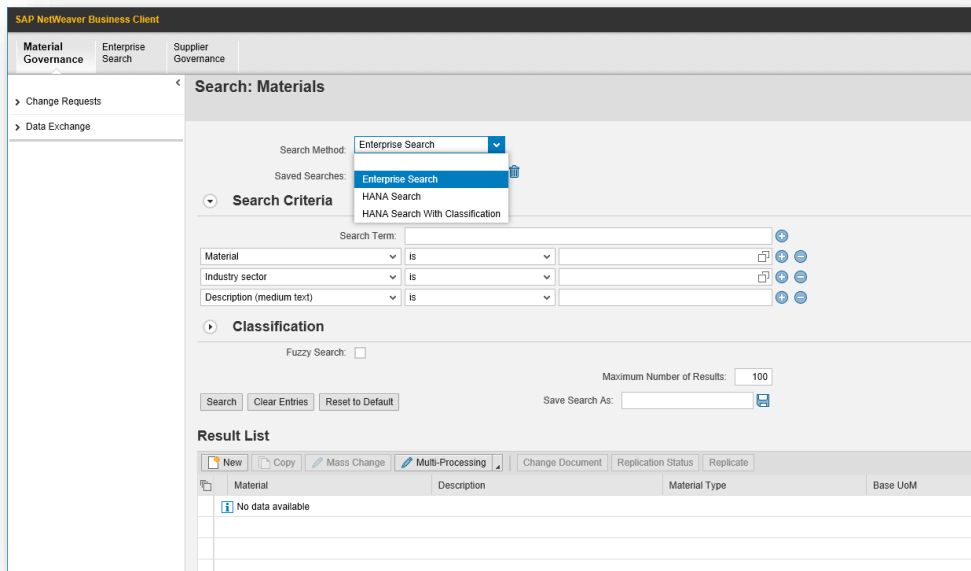
You can use **SAP HANA-based search**.

3.1 User Interfaces for Search

3.1.1 MDG

Different search providers can be set up and used in MDG.

For example, the MDG-M UI shown here has both providers: Enterprise Search and **SAP HANA-based search** with 2 delivered search views.



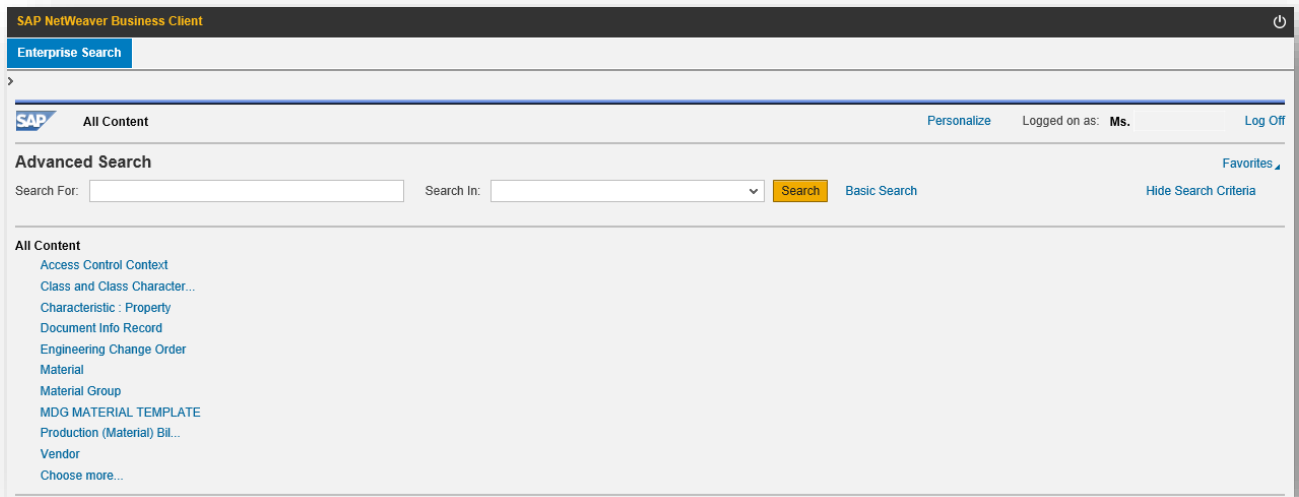
The MDG search UI contains the following search capabilities:

- Search methods are easy to configure, more search methods can be added
- Search criteria combine material attributes and classification
- Drop-down lists of available fields and operators
- Add and remove search criteria (AND combination of multiple parameters)
- Search criteria can be saved using a descriptive name for quick and easy re-use
- Search for hits within active and inactive data
- Results can be downloaded to Excel
- Result list can be personalized

3.1.2 Enterprise Search

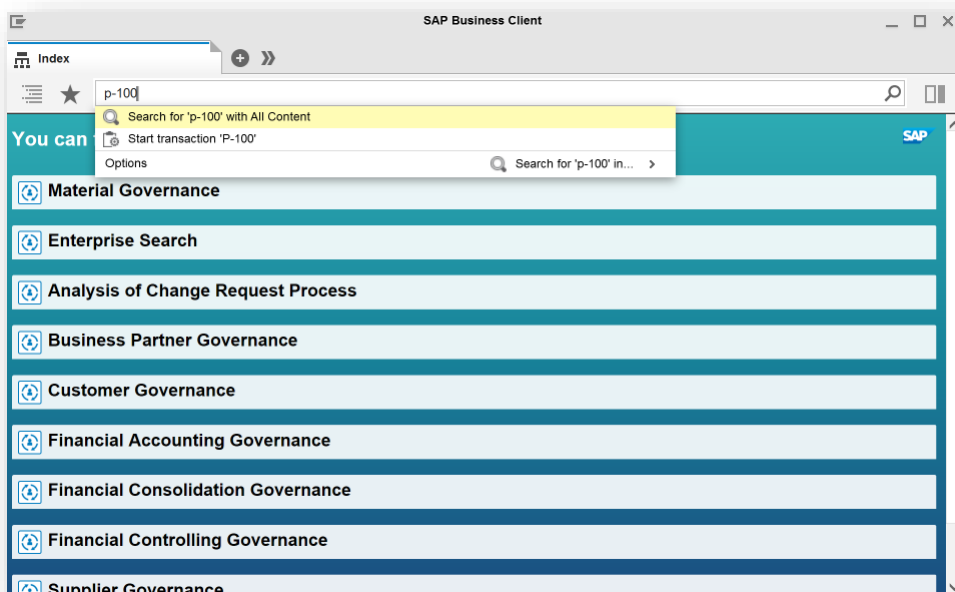
In addition, the Enterprise Search has additional roles and UIs. Check out the composite role SAP_ESH_SEARCH (<https://help.sap.com/viewer/6522d0462aeb4909a79c3462b090ec51/7.5.LATEST/en-US/b4f6b7313bf2455fa5bb3fa2abd52436.html>) and transaction ESH_SEARCH Enterprise Search UI (only ERP).

You can search across objects if you set up search connectors for the objects.



3.1.3 Quick Launch with SAP Business Client

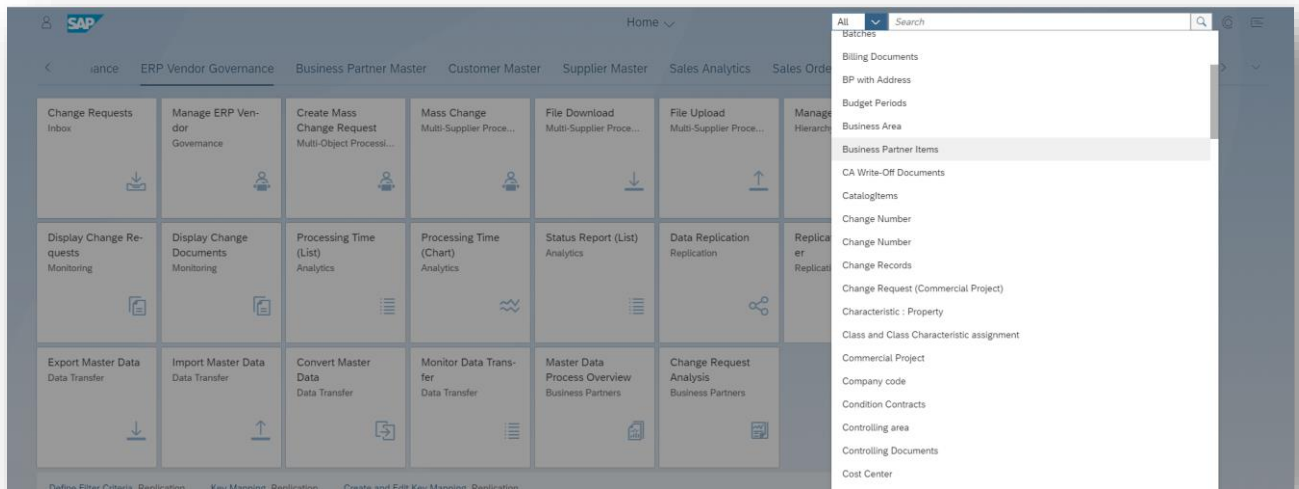
You can use this search option to search for entries within the navigation tree and start ABAP transactions or Web Dynpro applications using a type-ahead field. The figure below illustrates where the quick launch is located in the upper part of the screen:



For more information, see: <https://help.sap.com/viewer/f526c7c14c074e7b9d18c4fd0c88c593/LATEST/en-US/91dec42955664e3ab3a436c1425fc5ba.html>

3.1.4 SAP FIORI Launchpad

When using S/4HANA with the SAP FIORI Launchpad, the Search Field is already included in the upper-right side.



See also [SAP Fiori Road Map](#):

SAP Fiori Design

SAP Fiori Development

SAP Fiori Solutions

SAP Fiori search

SAP HANA enterprise search in SAP Fiori launchpad

SAP HANA enterprise search is a powerful search solution that provides full-text search, navigation and access to structured and unstructured information across multiple systems.

Key capabilities

- Full-text search for business objects and documents
- Flexible faceted search in various visualizations
- Sophisticated suggestions while typing
- Results ranking along business criteria, e.g. user's organizational context
- Access to information across multiple systems
- Direct navigation into source systems/ transactions
- Integrated support for SAP authorization concepts.

Benefits

- Efficient information access and user-centric discovery through a simple user interface
- Take advantage of real-time data for decision making
- No additional costs or 3rd party systems
- 200+ ready-to-use search models, provided by SAP S/4HANA.

A screenshot of the SAP Fiori search interface. The search bar at the top contains the text 'HT-1000'. Below the search bar, there is a list of search results. The first result is 'Universal card reader HT-1000' with a weight of 45,000 g. The second result is 'PC Lock HT-1110' with a weight of 0,500 kg. The third result is 'Notebook Lock HT-1111' with a weight of 0,520 kg. The fourth result is 'Web cam reality HT-1112' with a weight of 0,075 kg. The fifth result is 'Screen clean HT-1113' with a weight of 0,050 kg. The sixth result is 'Fabric bag professional HT-1114' with a weight of 1,800 kg. The seventh result is 'USB Stick HT-1118' with a weight of 0,015 kg. The interface also includes a 'Filter By' section with a pie chart showing the distribution of results by category.

© 2019 SAP SE or an SAP affiliate company. All rights reserved. | PUBLIC

3.2 Known Differences Between Search Provider Feature Support in MDG

Topic	Enterprise Search	SAP HANA-based search
Fuzzy Search	Yes	Yes (can be changed in HANA Studio)
Support of Search Ranking (Score)	No (SAP Note 2284745)	Yes
Sorting in Result List	First active materials, with ascending material numbers. Then not active materials, with ascending material numbers.	First active materials, with descending rank and ascending material numbers. Then not active materials, with descending rank and ascending material numbers.
Duplicate Check	Yes	Yes
Duplicate Check with Fuzziness	Yes, can't be switched off	Yes, configurable (defined by search view)
Long Texts (multi-languages)	Yes	Yes
Material Description Search	ES only searches in logon language, results on the UI are displayed based on the logon language.	HANA searches in all languages but results on the UI are displayed based on the logon language.
Material Description Language: Replace with Different Language in Search Results (Preferred Language)	SAP Notes 2645144 and 2769462	SAP Notes 2645144 and 2769462
Free-Text Search in Search Criteria "Search Term"	Yes	Yes
Search Term (Which Fields Are Used for Free-Text)	Request attributes in search connector	In the HANA view, attribute view, use checkbox <i>Freestyle search</i>
Classification	Yes	Yes
Time-Dependent Classification	Yes	No (SAP Note 2284745)

Search Term Classification (Freestyle Characteristics Search)	Only with TREX (Link for Syntax for Freestyle Search)	No
Extensibility with Fields	Yes (higher effort)	Yes (lower effort)
TCO	Low (embedded), High (if additional TREX hardware)	Low (embedded), High (side-by-side)
Multiple Search Views (UI)	No	Yes
Multiple Assignments	Supported in BP via SAP Note 2771138	Supported in BP via SAP Note 2771138

3.3 Getting Started with SAP HANA-Based Search or Enterprise Search in MDG-M

There are configuration guides available for all domains. This chapter shows links for the MDG-M example.

Follow the configuration guide to set up your chosen search provider. You can use SAP HANA-based search, Enterprise Search, or both.

S/4HANA Configuration Guide: [SAP Help](#).

ECC Configuration Guide: [SAP Help for ERP](#)

4 Configuring Enterprise Search for MDG

4.1 Result of the Delivered Search Templates in ERP

After you have configured Enterprise Search according to chapter 3.3 Getting Started with SAP HANA-Based Search or Enterprise Search, you will receive the following results. For MDG-M with search connector MDG_MATERIAL, the open Change Requests found are displayed as follows:

The screenshot shows the SAP NetWeaver Business Client interface for Enterprise Search. The search results are displayed in a table format. The search criteria are set to 'P-100'. The results show three items: 'MDG MATERIAL TEMPLATE (1)', 'P-100', and 'P-101'. Each item has a detailed view with various attributes.

Item	Material Number	Material Description	Created On	Changed On
MDG MATERIAL TEMPLATE (1)	P-103			
P-100	P-100	Pump	14.11.2018	14.11.2018
P-101	P-101	Pump	14.11.2018	14.11.2018

No links to MDG applications are displayed. The next chapters will explain how you can extend this.

4.2 Extending Search Model MDG_MATERIAL

Before changing search and analysis models, you first need to create a customer-specific software component. Then you include the required SAP software component in your customer-specific software component.

Detailed information about creating or extending an existing model delivered by SAP is described in the SAP Help Portal for SAP NetWeaver 7.5 under:

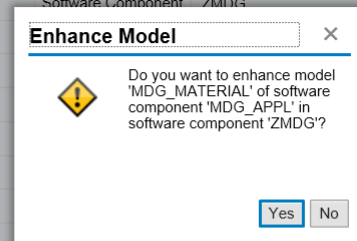
<https://help.sap.com/viewer/6522d0462aeb4909a79c3462b090ec51/7.5.LATEST/en-US/b6e51604ca9a480bb8d58111a837b4ae.html>

and for SAP Master Data Governance in the *Embedded Search* section under:

<https://help.sap.com/viewer/5df72ff3c1664986b19a10e3721fe297/LATEST/en-US/672aca52377b4a4ee10000000a423f68.html>.

▼ ZMDG	Z MDG for Material	Software Component	ZMDG
▼ MDG_APPL	Master Data Governance Applications		
▶ MDG_FND	Master Data Governance Foundation		
▶ SAP_APPL	SAP_APPL: Logistics and Accounting		
▼ [CA]			
▼ [CA-MDG]			
▼ [CA-MDG-APP]			
▼ [CA-MDG-APP-MM]			
MDG_MATERIAL	MDG MATERIAL TEMPLATE	Application Model	
MDG_CLF_MATERIAL	MDG Material Classification	Technical Model	
▶ PLMWUI	SAP PLM Web UI	Software Component	PLMWUI

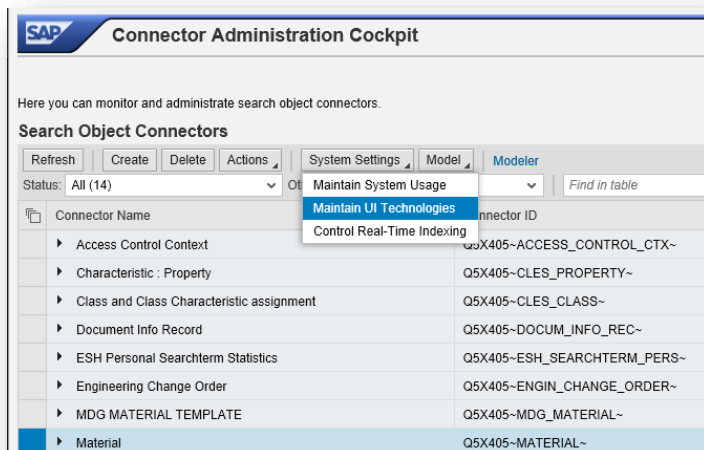
Details: Structure of 'MDG_MATERIAL' of software component 'ZMDG'

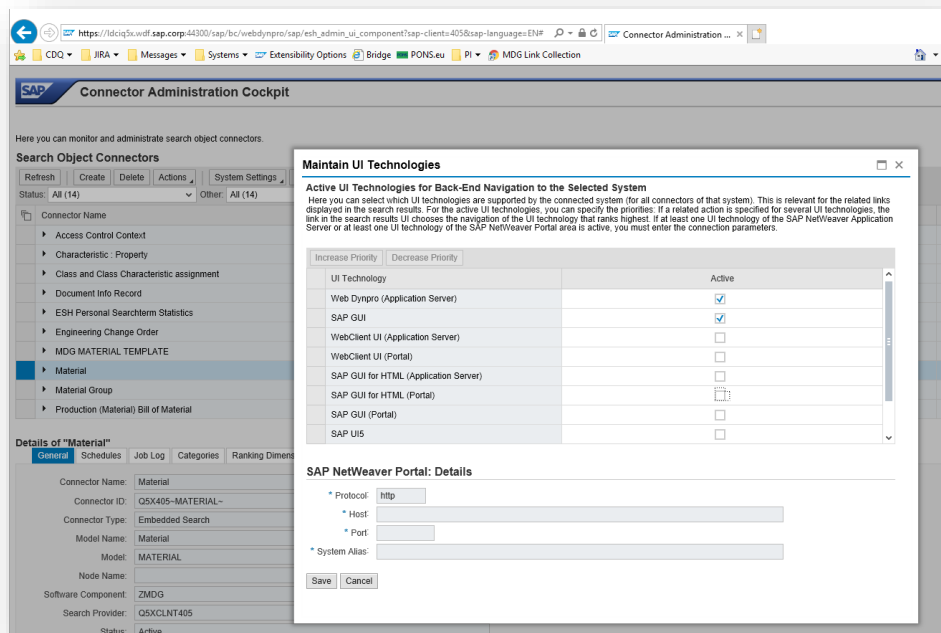


The following sections of this document describe some features that you can use to influence the UI.

4.2.1 Link Navigation Depending on UI Technology

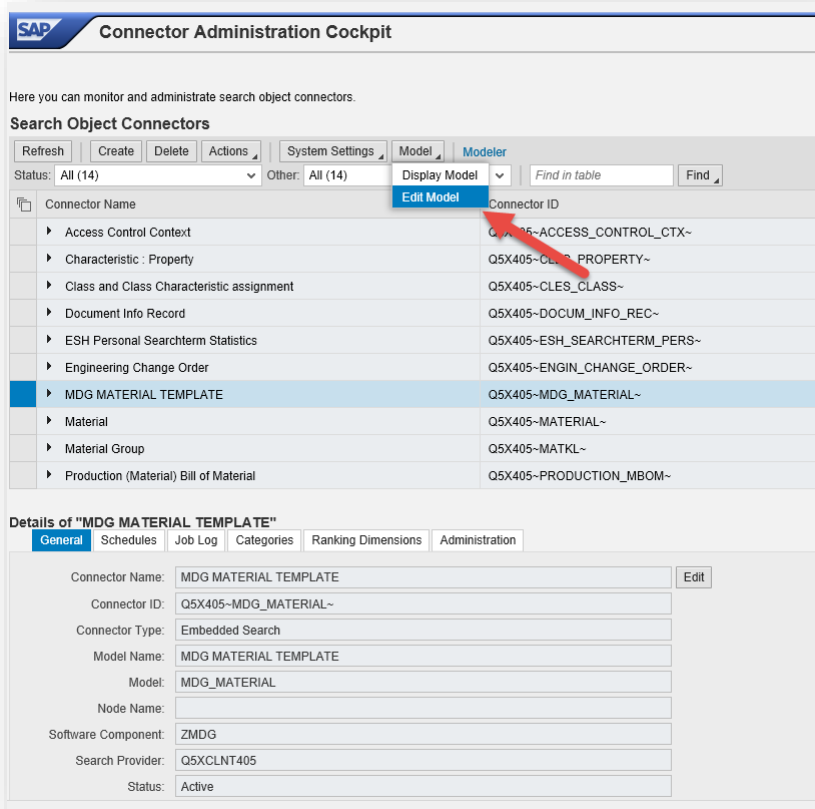
As a prerequisite for navigation, you must use the Connector Administration Cockpit, which allows you to define where a link from the search result list should open. The available UI technologies for these must be maintained. Choose *System Settings* → *Maintain UI Technologies* and select the checkboxes in the corresponding popup.



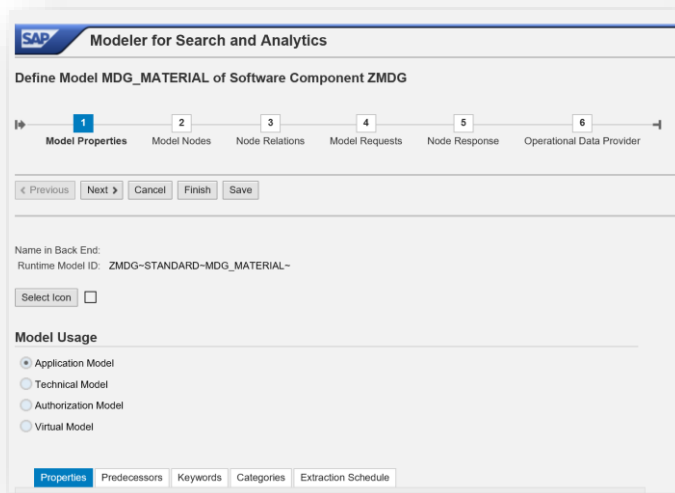


4.2.2 Model Properties

Use transaction ESH_COCKPIT and select the connector MDG MATERIAL TEMPLATE. Click on the *Model* pushbutton and choose *Edit Model*.



The picture below shows model MDG_MATERIAL of software component ZMDG.



4.2.3 Model Requests

Here you see which attributes are selected in the checkbox in the *Freestyle* table column. You can search for any string in the values of this attribute. The text that you enter as the attribute description is displayed as search criteria in the dropdown menu of the search UI.

If you want a newly added attribute to be used as a filter criterion on the left side of the search result list, you have to select the checkbox in the *Interactive Navigation* (Int. Nav.) table column.

Advanced Search

Search For: Search In: MDG MATERIAL TEMPLATE [Basic Search](#)

Additional Search Criteria

Attribute	Operator	Value
Internal Class Number	Equal To	
Property UUID	Equal To	
International Article Number (EAN)	Equal To	
Class Type	Equal To	

Details: Attributes of Request 'DEFAULT'

Attribute Group/Attribute	Description	Select Path	Reference Node	Reference Attribute	Ref. Attribute Description	Type	Int. Nav.	Relevancy	Freest...	Switch...
CLINT	Internal Class Number	Select Path	MATERIAL(MATERIAL2	CLINT	Internal Class Number	NUMC(10)	<input type="checkbox"/>	Low	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PROPERTY_UUID	Property UUID	Select Path	MATERIAL(MATERIAL2	PROPERTY_UUID	Property UUID	CHAR(32)	<input type="checkbox"/>	Low	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EAN	International Article Number (...)	Select Path	MATERIAL->MEAN_GT	EAN	International Article Number...	CHAR(18)	<input type="checkbox"/>	Low	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CLASS_TYPE	Class Type	Select Path	MATERIAL(MATERIAL2	CLASS_TYPE	Class Type	CHAR(3)	<input type="checkbox"/>	Low	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CLASS_VALID_FROM	Class Valid From	Select Path	MATERIAL(MATERIAL2	VALID_FROM	Class Valid From	DEC(15)	<input type="checkbox"/>	Low	<input checked="" type="checkbox"/>	<input type="checkbox"/>
WERKS	Plant	Select Path	MATERIAL->MARCBAS	WERKS	Plant	CHAR(4)	<input type="checkbox"/>	Low	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
CLASS_VALID_TO	Class Valid To	Select Path	MATERIAL(MATERIAL2	VALID_TO	Class Valid To	DEC(15)	<input type="checkbox"/>	Low	<input checked="" type="checkbox"/>	<input type="checkbox"/>
DISMM1	Typ	Select Path	MATERIAL->MARCMRP	DISMM	Typ	CHAR(2)	<input type="checkbox"/>	Low	<input checked="" type="checkbox"/>	<input type="checkbox"/>
VKORG	Sales Organization	Select Path	MATERIAL->MVKESALE	VKORG	Sales Organization	CHAR(4)	<input type="checkbox"/>	Low	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
CLASS	Class Name	Select Path	MATERIAL(MATERIAL2	CLASS	Class Name	CHAR(18)	<input type="checkbox"/>	Low	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.2.4 Node Response

On the *Response Attributes* tab page, you can specify in which UI area of the search results you want each attribute to appear. You can thus determine whether an attribute is to be displayed in the title, the summary, the details, the long text or in other parts of the search results list. In the example shown below, the attribute Material Number will be displayed as a Title and in the Details.

SAP Modeler for Search and Analytics Logged on as: Ms. Elke Menninger

Define Model MDG_MATERIAL of Software Component ZMD3

Model Language: English

1 Model Properties 2 Model Nodes 3 Node Relations 4 Model Requests 5 **Node Response** 6 Operational Data Provider

< Previous Next > Cancel Finish Save

Structure of 'MDG_MATERIAL'

Here you can define different search settings that depend on a model node.

Node	Node Description	Auth.	Response Attributes	Layout	Global Filter	Rel. Actions
MARCOITMNG	Plant Data Quality Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MARCSALES	Plant Data Sales	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MARSTORE	Plant Data Storage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MARCVWKS	Plant Data Work Scheduling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MARDMRP	Storage Location MRP Data for Material	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MARDSTOR	Storage Location General Data for Material	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MSEWCSTNG	Material Costing Data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MBEWVALUA	Material Valuation Data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
MBEWACTNG	Material Accounting Data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MEAN_GTIN	International Article Numbers (EAN) for Material	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Authorization Response Attributes Layout Global Filter Related Actions

Details: Attributes of Node 'MATERIAL'

Here you can define response attributes. Response attributes for other nodes than the selected one can be maintained if these are text nodes (language code attribute property set in the Model Nodes step) or nodes that are linked with cardinality up to one or exactly one.

Attribute Group/Attribute	Description	Select Path	Reference Node	Reference Attribute N...	Ref. Attribute Description	Type	Separator sign	Se...	Switched
SPART	Division	Select Path	MATERIAL	SPART	Division	CHAR(2)			<input type="checkbox"/>
VOLUMEHARA	Volume unit	Select Path	MATERIAL	VOLUMEHARA	Volume unit	UNIT(3)			<input type="checkbox"/>
VOLUMMARA	Volume	Select Path	MATERIAL	VOLUMMARA	Volume	QUAN(13)			<input type="checkbox"/>
WRKST	Basic Material	Select Path	MATERIAL	WRKST	Basic Material	CHAR(48)			<input type="checkbox"/>
XCHPFMARA	Batch management requirement l...	Select Path	MATERIAL	XCHPFMARA	Batch management requireme...	CHAR(1)			<input type="checkbox"/>
XGCHPMARA	Indicator: Approved batch record ...	Select Path	MATERIAL	XGCHPMARA	Indicator: Approved batch recor...	CHAR(1)			<input type="checkbox"/>
SEARCH_RANK	Rank in Search Result (as Perc...	Select Path	MATERIAL->T_MATERIAL	SEARCH_RANK	Rank in Search Result (as Perc...	DEC(5)			<input type="checkbox"/>
TXIMI	Description (medium text)	Select Path	MATERIAL->T_MATERIAL	TXIMI	Description (medium text)	CHAR(40)			<input type="checkbox"/>
MATERIAL	Material Number	Select Path	MATERIAL	MATERIAL	Material Number	CHAR(18)			<input checked="" type="checkbox"/>
USMD_ACTIVE	Aktiv/inaktiv Datensatz	Select Path	MATERIAL	USMD_ACTIVE	Aktiv/inaktiv Datensatz	CHAR(1)			<input type="checkbox"/>

Details: UI Area Assignment of Node Field 'MATERIAL'

Here you can specify in which area of the "Search Result" UI an attribute appears.

Description	Select
Description	<input type="checkbox"/>
Detail image	<input type="checkbox"/>
Details	<input checked="" type="checkbox"/>
Fact Sheet	<input type="checkbox"/>
Longtext	<input type="checkbox"/>
Summary	<input type="checkbox"/>
Thumbnail	<input type="checkbox"/>
Title	<input checked="" type="checkbox"/>

Authorization Response Attributes Layout Global Filter Related Actions

Details: Attributes of Node 'MATERIAL'

Here you can define response attributes. Response attributes for other nodes than the selected one can be maintained if these are text nodes (language code attribute property set in the Model Nodes step) or nodes that are linked with cardinality up to one or exactly one.

Attribute Group/Attribute	Description	Select Path	Reference Node	Reference Attribute N...	Ref. Attribute Description	Type	Separator...	S...	Swit...
GTIN_VAR1	EAN Variant	Select Path	MATERIAL	GTIN_VAR1	EAN Variant	CHAR(2)			<input type="checkbox"/>
HAZMAT	Rel. for HS	Select Path	MATERIAL	HAZMAT	Rel. for HS	CHAR(1)			<input type="checkbox"/>
HOEHMARA	Height	Select Path	MATERIAL	HOEHMARA	Height	QUAN(...)			<input type="checkbox"/>
KOSCH	Product allocation deter...	Select Path	MATERIAL	KOSCH	Product allocation dete...	CHAR(18)			<input type="checkbox"/>
KZKFG	Configurable Material	Select Path	MATERIAL	KZKFG	Configurable Material	CHAR(1)			<input type="checkbox"/>
KZUMW	Environmentally Relevant	Select Path	MATERIAL	KZUMW	Environmentally Relevant	CHAR(1)			<input type="checkbox"/>
LABOR	Laboratory/design office	Select Path	MATERIAL	LABOR	Laboratory/design office	CHAR(3)			<input type="checkbox"/>
LAENGMARA	Length	Select Path	MATERIAL	LAENGMARA	Length	QUAN(...)			<input type="checkbox"/>
LVORM_MAT	Flag Material for Deleti...	Select Path	MATERIAL	LVORM_MAT	Flag Material for Deleti...	CHAR(1)			<input type="checkbox"/>
MAGRVMARA	Material Group: Packagi...	Select Path	MATERIAL	MAGRVMARA	Material Group: Packa...	CHAR(4)			<input type="checkbox"/>

Details: UI Area Assignment of Node Field 'LABOR'

Here you can specify in which area of the "Search Result" UI an attribute appears.

Description	Select
Description	<input type="checkbox"/>
Detail image	<input type="checkbox"/>
Details	<input checked="" type="checkbox"/>
Fact Sheet	<input type="checkbox"/>
Longtext	<input type="checkbox"/>
Summary	<input checked="" type="checkbox"/>
Thumbnail	<input type="checkbox"/>
Title	<input type="checkbox"/>

Result:

Home > All Content

All Content

Material (2)

MDG MATERIAL TEMPLATE (1)

Choose more...

P-103

Material Number: P-103

Laboratory/design office: 001

Close Details

MDG MATERIAL TEMPLATE

Description (medium text): Pump

Base Unit of Measure: EA

Details For P-103

Material Number: P-103

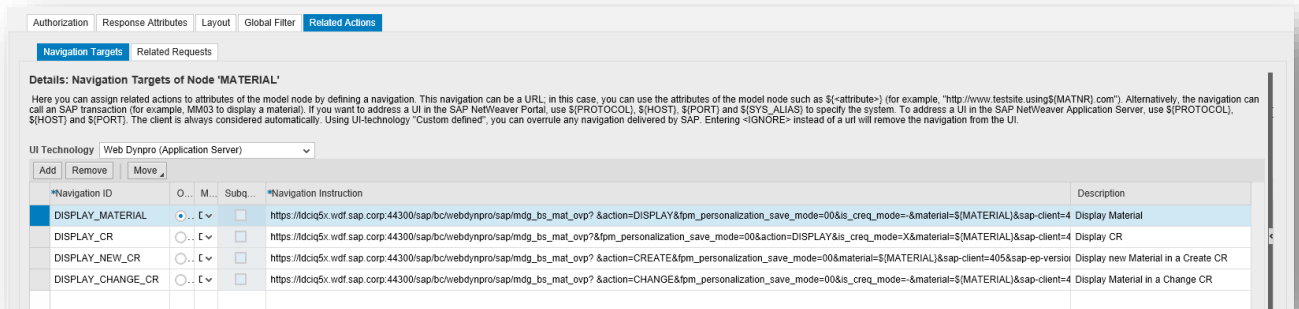
Laboratory/design office: 001

Results 1 - 3 of 3

In addition to related requests, Navigation Targets are also displayed in the summary of the result list items. They provide links to applications you can navigate to, depending on the user interface (see 4.2.1 Link Navigation Depending on UI Technology).

In the example shown below, the UI Technology *Web Dynpro (Application Server)* is selected and four navigation IDs are defined. For each navigation target that you want to be displayed as a link in the footer of the summary, you have to provide a navigation instruction and a description that the system uses as link text.

For one of the navigation IDs, you can select the Object Link radio button and thereby determine the navigation target of the summary title object. In our example, the Object Link radio button is selected for the `DISPLAY_MATERIAL`. So, if you click on it in the search results list, a separate Web Dynpro window opens and shows the material in display mode.



Example navigation links:

[https://ldciq5x.wdf.sap.corp:44300/sap/bc/webdynpro/sap/mdg_bs_mat_ovp?&fpm_personalization_save_mode=00&is_creq_mode=X&material=\\${MATERIAL}&sap-client=405&sap-ep-version=7&sap-ie=Edge&sap-language=EN&sap-theme=sap_corbu&sap-wd-configid=BS_MAT_OVP_07&usmd_otc=194](https://ldciq5x.wdf.sap.corp:44300/sap/bc/webdynpro/sap/mdg_bs_mat_ovp?&fpm_personalization_save_mode=00&is_creq_mode=X&material=${MATERIAL}&sap-client=405&sap-ep-version=7&sap-ie=Edge&sap-language=EN&sap-theme=sap_corbu&sap-wd-configid=BS_MAT_OVP_07&usmd_otc=194)

[https://ldciq5x.wdf.sap.corp:44300/sap/bc/webdynpro/sap/mdg_bs_mat_ovp?&fpm_personalization_save_mode=00&is_creq_mode=X&material=\\${MATERIAL}&sap-client=405&sap-ep-version=7&sap-ie=Edge&sap-language=EN&sap-theme=sap_corbu&sap-wd-configid=BS_MAT_OVP_07&usmd_otc=194&usmd_process=MAT2&wdconfigurationid=BS_MAT_OVP_07](https://ldciq5x.wdf.sap.corp:44300/sap/bc/webdynpro/sap/mdg_bs_mat_ovp?&fpm_personalization_save_mode=00&is_creq_mode=X&material=${MATERIAL}&sap-client=405&sap-ep-version=7&sap-ie=Edge&sap-language=EN&sap-theme=sap_corbu&sap-wd-configid=BS_MAT_OVP_07&usmd_otc=194&usmd_process=MAT2&wdconfigurationid=BS_MAT_OVP_07)

For detailed information about the navigation targets, see [Defining Node Responses](https://help.sap.com/viewer/6522d0462aeb4909a79c3462b090ec51/7.5.LATEST/en-US/c0ce1c7af2b641109f28833b95f4a3ef.html) in the SAP Help Portal: <https://help.sap.com/viewer/6522d0462aeb4909a79c3462b090ec51/7.5.LATEST/en-US/c0ce1c7af2b641109f28833b95f4a3ef.html>

4.2.5 Update Search Connector

If the underlying model has been changed, this is displayed in the administration cockpit by means of a selected checkbox in the Modified column for the dependent search object connectors.

You can update the search object connectors as follows to incorporate the changes from the model:

In the administration cockpit, choose the corresponding search object connector for which the checkbox in the Modified column is selected.

On the control bar, choose the Update option in the Actions menu.

The screenshot shows the SAP Connector Administration Cockpit interface. At the top, there's a header with the SAP logo and the title 'Connector Administration Cockpit'. Below the header, a message states: 'Here you can monitor and administrate search object connectors.' The main section is titled 'Search Object Connectors'. It features a control bar with buttons: 'Refresh', 'Create', 'Delete', 'Actions', 'System Settings', 'Model', and 'Modeler'. The 'Actions' menu is open, showing options: 'Activate', 'Deactivate', 'Update' (highlighted with a red arrow), 'Reset', 'Prepare Indexing', 'Update Authorization Data', 'Schedule Indexing', 'Continue Indexing', 'Consistency Check', 'Index User Authority', 'Suspend All Indexing Processes', and 'Resume All Indexing Processes'. Below the control bar, there's a table with columns: 'Connector Name', 'Connector ID', 'Modified', 'Search', and 'Analytics'. The table lists 14 connectors, with 'MDG MATERIAL TEMPLATE' selected. Below the table, there's a section titled 'Details of "MDG MATERIAL TEMPLATE"'. The table data is as follows:

Connector Name	Connector ID	Modified	Search	Analytics
Access Control Context	405~ACCESS_CONTROL_CTX~	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Characteristic : Property	405~CLES_PROPERTY~	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Class and Class Characteristic	405~CLES_CLASS~	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Document Info Record	405~DOCUM_INFO_REC~	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ESH Personal Searchterm	405~ESH_SEARCHTERM_PERS~	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Engineering Change Order	405~ENGIN_CHANGE_ORDER~	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
MDG MATERIAL TEMPLATE	405~MDG_MATERIAL~	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Material	405~MATERIAL~	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Material Group	Q5X405~MATKL~	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Production (Material) Bill of Material	Q5X405~PRODUCTION_MBOM~	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.3 Extending Search Model MATERIAL

You can also enhance the model MATERIAL accordingly. For example, extend the navigation to show the material in the MDG UI.

1

Model Properties

2

Model Nodes

3

Model Relations

4

Model Requests

5

Node Response

6

Operational Data Provider

< Previous

Next >

Cancel

Finish

Save

Structure of 'MATERIAL'

Here you can define different search settings that depend on a model node

Node	Node Description	Auth.	Response Attributes	Layout	Global Filter
▼ MATERIAL	Material	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MATERIAL_DESCRIPTION	Material Basic Texts	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▼ MATERIAL_PLANT	Material Plant specific data	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MATERIAL_STORAGE_LOCATION	Storage Location Data for Material	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MATERIAL_PURCH_LTXT	Material Purchasing Longtext for Enterprise Search	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▼ MATERIAL_RETAIL	Material Retail and Pos Control data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▼ MATERIAL_SALES	sales data for material	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MATERIAL_SALES_LTXT	Longtext for material sales data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MATERIAL_TEXT_UOM	Material Master Texts per Unit of Measure and Text ID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▼ MATERIAL_UOM	Units of Measure for Material	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Authorization

Response Attributes

Layout

Global Filter

Related Actions

Navigation Targets

Related Requests

Details: Navigation Targets of Node 'MATERIAL'

Here you can assign related actions to attributes of the model node by defining a navigation. This navigation can be a URL, in this case, you can use the attributes of the model node such as \${<attribute>} (for example, <http://www.testile.us/sap/MATNR.com>). Alternatively, the navigation can call an SAP transaction (for example, MM03 to display a material). If you want to address a UI in the SAP NetWeaver Portal, use S(PROTOCOL), S(HOST), S(PORT) and S(SYS_ALIAS) to specify the system. To address a UI in the SAP NetWeaver Application Server, use S(PROTOCOL), S(HOST) and S(PORT). The client is always considered automatically. Using UI-technology "Custom defined", you can overrule any navigation delivered by SAP. Entering <IGNORE> instead of a url will remove the navigation from the UI.

UI Technology

WebClient UI (Application Server)

Add

Remove

Move

*Navigation ID	O. Mode	Su...	*Navigation Instruction	Description
MM	<input checked="" type="radio"/> Display	<input type="checkbox"/>		Display MM Material
DISPLAY	<input type="radio"/> Display	<input type="checkbox"/>		Display Material
MDG	<input checked="" type="radio"/> Display	<input type="checkbox"/>	https://ldcig5x.wdf.sap.corp:44300/sap/bc/webdynpro/sap/mdg_bs_mat_ovp?&fpm_personalization_save_mode=00	MDG Material

Details: Attribute Mapping of Navigation

This attribute mapping is relevant for SAP targets. You have to map the key attributes of corresponding parameters in the back-end system to the attributes of the navigation.

Add

Remove

*Node Attribute	*Back-End System Attribute

Example navigation link:

[https://ldciq5x.wdf.sap.corp:44300/sap/bc/webdynpro/sap/mdg_bs_mat_ovp?&fpm_personalization_save_mode=00&action=DISPLAY&is_creg_mode=-&material=\\${MATNR}&sap-client=405&sap-ep-version=7&sap-ie=Edge&sap-language=EN&sap-theme=sap_corbu&sap-wd-configid=BS_MAT_OVP_07&usmd_otc=194](https://ldciq5x.wdf.sap.corp:44300/sap/bc/webdynpro/sap/mdg_bs_mat_ovp?&fpm_personalization_save_mode=00&action=DISPLAY&is_creg_mode=-&material=${MATNR}&sap-client=405&sap-ep-version=7&sap-ie=Edge&sap-language=EN&sap-theme=sap_corbu&sap-wd-configid=BS_MAT_OVP_07&usmd_otc=194)

The screenshot displays the SAP Enterprise Search interface. At the top, the search criteria are set to 'P-100'. The results are sorted by 'Relevance'. Two search results are listed: 'P-100' and 'P-101'. The 'P-100' result is highlighted, and a red arrow points to the 'MDG Material' link. The detailed view for 'Material: Pump' is shown on the right, including fields for Material Number, Description, and various organizational data.

Enterprise Search

SAP All Content

Search For: [Advanced Search](#)

[Home](#) > [All Content](#)

All Content

[Material \(2\)](#)

Sort By: **Relevance**

P-100

Material Number Ext: **P-100**
 Created By: MEI
 Material Type Description:
 Material Number: **P-100**
 Old material number: **P-100**
 Linked Material Number: **P-100**
 Material Link Object Key: **P-100**
[Details](#) [MDG Material](#) [Display Material](#) [Material Plant specification](#)

P-101

Material Number Ext: **P-101**
 Created By: MEI
 Material Type Description:
 Old material number: **P-100**
[Details](#) [MDG Material](#) [Display Material](#) [Material Plant specification](#)

☒ [Show Search Status](#) [Show Search Link](#)

Material: Pump

>> Assignment Block:

Change Management

Basic Data

General Data

Material: P-100
 Base Unit of Measure: EA each
 Material Type: HALB Semifinished Product
 Industry Sector: M Mechanical engineering
 Material Group: ZEM Pumps
 Old Material Number: P-100
 Authorization Group:
 Cross-Plant Material Status:
 Batch Management: ☐ No
 Serialization Level: ☒ **Serialization within the stock material number**
 Approved Batch Record Re...: ☐ No

Grouping

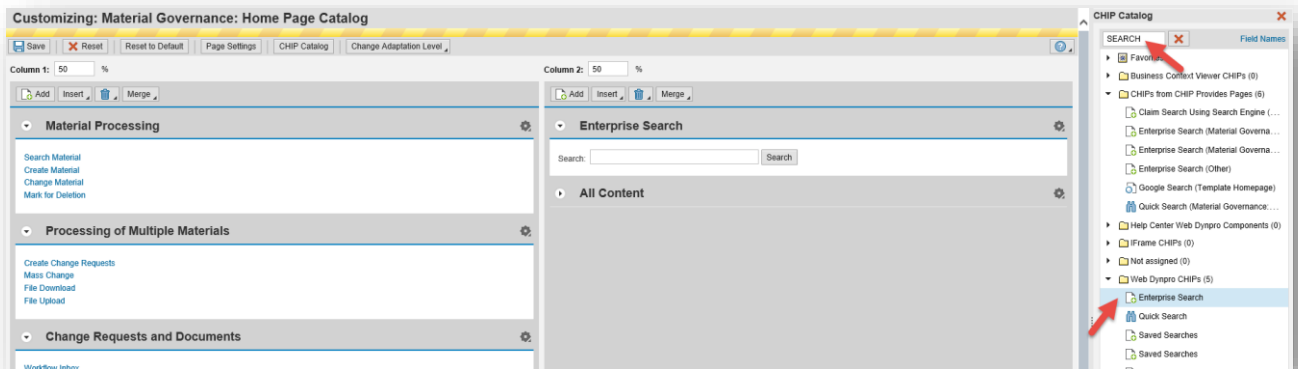
External Material Group:
 Product Hierarchy:
 Generic Item Group Category:
 Material Group Packaging...:
Design Data
 Lab/Office: 001 Laboratory 1
 Industry Standard Description:
 Basic Material: **Steel**
 Production/Inspection Memo:
 Page Format of Production...:
 CAD Indicator: ☐ No

4.4 Extend MDG Homepage with ESH Search Field

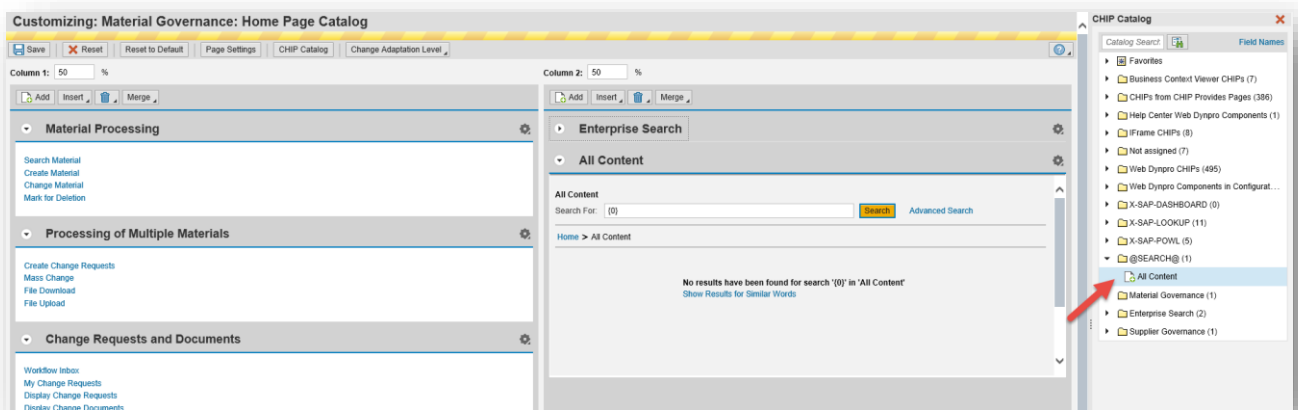
Follow the explanation in the *How-To Guide: Master Data Governance for Material Adjust MDG Homepage* at <https://www.sap.com/documents/2016/06/ea567c56-5b7c-0010-82c7-eda71af511fa.html> to adjust the MDG homepage.

Chapter “4.3.3 2nd Alternative: Enhancement of Catalog and Homepage” of *How-To Guide: Master Data Governance for Material Adjust MDG Homepage* describes how you can adjust the homepage. There are multiple chips available for the search, and two of these are shown in the following screenshots.

Open the CHIP catalog. The CHIP catalog contains all installed CHIPS (or CHIP providers) provided by SAP. Open the branch “Web Dynpro CHIPS” and navigate to “Enterprise Search”: Drag and drop it to the left.



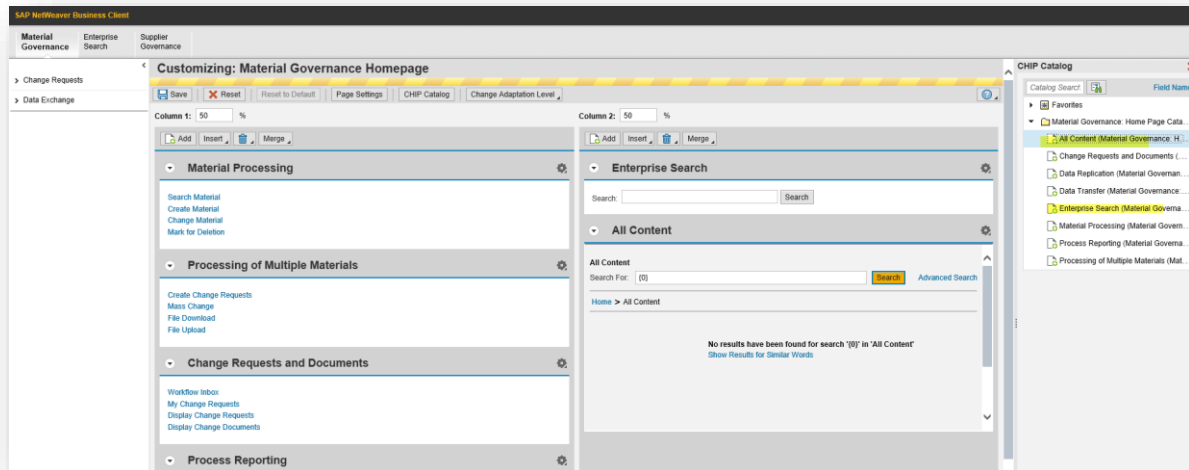
Open the branch “@SEARCH@” and navigate to “All Content”: Drag and drop it to the left.



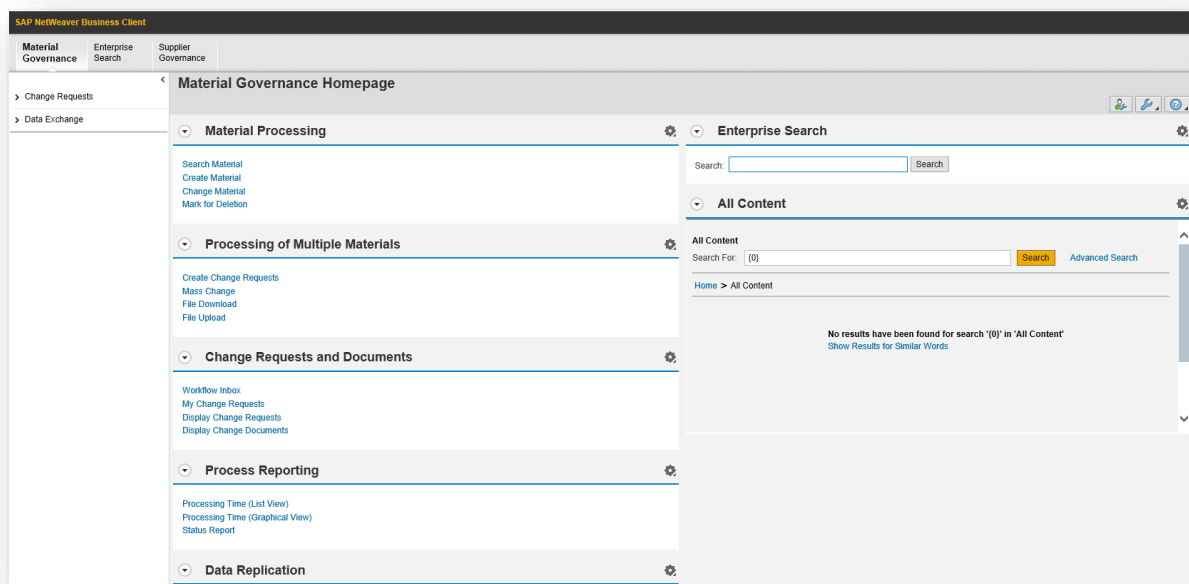
Both chips are using the Enterprise Search. The first one opens another window for the result after clicking on Search, the second one (All Content) shows the result on the homepage. Choose your preferred chip and change the title if necessary, and click on Save.

Now adjust the homepage by following the details described in chapter “4.3.4 Adjusting the Homepage” of *How-To Guide: Master Data Governance for Material Adjust MDG Homepage*.

Start the homepage and switch to customizing mode. Drag and drop to the left and save your changes.



Result:



4.5 Enterprise Search in the SAP Fiori Launchpad

Under <https://experience.sap.com/fiori-design-web/enterprise-search/> you can find hints for personalization, filters and configuration tips if you are using the SAP Fiori launchpad. The launchpad offers an enterprise search function that searches across all apps and business objects, such as materials, customers, and maintenance plans. The search icon is displayed in the shell bar of the launchpad and is always readily available at the top of the screen.

For more information, see: https://help.sap.com/doc/saphelp_uiaddon20/LATEST/en-US/bd/8ae3d327ab4541bcce8e7353c046fc/frameset.htm and Configuring Navigation in the SAP Fiori Launchpad: <https://help.sap.com/viewer/17ae0e97e0fc424a9c368f350c0ba6bd/2.LATEST/en-US/bd/8ae3d327ab4541bcce8e7353c046fc.html>

5 Setting up Cross System Search

Not only can you use Enterprise Search to browse your local Business Suite system running on SAP NetWeaver AS for ABAP, but you can also connect to and browse other Business Suite or ABAP systems in which Enterprise Search is used.

For more information, see:

<https://help.sap.com/viewer/6522d0462aeb4909a79c3462b090ec51/7.5.latest/en-US/b5076e29aa5640d69b9294f1fc7431dc.html>

5.1 Another Possible Search Technology

SAP NetWeaver Enterprise Search is a search solution providing unified, comprehensive, and secure real-time access to enterprise data and information from within and outside of a company. The search returns both structured data (business objects) and unstructured data (HTML files, presentations, documents) from SAP systems and other search providers, and allows direct access to the associated applications and actions.

You can connect SAP NetWeaver Enterprise Search to various SAP and non-SAP systems as well as to external search services.

For more information about SAP NetWeaver Enterprise Search, see the following page:

SAP Help Portal: <https://help.sap.com/viewer/6522d0462aeb4909a79c3462b090ec51/7.5.LATEST/en-US/7c169c40f7894643b823dde77067c375.html>

6 Additional Information

6.1 Further Reading

6.1.1 Information on SAP MDG on SAP S/4HANA

- Exchange knowledge: [SAP Community](#) | [Q&A](#) | [Blog](#)
- Try SAP Master Data Governance on S/4HANA for free: [Trial Version](#)
- Try SAP Master Data Governance on S/4HANA on the SAP Cloud Appliance Library: [S/4HANA 2022 FPS1](#)
- Learn more: [Latest Release](#) | [Help Portal](#) | [How-to Information](#) | [Key Presentations](#)

6.1.2 SAP Roadmap Explorer

- Please see the [roadmap for SAP Master Data Governance](#)

6.1.3 Related Information

- Learn more: [Floorplan Manager for Web Dynpro ABAP](#) | [How to Adapt FPM](#) | [FPM Blog](#) | [How-to Information](#) | [Service Mapping Tool](#) | [SAP S/4HANA Cookbook CVI](#)

6.2 SAP Notes

In addition to the detailed explanations written in this document, please see the following SAP Notes for further important information.

Note	Description
2054157	How to migrate Enterprise Search from TREX to SAP HANA
2224527	Release Information for SAP NetWeaver 7.4 SPS12 Embedded Search for SAP Fiori
2228932	Release Information for SAP Enterprise Search 7.5 for SAP Fiori
1730102	Release Restrictions for SAP NetWeaver 7.4
2183657	Analysis of import errors for report-based transport of Enterprise Search models
2183446	Importing report-based corrections in SAP NetWeaver Enterprise Search
2206460	Release restrictions for SAP NetWeaver 7.5
2013009	Differences between ESH search on TREX and ESH search on SAP HANA
3043582	MDG Customer Connection 2020
3194967	MDG Customer Connection 2021 for S/4HANA 2022
3311039	MDG Customer Connection 2023
3134600	MDG-M: Supported fields in Data Model MM
1806108	Functional restrictions in MDG-M in MDG7 (incl. SP02)

2129261	Functional restrictions in MDG-M in MDG8
2284745	Functional Restrictions in MDG for Material with SAP Master Data Governance 9.0
2461516	Functional Restrictions in MDG for Material with SAP Master Data Governance 9.1
2656693	Functional Restrictions in MDG for Material in SAP Master Data Governance 9.2 and on SAP S/4HANA 1809
2816571	Functional Restrictions in MDG for Material on SAP S/4HANA 1909
2948873	Functional Restrictions in MDG for Material on SAP S/4HANA 2020
3070012	Functional Restrictions in MDG for Material on SAP S/4HANA 2021
3219945	Functional Restrictions in MDG for Material on SAP S/4HANA 2022
3374998	Functional Restrictions in MDG for Material on SAP S/4HANA 2023
2479869	Usage of Lean Classification with SAP Master Data Governance
1619534	How to Create, Enhance and Adapt FPM Applications
1637249	MDG: Information for efficient message processing
2105467	MDG Performance
2561461	Scope of support for SAP Master Data Governance (MDG)
1637249	MDG: Information for efficient message processing