Enhancing LO DataSource – Step by Step

Applies to:

SAP BI, NW2004s Business Intelligence.

Summary

This article explains step by step procedure to enhance LO DataSource. It is explained by enhancing standard DataSource 0Customer_attr (Customer) by adding a couple of Z fields. Though it explains steps for master data DataSource enhancement same can be applied for transaction data DataSources as well. I coupled the process with screen shots to make it more users friendly.

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Author Bio

Vikash Agrawal is a Certified SAP BI Consultant with **Wipro Technologies**. He has extensive cross functional experience and has been with end to end SAP implementations, upgrades, and BI - Portal Integration projects across manufacturing domain. He has also worked in the area of distribution of finished goods as well as remodeling of Distribution Supply Chain.

Table of Contents

Create a Table of Contents in Microsoft Word. To change, right-click on the TOC and select Update Field.

Overview

Purpose of this exercise is to enhance LO DataSource, Customer_Attr one to be specific. I needed to add following field to Customer_Attr DataSource. One need to start from recognizing the fields / components type and then look for the table from where data could be picked up to fill up these fields.

| No	Component	Component Type	Description (NOT TO USE ANY WHERE)
1	Zz1payer	KUNN2	Payer
2	Zz1Pcc_area	KKBER	Payer's Credit Control Area
3	Zz1Pind_cd2	BRAN2	Payer's Industry Code2
4	ZZ1pcustgrp	KDGRP	Payer's Customer Group

Appending the Structure

DataSources reside in the source system so If I need to customize DataSource, I need to go to source system, one can directly login to Source System (R/3 in our case) or From BW also can remotely login to Source System.
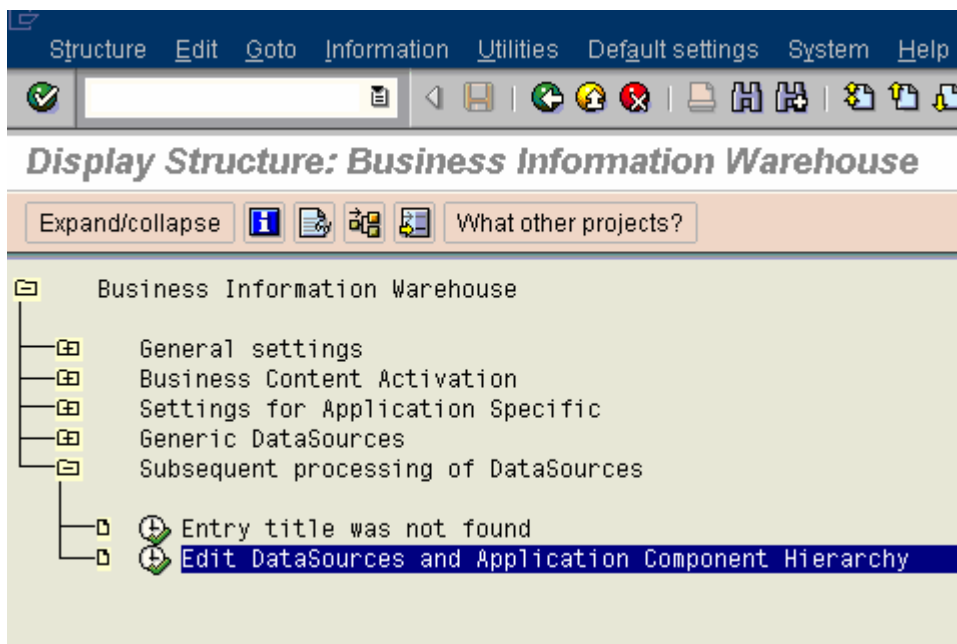
- Logon to BW

    o Go to Administrator Workbench (RSA1).

    o Go to Source systems.

    o Choose R/3 Source System (where your DataSource resides) - Right Click & go to "Customizing for Extractors".
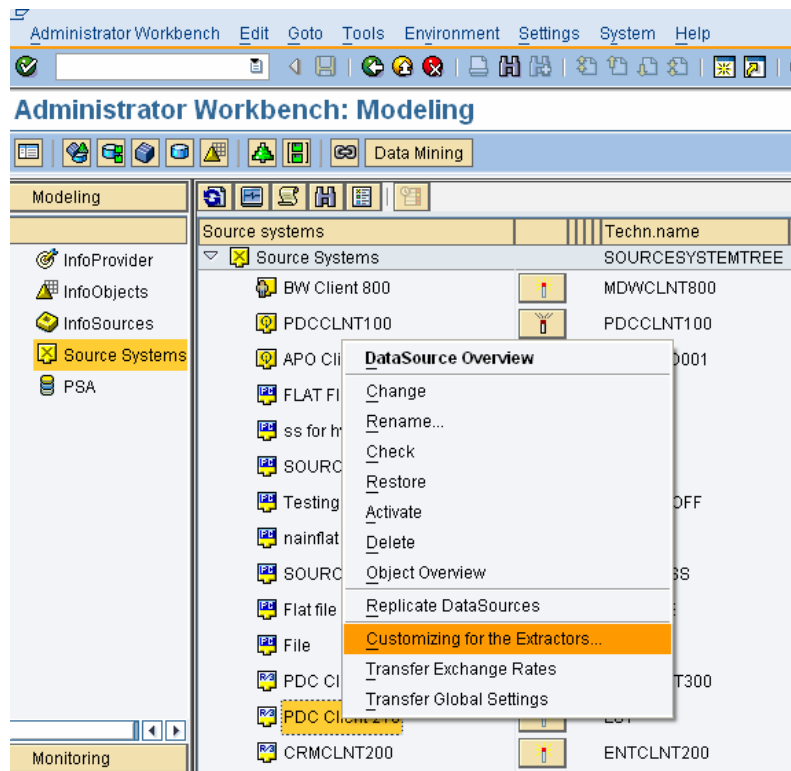
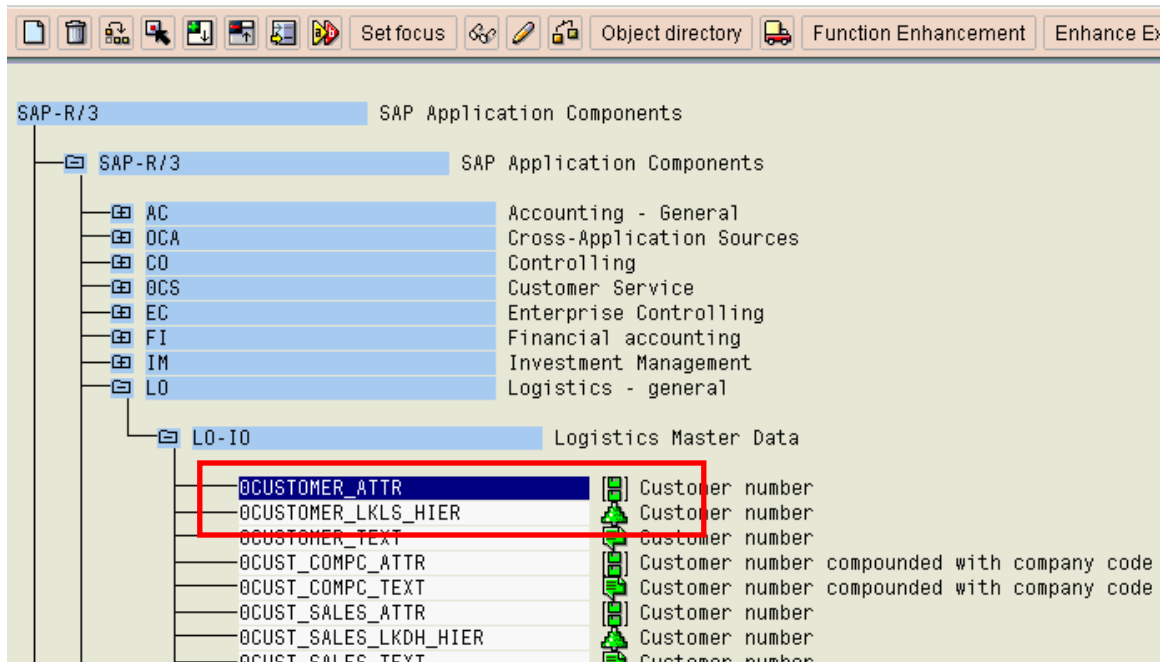- It shall take you to Source System (R/3)
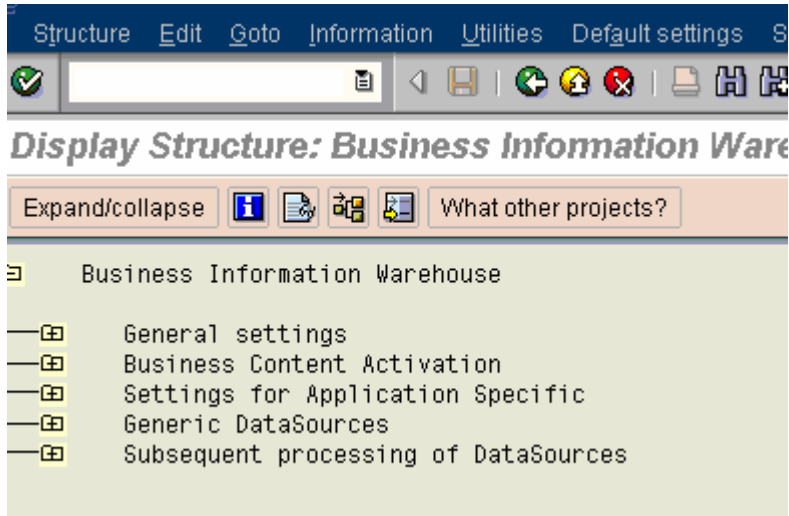
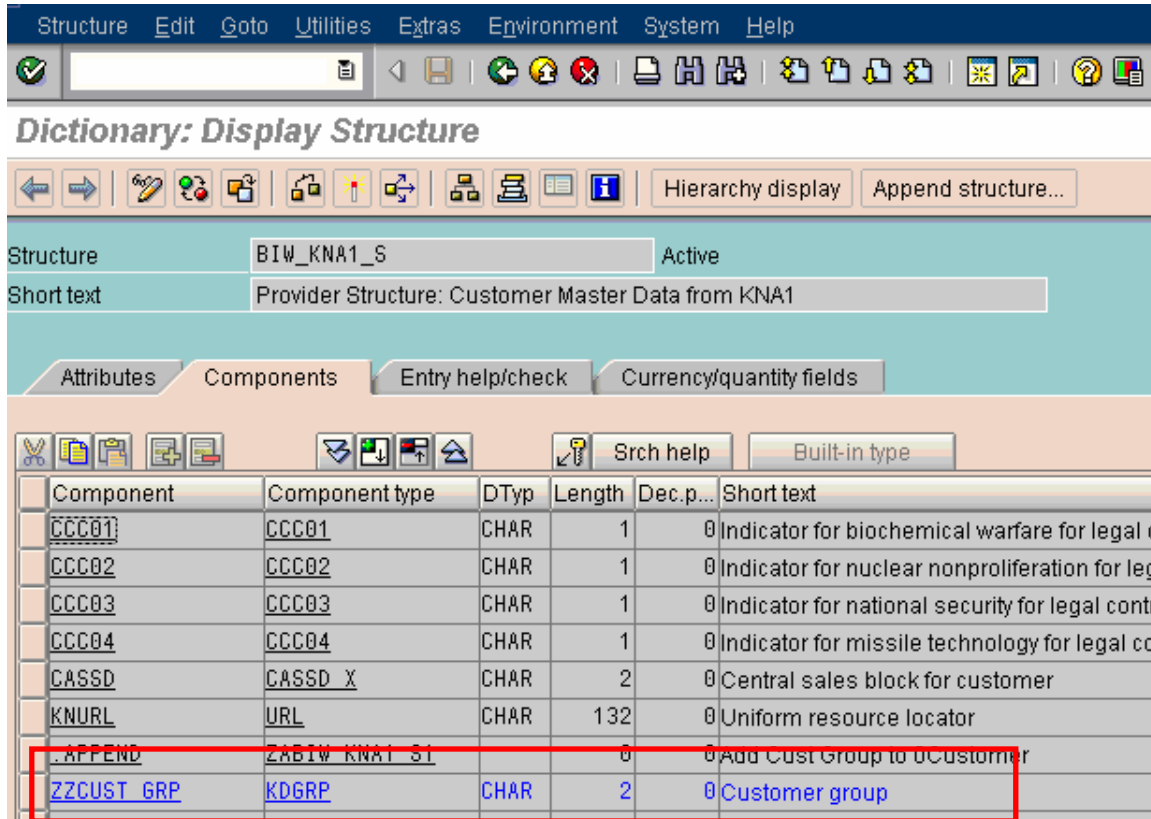- Choose "Edit DataSources and Application Component Hierarchy"

- Go to "0CUSTOMER_ATTR" Customer Number DataSource (or whatever DataSource you decide to customize)
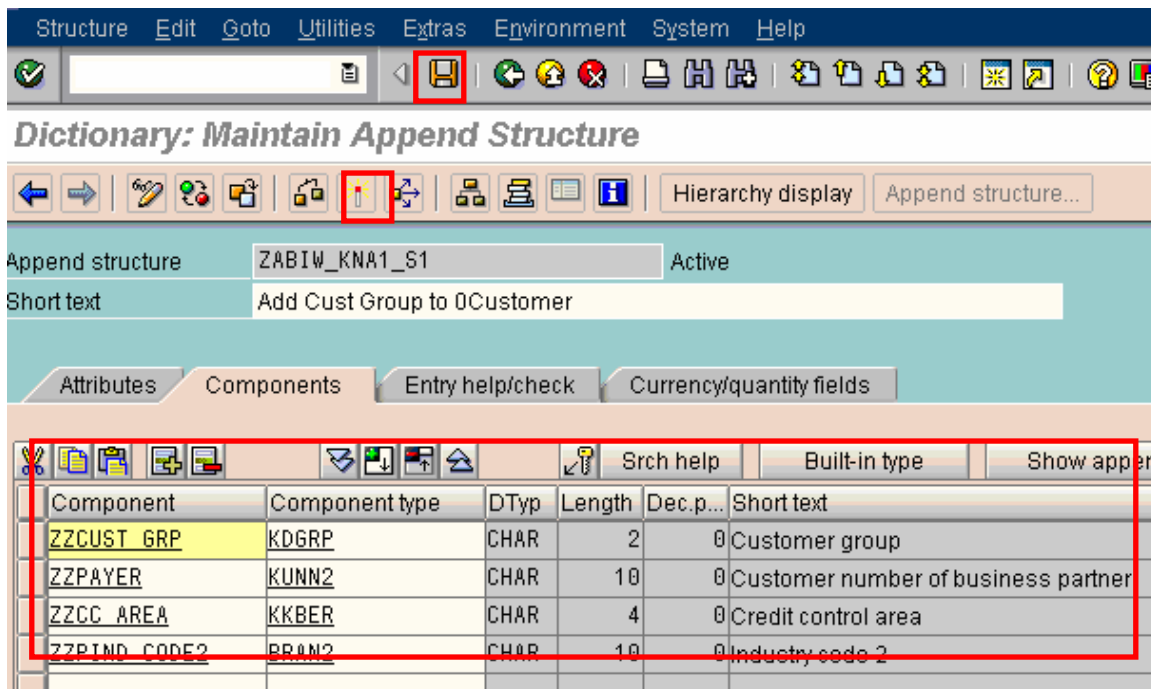
- Click on DataSource
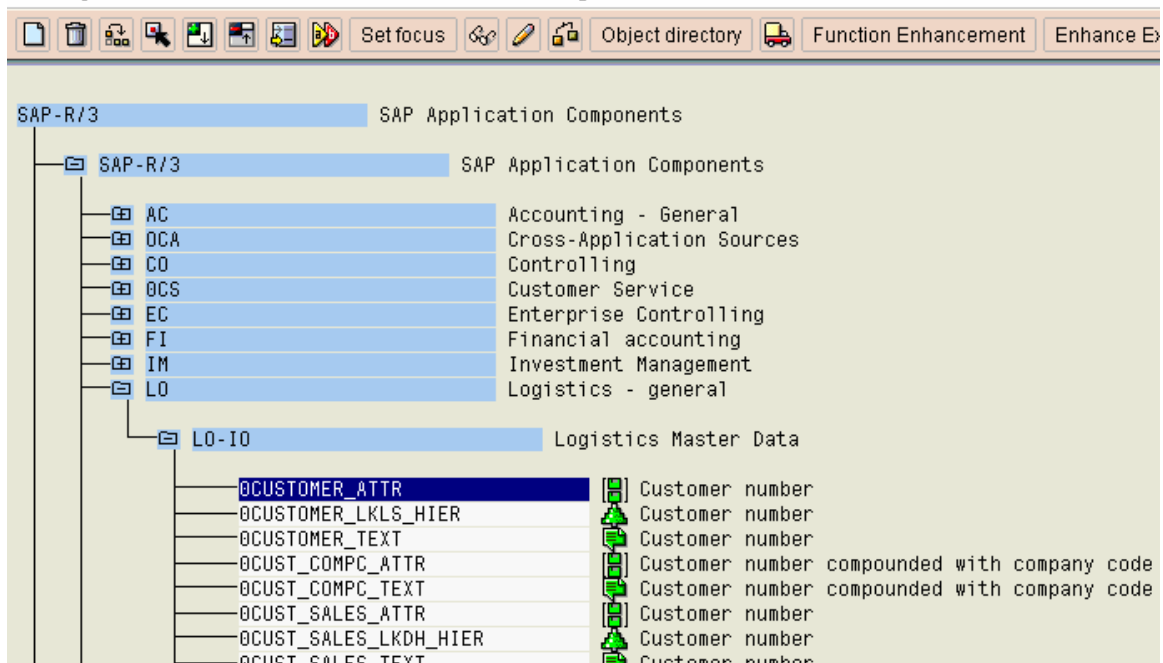
- Scroll down to reach the appended structure

- Double Click on appended structure – ZBIW_KNA1_S1 (or your chosen one) & add the fields (which you wish to add to DataSource)
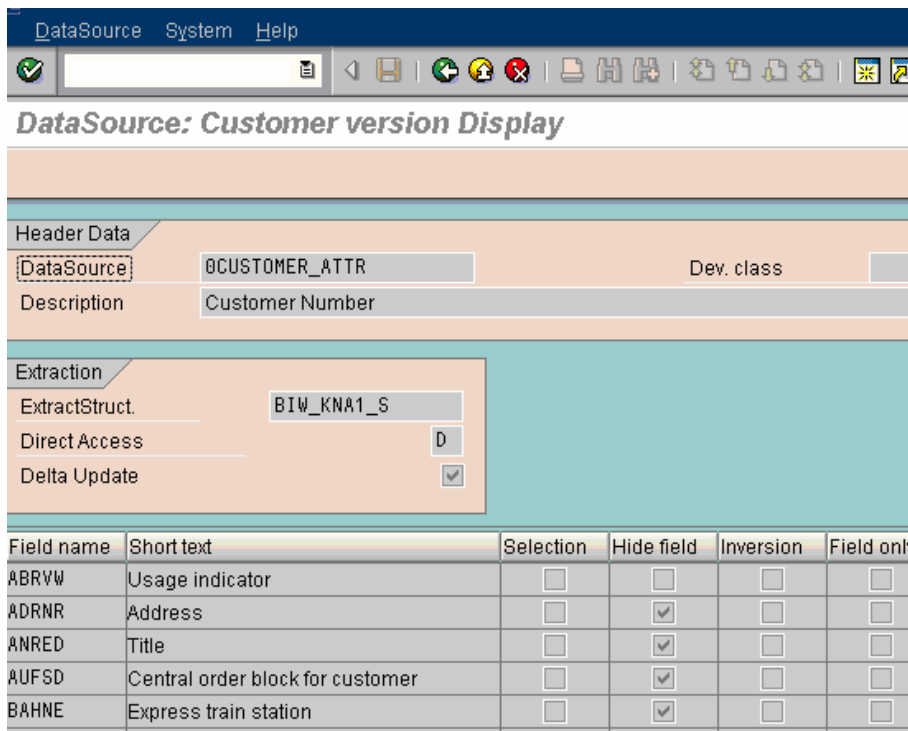

- Check, save & activate - It will append this to Extract Structure of DataSource.

- Go Back

Postprocess DataSources and Hierarchy

| | | | | | | | | Set focus | | | | Object directory | | Function Enhancement | Enhance E |

```
SAP-R/3                        SAP Application Components

  ⊟ SAP-R/3                    SAP Application Components

    ⊞ AC                       Accounting - General
    ⊞ 0CA                      Cross-Application Sources
    ⊞ CO                       Controlling
    ⊞ 0CS                      Customer Service
    ⊞ EC                       Enterprise Controlling
    ⊞ FI                       Financial accounting
    ⊞ IM                       Investment Management
    ⊟ LO                       Logistics - general

      ⊟ LO-IO                  Logistics Master Data

          0CUSTOMER_ATTR       Customer number
          0CUSTOMER_LKLS_HIER  Customer number
          0CUSTOMER_TEXT       Customer number
          0CUST_COMPC_ATTR     Customer number compounded with company code
          0CUST_COMPC_TEXT     Customer number compounded with company code
          0CUST_SALES_ATTR     Customer number
          0CUST_SALES_LKDH_HIER Customer number
          0CUST_SALES_TEXT     Customer number
```

- Click on 0CUSTOMER_ATTR (DataSource)

DataSource   System   Help

DataSource: Customer version Display

Header Data

| DataSource | 0CUSTOMER_ATTR | Dev. class | |
| Description | Customer Number | | |

Extraction

ExtractStruct.	BIW_KNA1_S
Direct Access	D
Delta Update	✓

Field name	Short text	Selection	Hide field	Inversion	Field only.
ABRVW	Usage indicator	☐	☐	☐	☐
ADRNR	Address	☐	✓	☐	☐
ANRED	Title	☐	✓	☐	☐
AUFSD	Central order block for customer	☐	✓	☐	☐
BAHNE	Express train station	☐	✓	☐	☐

- Now Click on Extract Structure – BIW_KNA1_S (in my case), check out the appended field below append structure.

Filling up the Appended Structure
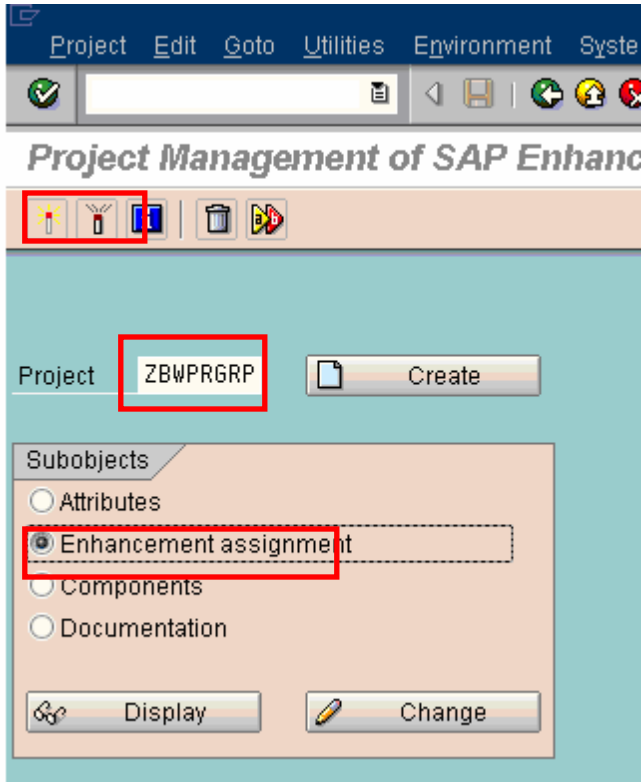
- Post appending the structure, we need to fill this Append with data – For this

    - LOGON to Source System (R/3)

    - Go to T Code – CMOD

    - Choose the project – Which you are using for Master Data Enhancement. Project "ZSDBWNEW" in my case. (you need to create project in case you are doing enhancement on this BW system for the first time)

    - Click on Enhancement Assignments
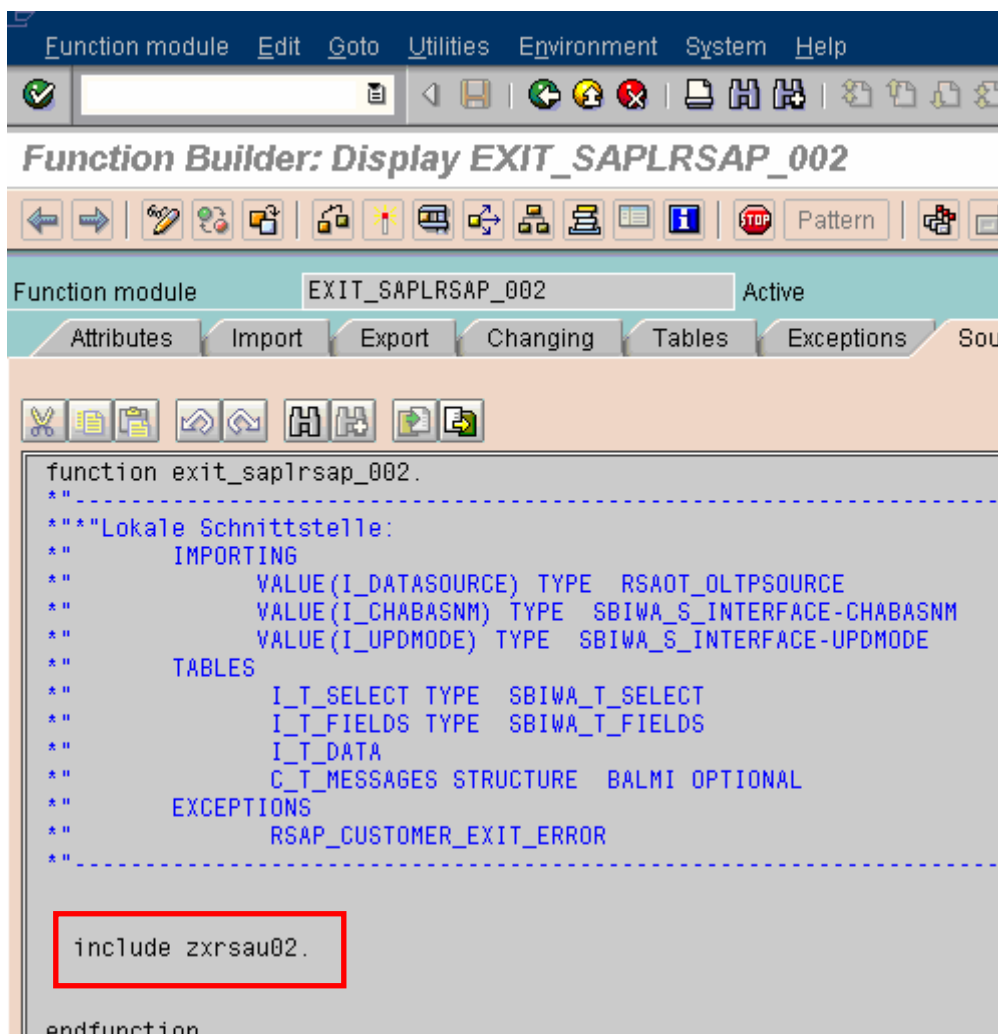
    - Click on Change

- Press Continue – In case it prompts for some confirmation like "Enhancement project already active" etc.
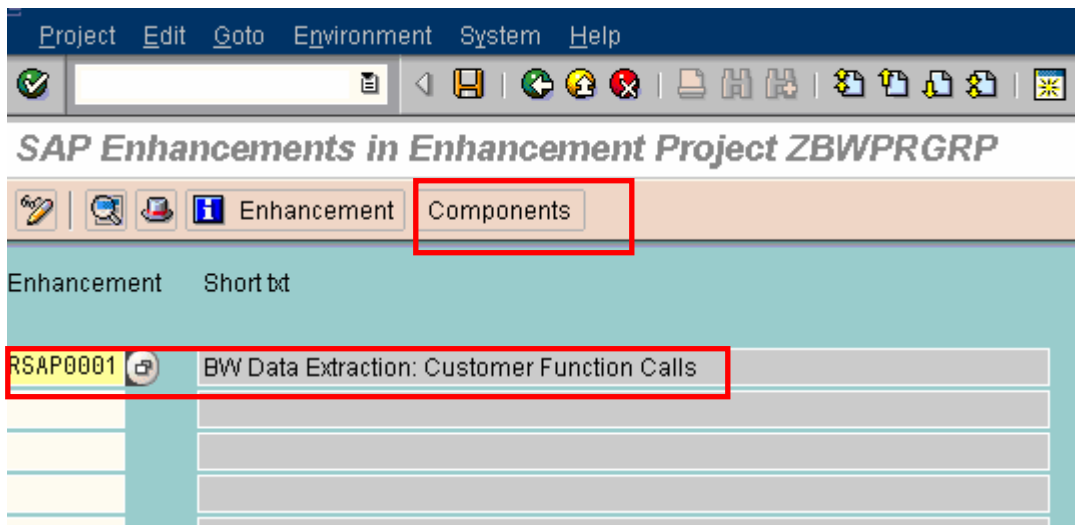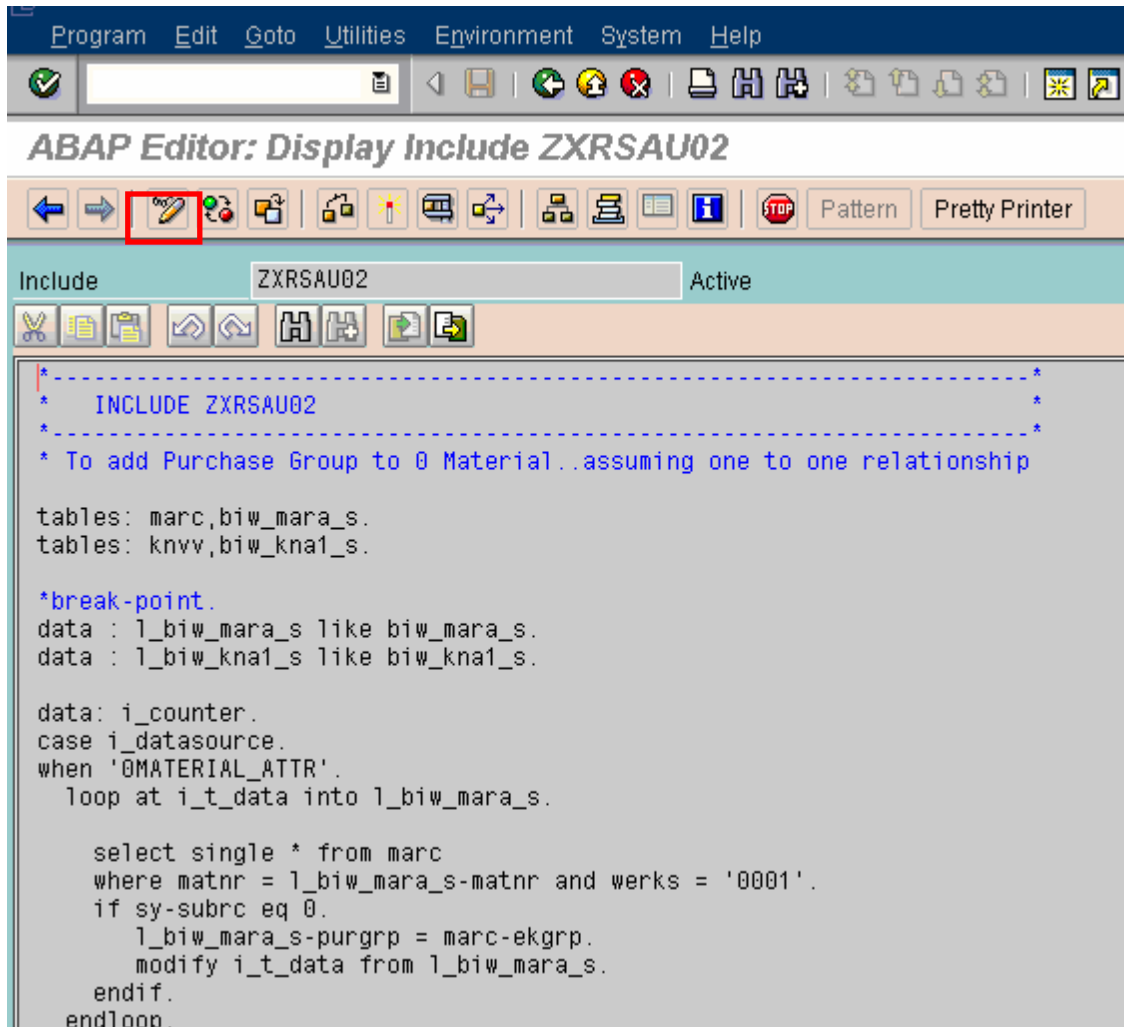

- Choose the following -

    o Enhancement – RSAP0001

    o Click on Components.

- It will take you to -
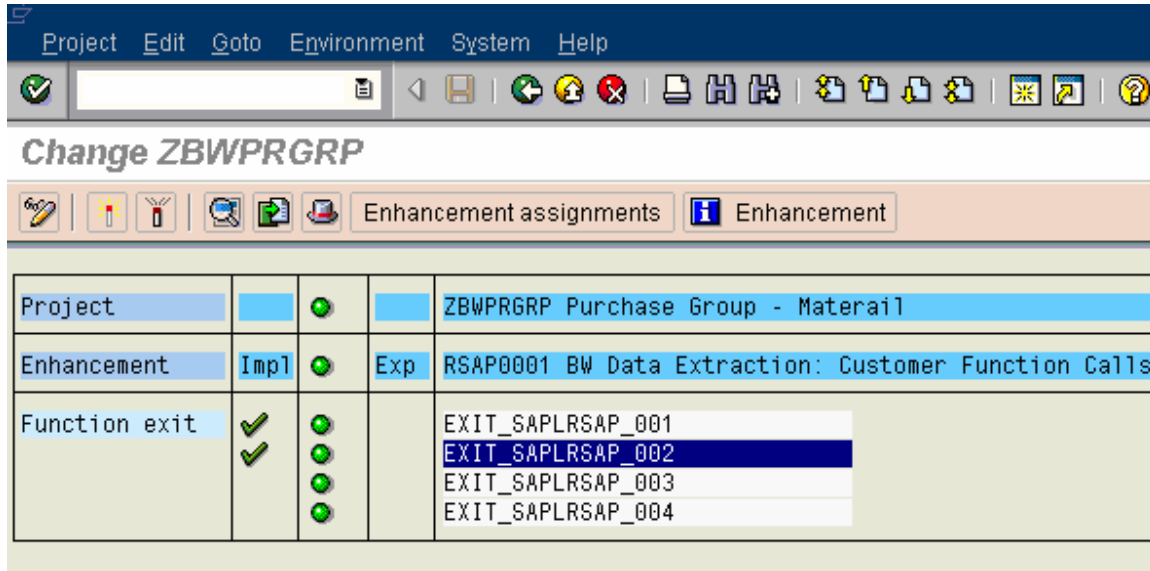
- Choose"EXIT_SAPLRSAP_002" & Click on this.

- We need to write ABAP Code to fill up Appended Fields in "0Customer_Attr" through the Include mentioned here i.e. include zxrsau02.

- Double Clicking on this will take to ABAP Editor to put in the code.

- Go to Change Mode.

- This Code is to be inserted before **"endcase"** of already written code.

- Make Sure Tables KNVV, BIW_KNVV_S, KNKK, KNA1, KNVP (these are table from which I need to extract values of appended fields) are declared at the very start of the code.

Wrtie ABAP Code

```
<< ABAP CODE>>

DATA : l_biw_knvv_s LIKE biw_kna1_s.

DATA : zz1payer LIKE knvp-kunn2, zz1pcc_area LIKE knkk-kkber,

zz1pind_cd2 LIKE kna1-bran2,zz1pterm LIKE knvv-zterm,

zz1pcustgrp LIKE knvv-kdgrp.
```

<<From here Code is to be added>>

```
when '0CUSTOMER_ATTR'.
clear i_counter.
loop at i_t_data into l_biw_kna1_s.
* Selection of Payer against "Sold  to" of Customer
select * from knvp
where kunnr = l_biw_kna1_s-kunnr
and     VKORG = l_biw_kna1_s-vkorg
and     VTWEG = l_biw_ kna1_s-vtweg
and     SPART = l_biw_kna1_s-spart
and parvw = 'RG' .

if sy-subrc eq 0.
l_biw_kna1_s-zz1payer = knvp-kunn2.
Else
 l_biw_kna1_s-zz1payer = l_biw_kna1_s-kunnr.
Endif

<<* If Payer is found then pick up Payer's credit control area>>
select * from knkk
up to 1 rows
where kunnr =      l_biw_kna1_s-zz1payer.
endselect.

if sy-subrc eq 0.
l_biw_kna1_s-zz1pcc_area = knkk-kkber.
endif.

<<* If Payer is found then pick up Payer's Industry Code2>>
select * from kna1
up to 1 rows
where kunnr = l_biw_kna1_s-zz1payer.
endselect.

if sy-subrc eq 0.
l_biw_kna1_s-ZZ1pind_cd2  = kna1-bran2.
```

```
endif.


<<* If Payer is found then pick up Terms of Payment, Payer's Customer
Group>>
select * from knvv
where kunnr = l_biw_kna1_s-zz1payer
and      VKORG = l_biw_kna1_s-vkorg
and      VTWEG = l_biw_kna1_s-vtweg
and      SPART = l_biw_kna1_s-spart.


if sy-subrc eq 0.
l_biw_kna1_s-zz1pterm   = knvv-zterm.
l_biw_kna1_s-zz1pcustgrp  = knvv-kdgrp.
endif.


modify i_t_data from l_biw_knvv_s.
endloop.
```
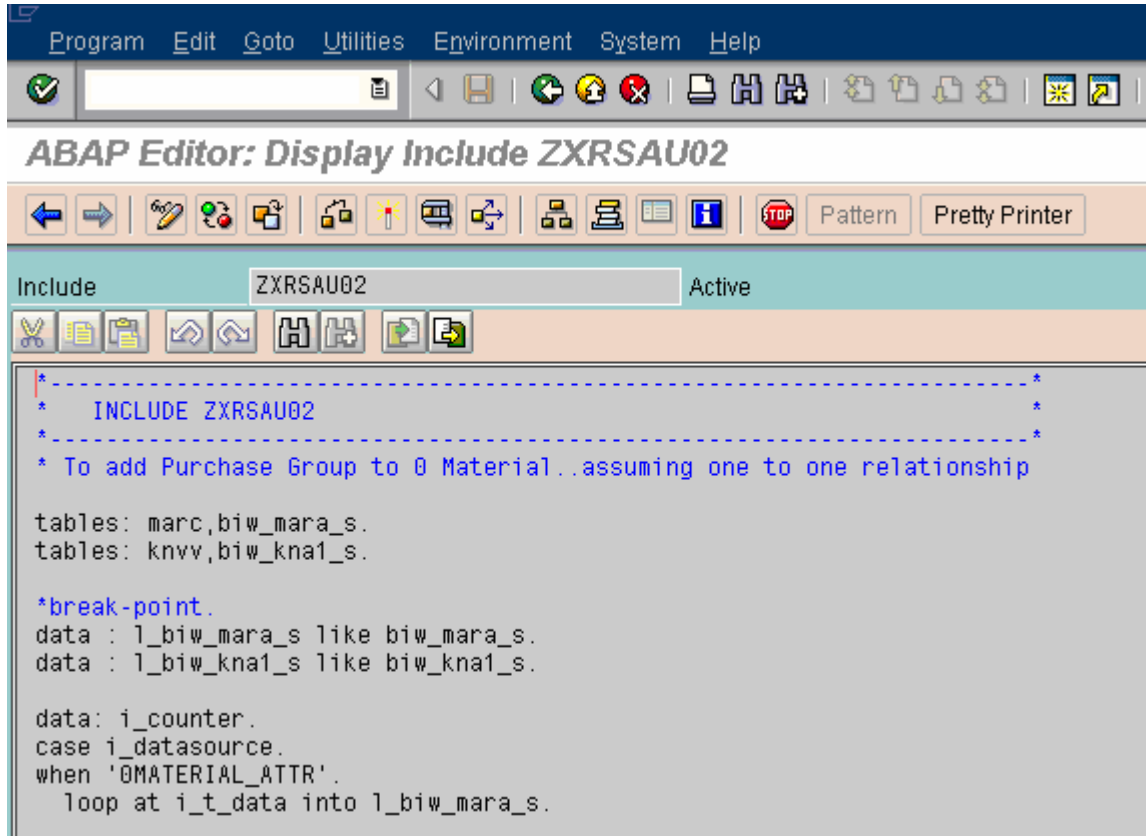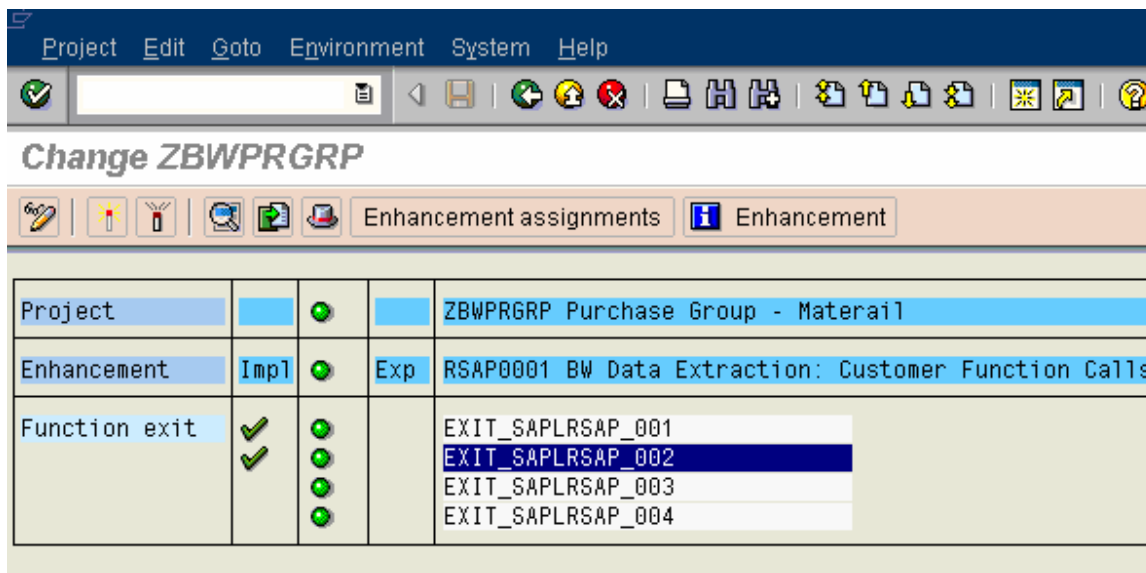
- Do the "Check" before Save, if no errors are found the Save & Activate".

- Go Back.

- Do the Check again & if no errors then Activate.

- Go Back and then Activate. (Keep activating while going back on every step).

- Come Out.

Regenerate & Check the Customized Objects

- Now Final Step – We need to regenerate the DataSource & make sure Newly Added Attributes (Starting with ZZ) are not HIDE.

- Logon to BW System – Go to Administrator Workbench (RSA1) – Go to Source systems – Choose Source System (R/3 in our case) - Right Click & go to "Customizing for Extractors".

- Choose "Edit DataSources and Application Component Hierarchy"

- Go to "0CUSTOMER_ATTR" Customer Number DataSource & Click on CHANGE. Scroll Down.
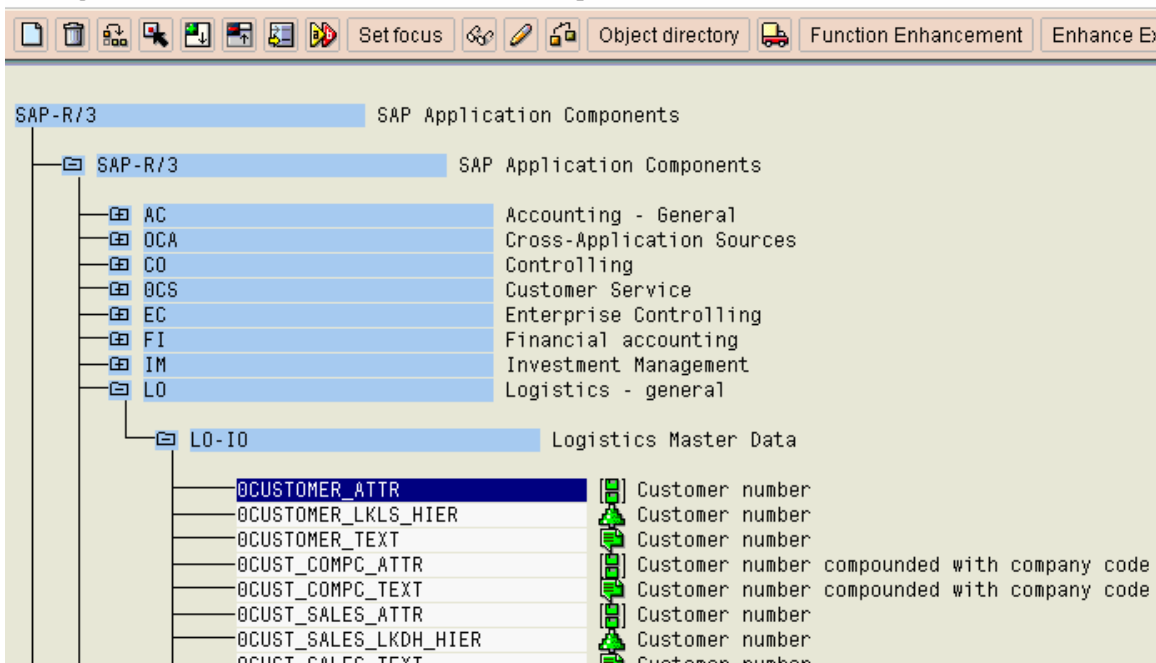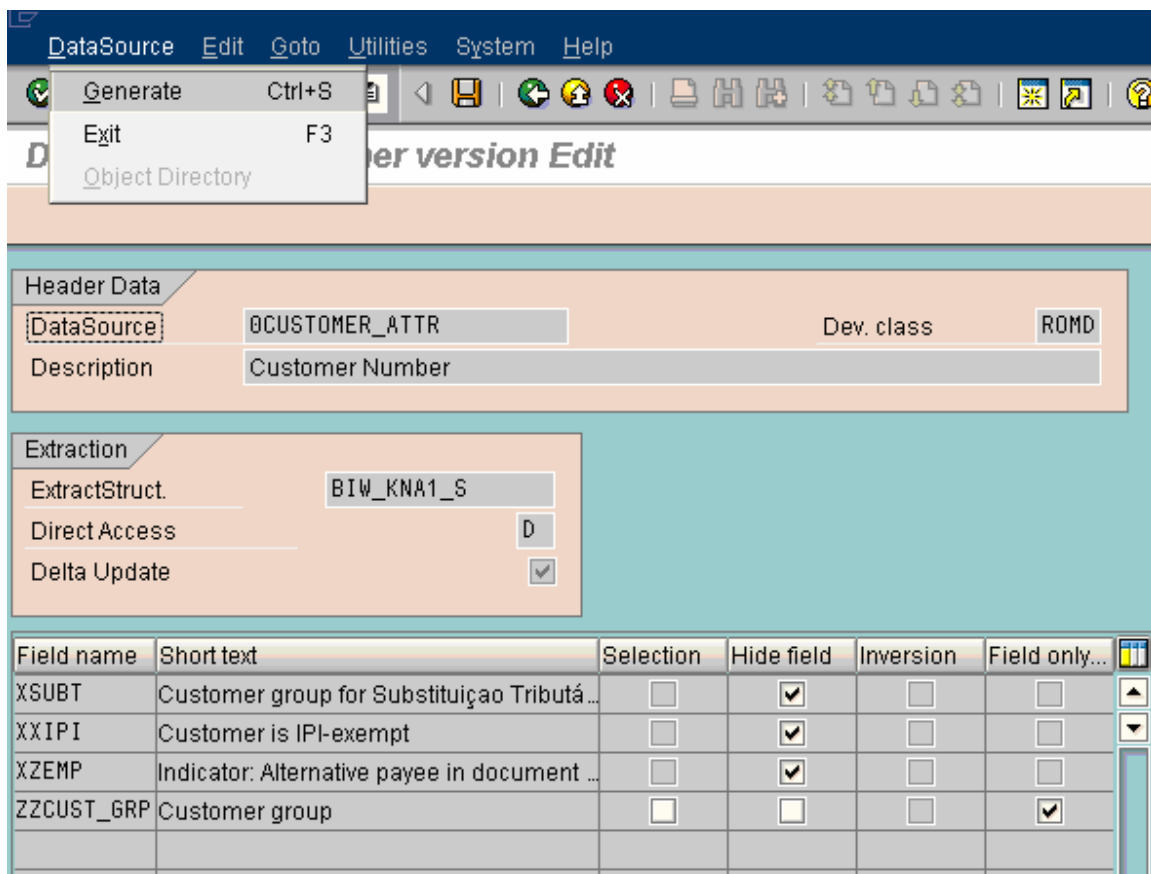

- Keep clicking on Right Sign if it prompts for any confirmation.

- Scroll down & Go to Fields starting with ZZ & make sure these are not HIDE (remove the sign from HIDE check box).
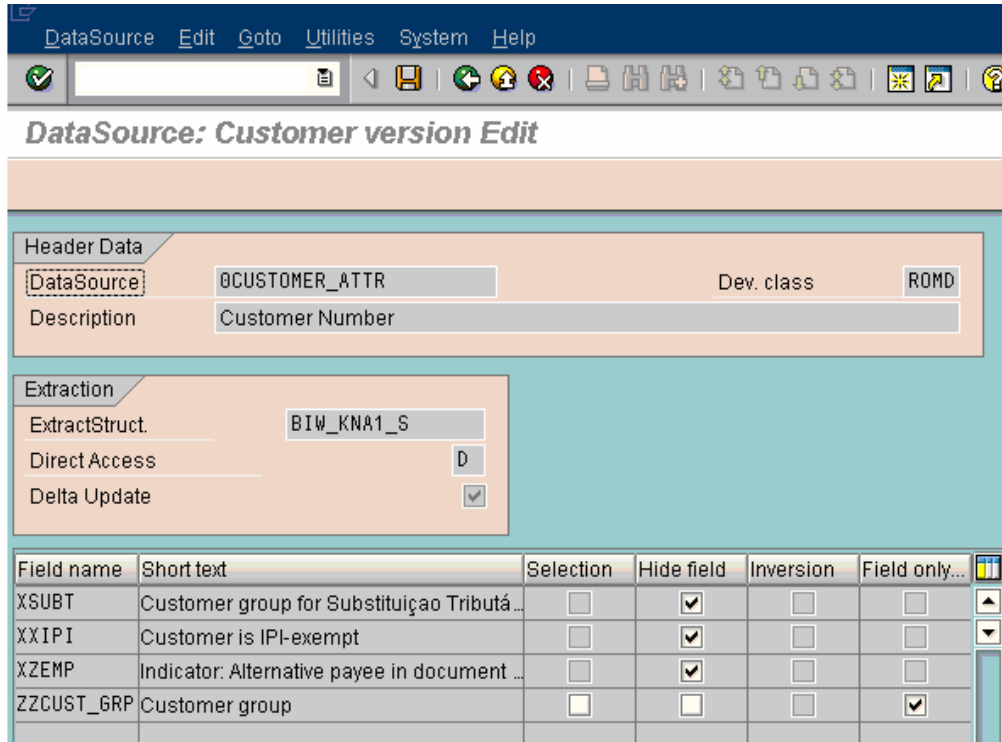
- Click on DataSource & Generate, as shown below

- Go back

- Next Steps are Checking Extractors & Loading data.

Related Content

- SAP Network Blog: Extract Checker https://www.sdn.sap.com/irj/sdn/weblogs?blog=/pub/wlg/3094

- SAP Network Blog: LOGISTIC COCKPIT - WHEN YOU NEED MORE - First option: enhance it! https://weblogs.sdn.sap.com/pub/wlg/1262

- SAP Network Blog: How to retain deltas when you change LO extractor in Production system https://www.sdn.sap.com/irj/sdn/weblogs?blog=/pub/wlg/3785

- SAP Network Blog: Custom fields and BW extractors: Making a mixed marriage work! https://www.sdn.sap.com/irj/sdn/weblogs?blog=/pub/wlg/1591

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