



PUBLIC

How-To Extend the Search Result List for MDG for Business Partner

Applicable Releases:
All

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Document History

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1.0	First official release of this guide
2.0	Update Layout (January 2022)
3.0	Update Layout (December 2024)

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1. BUSINESS SCENARIO

SAP Master Data Governance for Material (MDG-M) 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.

This How To Guide explains the extension of the MDG Business Partner / Customer / Supplier solution for the search result list.

This given scenario is primarily an UI extension. It requires general knowledge about the SAP Floor Plan Manager (FPM) and SAP Web Dynpro for ABAP.

In the search result list, only data related to the Business Partner will be displayed, for example, Partner ID, address data and category.

Since there is not only the BP object, but also the customer and/or supplier in your company, you are probably interested in further information such as

- Assigned customers and suppliers
- Company codes, sales organization and purchase organization data that are maintained for customers and suppliers you are searching for

Fetching all of the potential data stated above simultaneously would have a negative effect on system performance. Another challenge of providing this data is creating an overview to display the detailed data.

If your MDG system is running on HANA, the requirement stated above can be met by the HANA Drilldown Search, which can be easily configured.

This How-To Guide provides an alternative approach for the implementation of a simple Drilldown Search. To keep this guide simple, only related customer data will be displayed when selecting a record in the search result list.

2. STEP BY STEP EXPLANATION

The following explanation shows you how to :

- Customizing of the UI configuration **BS_BP_QUERY_RESULT**
- Development of a Web Dynpro component to query and display detailed data
- Integration of the developed Web Dynpro component into the initial screen **BS_BP_DQUERY** via UI customizing

2.1. CUSTOMIZING OF THE UI CONFIGURATION BS_BP_QUERY_RESULT

In this scenario, when selecting a line in the search result list, all assigned customers (represented by customer number and further attributes) are to be displayed. Technically, when processing the event “Selection”, a specific FPM event with the selected BP partner number has to be fired by the feeder class. This event will be caught and processed by the component that is responsible for showing detailed information (see chapter [4.2.2.2.2](#)).

*The standard feeder class of the search result list is **CL_BS_BP_QUERY_RESULT**. It has to be re-implemented.*

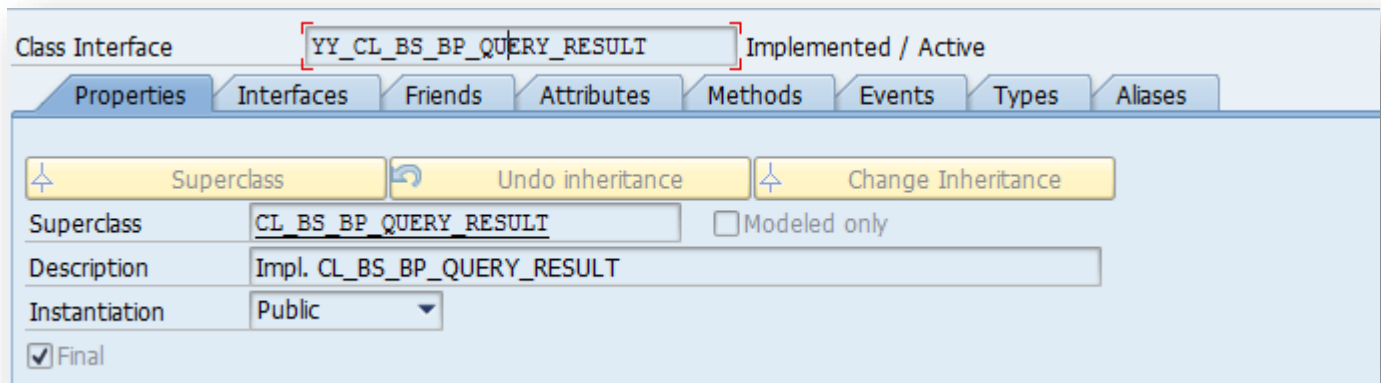


Figure 1: New Feeder Class YY_CL_BS_BP_QUERY_RESULT

The new feeder class is called **YY_CL_BS_BP_QUERY_RESULT**. The next step is the re-definition of the method **IF_FPM_GUIBB_LIST~PROCESS_EVENT**. The detailed implementation is shown in “**Implementation 1**” below. Once the implementation is active, the standard feeder class of the search result list **UIBB BS_BP_QUERY_RESULT** must be replaced by the new one.

```

METHOD if_fpm_gui_bb_list~process_event.

CONSTANTS lc_event_id_bp_selected TYPE fpm_event_id VALUE 'BP_SELECTED'.

DATA lr_event    TYPE REF TO cl_fpm_event.
DATA lr_iterator TYPE REF TO if_bol_entity_col_iterator.
DATA lr_bol_entity TYPE REF TO cl_crm_bol_entity.

FIELD-SYMBOLS <ls_data> TYPE any.
FIELD-SYMBOLS <lv_partner> TYPE any.

" Super Call...
CALL METHOD super->if_fpm_gui_bb_list~process_event
EXPORTING
    io_event      = io_event
    iv_raised_by_own_ui = iv_raised_by_own_ui
    iv_lead_index  = iv_lead_index
    iv_event_index = iv_event_index
    it_selected_lines = it_selected_lines
    io_ui_info     = io_ui_info
IMPORTING
    ev_result      = ev_result
    et_messages    = et_messages.

" check if the right event has been raised
CHECK iv_lead_index >= 1
AND io_event->mv_event_id = 'FPM_GUIBB_LIST_ON_LEAD_SELECTI'.

" fetch the selected BP ID
ASSIGN mr_entity_data->* TO <ls_data>.
lr_iterator = mo_collection->get_iterator( ).
lr_bol_entity = lr_iterator->get_by_index( iv_lead_index ).
lr_bol_entity->get_properties(
    IMPORTING
        es_attributes = <ls_data> ).

ASSIGN COMPONENT 'PARTNER' OF STRUCTURE <ls_data> TO <lv_partner>.

CHECK sy-subrc = 0
AND <lv_partner> IS NOT INITIAL.

" fire event
CREATE OBJECT lr_event
EXPORTING
    iv_event_id = lc_event_id_bp_selected.

lr_event->mo_event_data->set_value(
    EXPORTING
        iv_key   = 'PARTNER'
        iv_value = <lv_partner> ).

cl_fpm_factory=>get_instance( )->raise_event( io_event = lr_event ).

ENDMETHOD.

```

Implementation 1: Method IF_FPM_GUIBB_LIST~PROCESS_EVENT

2.2. CREATION OF WEB DYNPRO COMPONENT FOR DETAILED DATA DISPLAY

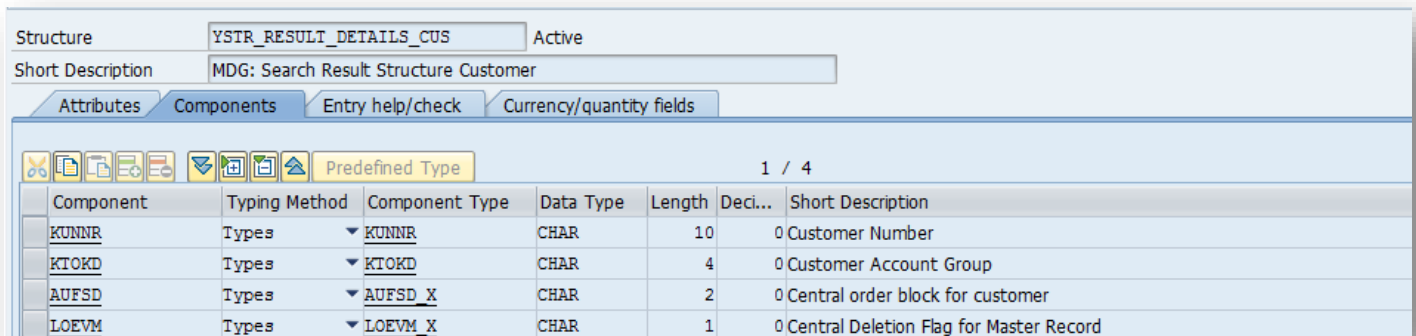
2.2.1. NECESSARY DDIC OBJECTS

Before creating a Web Dynpro component, you have to define which attributes of the general customer (KNA1) and company code layer (KNB1) are to be shown.

KNA1

- Customer Number
- Customer Account Group
- Central Order Block
- Central Deletion Flag

Create new DDIC structure **YSTR_RESULT_DETAILS_CUS**.



The screenshot shows the SAP DDIC Structure YSTR_RESULT_DETAILS_CUS. The structure is active and has a short description 'MDG: Search Result Structure Customer'. The 'Components' tab is selected, showing a table of predefined types. The table has columns: Component, Typing Method, Component Type, Data Type, Length, Decimals, and Short Description. There are 4 components listed.

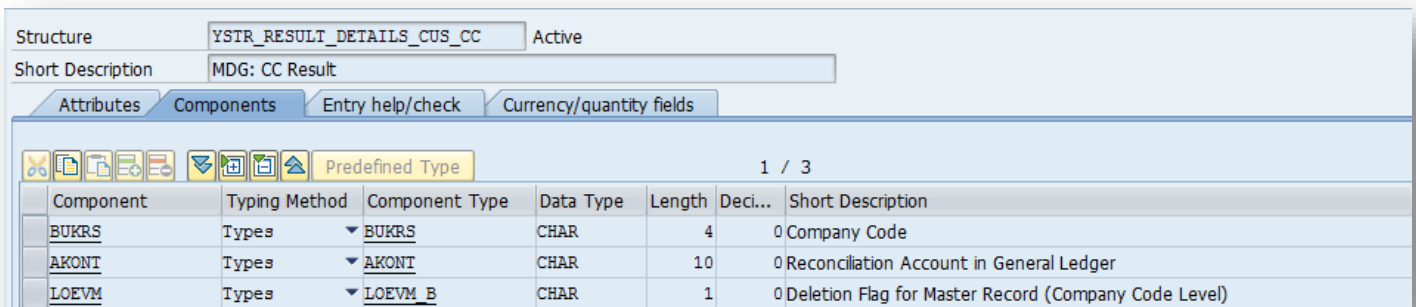
Component	Typing Method	Component Type	Data Type	Length	Deci...	Short Description
KUNNR	Types	KUNNR	CHAR	10	0	Customer Number
KTOKD	Types	KTOKD	CHAR	4	0	Customer Account Group
AUFSD	Types	AUFSD_X	CHAR	2	0	Central order block for customer
LOEVM	Types	LOEVM_X	CHAR	1	0	Central Deletion Flag for Master Record

Figure 2: Structure YSTR_RESULT_DETAILS_CUS

KNB1

- Company Code
- Reconciliation Account in General Ledger
- Deletion Flag for Master Record (Company Code Level)

Create new DDIC structure **YSTR_RESULT_DETAILS_CUS_CC**



The screenshot shows the SAP DDIC Structure YSTR_RESULT_DETAILS_CUS_CC. The structure is active and has a short description 'MDG: CC Result'. The 'Components' tab is selected, showing a table of predefined types. The table has columns: Component, Typing Method, Component Type, Data Type, Length, Decimals, and Short Description. There are 3 components listed.

Component	Typing Method	Component Type	Data Type	Length	Deci...	Short Description
BUKRS	Types	BUKRS	CHAR	4	0	Company Code
AKONT	Types	AKONT	CHAR	10	0	Reconciliation Account in General Ledger
LOEVM	Types	LOEVM_B	CHAR	1	0	Deletion Flag for Master Record (Company Code Level)

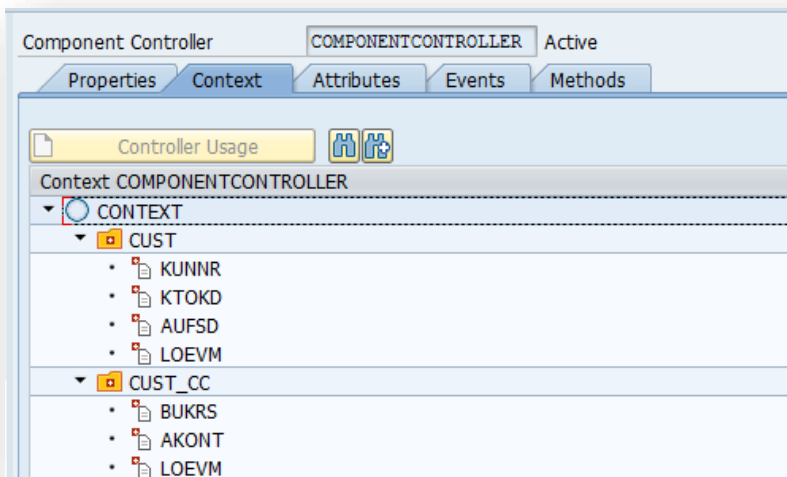
Figure 3: YSTR_RESULT_DETAILS_CUS_CC

2.2.2. Headline 3 WEB DYNPRO COMPONENT

- Name: ZMDG_SEARCH_RSLT_DET_CUS
- Implemented interfaces:
 - IF_FPM_TRANSACTION
 - IF_FPM_UI_BUILDING_BLOCK
- View: MAIN
- Windows: W_DETAILS (embeds the view MAIN as default)

2.2.3. CREATION OF COMPONENT CONTROLLER CONTEXT

Detailed data will be displayed in a table. Therefore, the following context nodes (acting as data source for Web Dynpro table element) are required:



Context Node CUST

This node is based on the DDIC structure [YSTR_RESULT_DETAILS_CUS](#) and represents a set of assigned customers

Property	Value
Nodes	
Node Name	CUST
Interface Node	<input type="checkbox"/>
Input Element (Ext.)	<input type="checkbox"/>
Dictionary structure	YSTR_RESULT_DETAILS_CUS
Cardinality	0..n
Selection	0..1
Initialization Lead Selection	<input checked="" type="checkbox"/>
Singleton	<input type="checkbox"/>
Supply Function	

Context Node CUST_CC

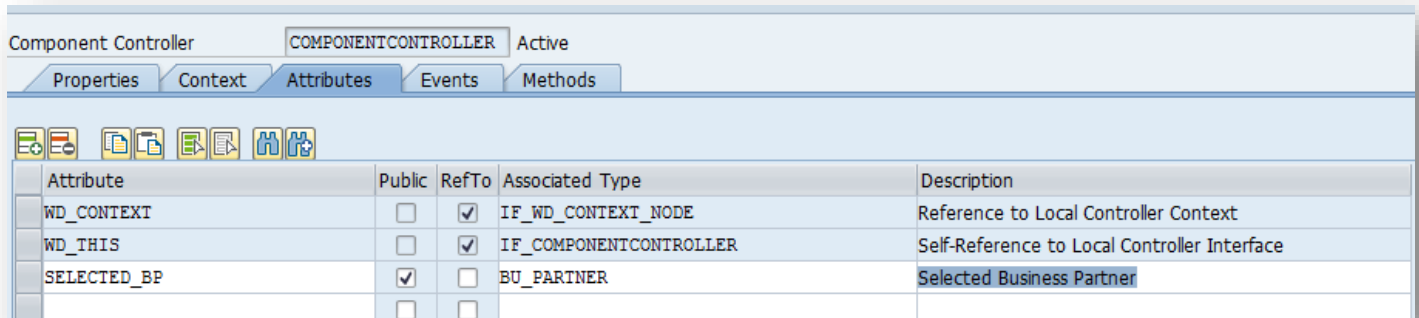
This node is based on the DDIC structure [YSTR_RESULT_DETAILS_CUS_CC](#) and represents customer data on company code level.

Property	Value
Nodes	
Node Name	CUST_CC
Interface Node	<input type="checkbox"/>
Input Element (Ext.)	<input type="checkbox"/>
Dictionary structure	YSTR_RESULT_DETAILS_CUS_CC
Cardinality	0..n
Selection	0..1
Initialization Lead Selection	<input checked="" type="checkbox"/>
Singleton	<input type="checkbox"/>
Supply Function	

2.2.4. METHOD PROCESS_EVENT

When a record in the search result list is selected, the event “**BP_SELECTED**” is raised. Within the method **PROCESS_EVENT**, this event is caught and processed. This means that all assigned customers will be queried and mapped to the context node **CUST**.

Note: the selected **BP-ID** is stored in the component controller attribute **SEELCTED_BP**



Component Controller COMPONENTCONTROLLER Active					
Properties Context Attributes Events Methods					
Attribute	Public	RefTo	Associated Type	Description	
WD_CONTEXT	<input type="checkbox"/>	<input checked="" type="checkbox"/>	IF_WD_CONTEXT_NODE	Reference to Local Controller Context	
WD_THIS	<input type="checkbox"/>	<input checked="" type="checkbox"/>	IF_COMPONENTCONTROLLER	Self-Reference to Local Controller Interface	
SEELCTED_BP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	BU_PARTNER	Selected Business Partner	
	<input type="checkbox"/>	<input type="checkbox"/>			

Figure 4: Component Controller – Attributes

METHOD process_event.

DATA lo_nd_cust **TYPE** REF TO if_wd_context_node.

DATA lt_cust **TYPE** wd_this->elements_cust.

CHECK io_event->mv_event_id = 'BP_SELECTED'.

wd_context->invalidate().

io_event->mo_event_data->get_value(

EXPORTING

iv_key = 'PARTNER'

IMPORTING

ev_value = wd_this->selected_bp).

CHECK wd_this->selected_bp **IS NOT INITIAL**.

SELECT kn~kunnr

kn~ktokd

kn~aufsd

kn~loevm

INTO CORRESPONDING FIELDS OF TABLE lt_cust

FROM mdg_mlt_assgmt **AS** mtl **INNER JOIN** kna1 **AS** kn

ON mtl-object_id = kn~kunnr

WHERE mtl-assignment_cat = 'CUST'

AND mtl-object_id = wd_this->selected_bp.

CHECK lt_cust **IS NOT INITIAL**.

lo_nd_cust = wd_context->get_child_node(name = wd_this->wdctx_cust).

CHECK lo_nd_cust **IS BOUND**.

lo_nd_cust->bind_table(new_items = lt_cust

set_initial_elements = abap_true).

ENDMETHOD.

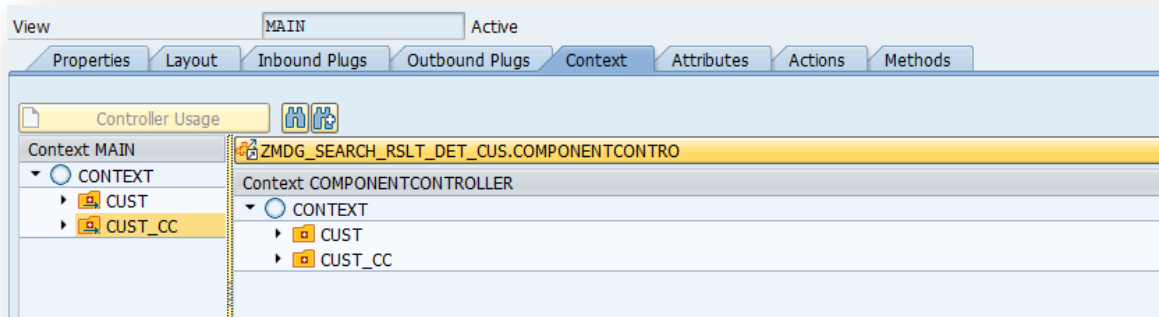
Implementation 2: Component Controller – PROCESS_EVENT

2.2.5. View MAIN

The following elements must be placed:

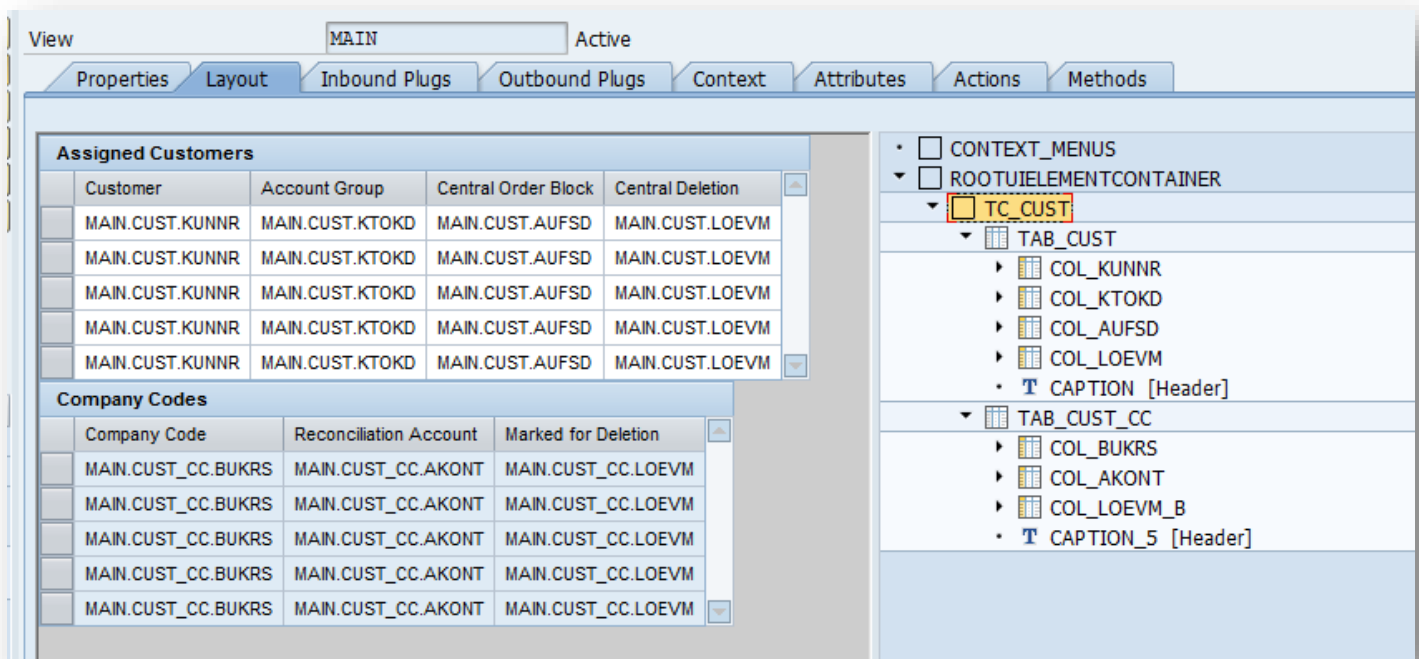
Context Nodes

- Node **CUST**: maps to the related node of the component controller - mapping path ZMDG_SEARCH_RSLT_DET_CUS.COMPONENTCONTROLLER.CUST
- Node **CUST_CC**: maps to the related node of the component controller – mapping path ZMDG_SEARCH_RSLT_DET_CUS.COMPONENTCONTROLLER.CUST_CC



UI Element Tables

Two tables are needed to display the data:



- **TAB_CUST**: contains assigned customer
 - Data source: MAIN.CUST
 - Columns: maps to all context attributes
 - Event onLeadSelect: **SELECT_CC** (see implementation **ONACTIONSELECT_CC** below). When a customer is selected, all company code data will be queried and mapped to the context node **CUST_CC**.
- **TAB_CUST_CC**: contains assigned customer
 - Data source: MAIN.CUST_CC
 - Columns: maps to all context attributes

```

METHOD onactionselect_cc.
  DATA lo_nd_cust TYPE REF TO if_wd_context_node.
  DATA lo_el_cust TYPE REF TO if_wd_context_element.
  DATA ls_cust TYPE wd_this->element_cust.
  DATA lo_nd_cust_cc TYPE REF TO if_wd_context_node.
  DATA lt_cust_cc TYPE wd_this->elements_cust_cc.

  lo_nd_cust = wd_context->get_child_node( name = wd_this->wdctx_cust ).
  lo_el_cust = lo_nd_cust->get_element( ).
  lo_el_cust->get_static_attributes(
    IMPORTING
      static_attributes = ls_cust ).

  IF ls_cust-kunnr IS NOT INITIAL.
    lo_nd_cust_cc = wd_context->get_child_node( name = wd_this->wdctx_cust_cc ).

    SELECT *
      INTO CORRESPONDING FIELDS OF TABLE lt_cust_cc
      FROM knb1
      WHERE kunnr = ls_cust-kunnr.

    IF lt_cust_cc IS NOT INITIAL.
      lo_nd_cust_cc->bind_table( new_items = lt_cust_cc set_initial_elements = abap_true ).
    ENDIF.

  ENDIF.
ENDMETHOD.

```

Implementation 3: ONACTIONSELECT_CC

2.3. Integration of Web Dynpro Into The Search Section

2.3.1. New UI Configuration YY_SEARCH_RESULT_DETAILS

Create new UI configuration YY_SEARCH_RESULT_DETAILS by copying the template FPM_COMPOSITE_UIBB_TEMPLATE of the Web Dynpro Component FPM_COMPOSITE_UIBB

Properties	
Config ID	YY_SEARCH_RESULT_DETAILS
Configuration Type	General
Config. Variant	
Description	Search Result Details Customers
Web Dynpro Applicat.	
Web Dynpro Component	FPM_COMPOSITE_UIBB

Figure 5: UI Configuration YY_SEARCH_RESULT_DETAILS

- Component: ZMDG_SEARCH_RSLT_DET_CUS
- Window Name: W_DETAILS

Component Configuration YY_SEARCH_RESULT_DETAILS

Save

Cancel

Edit

Check

Additional Functions

General Settings

Final Flags

GUIBB Settings

Additional Settings

Layout Type: One-Column (Standard)

Preview

Composite UIBB Schema

Wire Schema

UIBB

Element	Component	Config ID
UIBB: (1)	ZMDG_SEARCH_RSLT_DET_CUS	

Attributes of UIBB: (1)

Standard Attributes

Component: *

ZMDG_SEARCH_RSLT_DET_CUS

Window Name: *

W_DETAILS

Config ID:

Container Stretching:

UIBB Needs Surrounding Containers to be Stretched

Row:

1

Figure 6: UI Configuration YY_SEARCH_RESULT_DETAILS - Detailed Parameters

2.4. Place The New configuration in the query Section

Create new UIBB in the configuration **BS_BP_DQUERY** via UI customizing:

- Component: FPM_COMPOSITE_UIBB
- Window Name: COMPOSITE_WINDOW
- Configuration ID: YY_SEARCH_RESULT_DETAILS

Overview Page Schema

Toolbar Schema

Wire Schema

Page Master Area

Section

UIBB

Up

Down

Configure UIBB

Element	Component	Config ID	Window Name	Container Stretching
Section: DQUERY_SECTION				
UIBB: Search Criteria	FPM_SEARCH_UIBB	BS_BP_DQUERY_DB_ADDRESS_ATTRIE	SEARCH_WINDOW	UIBB Does Not Need Surrounding Con...
UIBB: Search Result	FPM_LIST_UIBB	BS_BP_QUERY_RESULT	LIST_WINDOW	
UIBB: Search Result Details	FPM_COMPOSITE_UIBB	YY_SEARCH_RESULT_DETAILS	COMPOSITE_WINDOW	

Attributes of UIBB: Search Result Details

Standard Attributes

Component: *

FPM_COMPOSITE_UIBB

Window Name: *

COMPOSITE_WINDOW

Config ID:

YY_SEARCH_RESULT_DETAILS

Instance ID:

Column:

1

Sequence Index:

3

Container Stretching:

Hidden Element:

Visible

Rendering Type:

Without Panel

Collapsed:

Title:

Search Result Details

Explanation Text:

Explanation Document:

Default Edit Page:

Default Details Page:

Figure 7: Detailed Search Result UIBB

3. RESULT OF THE ENHANCEMENT

Once all steps above have been successfully implemented, the result can look like this:

▼ Change Requests

▼ Customer Maintenance

• Search Customer

› Processing of Multiple Customers

› Change Requests and Documents

› Analysis of Change Request Process

› Data Exchange

Search Customer

Street

is

+ -

House Number

is

+ -

Postal Code

is

53177

+ -

Search

Clear Entries

Reset to Default

☒ Maximum Number of Results:

100

Save Search As:

53177

Search Result: 5 business partners found

New

Block

Replication Status

Replicate

	Business Partner ID	Description
	300010	Software GmbH / 53177 Bonn
	300011	Software AG / 53177 Bonn
	300012	Software AG / 53177 Bonn
	300013	MDG Software GmbH / 53177 Bonn
	\$106	Software AG / D-53177 Bonn

Assigned Customers

Customer	Account Group	Central Order Block	Central Deletion
300010	YDEB		

Company Codes

Company Code	Reconciliation Account	Marked for Deletion
0001	84100	
REOB	120000	

Figure 8: Search Result List with Detailed Data

Note: If several business partners are selected, only the detailed data of the first selected one will be listed.

4. ADDITIONAL INFORMATION

4.1. Further Reading

4.1.1. 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](#)

4.1.2. SAP Roadmap Explorer

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

4.1.3. 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](#)

4.2. SAP Notes

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

Note	Description
3372801	Upgrade or Conversion for Master Data Governance, Central Governance
2221398	MDG-BP/C/S/CA: (Un-)Supported Fields in Data Model BP
2847807	MDG-BP/C/S/CA: Usage of MDG Tools and Processes
2313368	Functional restrictions in MDG for Business Partner / Customer / Supplier with SAP Master Data Governance 9.0
2472845	Functional restrictions in MDG for Business Partner / Customer / Supplier with SAP Master Data Governance 9.1
2656712	Functional restrictions in MDG for Business Partner / Customer / Supplier in SAP Master Data Governance 9.2 and on SAP S/4HANA 1809
2816557	Functional restrictions in MDG for Business Partner / Customer / Supplier on SAP S/4HANA 1909
2925030	Functional restrictions in MDG for Business Partner / Customer / Supplier on SAP S/4HANA 2020
3070003	Functional restrictions in MDG for Business Partner / Customer / Supplier on SAP S/4HANA 2021
3220117	Functional restrictions in MDG for Business Partner / Customer / Supplier on SAP S/4HANA 2022
3374711	Functional restrictions in MDG for Business Partner / Customer / Supplier on SAP S/4HANA 2023
3043582	MDG Customer Connection 2020
3194967	MDG Customer Connection 2021 for S/4HANA 2022
3311039	MDG Customer Connection 2023
3428179	Master Data Governance: Continuous Influence

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
2950412	Functional restrictions in MDG Process Analytics on SAP S/4HANA 2020
3066855	Functional restrictions in MDG Process Analytics on SAP S/4HANA 2021
3225098	Functional restrictions in MDG Process Analytics on SAP S/4HANA 2022
3381795	Functional restrictions in MDG Process Analytics 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