

How to use Text Variables in BW Reports Part - 3



Applies to:

SAP NetWeaver Business Warehouse (Formerly BI), Will also work on SAP BI 3.5. For more information, visit the [EDW homepage](#)

Summary

This article gives clear picture about how to use Text Variables in BW/BI reports result Column headings.

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Author Bio



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Introduction:

Displaying the report result column heading along with the Date, i.e. with this uses will know for which date this column data/result is displaying.

Here I'm taking the example of our previous article "Using Customer Exit Variables in BW Reports: Part – 18", the logic of the report is remains same but in this Article we are working only on **Text Variable** on Column heading.

About "**Using Customer Exit Variables in BW Reports: Part – 18**" article....

This article addresses the requirement of Customer Exit variables in BW/BI Reports; in this article I'm explaining the following scenario...

Need to display the report result like below...

Calculate the Last Day of the of the Fiscal Year Period based on Current Fiscal Year Period, don't hard code, first calculate the Current Fiscal Year Period and then using that calculate Last Day in that Fiscal Year, Last Day in the Current Fiscal Year - 1, Last Day in the Current Fiscal Year - 2, Last Day in the Current Fiscal Year – 3...basically this is a Rollup report in backward direction.

Please click on below URL and then see the Article:

[How to use Customer Exit Variables in BW Reports Part – 18](#)

Live Scenario:

In SAP-BI/BW reports, users are very much comfort if the reports result will show with all Columns heading along with on what date or month if the report is having more then one column.

In this scenario, for result/logic part we are using the [How to use Customer Exit Variables in BW Reports Part – 18](#) and for Text Variables we are defining the new Logic in this article.

Creating Customer Exit Variables:

Create Customer Exit Variable ZDT_CM on 0CALDAY.

For reference look into the following screens.

Change Variable

Advanced

General Replacement Path Details Default Values Currency/Unit

Description

Curr.Fy. Last Day

Use Standard Text

Technical Name

ZDT_CM

Global Settings

Type of Variable
Characteristic Value

Processing By
Customer exit

Reference Characteristic
[0CALDAY]

Last Changed
Owner: SUR12444
Last Changed By: SUR12444
Date/Time: 6/3/2011 11:54:08 AM

OK Cancel

Change Variable

Advanced

General Replacement Path Details Default Values Currency/Unit

Basic Settings

Variable Represents
Single value

Variable Is
Optional

Variable is Ready for Input

Variable Is Without Context

Personalization

Copy Personalization Data from This Variable

OK Cancel

Like above , you need to create three more variables i.e.

ZDT_CM -- Current Fy.Period Last Day

ZDT_1CM -- Current Fy.Period - 1 Last Day i.e. Previous Fy.Period

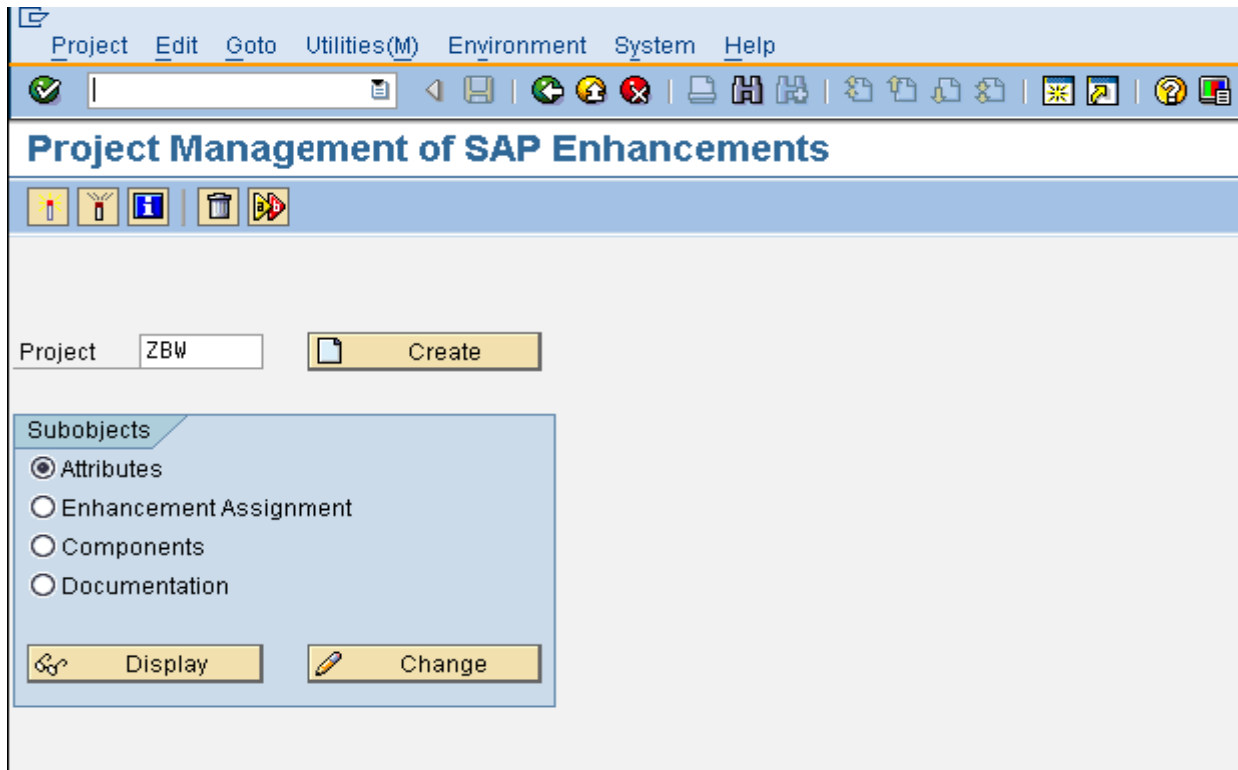
ZDT_2CM -- Current Fy.Period - 2 Last Day i.e. Previous to Previous Fy.Period.

ZDT_3CM -- Current Fy.Period - 3 Last Day i.e. Previous to Previous to Previous Fy.Period.

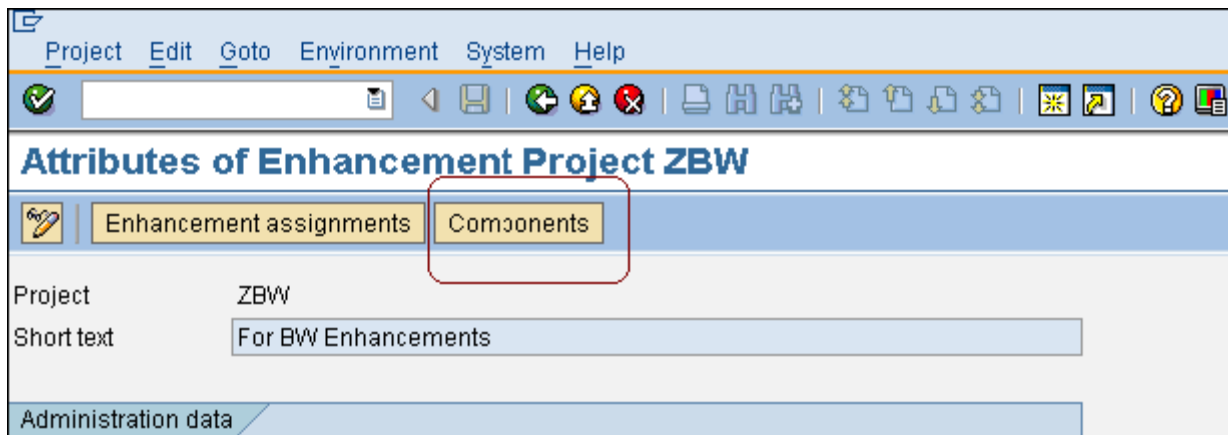
Create above variables with same properties.

Code:

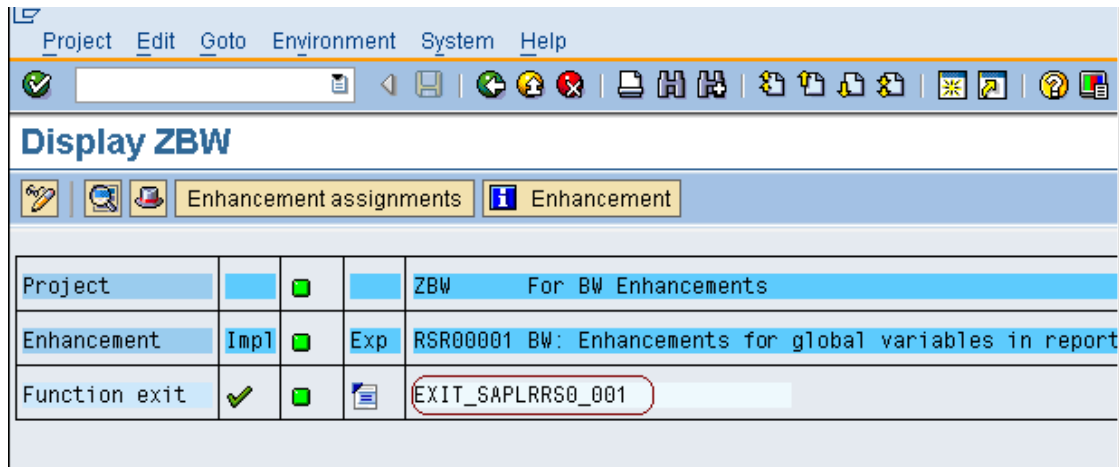
Goto **CMOD** TCode in SAP-BW/BI and then give your Project Name and click on Change button.



Click on **Components**

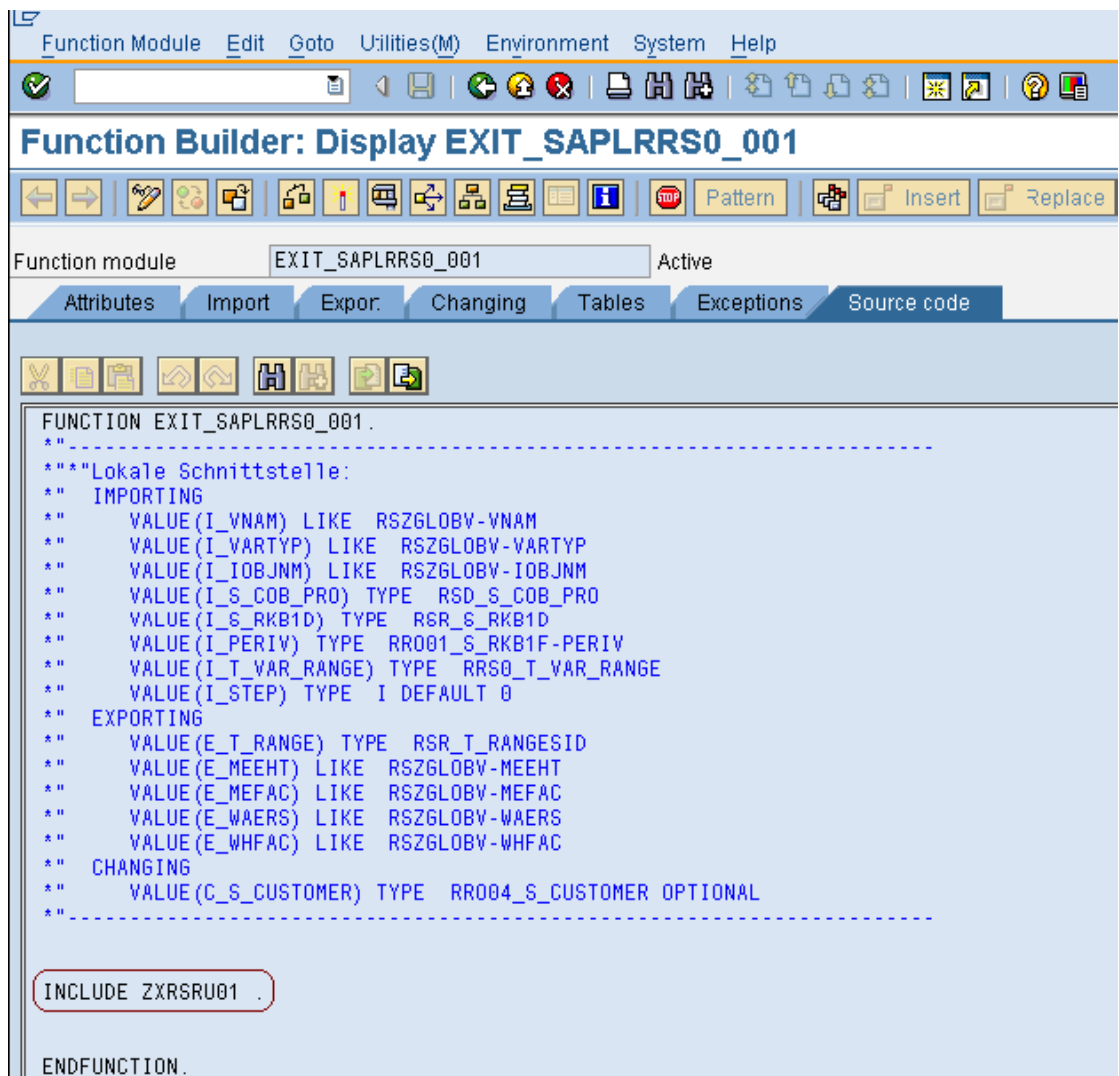


Double Click on **EXIT_SAPLRRS0_001**



Project			ZBW	For BW Enhancements
Enhancement	Imp1	Exp	RSR00001	BW: Enhancements for global variables in report
Function exit	✓		EXIT_SAPLRRS0_001	

Double Click on **INCLUDE ZXRSRU01**.



```

FUNCTION EXIT_SAPLRRS0_001.
*
*-----
***"Lokale Schnittstelle:"
**  IMPORTING
**    VALUE(I_VNAM) LIKE  RSZGLOBV-VNAM
**    VALUE(I_VARTYP) LIKE  RSZGLOBV-VARTYP
**    VALUE(I_IOBJNM) LIKE  RSZGLOBV-IOBJNM
**    VALUE(I_S_COB_PRO) TYPE  RSD_S_COB_PRO
**    VALUE(I_S_RKB1D) TYPE  RSR_S_RKB1D
**    VALUE(I_PERIV) TYPE  RR001_S_RKB1F-PERIV
**    VALUE(I_T_VAR_RANGE) TYPE  RRS0_T_VAR_RANGE
**    VALUE(I_STEP) TYPE  I DEFAULT 0
**  EXPORTING
**    VALUE(E_T_RANGE) TYPE  RSR_T_RANGESID
**    VALUE(E_MEEHT) LIKE  RSZGLOBV-MEEHT
**    VALUE(E_MEFAC) LIKE  RSZGLOBV-MEFAC
**    VALUE(E_WAERS) LIKE  RSZGLOBV-WAERS
**    VALUE(E_WHFAC) LIKE  RSZGLOBV-WHFAC
**  CHANGING
**    VALUE(C_S_CUSTOMER) TYPE  RR004_S_CUSTOMER OPTIONAL
**-----
INCLUDE ZXRSRU01 .

ENDFUNCTION.

```

Write the following Code in the ABAP Editor in ECC:

```

*&-----*
*& Include          ZXRSRU01
*&-----*
DATA : l_s_range TYPE rsr_s_rangesid,
      loc_var_range LIKE rrrangeexit.
Data: zsfyprd TYPE /bi0/oifiscper,
      zefyprd1 TYPE /bi0/oifiscper,
      zefyprd2 TYPE /bi0/oifiscper,
      zefyprd3 TYPE /bi0/oifiscper,
      zefyprd4 TYPE /bi0/oifiscper,
      zefyprd5 TYPE /bi0/oifiscper,
      ZFISCPER TYPE /BI0/OIFISCPER,

DATA: ZGJAHR LIKE T009B-BDATJ,
      ZBUPER LIKE T009B-POPER.

DATA: ZCM_LD TYPE SY-DATUM.

* I removed old code that you can see in Part - 17, the below code is for Text
Variables only.

CASE i_vnam.
  WHEN 'ZDTX_CML'.
    REFRESH E_T_RANGE.

  IF i_step = 1 .
    CLEAR l_s_range.
    ZDT1 = SY-DATUM.

    CALL FUNCTION 'UMB_GET_CURRENT_FISCPER'
      EXPORTING
        I_PERIV   = 'V3'
      IMPORTING
        E_FISCPER = zsfyprd.

    ZBUPER = zsfyprd+4(3). " PERIOD
    ZGJAHR = zsfyprd+0(4). " YEAR

    CALL FUNCTION 'LAST_DAY_IN_PERIOD_GET'
      EXPORTING
        I_GJAHR           = ZGJAHR
        I_MONMIT          = 00
        I_PERIV           = 'V3'
        I_POPER           = ZBUPER
      IMPORTING
        E_DATE            = ZCM_LD
      EXCEPTIONS
        INPUT_FALSE      = 1
        T009_NOTFOUND    = 2
        T009B_NOTFOUND   = 3
        OTHERS           = 4

```

```

IF SY-SUBRC <> 0.
*   MESSAGE ID SY-MSGID TYPE SY-MSGTY NUMBER SY-MSGNO
*   WITH SY-MSGV1 SY-MSGV2 SY-MSGV3 SY-MSGV4.
ENDIF.

CONCATENATE ZCM_LD+6(2) '.' ZCM_LD+4(2) '.' ZCM_LD+0(4) into l_s_range-low.
l_s_range-opt = 'EQ'.
l_s_range-sign = 'I'.
APPEND l_s_range TO e_t_range.

ENDIF.

WHEN 'ZDTX_1CML'.

REFRESH E_T_RANGE.

IF i_step = 1 .
CLEAR l_s_range.
ZDT1 = SY-DATUM.

CALL FUNCTION 'UMB_GET_CURRENT_FISCPER'
EXPORTING
  I_PERIV   = 'V3'
IMPORTING
  E_FISCPER = zsfyprd.

CALL FUNCTION 'UMB_SERVICE_FISCPER_CALC'
EXPORTING
  V_FISCPER           = zsfyprd
  V_ADD               = 0
  V_MINUS             = 1
  V_PERIV             = 'V3'
IMPORTING
  E_FISCPER           = zefyprd1
CHANGING
  U_OVERFLOW          =
  D_OVERFLOW          =
EXCEPTIONS
  PERIV_NOT_FOUND    = 1
  OTHERS              = 2

IF SY-SUBRC <> 0.
*   MESSAGE ID SY-MSGID TYPE SY-MSGTY NUMBER SY-MSGNO
*   WITH SY-MSGV1 SY-MSGV2 SY-MSGV3 SY-MSGV4.
ENDIF.

ZBUPER = zefyprd1+4(3).
ZGJAHR = zefyprd1+0(4).

```



```

CALL FUNCTION 'LAST_DAY_IN_PERIOD_GET'
  EXPORTING
    I_GJAHR           = ZGJAHR
    I_MONMIT          = 00
    I_PERIV           = 'V3'
    I_POPER           = ZBUPER
  IMPORTING
    E_DATE            = ZCM_LD
  *
  * EXCEPTIONS
  *   INPUT_FALSE     = 1
  *   T009_NOTFOUND   = 2
  *   T009B_NOTFOUND  = 3
  *   OTHERS           = 4
  *
  .
IF SY-SUBRC <> 0.
  *   MESSAGE ID SY-MSGID TYPE SY-MSGTY NUMBER SY-MSGNO
  *   WITH SY-MSGV1 SY-MSGV2 SY-MSGV3 SY-MSGV4.
ENDIF.

CONCATENATE ZCM_LD+6(2) '.' ZCM_LD+4(2) '.' ZCM_LD+0(4) into l_s_range-low.
l_s_range-opt = 'EQ'.
l_s_range-sign = 'I'.
APPEND l_s_range TO e_t_range.

ENDIF.

WHEN 'ZDTX_2CML'.
  REFRESH E_T_RANGE.

IF i_step = 1 .
  CLEAR l_s_range.
  ZDT1 = SY-DATUM.

  CALL FUNCTION 'UMB_GET_CURRENT_FISCPER'
    EXPORTING
      I_PERIV = 'V3'
    IMPORTING
      E_FISCPER = zsfyprd.

  CALL FUNCTION 'UMB_SERVICE_FISCPER_CALC'
    EXPORTING
      V_FISCPER = zsfyprd
      V_ADD      = 0
      V_MINUS    = 2
      V_PERIV    = 'V3'
    IMPORTING
      E_FISCPER = zefyprd2
  *
  CHANGING

```

```

*      U_OVERFLOW          =
*      D_OVERFLOW          =
*      EXCEPTIONS
*      PERIV_NOT_FOUND     = 1
*      OTHERS              = 2
.
IF SY-SUBRC <> 0.
*      MESSAGE ID SY-MSGID TYPE SY-MSGTY NUMBER SY-MSGNO
*      WITH SY-MSGV1 SY-MSGV2 SY-MSGV3 SY-MSGV4.
ENDIF.

ZBUPER = zefyprd2+4(3).
ZGJAHR = zefyprd2+0(4).

CALL FUNCTION 'LAST_DAY_IN_PERIOD_GET'
  EXPORTING
    I_GJAHR          = ZGJAHR
*    I_MONMIT        = 00
    I_PERIV          = 'V3'
    I_POPER          = ZBUPER
  IMPORTING
    E_DATE          = ZCM_LD
*  EXCEPTIONS
*    INPUT_FALSE    = 1
*    T009_NOTFOUND  = 2
*    T009B_NOTFOUND = 3
*    OTHERS         = 4
.
IF SY-SUBRC <> 0.
*      MESSAGE ID SY-MSGID TYPE SY-MSGTY NUMBER SY-MSGNO
*      WITH SY-MSGV1 SY-MSGV2 SY-MSGV3 SY-MSGV4.
ENDIF.

CONCATENATE ZCM_LD+6(2) '.' ZCM_LD+4(2) '.' ZCM_LD+0(4) into l_s_range-low.
l_s_range-opt = 'EQ'.
l_s_range-sign = 'I'.
APPEND l_s_range TO e_t_range.

ENDIF.

WHEN 'ZDTX_3CML'.
  REFRESH E_T_RANGE.

  IF i_step = 1 .
    CLEAR l_s_range.
    ZDT1 = SY-DATUM.

    CALL FUNCTION 'UMB_GET_CURRENT_FISCPER'
      EXPORTING
        I_PERIV    = 'V3'

```

```

IMPORTING
  E_FISCPER = zsfyprd.
CALL FUNCTION 'UMB_SERVICE_FISCPER_CALC'
EXPORTING
  V_FISCPER      = zsfyprd
*   V_ADD        = 0
  V_MINUS       = 3
  V_PERIV       = 'V3'
IMPORTING
  E_FISCPER      = zefyprd3
*
*   CHANGING
  U_OVERFLOW    =
*   D_OVERFLOW    =
*   EXCEPTIONS
  PERIV_NOT_FOUND = 1
*   OTHERS        = 2
.
IF SY-SUBRC <> 0.
*   MESSAGE ID SY-MSGID TYPE SY-MSGTY NUMBER SY-MSGNO
*   WITH SY-MSGV1 SY-MSGV2 SY-MSGV3 SY-MSGV4.
ENDIF.

ZBUPER = zefyprd3+4(3).
ZGJAHR = zefyprd3+0(4).

CALL FUNCTION 'LAST_DAY_IN_PERIOD_GET'
EXPORTING
  I_GJAHR      = ZGJAHR
*   I_MONMIT    = 00
  I_PERIV     = 'V3'
  I_POPER     = ZBUPER
IMPORTING
  E_DATE      = ZCM_LD
*
*   EXCEPTIONS
  INPUT_FALSE = 1
*   T009_NOTFOUND = 2
*   T009B_NOTFOUND = 3
*   OTHERS     = 4
.
IF SY-SUBRC <> 0.
*   MESSAGE ID SY-MSGID TYPE SY-MSGTY NUMBER SY-MSGNO
*   WITH SY-MSGV1 SY-MSGV2 SY-MSGV3 SY-MSGV4.
ENDIF.
CONCATENATE ZCM_LD+6(2) '.' ZCM_LD+4(2) '.' ZCM_LD+0(4) into l_s_range-low.
l_s_range-opt = 'EQ'.
l_s_range-sign = 'I'.
APPEND l_s_range TO e_t_range.

ENDIF.
ENDCASE.

```

Save and Activate the above code and project.

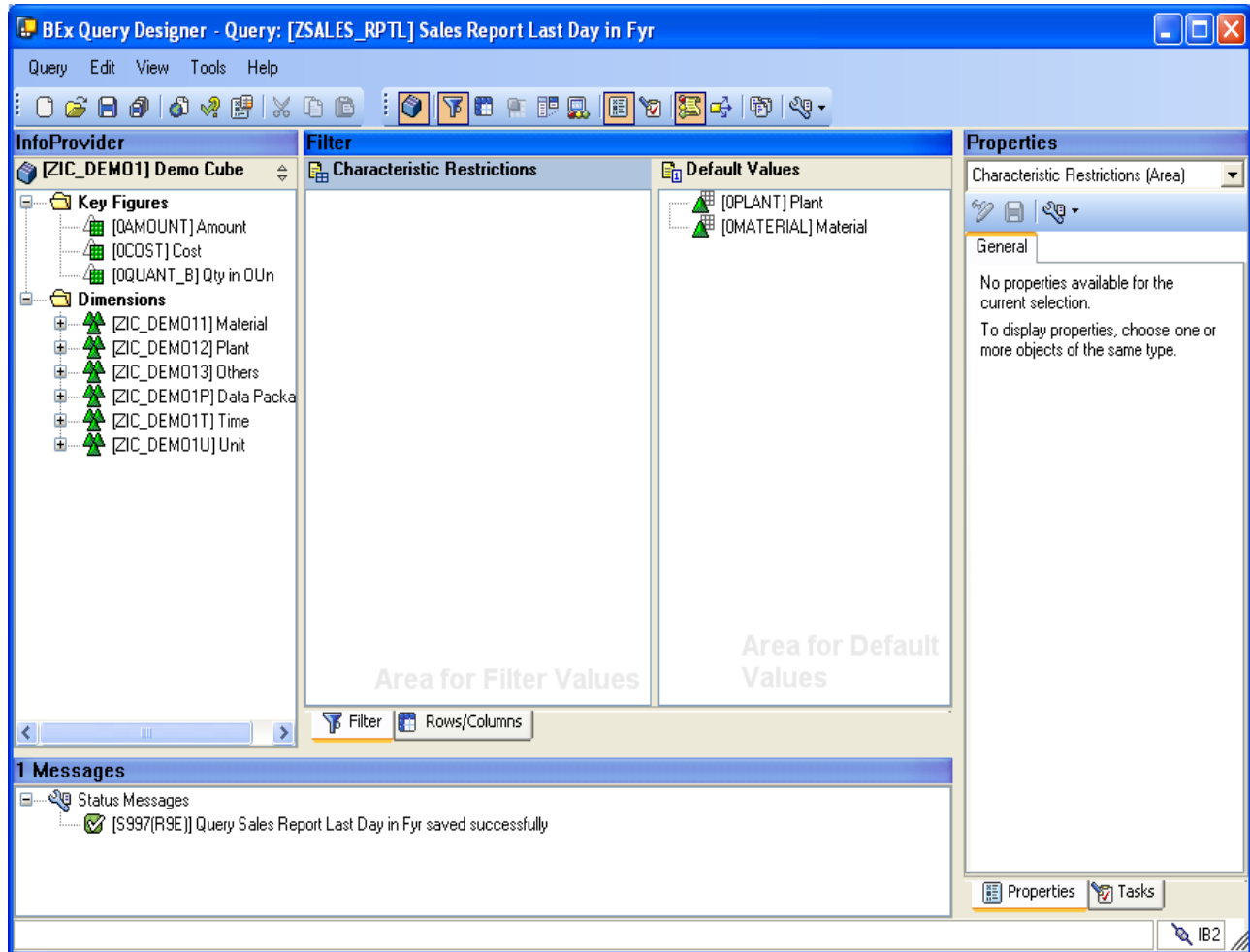
Code Explanation:

The Function Module 'UMB_GET_CURRENT_FISCPER' will take Fiscal Year Variant as input, and it will give current Fiscal Year Period. 'UMB_SERVICE_FISCPER_CALC' will calculate the Minus or Plus (-/+) Fiscal year periods. 'LAST_DAY_IN_PERIOD_GET' will calculate the Last Day of the Fiscal Year Period's.

Report Designer:

For your reference I'm keeping all screen of Article Part – 18, for Ref. click on below URL

[How to use Customer Exit Variables in BW Reports Part – 18](#)



BEx Query Designer - Query: [ZSALES_RPTL] Sales Report Last Day in Fyr

Query Edit View Tools Help

InfoProvider
 [ZIC_DEMO1] Demo Cube
 Key Figures:
 [QAMOUNT] Amount
 [OCOST] Cost
 [OQUANT_B] Qty in OUn
 Dimensions:
 [ZIC_DEMO11] Material
 [ZIC_DEMO12] Plant
 [ZIC_DEMO13] Others
 [ZIC_DEMO1P] Data Packa
 [ZIC_DEMO1T] Time
 [ZIC_DEMO1U] Unit

Rows/Columns
 Free Characteristics
 Columns:
 Key Figures:
 Amount
 Curr Fy. Last Day
 Amount
 Curr Fy. -1 Last Day
 Amount
 Curr Fy. -2 Last Day
 Amount
 Curr Fy. -3 Last Day
 Rows:
 [OMATERIAL] Material
 [OPLANT] Plant
 Preview:

		Amount	C	Amount	C	Amount
a-Material	a-Plant					
	b-Plant					
b-Material	a-Plant					
	b-Plant					

Properties
 Free Characteristics (Area)
 General
 No properties available for the current selection.
 To display properties, choose one or more objects of the same type.

1 Messages
 Status Messages
 [S997(R9E)] Query Sales Report Last Day in Fyr saved successfully

Properties Tasks IB2

Change Selection

General Aggregation Display Advanced Conversions Planning Calculations

Description
 Amount
 Curr Fy. LastDay

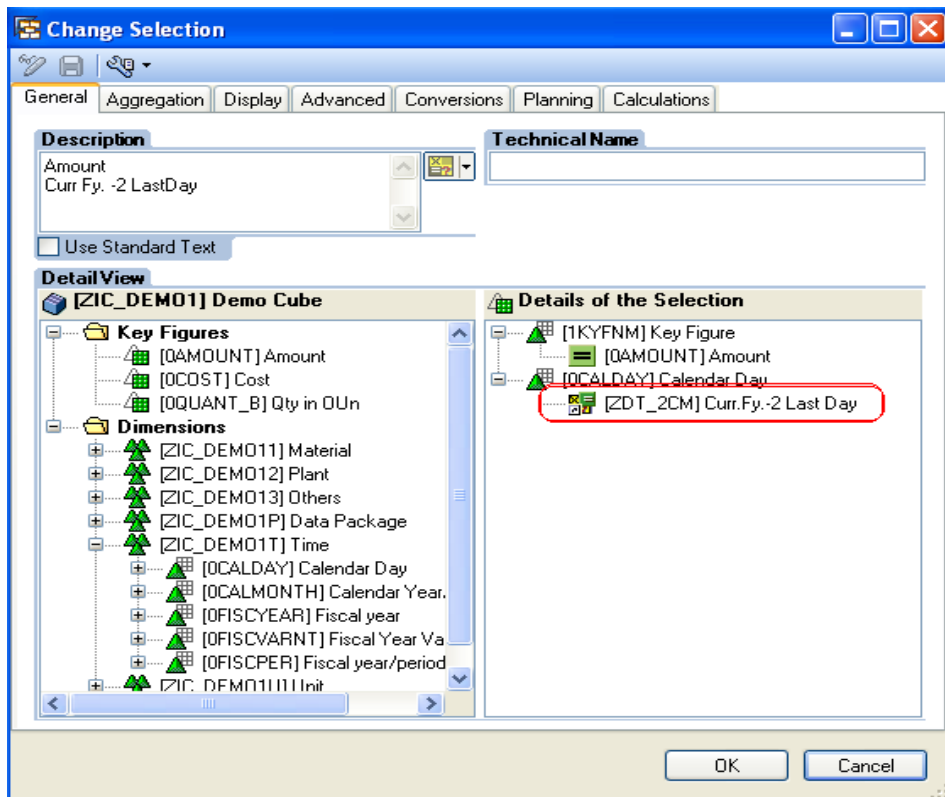
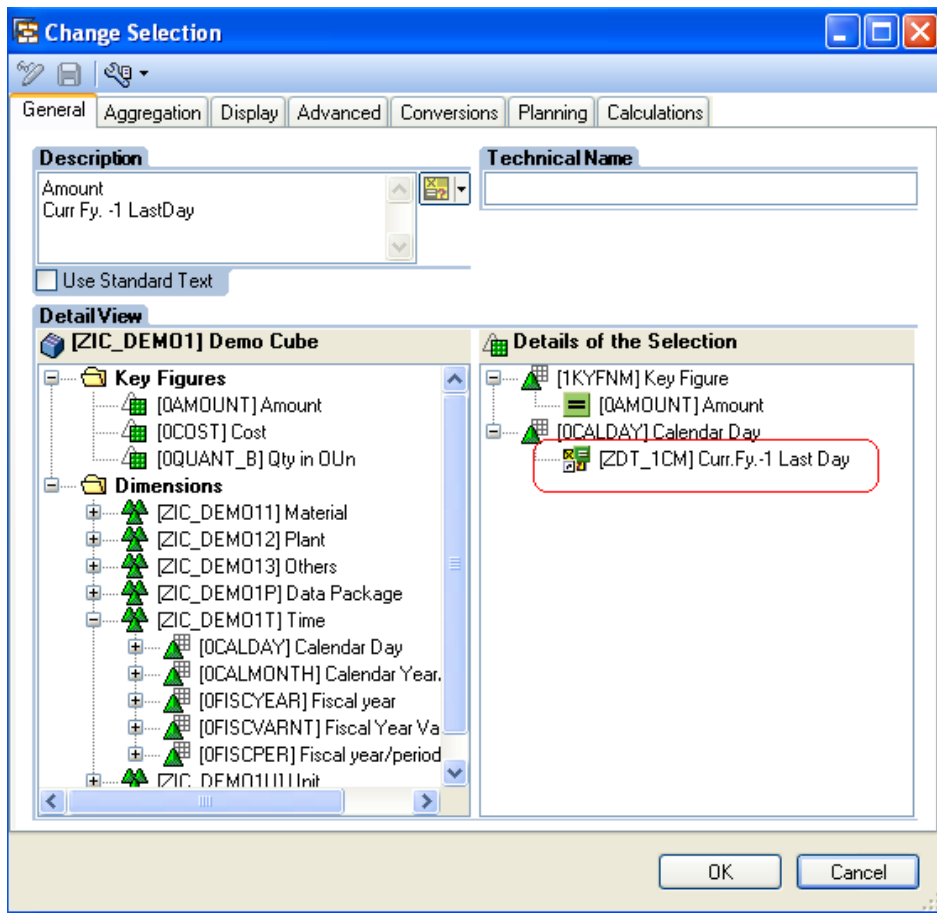
Technical Name
 [ZDT_CM] Curr.Fy. Last Day

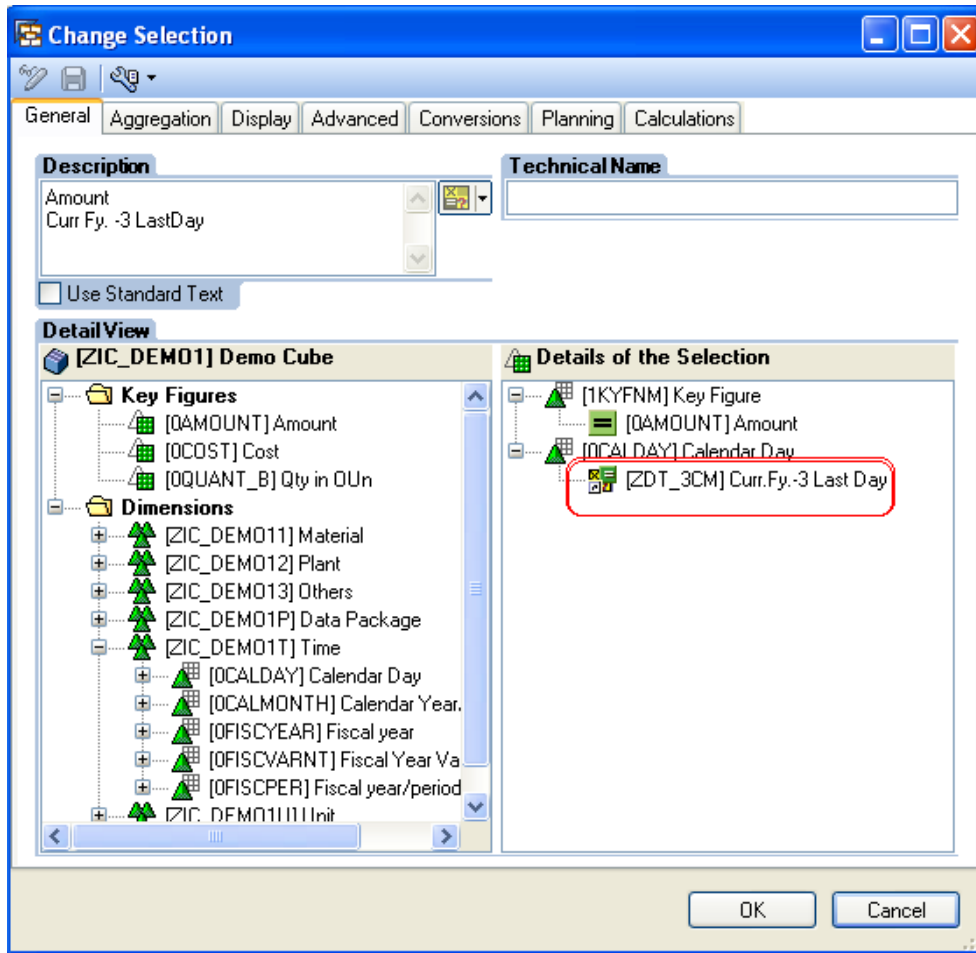
Use Standard Text

Detail View
 [ZIC_DEMO1] Demo Cube
 Key Figures:
 [QAMOUNT] Amount
 [OCOST] Cost
 [OQUANT_B] Qty in OUn
 Dimensions:
 [ZIC_DEMO11] Material
 [ZIC_DEMO12] Plant
 [ZIC_DEMO13] Others
 [ZIC_DEMO1P] Data Package
 [ZIC_DEMO1T] Time
 [OCALDAY] Calendar Day
 [OCALMONTH] Calendar Year.
 [OFISCYEAR] Fiscal year
 [OFISCVARNT] Fiscal Year Va
 [OFISCPER] Fiscal year/period
 [ZIC_DEMO1U] Unit

Details of the Selection
 [1KYFNM] Key Figure
 [QAMOUNT] Amount
 [OCALDAY] Calendar Day
 [ZDT_CM] Curr.Fy. Last Day

OK Cancel



**In Filters:**

Nothing.

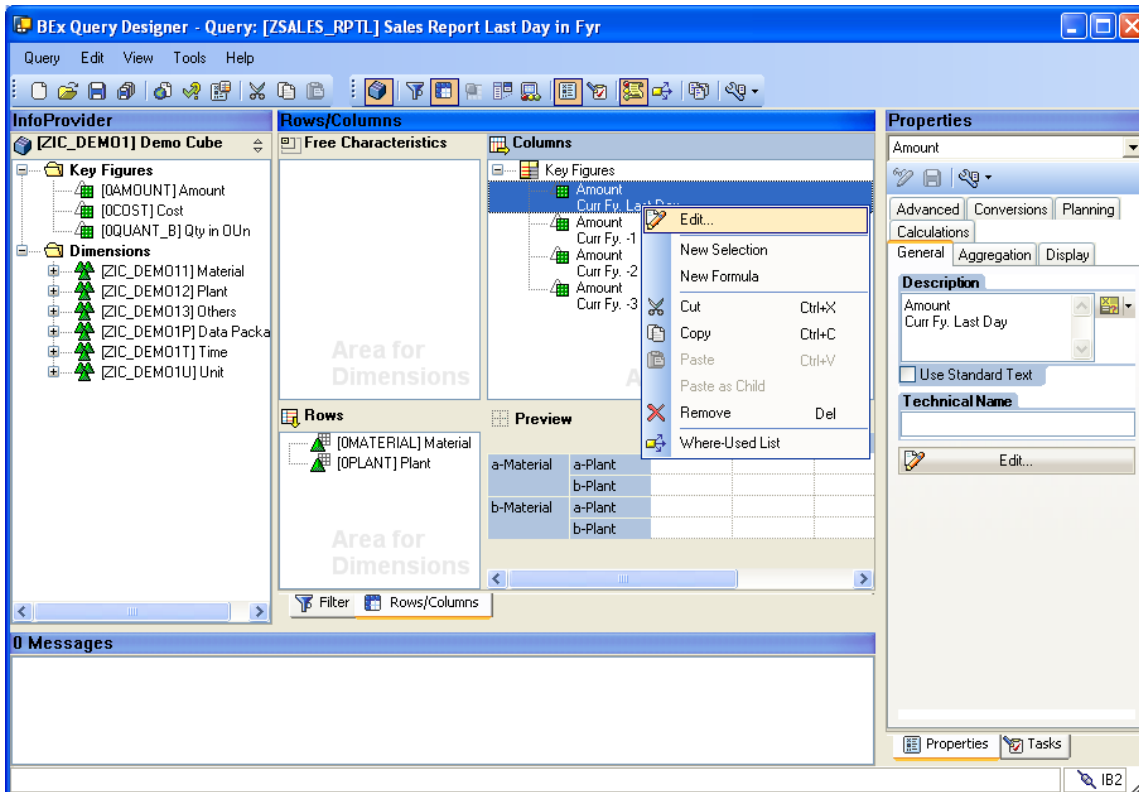
In Rows:

Drag and Drop Material and Plant.

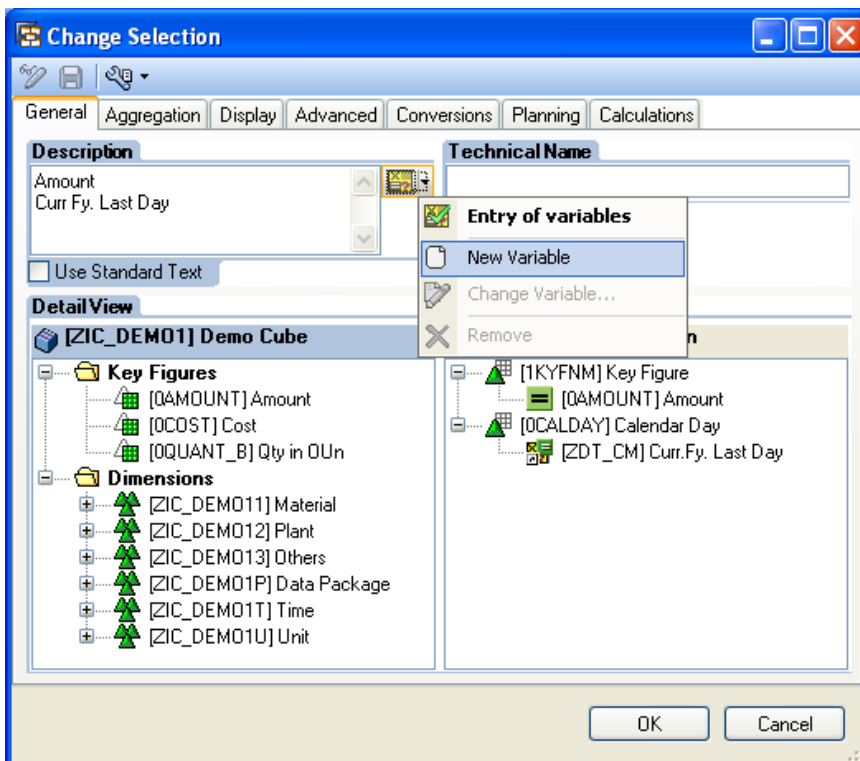
In Columns:

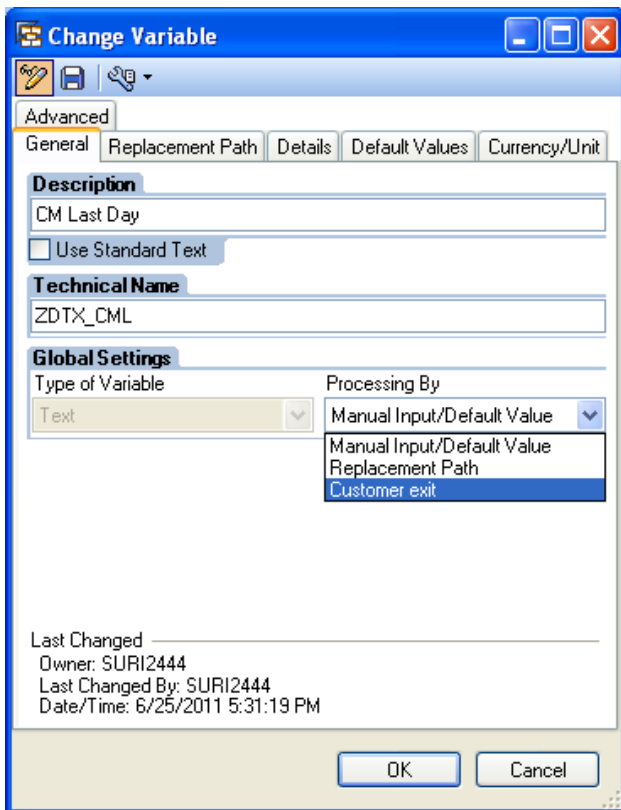
Create Four New Selection and Drag and Drop Amount, 0CALDAY and restrict 0CALDAY with ZDT_CM, ZDT_1CM, ZDT_2CM and ZDT_3CM respectively like above.

Creating Text Variables:

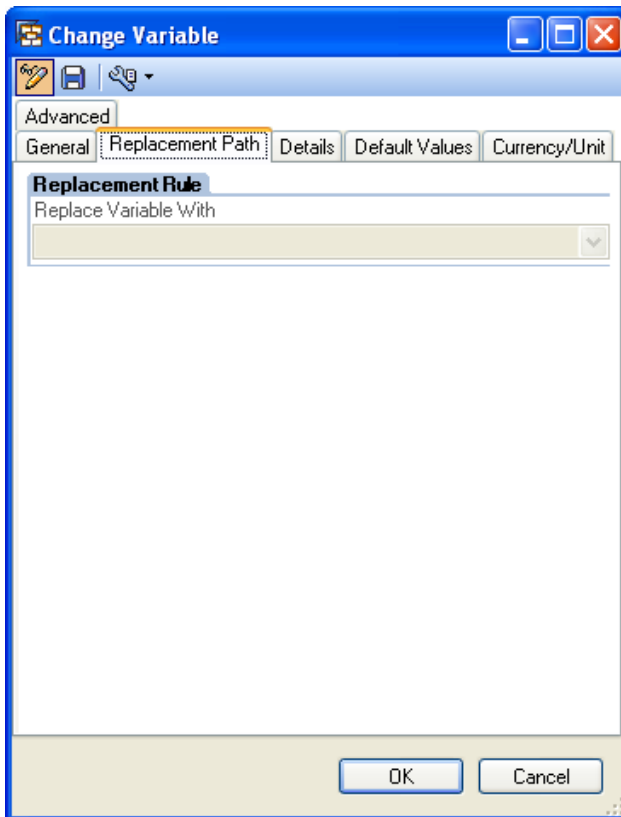


In Old report/above report we have four columns in report, and for each column we need to create a Text Variable, so totally four Text Variables we need to create.

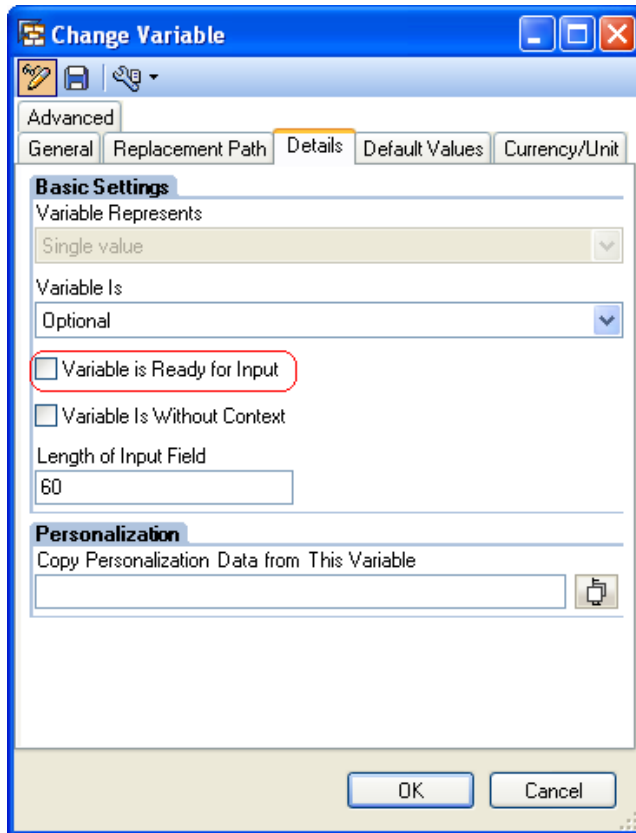




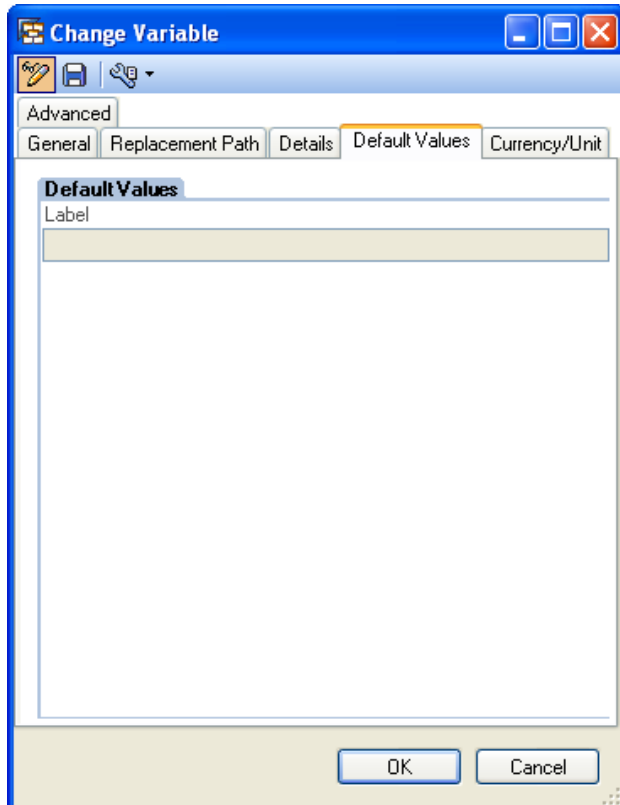
See the above screen, give Description, Technical Name and Processing By "Customer Exit".



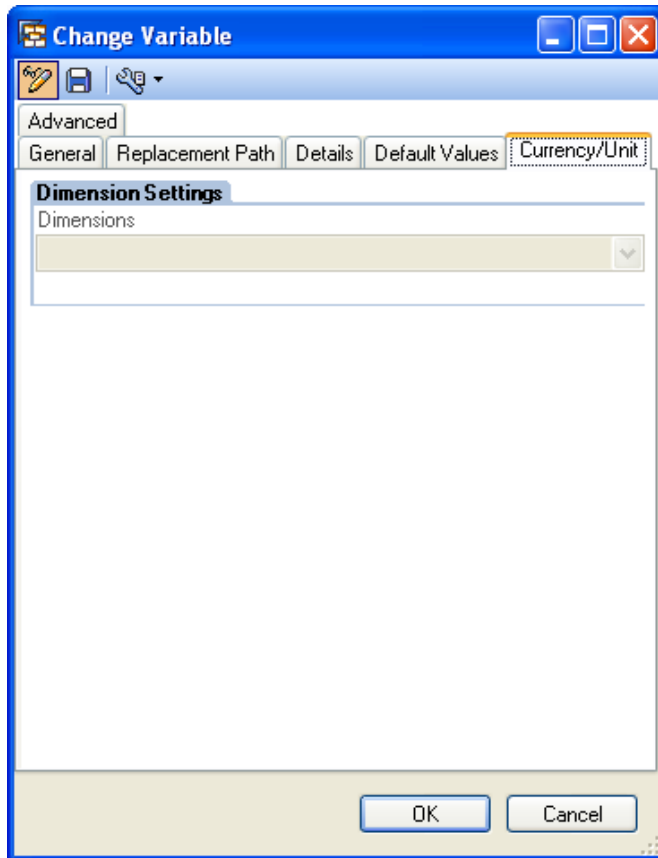
No change in Replacement Path Tab



In Details tab, Uncheck the Variable is Ready for Input, by default it will be check, so un check it.



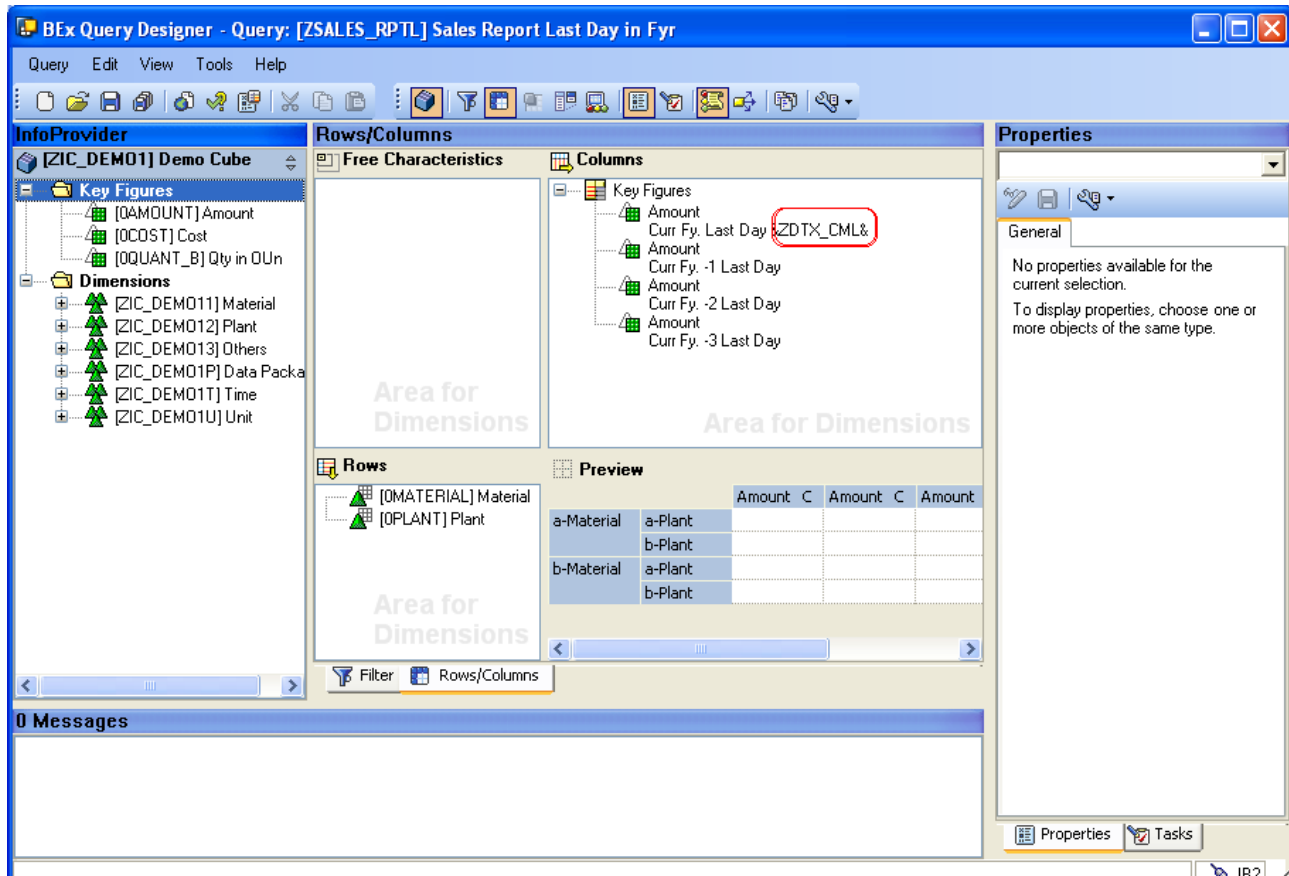
No change in Default Values Tab



No change in Currency/Unit Tab

Note: Like that we need to create remaining three variables, in below I just given names of the variables and we are going to use the same variables in all column heading and also we will write ABAP Code in Customer Exit. See above Code in Customer Exit.

See the below screen after creating the variable, how it looks like.



Variable Names:

ZDTEX_CML (We just created in above step.)

ZDTEX_1CML (all the remaining three variable you need to create like above for remaining columns.)

ZDTEX_2CML

ZDTEX_3CML

Once you create remaining three variables, you save the report, to populate the values into the all above four Text variables, we written ABAP Code in Customer Exit. Ref see above ABAP Code.

Once you create all above Text Variables, the report looks like below.

Save and Execute the Report :

Selection Screen:

Once you execute the report you can't see any selection screen, because we used Customer Exit Variables on OCALDAY.

Report Result:

See the following Report Result:

Here the result is displayed for 30.06.2011, 31.05.2011, 30.04.2011, and 31.03.2011 dates.

Sales Report Last Day in Fyr

Author: SURI2444 Status of Data: 06/25/2011 16:38:57

Information

Author	SURI2444	Last Refreshed	06/25/2011 17:49:00
Current User	SURI2444	Key Date	06/25/2011
Last Changed	SURI2444	Changed At	06/25/2011 17:47:48
InfoProvider	ZIC_DEMO1	Status of Data	06/25/2011 16:38:57
Query Technical Name	ZSALES_RPTL	Relevance of Data (Date)	06/25/2011
Query Description	Sales Report Last Day in Fyr	Relevance of Data (Time)	16:38:57

Material	Plant	Amount Curr Fy. Last Day 30.06.2011	Amount Curr Fy. -1 Last Day 31.05.2011	Amount Curr Fy. -2 Last Day 30.04.2011	Amount Curr Fy. -3 Last Day 31.03.2011
M1005	P197	1,005.00 INR		1,005.00 INR	
M1006	P198		1,006.00 INR		1,006.00 INR
M129	P129	129.00 INR		129.00 INR	
M130	P130		130.00 INR		130.00 INR
M160	P160	160.00 INR		160.00 INR	
M161	P161		161.00 INR		161.00 INR
M191	P191	191.00 INR		191.00 INR	
M192	P192		192.00 INR		192.00 INR

Note: This article is prepared on 25-06-2011, and also report is execute on 25-06-2011, so the dates in columns headings will change based on Month/Fiscal Year Periods.

See the below Image from RSRT, i.e. execute the report in RSRT then see Input and Output like below.

Text symbols:	
Description	Value
Curr.Fy. Last Day	30.06.2011
Curr.Fy.-1 Last Day	31.05.2011
Curr.Fy.-2 Last Day	30.04.2011
Curr.Fy.-3 Last Day	31.03.2011
CM Last Day	30.06.2011
CM -1 Last Day	31.05.2011
CM - 2 Last Day	30.04.2011
CM - 3 Last Day	31.03.2011
Author	SURI2444
Last Changed By	SURI2444
InfoProvider	ZIC_DEMO1
Query Technical Name	ZSALES_RPTL
Query Description	Sales Report Last Day in Fyr
Key Date	25.06.2011
Changed At	25.06.2011 17:47:48
Current User	SURI2444
Last Refreshed	25.06.2011 17:52:50
Status of Data	25.06.2011 16:38:57

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[Using Customer Exit Variables in BW Reports Part - 1](#)

[Using Customer Exit Variables in BW Reports Part - 2](#)

[Using Customer Exit Variables in BW Reports Part - 3](#)

[Using Customer Exit Variables in BW Reports Part - 4](#)

[Using Customer Exit Variables in BW Reports Part - 5](#)

[Using Customer Exit Variables in BW Reports Part - 6](#)

[Using Customer Exit Variables in BW Reports: Part - 8](#)

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[Using Customer Exit Variables in BW Reports: Part - 18](#)

[Inventory Management \(OIC_C03\) Part - 1](#)

[Inventory Management \(OIC_C03\) Part - 2](#)

[Inventory Management \(OIC_C03\) Part - 3](#)

[To Check the Files/Reports in Application Server and trigger mail alerts](#)

[Calculating the Ageing of the Materials](#)

[Using Selective Deletion in Process Chains](#)

[Triggering the Process Chains at Particular Date using Events](#)

[Analysis Process Designer \(APD\) Part - 1](#)

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