

Selection Screen Design using SAP ABAP

Using Parameters in SAP ABAP

How to add an input field in Selection Screen using SAP ABAP ? Using Parameters in SAP ABAP Programming

PARAMETERS statement is used to create a single input field, check box, radio buttons on the selection screen .

Syntax :

```
PARAMETERS <P_NAME> TYPE <TABLE-FIELD>. " General parameter for a input field
```

```
PARAMETERS <P_NAME> TYPE <TABLE-FIELD> OBLIGATORY. "Parameter for mandatory input field
```

```
PARAMETERS <P_NAME> AS CHECKBOX. " Parameter for check box printing
```

```
PARAMETERS <P_NAME1> RADIOBUTTONGROUP <RADIOBUTTON GROUP>. " Print Radio button group
```

```
PARAMETERS <P_NAME2> RADIOBUTTONGROUP <RADIOBUTTON GROUP>. " Print Radio button group
```

```
PARAMETERS <P_NAME2> RADIOBUTTONGROUP <RADIOBUTTON GROUP>. " Print Radio button group
```

Examples of using parameters in SAP ABAP

```
PARAMETERS : P_MATNR TYPE MARA-MATNR .
```

The above statement prints a input field on selection-screen like below.

A screenshot of a SAP selection screen. It features a light blue header bar. Below the header, there is a label 'P_MATNR' in a dark blue font. To the right of the label is a white rectangular input field with a thin border. The background of the screen is a light blue gradient.

```
PARAMETERS : P_CHK AS CHECKBOX .
```

The above statement prints a check box on selection-screen like below.

☐ P_CHK

****Radiobutton group is nothing but a group of radiobuttons**

PARAMETERS : P_RADIO1 RADIOBUTTON GROUP RG1.

PARAMETERS : P_RADIO2 RADIOBUTTON GROUP RG1.

PARAMETERS : P_RADIO3 RADIOBUTTON GROUP RG1.

The above statement prints a radio button group on selection-screen like below.

☒ P_RADIO1
☐ P_RADIO2
☐ P_RADIO3

Using Select-Options in SAP ABAP

What are select-options in SAP ABAP ? Providing input range in selection screen using SAP ABAP programming

Select-Options is statement which is used to define two input fields so that users can enter a range of values, Select-Options have below additional features.

- Accepts multiple single values.
- Accepts multiple ranges (ex: 001-020, 025-30).
- Accepts exclusion of values (ex: Exclude 0004, 007 etc).
- Accepts exclusion of ranges.

```
Syntax1 : SELECT-OPTIONS <SO_NAME> FOR <TABLE-FIELD>.    "THIS PRINTS TWO INPUT  
FIELDS (RANGE) WITH EXTENSION TO ENTER MULTIPLE RANGES
```

```
Syntax2 : SELECT-OPTIONS <SO_NAME> FOR <TABLE-FIELD> NO INTERVALS.    "THIS PRINTS  
ONE INPUT FIELD WITH EXTENSION
```

```
Syntax3 : SELECT-OPTIONS <SO_NAME> FOR <TABLE-FIELD> NO-EXTENSION. " THIS PRINTS  
TWO INPUT FIELDS WITH OUT ANY EXTENSION (CAN NOT ENTER MULTIPLE RANGES)
```

```
Syntax4 : SELECT-OPTIONS <SO_NAME> FOR <TABLE-FIELD> NO INTERVALS NO-EXTENSION  
.THIS PRINTS ONE INPUT FIELD WITH OUT INTERVALS AND EXTENSIONS
```

Select-Options functionality in SAP ABAP

When ever we declare Select-Options, an internal table will be created with the following fields.

1. **SIGN:** This field contains I or E, where I stands for inclusive(Include that values) and E stands for exclusive (Exclude that values), default value is I.
2. **OPTIONS:** This field can accept values BT (Between), NB (Not Between), EQ (Equal), NE(Not equal), GT(Greater than), LT(Less than) .
3. **LOW:** This field stores low value of entered range.
4. **HIGH:** This field stores high value of entered range.

Select-Options design

```
TABLES MARA.    "SPECIFY TABLE FOR WHICH YOU ARE CREATING SELECT-OPTIONS  
SELECT-OPTIONS S_MATNR FOR MARA-MATNR . "PRINT SELECT-OPTIONS ON SCREEN
```

The above statement prints a select-options with intervals and extension .

S_MATNR to 

TABLES MARA. "SPECIFY TABLE FOR WHICH YOU ARE CREATING SELECT-OPTIONS
SELECT-OPTIONS S_MATNR FOR MARA-MATNR NO INTERVALS. "PRINT SELECT-OPTIONS ON
SCREEN

The above statement prints a select-options with no intervals.

S_MATNR1 

TABLES MARA. "SPECIFY TABLE FOR WHICH YOU ARE CREATING SELECT-OPTIONS
SELECT-OPTIONS S_MATNR FOR MARA-MATNR NO-EXTENSIONS . "PRINT SELECT-OPTIONS ON
SCREEN

The above statement prints a select-options with out extension.

S_MATNR1 

TABLES MARA. "SPECIFY TABLE FOR WHICH YOU ARE CREATING SELECT-OPTIONS
SELECT-OPTIONS S_MATNR FOR MARA-MATNR NO-EXTENSION NO INTERVALS. "PRINT SELECT-
OPTIONS ON SCREEN

The above statement prints a select-options with out intervals and with out extensions.

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S_MATNR

Drop Down box in Selection Screen in SAP ABAP

Some times we may need to print drop down on selection-screen, and need to catch the selected value for execution logic, the below example will explain how to use drop-down in selection-screen in SAP ABAP.

To display drop down list we have to use type-group VRM as type-pools.



```
REPORT ZSAPN_DROP_DOWN_SS.
```

```
TYPE-POOLS: VRM. " Use type group VRM for list
```

```
DATA: IT_LIST      TYPE VRM_VALUES.
```

```
DATA: WA_LIST      TYPE VRM_VALUE.
```

```
DATA: IT_VALUES    TYPE TABLE OF DYNPREAD,  
      WA_VALUES    TYPE DYNPREAD.
```

```
DATA: LV_SELECTED_VALUE(10) TYPE C.
```

```
*-----*
```

```
*Selection-Screen
```

```
*-----*
```

```
PARAMETERS: COLORS TYPE C AS LISTBOX VISIBLE LENGTH 20. "Parameter
```

```
*-----*
```

```
*Initialization
```

```
*-----*
```

```
INITIALIZATION. "initialize values to drop down list
```

```

WA_LIST-KEY = '1'.
WA_LIST-TEXT = 'Green'.
APPEND WA_LIST TO IT_LIST.
WA_LIST-KEY = '2'.
WA_LIST-TEXT = 'Blue'.
APPEND WA_LIST TO IT_LIST.
WA_LIST-KEY = '3'.
WA_LIST-TEXT = 'Orange'.
APPEND WA_LIST TO IT_LIST.
WA_LIST-KEY = '4'.
WA_LIST-TEXT = 'Gray'.
APPEND WA_LIST TO IT_LIST.
WA_LIST-KEY = '5'.
WA_LIST-TEXT = 'White'.
APPEND WA_LIST TO IT_LIST.
WA_LIST-KEY = '6'.
WA_LIST-TEXT = 'Yellow'.
APPEND WA_LIST TO IT_LIST.

CALL FUNCTION 'VRM_SET_VALUES'
  EXPORTING
    ID          = 'COLORS'
    VALUES     = IT_LIST
  EXCEPTIONS
    ID_ILLEGAL_NAME = 1
    OTHERS          = 2.

```

```

*-----*

```

```

*At Selection Screen

```

```

*-----*

```

```

AT SELECTION-SCREEN ON COLORS.
  CLEAR: WA_VALUES, IT_VALUES.
  REFRESH IT_VALUES.
  WA_VALUES-FIELDNAME = 'COLORS'.
  APPEND WA_VALUES TO IT_VALUES.

```

```
CALL FUNCTION 'DYNP_VALUES_READ'
```

```
EXPORTING
```

```
    DYNNAME          = SY-CPROG
```

```
    DYNUMB           = SY-DYNNR
```

```
    TRANSLATE_TO_UPPER = 'X'
```

```
TABLES
```

```
    DYNPFIELDS       = IT_VALUES.
```

```
READ TABLE IT_VALUES INDEX 1 INTO WA_VALUES.
```

```
IF SY-SUBRC = 0 AND WA_VALUES-FIELDVALUE IS NOT INITIAL.
```

```
    READ TABLE IT_LIST INTO WA_LIST
```

```
        WITH KEY KEY = WA_VALUES-FIELDVALUE.
```

```
    IF SY-SUBRC = 0.
```

```
        LV_SELECTED_VALUE = WA_LIST-TEXT.
```

```
    ENDIF.
```

```
ENDIF.
```

```
*-----*
```

```
*Start of Selection
```

```
*-----*
```

```
START-OF-SELECTION.
```

```
WRITE:/ LV_SELECTED_VALUE.
```

Using Selection Texts in SAP ABAP

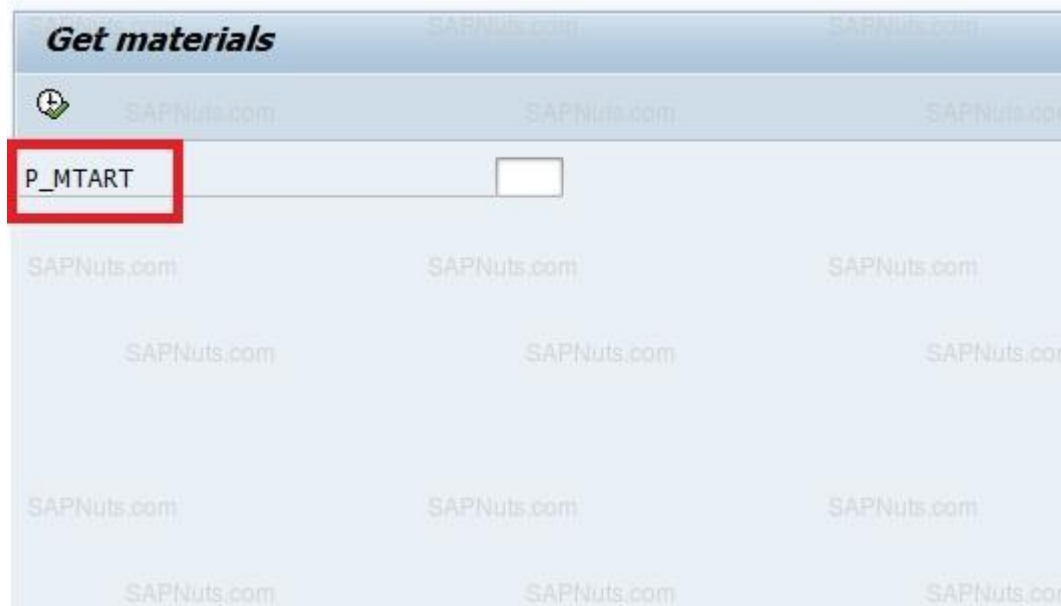
Using selection texts to replace technical names of fields on selection screen in SAP ABAP programming

Selection texts are texts which are used to replace technical field names on selection-screen with custom names.

In real-time business no business user(end user) can understand technical names, they just uses the applications for the business, when ever we print a input field on selection-screen, we get technical field names by default.

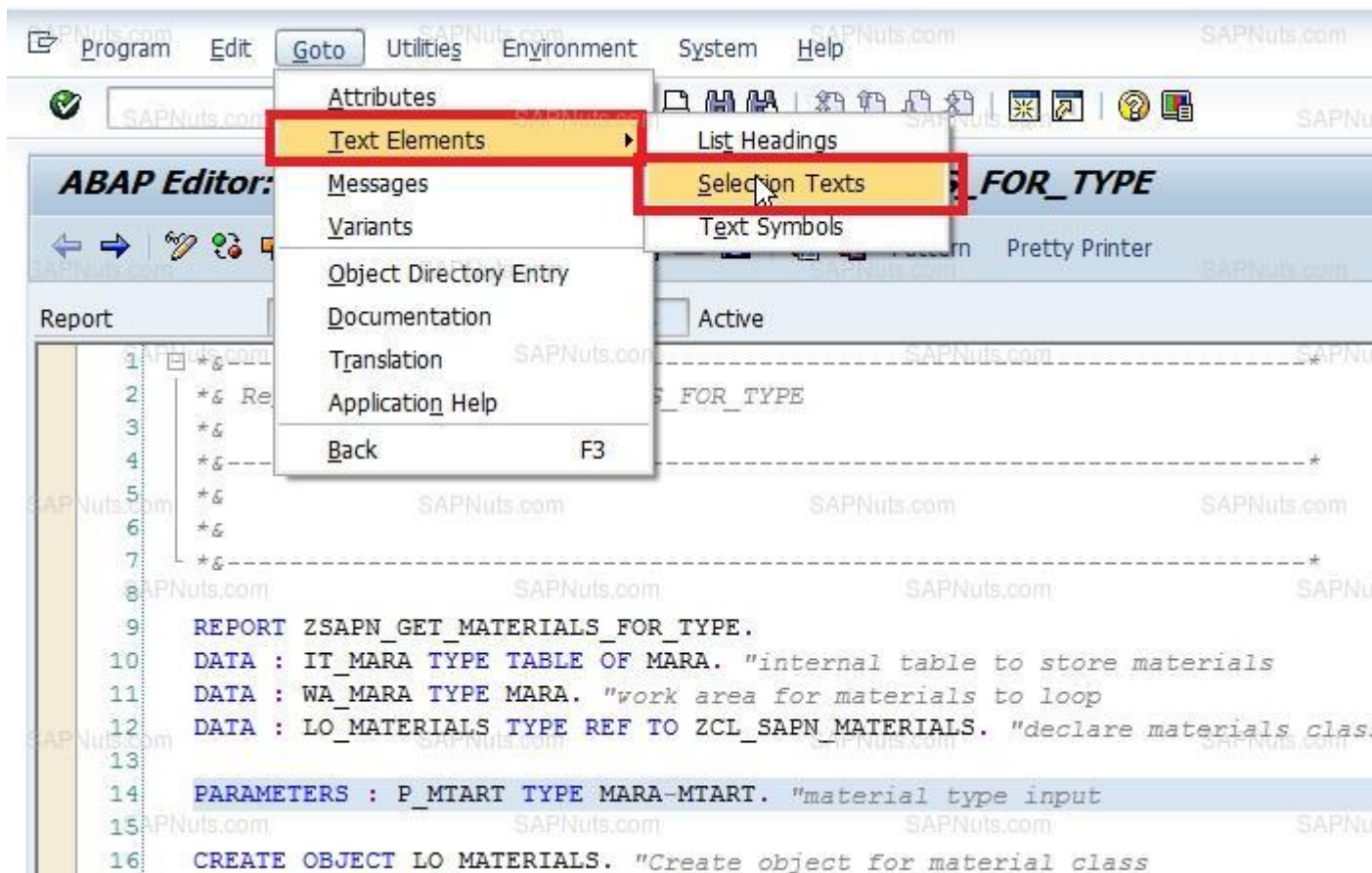
```
PARAMETERS : P_MTART TYPE MARA-MTART. "material type input
```

The above code will generate below screen

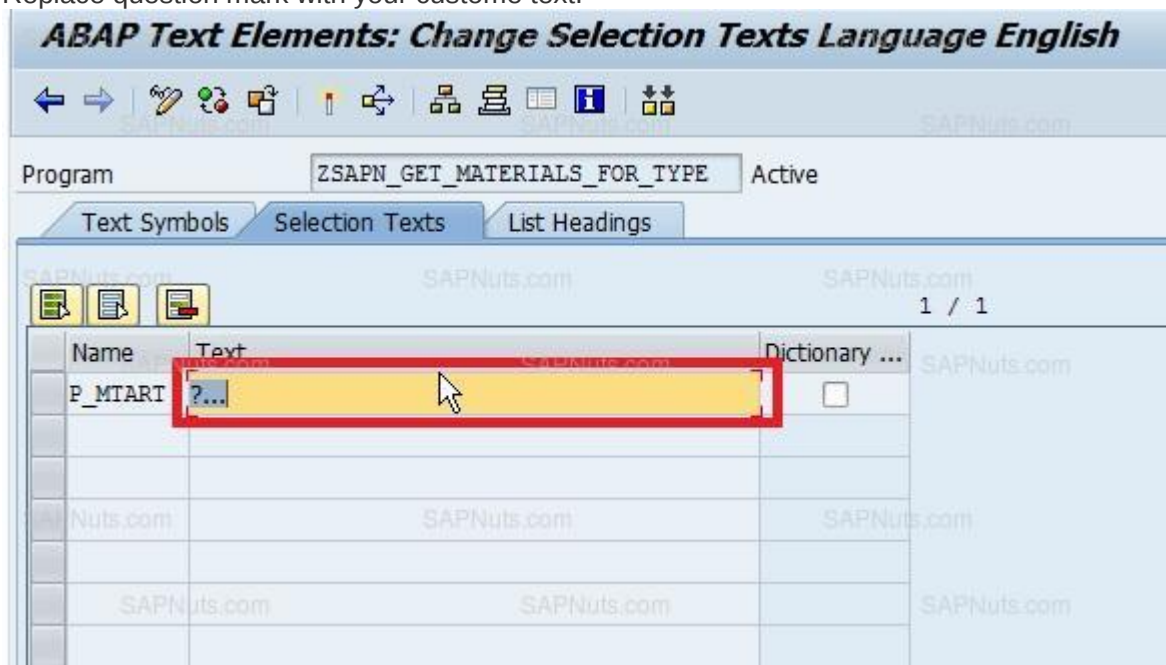


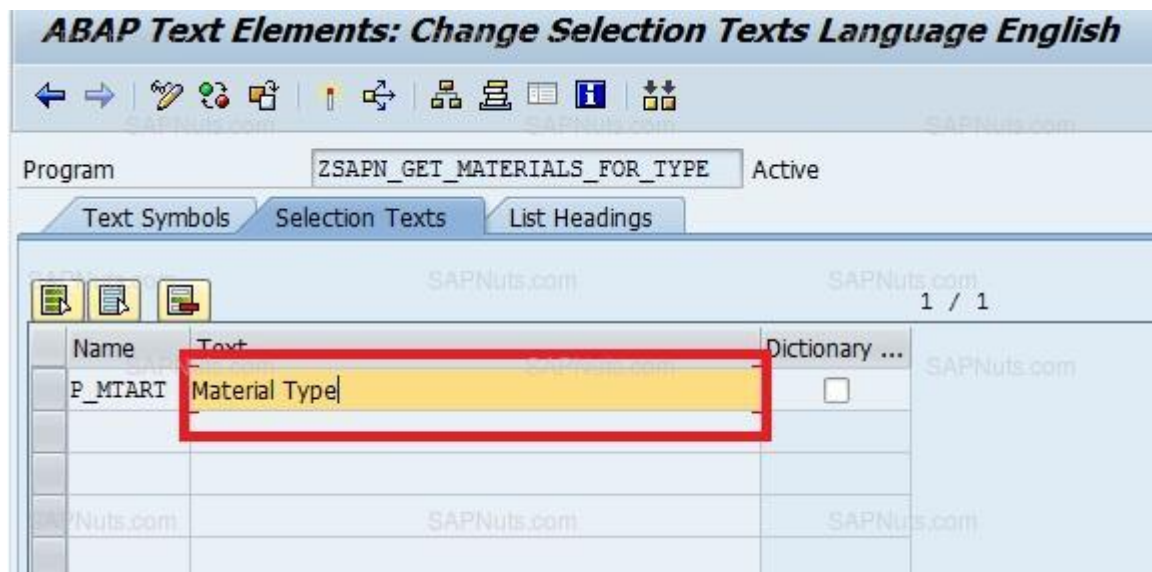
But we need to replace P_MTART with our custom name, follow the below steps to change technical name.

Go to Program Source, Select Goto-Text Elements-Selectin Texts



Replace question mark with your custome text.





In the same way you can replace radio button text, selection-options text, parameters text etc.

Using Radio Buttons in SAP ABAP

How to display radio button in selection screen using SAP ABAP ? Using RADIOBUTTON GROUP in SAP ABAP

Radio Button Group: is a group of radio buttons, one one radio button can be selected in on radio button group. To print radio button in SAP screen we use below syntax.

```
PARAMETERS : <RADIO> RADIOBUTTON GROUP <GROUP>.
```

Example program of using Radio Button in SAP

The below is the example of using radio button in SAP, the below code prints two radio buttons. Select and Execute for testing.



```
REPORT ZSAPN_RADIO_BUTTON.
```

```
PARAMETERS : P_RAD1 RADIOBUTTON GROUP RB1.
```

```
PARAMETERS : P_RAD2 RADIOBUTTON GROUP RB1.
```

```
START-OF-SELECTION.
```

```
  IF P_RAD1 = 'X'.
```

```
    WRITE:/ 'Radio Button1 is selected '.
```

```
  ELSEIF P_RAD2 = 'X'.
```

```
    WRITE:/ 'Radio Button2 Is selectd'.
```

```
  ENDIF.
```

Using check box in SAP ABAP

How to display checkbox in SAP selection screen using SAP ABAP ? Using CHECKBOX in SAP ABAP

Check Box: is a selectable box. To print check box in SAP screen we use below syntax.

```
PARAMETERS : <CHK> AS CHECKBOX .
```

When ever we select(check) a check box, the value 'X' will be stored in it.

Example program of using check box in SAP

The below is the example of using radio button in SAP, the below code prints a check box on selection screen. Select and Execute for testing.

```
REPORT ZSAPN_CHECK_BOX.

PARAMETERS : P_CHK AS CHECKBOX .

START-OF-SELECTION.
  IF P_CHK = 'X'.
    WRITE:/ 'Check box is selected'.
  ELSE.
    WRITE:/ 'Check Box is not selectd'.
  ENDIF.
```