

## About Demand:

I try to explain one real scenario, adding extra new fields to a IS-U datasource without select fetch statements.

I explain how to find Enhancement places of a Datasource backend abap program, then add this fields to coding area without select fetch statements.

In this example, I will demonstrate how to add fields to a IS-Utilities Billing Invoicing module datasource: 0UC\_SALES\_STATS\_02 Sales Statistics Extractor.

**Note:** Verification steps (starting from page 4 in this document) can be applied to some ERP modules and IS-U modules standard datasource extractors to find necessary SMOD user-exit names.

0UC\_SALES\_STATS\_02 Help.sap link:

[https://help.sap.com/saphelp\\_dm40/helpdata/en/87/c299397f3d11d5b3430050dadf08a4/frameset.htm](https://help.sap.com/saphelp_dm40/helpdata/en/87/c299397f3d11d5b3430050dadf08a4/frameset.htm)

I am following necessary steps to add below yellow fields to 0UC\_SALES\_STATS\_02 BW on HANA datasource.

Requested extra fields to be added to datasource,

Table name	Field Name
ERDK	BILLING_PERIOD
ERCH	ENDABRPE
ERDK	INTOPBEL
ERDK	INVOICED
ERCH	BELEGART
ERCH	BCREASON
ERDK	EXBEL
ERDK	INVOICING_PARTY

- 1) In ERP side, tcode: SMOD and give name BWESTA01 as shown in picture.

SMOD

**SAP Enhancements**

Enhancement: BWESTA01

Object Components

- ☒ Attributes
- ☐ Components
- ☐ Documentation

Display Change

- 2) Click 'component' button as shown in picture.

**Attributes of SAP Enhancement BWESTA01**

Components

Enhancement: BWESTA01

Short text: IS-U: BW özet yapısının türetilmesi BIW\_ISU\_ESTA

Administrative Data

Package: EE71\_R461

Original language: DE

Created by: SAP 17.07.2000

Last Changed: SAP

- 3) Now i see the function module and double click on it .

**Components in SAP Enhancement BWESTA01**

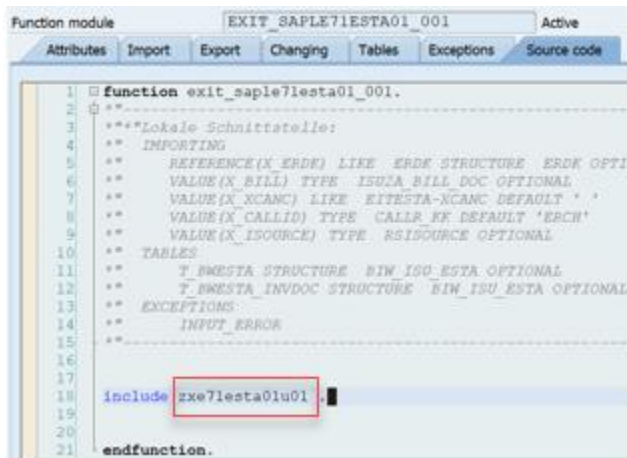
Function Exits

Function module	Short Text
EXIT_SAPLE71ESTA01_001	IS-U: Enhance Extract Structure BIW_ISU_ESTA

Function codes

Program	Code	Short text

- 4) Double click zxe71esta01u01 as shown in figure.



- 5) Write code given below, and add fields to datasources structure as append view.

### **An important point,**

*ERDK, ERCH table values are filled to structure during runtime by standard program.*

*SAP does not add all the fields of ERP or IS-U tables to the BW datasource. They just adds the most commonly used fields to the data source. The fields that are not in the data source are filled during the runtime cycle via SMOD by adding abap codings. Just only field assignment to the runtime structure of the program is enough.*

*SMOD-> fields are filled during datasource backend standard abap program runtime cycle*

*CMOD→ fields are filled after datasource backend standard abap program runtime cycle completed, fields are filled during loading datasource values to BW on HANA side*

*During runtime cycle, extra added fields are filled from structure of inner structures. No need select fetch statements from ERDK, or ERCH tables.*

```
case x_callid.
  when 'ERCH'.
    loop at t_bwesta into s_bwesta.
      s_bwesta-zzbill_per      = x_erdk-billing period.
      s_bwesta-zzendabrpe     = x_bill-erch-endabrpe.
      s_bwesta-zzintopbel     = x_erdk-intopbel.
      s_bwesta-zzinvoiced     = x_erdk-invoiced.
      s_bwesta-zzbelegart     = x_bill-erch-belegart.
      s_bwesta-zzbcreason     = x_bill-erch-bcreason.
      s_bwesta-zzexbel        = x_erdk-exbel.
      s_bwesta-zzinvoicing_party = x_erdk-invoicing_party.
    modify t_bwesta from s_bwesta.
```

```
clear:s_bwesta.  
endloop.  
  
endcase.
```

6) Now data can be seen in RSA3 transaction.

That's all steps.

### Verification steps - How to find customer-exit:

There are many ways to find a standard programs customer-exits for ERP modules or IS-U modules datasources backend.

This verification method is just one of many verification methods.

This verification steps can be applied to some ERP and IS-U modules standard datasource extractors.

One of them is searching CALL CUSTOMER-FUNCTION statement in standard program as shown below steps.

This statement can be used in programs delivered by SAP. It includes the function module exit specified in function\_exit. The function module exit is a customer exit. In an SAP program, it enables a function module provided by SAP and implemented by the customer to be called.

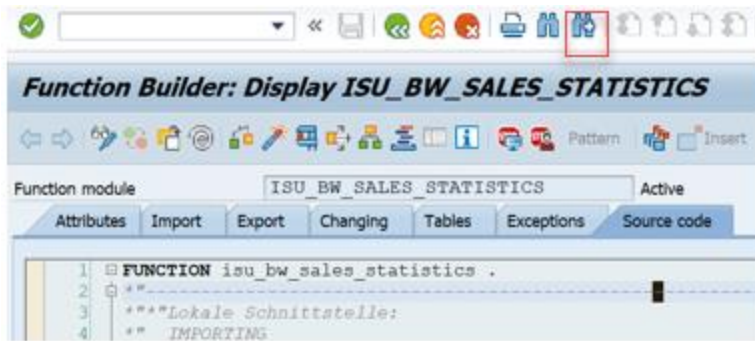
Datasource: OUC\_SALES\_STATS\_02

Datasource backend abap program: ISU\_BW\_SALES\_STATISTICS

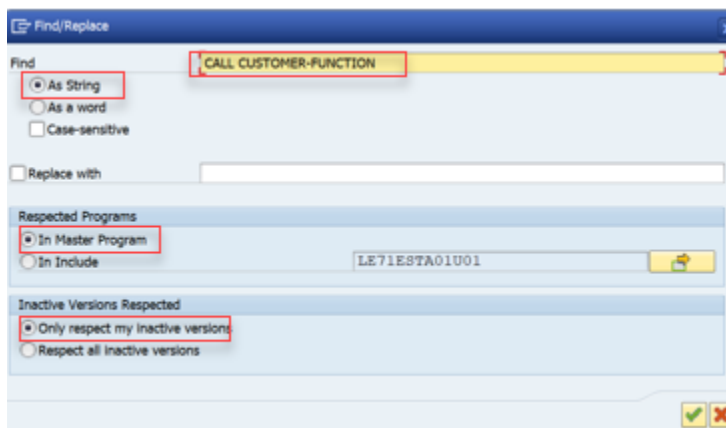
This statement can be used in programs delivered by SAP. It includes the function module exit specified in function\_exit. The function module exit is a customer exit. In an SAP program, it enables a function module provided by SAP and implemented by the customer to be called.

Steps to find this datasource enhancement name.

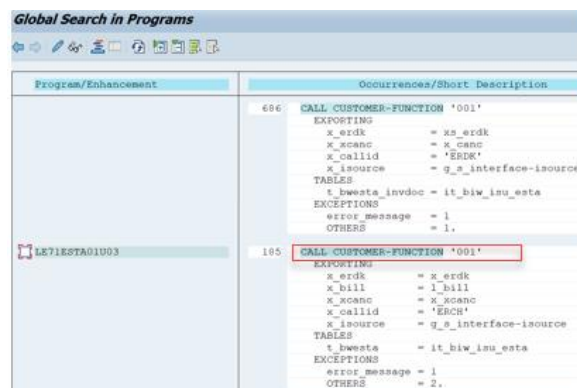
-Go to ERP SE37 transaction and give name: ISU\_BW\_SALES\_STATISTICS and search for CALL CUSTOMER-FUNCTION via pushing binoculars-search button as shown below.



-Search the word CALL CUSTOMER-FUNCTION as shown below.



-Now I find the red-circled area as shown below.



function exit name: exit\_saple71esta01\_001

Function module: ISU\_BW\_SALES\_STATS\_FOR\_BILDOC Active

Attributes Import Export Changing Tables Exceptions Source code

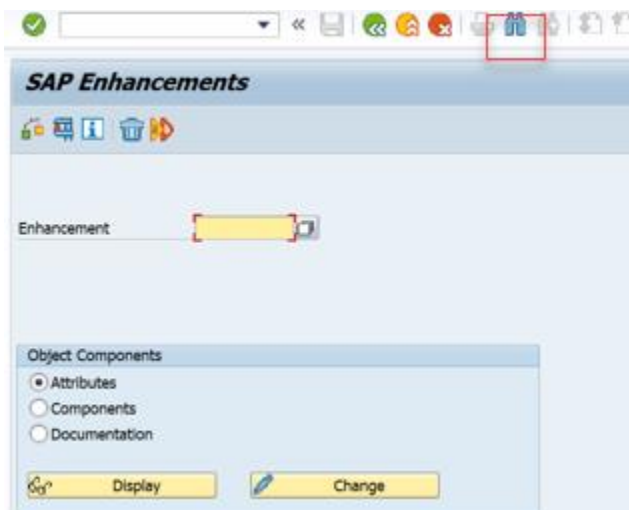
```

180 *----- Exit BWSTAD1
181 * falls CMO nicht aktiviert ist, wird sy-subrc nicht zurückgesetzt!!!
182 sy-subrc = 0.
183
184 * function exit BWSTAD1_001 - SAP-Erweiterung BWSTAD1
185 CALL CUSTOMER-FUNCTION '001'
186 EXPORTING
187   x_erdk      = x_erdk
188   x_bill      = l_bill
189   x_xcanc     = x_xcanc
190   x_callid    = 'EUCU'
191   x_isource   = q_s_interface-isource
192 TABLES
193   t_bwesta   = it_bw_isu_esta
194 EXCEPTIONS
195   error_message = 1
196   OTHERS       = 2.
197
198 IF sy-subrc NE 0.
199   msg_qutx oo_msg_error sy-magno sy-magld
200   sy-msgv1 sy-msgv2 sy-msgv3 sy-msgv4 general_fault.
201 ELSE.
202   APPEND LINES OF it_bw_isu_esta TO t_bw_isu_esta.
203 ENDIF.
204

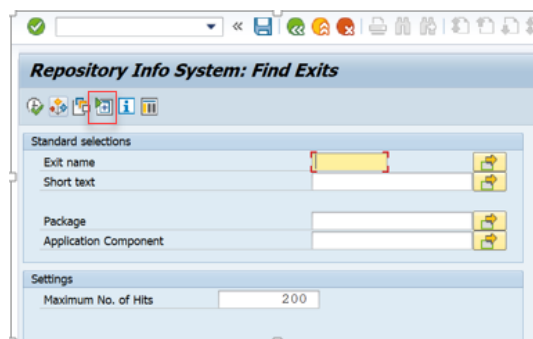
```

Kapseln: FUNCTION isu\_bw\_sales\_stats\_for\_bildoc

and input this name in SMOD as shown below steps via pushing binoculars.



Press '+' button in red area.



Input exit name: exit\_saple71esta01\_001 to 'component name' field.

**Repository Info System: Find Exits**

Standard selections

Exit name

Short text

Package

Application Component

Additional selections

☒ F module exits ☒ Screen areas ☒ Menu Entries

Component name

Created by

Created on

Last Changed By

Changed on

Settings

Maximum No. of Hits

Now, I can see BWESTA01 exit.

**Repository Info System: Exits Find (1 Hits)**

Exit name Kısa tanım

BWESTA01	IS-U: BW özet yapısının türetilmesi BIW_ISU_ESTA
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-Then and double click on BWESTA01 and write coding codings as shown below.

**Components in SAP Enhancement BWESTA01**

Function Exits

Function module	Short Text
EXIT_SAPLE71ESTA01_001	IS-U: Enhance Extract Structure BIW_ISU_ESTA

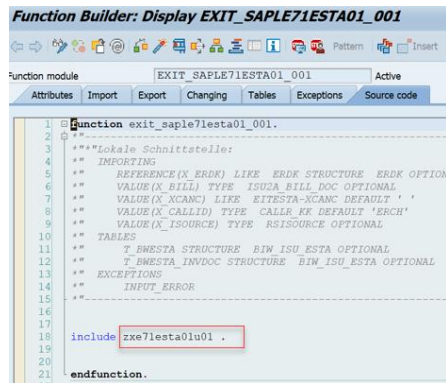
Function codes

Program	Code	Short text

Screen areas

Calling screen	No.	Area	Called screen	No.	Short Text

Double click red area and write coding which is given above.



Abap code:

```
case x_callid.
  when 'ERCH'.
    loop at t_bwesta into s_bwesta.
      s_bwesta-zzbill_per      = x_erdg-billing_period.
      s_bwesta-zzendabrpe     = x_bill-erch-endabrpe.
      s_bwesta-zzintopbel     = x_erdg-intopbel.
      s_bwesta-zzinvoiced     = x_erdg-invoiced.
      s_bwesta-zzbelegart     = x_bill-erch-belegart.
      s_bwesta-zzbcreason     = x_bill-erch-bcreason.
      s_bwesta-zzexbel        = x_erdg-exbel.
      s_bwesta-zzinvo_party   = x_erdg-invoicing_party.

      modify t_bwesta from s_bwesta.

      clear:s_bwesta.
    endloop.
endcase.
```

That's all step for verification.

No need any any select fetch abap statements. Using only SAP's standard places to add extra fields will ensure that the system is always running at it's best performance.

This solution can be implemented for any BW version , starting from 3.X to BW4/HANA.

Thank you.

Cihan Ekin