



SAP CRM & SAP Solution Manager Business Transaction Search Enhancement

How to implement business transaction search enhancements
with minimum development?

04.09.2015

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1 Introduction

1.1 Goal of this guide

This guide explains how to enhance Business Transaction search with less development activities.

1.2 Context

There exist several guides in SCN. These guides always explain how to do big developments in context of search enhancement. These big development activities are needed if we need special value helps or if we need to adjust existing selection criteria or result list or if we want to enhance other searches than business transaction search.

In most cases we simply want to add some additional search criteria and result list fields. In these cases, we are able to implement this low effort solution with minimum development.

1.3 Example Requirements

We want to search about unsupported standard and customer fields of Change Transaction:

1. Risk and Change Category:

CRMD_SRV_REQ_H:

- a. RISK
- b. CHANGE_CATEGORY

We want to search by Risk and Change Category. However IMPACT, URGENCY and /AICRM/PROBLEM_CATEGORY are already supported by standard.



Transp. Table: CRMD_SRV_REQ_H Active
 Short Description: Service Request Header Extension

Attributes | Delivery and Maintenance | **Fields** | Entry help/check | Currency/Quantity Fields

Srch Help | Predefined Type 1

| Field | Key | Initi... | Data element | Data Type | Length | Decim... | Short Description |
|------------------|-------------------------------------|-------------------------------------|----------------------------|-----------|--------|----------|-----------------------------------|
| .INCLUDE | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | CRMT_OBJECT_KEY | STRU | | 0 | One Order. Key Fields |
| CLIENT | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | MANDT | CLNT | 3 | 0 | Client |
| GUID | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | CRMT_OBJECT_GUID | RAW | 16 | | GUID of a CRM Order Object |
| .INCLUDE | <input type="checkbox"/> | <input type="checkbox"/> | CRMT_SRV_REQ_H_INT | STRU | | 0 | SRQM structure Internal Fields |
| DUMMY | <input type="checkbox"/> | <input type="checkbox"/> | CHAR1 | CHAR | 1 | | Single-Character Flag |
| REC_PRIORITY | <input type="checkbox"/> | <input type="checkbox"/> | CRMT_SRQM_REC_PRIORITY | NUMC | 1 | | Recommended Priority |
| .INCLUDE | <input type="checkbox"/> | <input type="checkbox"/> | CRMT_SRV_REQ_H_EXT | STRU | | 0 | SRQM Structure of External Fields |
| URGENCY | <input type="checkbox"/> | <input type="checkbox"/> | CRMT_SRQM_URGENCY | NUMC | 2 | | Urgency |
| IMPACT | <input type="checkbox"/> | <input type="checkbox"/> | CRMT_SRQM_IMPACT | NUMC | 2 | | Impact |
| ESCALATION | <input type="checkbox"/> | <input type="checkbox"/> | CRMT_SRQM_ESCALATION | NUMC | 1 | | Escalation |
| CHANGE_CATEGORY | <input type="checkbox"/> | <input type="checkbox"/> | CRMT_SRQM_CHANGE_CAT | CHAR | 3 | | Change Category |
| RISK | <input type="checkbox"/> | <input type="checkbox"/> | CRMT_SRQM_RISK | NUMC | 3 | | Risk |
| PROBLEM_CATEGORY | <input type="checkbox"/> | <input type="checkbox"/> | CRMT_SRQM_PROBLEM_CATEGORY | CHAR | 3 | | Problem Category |
| IS_UPDATED | <input type="checkbox"/> | <input type="checkbox"/> | CRMT_BOOLEAN | CHAR | 1 | | Logical Variable |
| LAST_UPDATED_AT | <input type="checkbox"/> | <input type="checkbox"/> | CRMT_SRQM_LAST_UPDATED_AT | DEC | 15 | | Last Updated On |
| CHKLST_ID | <input type="checkbox"/> | <input type="checkbox"/> | CRMT_SRQM_CHKLST_ID | CHAR | 8 | | Checklist ID |
| SEND_EMAIL | <input type="checkbox"/> | <input type="checkbox"/> | CRMT_BOOLEAN | CHAR | 1 | | Logical Variable |

2. Third Party Ticket Number:

ICT_INCIDENTGUID:

a. ICT_GUID

We want to search by Third Party Ticket number. However Searching by Third Party Attributes is not supported by standard yet. There exists an attribute /AICRM/ICT_NUM in standard which seems not to work yet.

Table: ICT_INCIDENTGUID
 Displayed Fields: 4 of 4 Fixed Columns: 2 List Width 0250

| | MANDT | ICT_GUID | ORDER_GUID | VERSION |
|--------------------------|-------|-------------|----------------------------------|---------|
| <input type="checkbox"/> | 001 | C0000015785 | 547C4AA954E02550E10080008D7A0225 | 19 |
| <input type="checkbox"/> | 001 | C0000016321 | 52F15245D1F419C0E10080008D7A0225 | 19 |
| <input type="checkbox"/> | 001 | C0000016323 | 52F1203DD1E51DC0E10080008D7A0225 | 19 |
| <input type="checkbox"/> | 001 | C0000016325 | 52F217F30C8726A0E10080008D7A0225 | 19 |
| <input type="checkbox"/> | 001 | C0000016354 | 52F00A5E03A53000E10080008D7A0225 | 19 |

3. Predecessor Transaction (i.e. CD->CR or CR->INC):

SRRELROLES + CRMD_BINREL or CRMD_BRELVONAE

a. SRRELROLES~OBJKEY or CRMD_BRELVONAE ~OBJGUID_B_SEL

b. CRMD_ORDERADM_H~OBJECT_ID



We want to search a Change Document by a given Change Request. Therefore we need to read the document flow.

Table: SRRELROLES
 Displayed Fields: 7 of 7 Fixed Columns: 5 List Width 0250

| CLIENT | OBJKEY | OBJTYPE | LOGSYS | ROLETYPE | ROLEID | UTCTIME |
|------------------------------|----------------------------------|------------|--------|------------|------------------------|--------------------|
| <input type="checkbox"/> 001 | 533D0E991A3C2E60E10080008D7A0225 | BUS2000116 | | APPLOBJ | KpqFV1eyBc3X0800ZNe29G | 20.140.403.084.947 |
| <input type="checkbox"/> 001 | 533D0E991A3C2E60E10080008D7A0225 | BUS2000116 | | BO_LINK | KpqFVXeyBc3X0800ZNe29G | 20.140.403.084.947 |
| <input type="checkbox"/> 001 | 533D0E991A3C2E60E10080008D7A0225 | BUS2000116 | | NACHFOLGER | KpqFZneyBc3X0800ZNe29G | 20.140.403.084.949 |

Table: CRMD_BINREL
 Displayed Fields: 6 of 6 Fixed Columns: 3 List Width 0250

| CLIENT | ROLE_A | ROLE_B | RELATIONID | BRELTYP | UTCTIME |
|------------------------------|------------------------|------------------------|------------------------|---------|--------------------|
| <input type="checkbox"/> 001 | KpqFZXeyBc3X0800ZNe29G | KpqFZneyBc3X0800ZNe29G | KpqFa1eyBc3X0800ZNe29G | VONA | 20.140.403.084.949 |

Table: SRRELROLES
 Displayed Fields: 7 of 7 Fixed Columns: 5 List Width 0250

| CLIENT | OBJKEY | OBJTYPE | LOGSYS | ROLETYPE | ROLEID | UTCTIME |
|------------------------------|----------------------------------|------------|--------|------------|------------------------|--------------------|
| <input type="checkbox"/> 001 | 533D0D5F1A3C2E60E10080008D7A0225 | BUS2000116 | | VORGAENGER | KpqFZXeyBc3X0800ZNe29G | 20.140.403.084.949 |

Table CRMD_BRELVONAE Display

Check Table...

CLIENT

RELATIONID

POSNO

BRELTYP

ATTRIBUT

VONA KIND

INVALID

SECONDARY

SEQNO

OBJGUID A SEL

OBJKEY A SEL

OBJTYPE A SEL

LOGSYS A SEL

OBJGUID B SEL

OBJKEY B SEL

OBJTYPE B SEL

LOGSYS B SEL

VOUCHER CODE

DOC INFO



1.4 Version History

| Version | Author | Date | Comment |
|---------|--------------|------------|--|
| 1 | Peter Weigel | 01.07.2015 | Search for Risk, Change Category and Third Party Ticket Number |
| 2 | Peter Weigel | 04.09.2015 | Search for CD by CR Number |

1.5 Literature, Disclaimer, Contact and Download

Literature

This document is based on information from SAP Online Library, Implementation Guide of SAP Solution Manager 7.1, several SAP Notes and several SCN articles. These piece of information were enriched by the authors knowledge and experience.

Disclaimer

<http://www.hybrid-eichhoernchen.de/rechtliche-hinweise/>

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2 Preparations

This guide describes a solution to enhance the Business Transaction Search without development activities. The first time you enhance the search you have to do some development activities. These developments need to be implemented once. They are used for all further enhancements which can then be done without further developments.

2.1 Package

We need a development package ZSEARCH or similar. Please create it via SE80.

2.2 Structure for field enhancements

We need a structure which will contain all additional attributes used for search and result list. Please create structure ZSEARCH_FIELDS via SE80 or SE11. At the beginning it can be empty or contain a dummy field ZZSEARCH_DUMMY.

| | | |
|--------------------------|----------------------------------|--------|
| Structure | ZSEARCH_FIELDS | Active |
| Short Description | Search Criteria & Search Results | |
| Attributes | | |
| Components | | |
| Entry help/check | | |
| Currency/quantity fields | | |

2.3 Append to search and result list structure

When we look at the Search UI Component in the SAP Web Client UI we will find out that business objects BTQAICSearch and BTQRAISearch are used by SAP Solution Manager IT Service Management and SAP Solution Manager Change Request Management (for example we could have a look at UI component AIC_CMCR_S) .

When we look at BOL/GenIL Model Browser (GENIL_MODEL_BROWSER) or in customizing table CRMC_OBJ_BTIL, we will find out, that these objects will support all fields of structure CRMST_QUERY_SRV_REQ_BTIL resp. CRMST_QUERY_R_SRV_REQ_BTIL. (BTW: when you are looking for the handler class of search & result object, you will find it in table CRMC_OBJ_BTIL too. However, you will need to add “_RUN_BTIL” to the found name.)

Therefore we need to enhance these structures. Please append structures CRMST_QUERY_SRV_REQ_BTIL with append ZSEARCH_SEARCH_CRITERIA and structure CRMST_QUERY_R_SRV_REQ_BTIL with append ZSEARCH_RESULT_LIST. Both append structures should include structure ZSEARCH_FIELDS.

Caution: If we want to enhance another search component, we will need to find out the right structures and to append these structures instead.



Note: Application Enhancement Tool (AET) always appends structures INCL_EEW_BUS2000223_SEARCH and INCL_EEW_QUERY_R_SRVI_BTIL which are included in the mentioned structures. However we could do it the same.

| Structure | CRMST_QUERY_SRV_REQ_BTIL | Active | | | | |
|---|--|-------------------------|-----------|--------|-------|------------------------------------|
| Short Description | Attribute structure for Dynamic Search Object BTQSnReq | | | | | |
| Attributes Components Entry help/check Currency/quantity fields | | | | | | |
| Predefined Type 64 / 68 | | | | | | |
| Component | Typing Method | Component Type | Data Type | Length | Decim | Short Description |
| .APPEND | 1 Types | ZSEARCH_SEARCH_CRITERIA | --- | 0 | | 0 Search Criteria |
| .INCLUDE | 1 Types | ZSEARCH_FIELDS | --- | 0 | | 0 Search Criteria & Search Results |

| Structure | CRMST_QUERY_R_SRV_REQ_BTIL | Active | | | | |
|---|---|---------------------|-----------|--------|-------|------------------------------------|
| Short Description | Attribute structure for BTQSnReq search result object | | | | | |
| Attributes Components Entry help/check Currency/quantity fields | | | | | | |
| Predefined Type 46 / 50 | | | | | | |
| Component | Typing Method | Component Type | Data Type | Length | Decim | Short Description |
| .APPEND | 1 Types | ZSEARCH_RESULT_LIST | --- | 0 | | 0 Result List |
| .INCLUDE | 1 Types | ZSEARCH_FIELDS | --- | 0 | | 0 Search Criteria & Search Results |

Please append structure CRMT_REPORT_LOCATORLIST in the same way. This structure is used by the framework reading the data for their result list.

| Structure | CRMT_REPORT_LOCATORLIST | Active | | | | |
|---|---------------------------------|----------------------------|-----------|--------|-------|------------------------------------|
| Short Description | Reporting Structure for Locator | | | | | |
| Attributes Components Entry help/check Currency/quantity fields | | | | | | |
| Predefined Type 45 / 49 | | | | | | |
| Component | Typing Method | Component Type | Data Type | Length | Decim | Short Description |
| .APPEND | 1 Types | ZSEARCH_REPORT_LOCATORLIST | --- | 0 | | 0 CRMT_REPORT_LOCATORLIST |
| .INCLUDE | 1 Types | ZSEARCH_FIELDS | --- | 0 | | 0 Search Criteria & Search Results |

2.4 Maintenance Views

In SAP standard we will always need to do a development to implement value helps for added search criteria and result lists (for result lists we need value helps to translate keys to user friendly texts). In SAP standard value helps need to be developed by implementing a value help getter method. Because of technical reasons we need to implement it on view controller level instead on context node level. In most cases we will need only one code line here using method get_v_for_ddlb (Please have a look at method GET_V_IMPACT of class CL_CRM_SRQM_COMMON_SR_CNTRL).

However if the added fields are regarded as created via Application Enhancement Tool (AET), we will get the value help for free without any development.



To open this way we need to create maintenance dialogs for following tables. Please create maintenance views including maintenance dialogs (function group ZSEARCH_TMD) for following customizing tables:

- ~~CRMC_Q10_FIELDS (ZSEARCH_Q10_FLDS)~~
- AXT_RUN_FIELDDEF (ZSEARCH_FIELDDEF)
- AXT_RUN_FIELDUSE (ZSEARCH_FIELDUSE)
- ~~AXT_RUN_BP_PARTT (ZSEARCH_BP_PARTT)~~
- AXT_RUN_BO_PART (ZSEARCH_BO_PART)
- AXT_RUN_SEARCH (ZSEARCH_SEARCH)
- ~~AXT_RUN_FLAG (ZSEARCH_FLAG)~~

2.5 Dynamic Result List Data Retrieval

Data reading for result list is only supported for foreseen object party like ORDERADM_H, ACTIVITY_H, SERVICE_H, SRV_REQ_H and so on. The SAP standard is not able to get data from previous unknown tables. But this is needed to be able to enhance search criteria and result list fields.

Therefore we needed to enhance the standard. Please implement the following source code at the end of method GET_EXTENSION of class CL_CRM_REPORT_EXT_LOCATORLIST.

Class Builder: Class CL_CRM_REPORT_EXT_LOCATORLIST Display

| Ty. | Parameter | Type spec. | Description |
|-----|----------------------|----------------------------------|--|
| > | IT_REQUESTED_COLUMNS | TYPE CRMT_REPORT_REQU_COLUMNS_TA | For Extension and Set Objects: Output Which Columns? |
| > | ET_EXTENSION | TYPE ANY TABLE | The Extension Sent Back as Table (Matches Questions) |

Method: GET_EXTENSION Active

```
151 * for performance reasons (mass mailing) in separated tables
152 * than all other OneOrder objects
153 IF gr_question->gt_interactionobjects is not initial.
154     CALL METHOD ADD_INTERACTION_OBJECTS
155         CHANGING ct_extension = et_extension[].
156 ENDIF.
157 *) INSERT
158
159
160 *$*-$-Start: (1)-----
161 ENHANCEMENT 1 ZSEARCH_REP_EXT_LOCATORLIST. "active version
.....
*****
* PROGRAM ID           : ZSEARCH                               *
* PROGRAM TITLE       : Dynamic Search Enhancement           *
* AUTHOR              : Peter Weigel                         *
* SUPPLIER            : SAP                                   *
* DATE                : 01/07/2015                           *
```



```
* DEVELOPMENT ID          :                               *
* CHANGE REQUEST (CTS)   :                               *
* DESCRIPTION            : Dynamic data read for unsupported fields *
*=====
* CHANGE HISTORY LOG
*-----
* MOD. NO.| DATE      | NAME                | CORRECTION NUMBER | CHANGE REFERENCE # *
*-----
* MOD-001 |01/07/2015| PETER WEIGEL       | 1                  |                   *
*
* DESCRIPTION: First Version
*****

DATA:
zls_repdy      TYPE crmc_repdy,
zls_repdy_db   TYPE crmc_repdy_db,
zlv_select     TYPE string,
zlv_from       TYPE string,
zlv_where      TYPE string.

FIELD-SYMBOLS:
<zfs_requested_column> LIKE LINE of gt_requested_columns,
<zfs_extension>        TYPE any,
<zfv_value>            TYPE any.

*Process every requested field.
  LOOP AT gt_requested_columns ASSIGNING <zfs_requested_column>.

*Check whether field is not already read.
  READ TABLE gt_read_columns
    transporting no fields
    WITH KEY column = <zfs_requested_column>-column.

  CHECK sy-subrc <> 0.

*Get dynamic field definition.
  SELECT SINGLE *
    INTO zls_repdy
    FROM crmc_repdy
    WHERE sel_field = <zfs_requested_column>-column.

  CHECK sy-subrc = 0.

*Get dynamic table definition.
  SELECT SINGLE *
    INTO zls_repdy_db
    FROM crmc_repdy_db
    WHERE dyn_method = zls_repdy-
dyn_method AND only_header = abap_true. "we only support header level yet.

  CHECK sy-subrc = 0.

*Build dynamic SQL query. (for details have a look at CL_CRM_REPORT_ACC_DYNAMIC->BUILD_DYN_SQL)
  zlv_select = zls_repdy-name on db.
* zlv from   = `CRMD_ORDERADM H ` && zls_repdy_db-from if not lead && zls_repdy_db-
join_header_guid && ` = CRMD_ORDERADM_H~GUID` && ` ` && zls_repdy_db-remain_from.
  zlv_from   = zls_repdy_db-leading_table && ` ` && zls_repdy_db-remain_from.
  zlv_where  = zls_repdy_db-join_header_guid && ` ` = <zfs_extension>-guid'.

*Mark field as read.
  INSERT <zfs_requested_column> INTO TABLE gt_read_columns.

*Process every Business Transaction.
  LOOP AT et_extension[] ASSIGNING <zfs_extension>.

*Get access to field.
  ASSIGN COMPONENT <zfs_requested_column>-column OF STRUCTURE <zfs_extension> TO <zfv_value>.

  CHECK sy-subrc = 0.

* Get data if possible.
  SELECT SINGLE (zlv_select)
```



```
INTO <zfv_value>
FROM (zlv_from)
* WHERE crmd_orderadm_h~guid = <zfs_extension>-guid.
WHERE (zlv_where).

ENDLOOP.

ENDLOOP.
```



3 Field enhancements

3.1 Enhancement of Search Criteria and Result List Structure

Please add your fields to structure ZSEARCH_FIELDS. It will automatically extend structures CRMST_QUERY_SRV_REQ_BTIL, CRMST_QUERY_R_SRV_REQ_BTIL and CRMT_REPORT_LOCATORLIST. Because of this fact, the added fields will be available as search criteria and result list field.

Please ensure that you added check tables and search helps here, otherwise the value help determination could not work.

However the added fields can only be used if you enabled the fields as search criteria and result list field via UI configuration. Therefore please perform the UI configuration.

We did it for RISK, CHANGE_CATEGORY, ICT_GUID and PREDECESSOR_GUID and PREDECESSOR_ID. Data elements and check tables were overtaken from tables CRMD_SRV_REQ_H, ICT_INCIDENTGUID and CRMD_ORDERADM_H.

However even if RISK, CHANGE_CATEGORY and PREDECESSOR_GUID are well known standard fields, which would be supported by search automatically if we would add them by their origin name, we decided to choose a different name in customer namespace. Now we have a little bit more effort in configuration but we prevent future conflict issues and we avoid searching another solution for structure CRMT_REPORT_LOCATORLIST (where these fields already exist).

Caution: If you extend search and/or result list by sap standard fields, it might happen, that SAP adds this fields in future. In this case your structure enhancement will cause syntax error because the field will then be defined twice. This error will come up on SPDD. If this happens, you will need to remove your field definition and to check the customizing mentioned before and after this section. To avoid this conflict issue you could use customer namespace in all cases even if you want to enable sap standard fields. However if you do that, you avoid the conflict issue but you will never have the chance to go back to standard.

Caution: If you extend search and/or result list by sap standard fields, it might happen, that your extension can not be activated because the added fields are already included in structure CRMT_REPORT_LOCATORLIST. In this case you have to split the content of structure ZSEARCH_FIELDS into fields already supported by reporting and fields which are not supported yet.



Structure: ZSEARCH_FIELDS Active
 Short Description: Search Criteria & Search Results

Attributes Components Entry help/check Currency/quantity fields

Search Help 1 / 5

| Component | Component Type | Domain | Check table | Origin of the input help | Srch Help |
|---------------------------|----------------------|--------------------|------------------|----------------------------------|-------------------|
| ZZSEARCH RISK | CRMT SRQM RISK | CRM SRQM RISK | CRMC SRQM RISK | Input help implemented with c... | |
| ZZSEARCH CHANGE CATEGORY | CRMT SRQM CHANGE CAT | CRM SRQM CHANGE... | CRMC SRQM CHGCAT | Input help implemented with c... | |
| ZZSEARCH ICT GUID | ICT_INCIDENT_GUID | SYSUUID_C | | | |
| ZZSEARCH PREDECESSOR GUID | CRMT_OBJECT_GUID | SYSUUID | | | |
| ZZSEARCH PREDECESSOR ID | CRMT_OBJECT_ID_DB | CRM_OBJECT_ID | | Explicit search help attachme... | ZSEARCH_OBJECT_ID |

The search help for PREDECESSOR_ID was built by our own, because Application Enhancement Toolset (AET) is very rigorous when using search helps. No existing search help for CRMT_OBJECT_ID or CRMT_OBJECT_ID_DB can be used because they always return more than one parameter, but AET allows only search helps with exact one return parameter.

Elementary srch hlp: ZSEARCH_OBJECT_ID Active
 Short description: CRMT_OBJECT_ID

Attributes Definition

Data collection: Selection method: CRMD_ORDERADM_H
 Dialog behavior: Dialog type: C Dialog with value restriction
 Hot key: V

Search help exit: []

Parameter

| Search help parameter | IMP | EXP | LPoS | SPoS | SDis | Data element |
|-----------------------|-------------------------------------|-------------------------------------|------|------|--------------------------|--------------------------|
| OBJECT_ID | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 1 | 1 | <input type="checkbox"/> | CRMT_OBJECT_ID_DB |
| PROCESS_TYPE | <input type="checkbox"/> | <input type="checkbox"/> | 2 | 2 | <input type="checkbox"/> | CRMT_PROCESS_TYPE_DB |
| DESCRIPTION | <input type="checkbox"/> | <input type="checkbox"/> | 3 | 3 | <input type="checkbox"/> | CRMT_PROCESS_DESCRIPTION |
| CREATED_AT | <input type="checkbox"/> | <input type="checkbox"/> | 4 | | <input type="checkbox"/> | COMT_CREATED_AT_USR |
| CREATED_BY | <input type="checkbox"/> | <input type="checkbox"/> | 5 | | <input type="checkbox"/> | CRMT_CREATED_BY |
| CHANGED_AT | <input type="checkbox"/> | <input type="checkbox"/> | 6 | | <input type="checkbox"/> | COMT_CHANGED_AT_USR |
| CHANGED_BY | <input type="checkbox"/> | <input type="checkbox"/> | 7 | | <input type="checkbox"/> | CRMT_CHANGED_BY |
| GUID | <input type="checkbox"/> | <input type="checkbox"/> | 8 | | <input type="checkbox"/> | CRMT_OBJECT_GUID |

Change Request is []

Search Help -- Webpage Dialog

Search Criteria

Transaction Number: []
 Transaction Type: []
 Transaction Descr.: []

[Search] [Clear]

No entry found

| Transaction... | Transaction... | Description | Created At | Created By | Changed At | Changed... | Object GUID |
|-----------------|----------------|-------------|------------|------------|------------|------------|-------------|
| No result found | | | | | | | |



3.2 Registration of Table for Dynamic Reporting

The search is done by a big SQL select statement which is built automatically based on definition in table CRMC_REPDY_DB. Therefore please add your table in customizing table CRMC_REPDY_DB, if you have a new table.

However **CRMD_SRV_REQ_H** is already supported. There is nothing to do.

| | |
|---|--|
| Dynamic Access Name | DYN_SRV_REQ_H |
| DB Access Description for Dynamic Access | |
| No. Database Tables | 1 |
| Leading Database Tab | CRMD_SRV_REQ_H |
| Access Contains SET | <input type="checkbox"/> |
| Only Header Level | <input checked="" type="checkbox"/> |
| Only Item Level | <input type="checkbox"/> |
| Join at Header Level | GUID |
| Join at Item Level | |
| FROM (Not Leading) | INNER JOIN CRMD_SRV_REQ_H ON CRMD_SRV_REQ_H~ |
| Remainder: Dyn. FROM | |
| Call Method for FROM | <input type="checkbox"/> |
| Sort Value | 20 |
| Object Type | <input type="checkbox"/> |

(SELECT * FROM **CRMD_SRV_REQ_H** WHERE **GUID** = <HEADER_GUID>)

(SELECT * FROM CRMD_ORDERADM_H **INNER JOIN CRMD_SRV_REQ_H ON CRMD_SRV_REQ_H~GUID = CRMD_ORDERADM_H~GUID** WHERE CRMD_ORDERADM_H~GUID = <HEADER_GUID>)

Table **ICT_INCIDENTGUID** is not supported yet. Therefore we needed to extend the SQL statement here. ICT_INCIDENTGUID has the specialty that the Order GUID is in format CHAR32 whereas all other tables use RAW16. Therefore a direct join is not possible. We need to do a translation for example by using table TSOCM_CR_CONTEXT (here we hope that there will always exist an entry, that GUID and ITEM_GUID will always be equal but GUID will be in format RAW16 and ITEM_GUID in format CHAR32). If that is not the case, we need to use another table or we will need to use a customer field which always will have the Order GUID in format CHAR32 for example updated on first save.

To reduce complexity we decided to create a database view first.



Database view ZSEARCH_ICTGUID Active

Short Description ICT_INCIDENTGUID~ICT_GUID

Attributes Table/Join Conditions View Flds Selection Conditions Maint Status

| Table | Field name | = | Table | Field name |
|------------------|------------|---|------------------|------------|
| ICT_INCIDENTGUID | MANDT | = | TSOCM_CR_CONTEXT | CLIENT |
| ICT_INCIDENTGUID | ORDER_GUID | = | TSOCM_CR_CONTEXT | ITEM_GUID |

Database view ZSEARCH_ICTGUID Active

Short Description ICT_INCIDENTGUID~ICT_GUID

Attributes Table/Join Conditions View Flds Selection Conditions Maint Status

| View field | Table | Field | Key | Data elem. | Short description |
|------------|------------------|----------|-------------------------------------|-------------------|-------------------------------|
| CLIENT | TSOCM_CR_CONTEXT | CLIENT | <input checked="" type="checkbox"/> | MANDT | Client |
| GUID | TSOCM_CR_CONTEXT | GUID | <input checked="" type="checkbox"/> | CRMT_OBJECT_GUID | GUID of a CRM Order Object |
| ICT_GUID | ICT_INCIDENTGUID | ICT_GUID | <input checked="" type="checkbox"/> | ICT_INCIDENT_GUID | SM SD Interface: Message GUID |

Dynamic Access Name ZSEARCH_ICT_INCIDENTGUID

DB Access Description for Dynamic Access

No. Database Tables 2

Leading Database Tab ZSEARCH_ICTGUID

Access Contains SET

Only Header Level

Only Item Level

Join at Header Level GUID

Join at Item Level

FROM (Not Leading) INNER JOIN ZSEARCH_ICTGUID ON ZSEARCH_ICTGUID~

Remainder: Dyn. FROM

Call Method for FROM

Sort Value 255

Object Type

(SELECT * FROM ZSEARCH_ICTGUID WHERE GUID = <HEADER_GUID>)

(SELECT * FROM CRMD_ORDERADM_H INNER JOIN ZSEARCH_ICTGUID ON ZSEARCH_ICTGUID~GUID = CRMD_ORDERADM_H~GUID WHERE CRMD_ORDERADM_H~GUID = <HEADER_GUID>)

For predecessor relationship, we expected to create and use a database view for database tables (TSOCM_CR_CONTEXT,) SRRELROLES, CRMD_BINREL and ORBRELTYP.

```
*SQL Statement to get/validate Change Request for a given Change Document
SELECT SINGLE crmd_orderadm_h~object_id
INTO CORRESPONDING FIELDS OF ls_orderadm_h
FROM crmd_orderadm_h
JOIN tsocm_cr_context AS nachfolger_context ON nachfolger_context~guid = crmd_orderadm_h~guid
JOIN srrelroles AS nachfolger_role ON nachfolger_role~objkey = nachfolger_context~item_guid
```



```
AND nachfolger_role~objtype = 'BUS2000116' AND nachfolger_role~roletype = 'NACHFOLGER'  
JOIN crmd_binrel AS vona_binrel ON vona_binrel~role_b = nachfolger_role~roleid  
AND vona_binrel~breltyp = 'VONA'  
JOIN srrelroles AS vorgaenger_role ON vorgaenger_role~roleid = vona_binrel~role_a  
AND vorgaenger_role~objtype = 'BUS2000116' AND vorgaenger_role~roletype = 'VORGAENGER'  
JOIN tsocm_cr_context AS vorgaenger_context ON vorgaenger_role~objkey = vorgaenger_context~item_guid  
JOIN crmd_orderadm_h AS vorgaenger_head ON vorgaenger_context~guid = vorgaenger_head~guid  
WHERE crmd_orderadm_h~guid = '<GUID>'.
```

However this is not needed since there exists table **CRMD_BRELVONAE** and a matching entry for it. (Note: For all other relationships we have to go the long way!)

Dynamic Access Name

DB Access Description for Dynamic Access

| | |
|----------------------|---|
| No. Database Tables | <input type="text" value="1"/> |
| Leading Database Tab | <input type="text" value="CRMD_BRELVONAE"/> |
| Access Contains SET | <input type="checkbox"/> |
| Only Header Level | <input checked="" type="checkbox"/> |
| Only Item Level | <input type="checkbox"/> |
| Join at Header Level | <input type="text" value="OBJGUID_B_SEL"/> |
| Join at Item Level | <input type="text"/> |
| FROM (Not Leading) | <input type="text" value="INNER JOIN CRMD_BRELVONAE ON CRMD_BRELVONAE~"/> |
| Remainder: Dyn. FROM | <input type="text"/> |
| Call Method for FROM | <input type="checkbox"/> |
| Sort Value | <input type="text" value="66"/> |
| Object Type | <input type="checkbox"/> |

But unfortunately we need GUID (for result list) and ID (as search criteria) of the predecessor. But CRMD_BRELVONAE gives us only the GUID. Therefore we need our own version of CRMD_BRELVONAE as database view:

Database view Active

Short Description

Attributes | Table/Join Conditions | View Flds | Selection Conditions | Maint. Status

| Table | Field name | = | Table | Field name |
|----------------|---------------|---|-----------------|------------|
| CRMD_BRELVONAE | CLIENT | = | CRMD_ORDERADM_H | CLIENT |
| CRMD_BRELVONAE | OBJGUID A SEL | = | CRMD_ORDERADM_H | GUID |



Database view ZSEARCH_BRELVONA

Short Description CRMD_BRELVONAE

Attributes Table/Join Conditions View Flds Selection Conditions Maint.Status

Table fields

| View field | Table | Field | Key | Short description |
|--------------|-----------------|---------------|-------------------------------------|--|
| CLIENT | CRMD_BRELVONAE | CLIENT | <input checked="" type="checkbox"/> | Client |
| RELATIONID | CRMD_BRELVONAE | RELATIONID | <input checked="" type="checkbox"/> | Object Relationship Service : GUID binary link |
| POSNO | CRMD_BRELVONAE | POSNO | <input checked="" type="checkbox"/> | Sequential Number of Segment in IDoc Type |
| GUID | CRMD_BRELVONAE | OBJGUID_B_SEL | <input type="checkbox"/> | GUID of a CRM Order Object |
| PREDOC_GUID | CRMD_ORDERADM_H | GUID | <input type="checkbox"/> | GUID of a CRM Order Object |
| PREDOC_ID | CRMD_ORDERADM_H | OBJECT_ID | <input type="checkbox"/> | Transaction ID |
| PREDOC_TYPE | CRMD_ORDERADM_H | PROCESS_TYPE | <input type="checkbox"/> | Business Transaction Type |
| PREDOC_DESCR | CRMD_ORDERADM_H | DESCRIPTION | <input type="checkbox"/> | Transaction Description |

And therefore we can not use the SAP standard version.

Dynamic Access Name ZSEARCH_BRELVONA

DB Access Description for Dynamic Access

No. Database Tables 1

Leading Database Tab ZSEARCH_BRELVONA

Access Contains SET

Only Header Level

Only Item Level

Join at Header Level GUID

Join at Item Level

FROM (Not Leading) INNER JOIN ZSEARCH_BRELVONA ON ZSEARCH_BRELVONA~

Remainder: Dyn. FROM

Call Method for FROM

Sort Value 66

Object Type

3.3 Registration of field for Dynamic Reporting

Using and joining a table is not enough. We need to specify the fields in customizing table CRMC_REPDY. Here we need to give them a name which is unique for the Search Object and the Result List Object. Please do it for your fields.

However, **RISK** and **CHANGE_CATEGORY** are already specified in sap standard. There would be nothing to do for us, if we would choose the origin names. But we decided to choose different names. Therefore we needed to copy the settings.

We registered field **ICT_GUID** here and linked it to the previous mentioned configuration via "Dynamic Access Name".

We also registered field **PREDECESSOR_GUID** and **PREDECESSOR_ID** by copying and adjusting existing the entry PREDGUID_BRELVONAE.



Data Browser: Table CRMC_REPDY Select Entries 8

| SEL_FIELD | NAME_ON_DB | DYN_METHOD | CALL_FOR_WHE... |
|------------------|---------------------------------|---------------|-----------------|
| CHANGE_CATEGORY | CRMD_SRV_REQ_H-CHANGE_CATEGORY | DYN_SRV_REQ_H | |
| CHKLST_ID | CRMD_SRV_REQ_H-CHKLST_ID | DYN_SRV_REQ_H | |
| ESCALATION | CRMD_SRV_REQ_H-ESCALATION | DYN_SRV_REQ_H | |
| IMPACT | CRMD_SRV_REQ_H-IMPACT | DYN_SRV_REQ_H | |
| PROBLEM_CATEGORY | CRMD_SRV_REQ_H-PROBLEM_CATEGORY | DYN_SRV_REQ_H | |
| REC_PRIORITY | CRMD_SRV_REQ_H-REC_PRIORITY | DYN_SRV_REQ_H | |
| RISK | CRMD_SRV_REQ_H-RISK | DYN_SRV_REQ_H | |
| URGENCY | CRMD_SRV_REQ_H-URGENCY | DYN_SRV_REQ_H | |

| Control Table for Dyn. Access (CL_CRM_REPORT_ACC_DYNAMIC) | | |
|---|--------------------------------|---------------------------|
| Selection Field for Dyn. Access | Field Name in Database | Dynamic Access Name (Met) |
| ZZSEARCH_CHANGE_CATEGORY | CRMD_SRV_REQ_H-CHANGE_CATEGORY | DYN_SRV_REQ_H |
| ZZSEARCH_ICT_GUID | ZSEARCH_ICTGUID~ICT_GUID | ZSEARCH_ICT_INCIDENTGU |
| ZZSEARCH_PREDECESSOR_GUID | ZSEARCH_BRELVONA~PREDOC_GUID | ZSEARCH_BRELVONA |
| ZZSEARCH_PREDECESSOR_ID | ZSEARCH_BRELVONA~PREDOC_ID | ZSEARCH_BRELVONA |
| ZZSEARCH_RISK | CRMD_SRV_REQ_H-RISK | DYN_SRV_REQ_H |

3.4 Enabling of SAP standard field for dynamic reporting

For a field not being part of namespace Z*, Y* or /* we need a registration in table CRMC_Q1O_FIELDS (ZSEARCH_Q1O_FLDS), otherwise it could be not used for searching / filtering. Therefore please add an entry here or always use customer namespaces even if the field is a sap standard field.

However RISK, CHANGE_CATEGORY and PREDEGUID_BRELVONAE were already registered here. But we are using different names in customer namespace. Therefore we don't need to care about these settings.

Component name

Field names for One Order Search

| | |
|---|--|
| Data Element Name | <input type="text" value="CRMT_SRQM_RISK"/> |
| Field Description | <input type="text" value="Service Request Header Extension Data Element: Risk"/> |
| <input checked="" type="checkbox"/> Indicator | |
| <input checked="" type="checkbox"/> Indicator | |
| <input type="checkbox"/> Indicator | |

Component name

Field names for One Order Search

| | |
|---|---|
| Data Element Name | <input type="text" value="CRMT_SRQM_CHANGE_CAT"/> |
| Field Description | <input type="text" value="Service Request Header ExtensioData Element: Change Category"/> |
| <input checked="" type="checkbox"/> Indicator | |
| <input checked="" type="checkbox"/> Indicator | |
| <input type="checkbox"/> Indicator | |



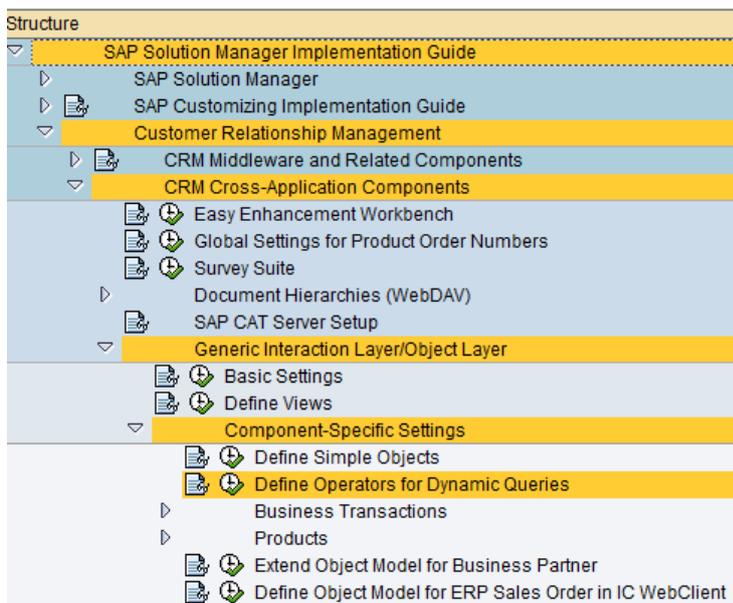
| | |
|---|--|
| Component name | PREGUID_BRELVONAE |
| Field names for One Order Search | |
| Data Element Name | CRMT_OBJECT_GUID |
| Field Description | Predecessor Guid of document in CRMD_BRELVONAE |
| <input checked="" type="checkbox"/> Indicator | |
| <input checked="" type="checkbox"/> Indicator | |
| <input type="checkbox"/> Indicator | |

Caution: It might happen that the content will be overwritten by SAP during upgrade because table is released for SAP internal use only.

Caution: Because the fields RISK, CHANGE_CATEGORY and PREGUID_BRELVONAE are supported by SAP standard reporting framework but are missing in structures for search criteria and result list of SAP Solution Manager IT Service Management and Change Request Management Search, it would be very easy for SAP to allow/activate these fields. Therefore please check after every upgrade whether these fields are now supported by SAP standard completely. If yes, you should go back to standard.

3.5 Search Operator Configuration

As mentioned in SAP note 1991218 “Customized search operators disappear in CRM UI” we need to configure allowed search operators in the IMG activity called “Define Operators for Dynamic Queries”. Therefore please do it for your added fields. Otherwise only “Equal” will be supported.



We did it in the following way:



| Exceptions per Attribute | | | | | | | | | | | | | |
|--------------------------|---------------|---------------------------|-------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Co. | DQuery Objec. | Attribute Name | Opt. | EQ | NE | BT | NB | CP | NP | LT | LE | GT | GE |
| BT | BTQAICSearch | ZZSEARCH_CHANGE_CATEGORY | X ... | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| BT | BTQAICSearch | ZZSEARCH_ICT_GUID | X ... | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| BT | BTQAICSearch | ZZSEARCH_PREDECESSOR_GUID | X ... | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| BT | BTQAICSearch | ZZSEARCH_PREDECESSOR_ID | X ... | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| BT | BTQAICSearch | ZZSEARCH_RISK | X ... | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

3.6 Enable Search Help and Value Conversation

In table **AXT_RUN_FIELDDEF (ZSEARCH_FIELDDEF)** we register our fields to activate the extended value help determination. All information can be empty except **FIELD_ID** and **LOCATION**. The **LOCATION** can be empty or should contain the name of a structure containing this field including search helps and/or check tables. To enable a real value help drop down box we need to specify some more information (especially the behavior **CHECKTABLE2DDL**). Please register your fields here. Without **CHECKTABLE2DDL** you will get a value help popup in case of value help request.

| Extensibility runtime field definition | |
|--|----------------|
| Field ID | Name |
| ZZSEARCH_CHANGE_CATEGORY | ZSEARCH_FIELDS |
| ZZSEARCH_ICT_GUID | ZSEARCH_FIELDS |
| ZZSEARCH_PREDECESSOR_GUID | ZSEARCH_FIELDS |
| ZZSEARCH_PREDECESSOR_ID | ZSEARCH_FIELDS |
| ZZSEARCH_RISK | ZSEARCH_FIELDS |

| | |
|----------|--------------------------|
| Field ID | ZZSEARCH_CHANGE_CATEGORY |
| Name | ZSEARCH_FIELDS |

| Extensibility runtime field definition | |
|--|----------------------|
| Field Data Type | CHAR Uppercase Text |
| Field Behavior Type | CHECKTABLE2DDL |
| Name | |
| Name | CRMT_SRQM_CHANGE_CAT |
| Field ID | |
| Field ID | |
| Search Help Name | |
| Domain | |
| <input type="checkbox"/> Boolean | |



| | |
|----------|----------------|
| Field ID | ZZSEARCH_RISK |
| Name | ZSEARCH_FIELDS |

| Extensibility runtime field definition | |
|--|----------------|
| Field Data Type | NUMC Numerical |
| Field Behavior Type | CHECKTABLE2DDL |
| Name | |
| Name | CRMT_SRQM_RISK |
| Field ID | |
| Field ID | |
| Search Help Name | |
| Domain | |
| <input type="checkbox"/> Boolean | |

| | |
|----------|-------------------|
| Field ID | ZZSEARCH_ICT_GUID |
| Name | ZSEARCH_FIELDS |

| Extensibility runtime field definition | |
|--|---------------------|
| Field Data Type | CHAR Uppercase Text |
| Field Behavior Type | |
| Name | |
| Name | ICT_INCIDENT_GUID |
| Field ID | |
| Field ID | |
| Search Help Name | |
| Domain | |
| <input type="checkbox"/> Boolean | |

| | |
|----------|---------------------------|
| Field ID | ZZSEARCH_PREDECESSOR_GUID |
| Name | ZSEARCH_FIELDS |

| Extensibility runtime field definition | |
|--|----------------------------------|
| Field Data Type | NAV_OBJECT Application Reference |
| Field Behavior Type | |
| Name | SERVICE_ORDER |
| Name | CRMT_OBJECT_GUID |
| Field ID | |
| Field ID | |
| Search Help Name | |
| Domain | |
| <input type="checkbox"/> Boolean | |

(Note: Because of NAV_OBJECT and SERVICE_ORDER the GUID will be translated in Number and Description on display in result list. You can click on this text to navigate to this object/entity.)



| | |
|---|-------------------------|
| Field ID | ZZSEARCH_PREDECESSOR_ID |
| Name | ZSEARCH_FIELDS |
| Extensibility runtime field definition | |
| Field Data Type | NUMC Numerical |
| Field Behavior Type | |
| Name | |
| Name | CRMT_OBJECT_ID_DB |
| Field ID | |
| Field ID | |
| Search Help Name | ZSEARCH_OBJECT_ID |
| Domain | |
| <input type="checkbox"/> Boolean | |

(Note: The search help needs to be mentioned here even it is already mentioned in definition of structure ZSEARCH_FIELDS.)

In table **AXT_RUN_FIELDUSE (ZSEARCH_FIELDUSE)** we assign the fields to be used only in context of Business Transactions. Please register your fields here.

| Extensibility runtime fields | | |
|------------------------------|----------------|-------------------|
| Field ID | Name | Application Group |
| ZZSEARCH_CHANGE_CATEGORY | ZSEARCH_FIELDS | ONEORDER |
| ZZSEARCH_ICT_GUID | ZSEARCH_FIELDS | ONEORDER |
| ZZSEARCH_PREDECESSOR_GUID | ZSEARCH_FIELDS | ONEORDER |
| ZZSEARCH_PREDECESSOR_ID | ZSEARCH_FIELDS | ONEORDER |
| ZZSEARCH_RISK | ZSEARCH_FIELDS | ONEORDER |

Table **AXT_RUN_BO_PARTT (ZSEARCH_BO_PARTT)** is used to register complete tables as extension table. For Change Request Management we always use SERVICE_REQUEST_FOR_CHANGE. The field EXT_BO_PART should always be ORDERADM_H if this table enhancement is a header enhancement instead of item enhancement. This configuration might not be needed at the moment.

| Ext. runtime access: Field registration for BO and PARTS | | |
|--|------------------------|------------------|
| Enhanced Business Object | Part of an Enhanced BO | Table Name |
| SERVICE_REQUEST_FOR_CHANGE | ORDERADM_H | ICT_INCIDENTGUID |

Table **AXT_RUN_BO_PART (ZSEARCH_BO_PART)** is used to assign the fields to a certain object part. For Change Request Management we always use SERVICE_REQUEST_FOR_CHANGE. The field EXT_BO_PART is only a logical grouping without technical meaning. Please add your fields here.

| Ext. runtime access: Field registration for BO and PARTS | | |
|--|------------------------|--------------------------|
| Enhanced Business Object | Part of an Enhanced BO | Field ID |
| SERVICE_REQUEST_FOR_CHANGE | SRV_REQ_H | ZZSEARCH_CHANGE_CATEGORY |
| SERVICE_REQUEST_FOR_CHANGE | SRV_REQ_H | ZZSEARCH_RISK |



| Ext. runtime access: Field registration for BO and PARTS | | |
|--|---------------------|---------------------------|
| Enhanced Business Object | Part of an Enhanced | Field ID |
| SERVICE_REQUEST_FOR_CHANGE | DOC_FLOW | ZZSEARCH_PREDECESSOR_GUID |
| SERVICE_REQUEST_FOR_CHANGE | DOC_FLOW | ZZSEARCH_PREDECESSOR_ID |
| SERVICE_REQUEST_FOR_CHANGE | ICT_INCIDENTGUID | ZZSEARCH_ICT_GUID |

In table **AXT_RUN_SEARCH (ZSEARCH_SEARCH)** we enable the field for searching and resulting including value help determination and value translation. Please add your fields here and flag it.

| Extensibility runtime search info | | | |
|-----------------------------------|---------------------------|-------------------------------------|-------------------------------------|
| Field Enhancement Place | Field ID | Indicator | Indicator |
| SERVICE_REQUEST_FOR_CHANGE | ZZSEARCH_CHANGE_CATEGORY | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| SERVICE_REQUEST_FOR_CHANGE | ZZSEARCH_ICT_GUID | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| SERVICE_REQUEST_FOR_CHANGE | ZZSEARCH_PREDECESSOR_GUID | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| SERVICE_REQUEST_FOR_CHANGE | ZZSEARCH_PREDECESSOR_ID | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| SERVICE_REQUEST_FOR_CHANGE | ZZSEARCH_RISK | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

(Note: Even we flag ZZSEARCH_PREDECESSOR_GUID as search criteria, it is no good idea to use it as search criteria. Of course It will be displayed and you will get a navigation object dependent search help. But this search help is optimized for real service orders, and therefore not optimal to search for change requests. After you selected a transaction, the GUID will be displayed as search value. This is not user friendly. This is why we should use field ZZSEARCH_PREDECESSOR_ID as search criteria and ZZSEARCH_PREDECESSOR_GUID as result list field.)

~~However there exists a second table **AXT_RUN_FLAG (ZSEARCH_FLAG)** which contains the enabling flags too. But these flags seem not to be needed yet, so we can ignore this table (at the moment).~~



4 Development notes

4.1 SCN articles

<http://wiki.scn.sap.com/wiki/display/CRM/Transaction+Search+Enhancement>

<http://wiki.scn.sap.com/wiki/display/CRM/How+to+add+an+existing+field+to+a+search+page+of+a+different+component>

<http://scn.sap.com/thread/2084702>

4.2 Classes and Methods for break points

CL_CRM_Q1O_SEARCH

→ This class is used for searching by all One order search components

CL_CRM_REPORT_ACC_DYNAMIC->BUILD_DYN_SQL

→ Build the SQL statement for selection

CL_CRM_REPORT_ACC_DYNAMIC->DATABASE_ACCESS

→ Perform the dynamic selection

CL_CRM_REPORT_EXT_LOCATORLIST->REQUEST_NEW_COLUMNS

→ Read data for result list by performing dynamic method calls.

CRM_BSP_OIC_1O_SEARCH_FROM_RF

→ Standard routine for selection. Used by standard or BADI implementation.

CRM_BSP_OIC_1O_READ_FROM_RF

→ Standard routine for result list data reading. Used by standard or BADI implementation.

4.3 Business Add-ins

Following BADI definitions are used to implement the search and data retrieval. However there can be only one implementation per search object.



- crm_badi_rf_q1o_search
- crm_badi_rf_q1o_read
- crm_badi_rf_q1o_calculate
- crm_badi_rf_q1o_filter
- CRM_RF_SEARCH_EEW

4.4 Testing

You can test your solution without SAP Web Client UI by using Browser for Business Object Layer (GENIL_BOL_BROWSER) with component set "ONEORDER".

4.5 Known bug in standard

Application enhancement tool says that it is able to enhance the One Order Model by new customer tables including use as search criteria and result list fields. This is wrong.

- Because of a configuration error, the generation of a customer table with result list support will abort. Please be sure that you correct the following configuration in transaction AXTREG before starting generation. (in standard the leading "I" is missing)

Display View "Search place": Details

Search Place: SERVICE_REQUEST_FOR_CHANGE | Object directory entry

Search place

| | |
|------------------|----------------------------|
| Criteria include | INCL_EEW_BUS2000223_SEARCH |
| Result include | INCL_EEW_QUERY_R_SRVI_BTIL |
| Description | |

Search supports table extensions

| | |
|------------------|----------------------------|
| Criteria include | INCL_EEW_BUS2000223_SEARCH |
|------------------|----------------------------|

Result supports 1:1 table extensions

| | |
|----------------|----------------------------|
| Result include | INCL_EEW_QUERY_R_SRVI_BTIL |
|----------------|----------------------------|

- The result list fields will always be empty because in sap standard there is no dynamic data retrieval solution. If our solution 2.5 is implemented it should work.