

Creation of Sets in SAP-ABAP, How to Read them INI SAP-ABAP Reports



Applies to:

This Article is intended for all those ABAPers who are interested in creating SAP-SETS and use them in ABAP. For more information, visit the [ABAP homepage](#).

Summary:

Learn here how to use SETS as per the client requirement. This article will show you how to create SETS, and use them in sap ABAP reports

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Overview:

IF you as an ABAPer want to use SETS as per the client requirement. You can create SETS, and use them in sap ABAP reports .

Introduction to SETS:

What is a Set?

Sets are flexible structures for Organizing hierarchies and quantities.

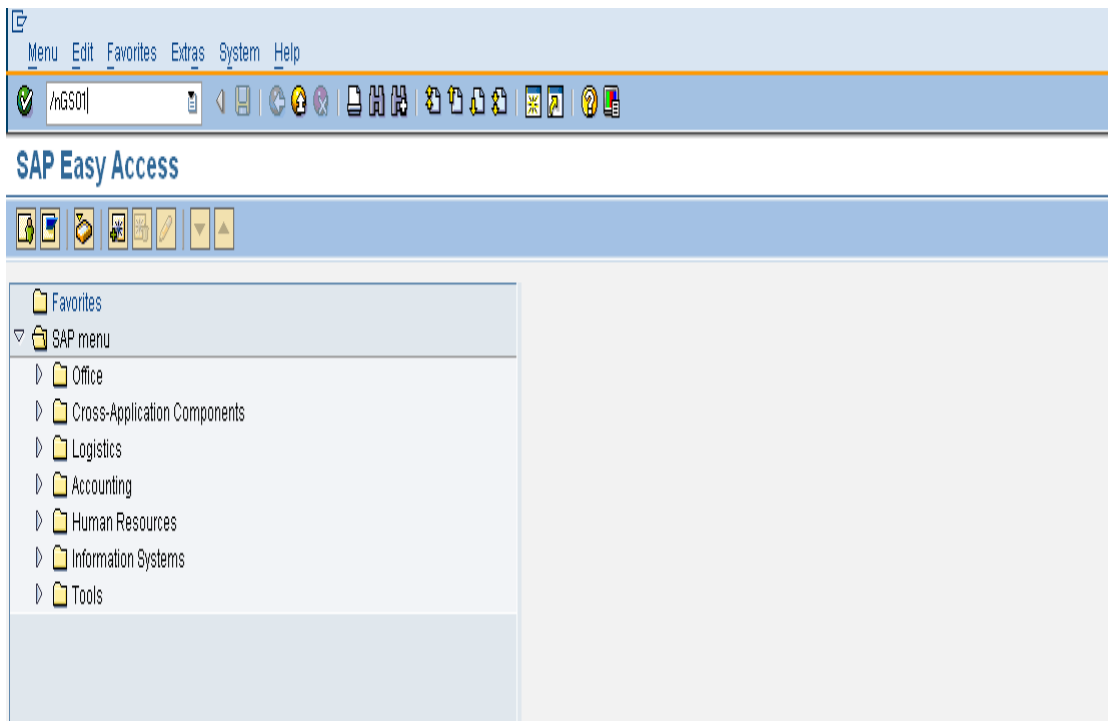
Sets can be used for Grouping values or giving value intervals in a set and several sets into a hierarchy

For Example:

In SAP Sales and Delivery, if the sales organization for a specific place are to be placed in different ways we can use these SETS. Many a time, it is required to group these Sales Org to the types of customer . In order to maintain such data, SAP has provided a methodology known as Sets.

Some examples of sets are shown in below images:

Go to Transaction GS01



Transaction GS01 seems like this..

The screenshot shows the 'Create Set: Initial Screen' in SAP. The 'Set Name' field is empty with a checkmark icon. The 'Basic data' section has a 'Table' field. The 'Set type' section has four radio buttons: 'Basic set' (selected), 'Single set', 'Multi set', and 'Key figure set'. The 'Reference set' field is empty.

Enter the following data:

- 1) Set name
- 2) Table name that contains the dimensions the set will use (You can create sets using a user table that contains specific dimensions from a table).
- 3) Select the set type.

SAY..if u don't want to use the reference set . than enter the name of set Z*****. And follow the screen shots

As below

The screenshot shows the 'Create Set: Initial Screen' with data entered. The 'Set Name' field contains 'Z_TEST1'. The 'Table' field contains 'MARA'. The 'Set type' section has four radio buttons: 'Basic set' (selected), 'Single set', 'Multi set', and 'Key figure set'. The 'Reference set' field is empty.

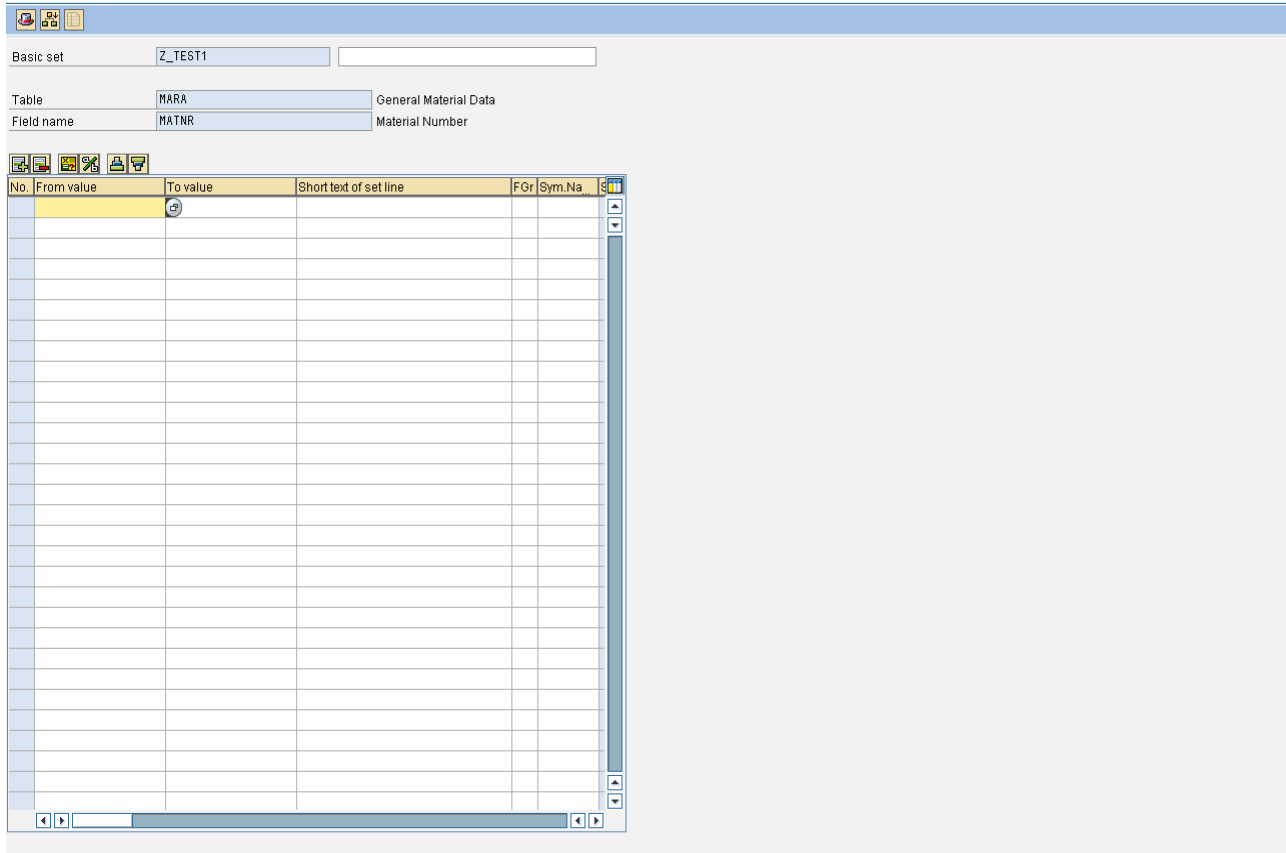
Now Press ENTER.

Create Set: Initial Screen

The screenshot displays the 'Create Set: Initial Screen' in SAP. At the top, there is a blue header bar with the text 'Hierarchy maintenance'. Below this, the 'Set Name' field contains the value 'Z_TEST1'. A dialog box titled 'Create Set Field Name' is open, showing a message: 'A table field must be specified for basic and single-dimension sets'. The 'Field name' field in the dialog contains the value 'WKORG'. At the bottom of the dialog, there are checkmark and cross icons. Below the dialog, the 'Reference set' field is visible but empty.

Enter the field name as in this case it is MATNR. Press Enter.

Create Set: Values

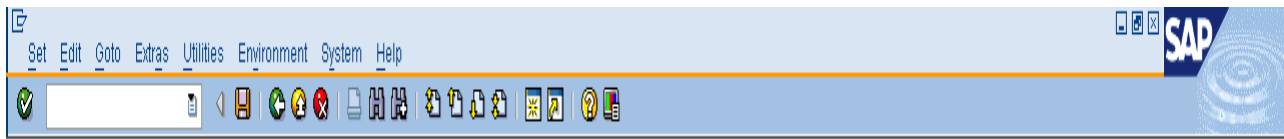


The screenshot shows the 'Create Set: Values' dialog box in SAP. At the top, there are three icons: a folder, a document, and a printer. Below these, the 'Basic set' field is set to 'Z_TEST1'. Underneath, the 'Table' is set to 'MARA' (General Material Data) and the 'Field name' is 'MATNR' (Material Number). Below this, there are five icons: a folder, a document, a printer, a refresh, and a search. The main area is a table with the following columns: 'No.', 'From value', 'To value', 'Short text of set line', 'FGr', and 'Sym.Na.'. The table is currently empty, with only the header row visible. A scroll bar is on the right side of the table.

So basically we have created a Basic Set.

Now for entering the values inside the SET , We will follow the following screens.

Enter the basic set description, anything meaningful.



Create Set: Values

Please enter the description in the Place as shown by the Arrow.

Create Set: Values

No.	From value	To value	Short text of set line	FG	Sym.Na	
001	101010101010					
002	832907382787					
003	828390829038					

After entering the values you can save the SET. Your SET Z_TEST1 has been created.

Now say, If u want to use the reference set . than enter the name of set Z*****. And follow the screen shots

As below

Create Set: Initial Screen

Set Name: Z_TEST2

Table: MARA

Set type:

- Basic set
- Single set
- Multi set
- Key figure set

Reference set: z_test1

Enter the name of the Reference Set , so that we are able to use the values , which already has been used in the previous SET(Z_TEST1)

Press Enter and SAVE. New SET has been created.

1. Now , basically you can create a basic or single-dimension set:
2. Single Set.
3. Multi Set.
4. Key Figure Set.

The Create Set: Header screen appears.

Create Set: Values

Basic set: Z_TEST1

Table: MARA (General Material Data)

Field name: MATNR (Material Number)

No.	From value	To value	Short text of set line	FGr	Sym.Na	
001	101010101010					
002	832907382787					
003	828390829038					

Enter the relevant data as required.

Advantages of Using Sets

It reduces the maintenance,

Is advantageous for a business consultant

Business user to add/remove/maintain the values from the specified groups.

Useful Transaction Codes

- CREATE SET (GS01):
- CHANGE SET (GS02):
- DISPLAY SET (GS03):
- DELETE SET (GS04):
-

How to Read Sets in ABAP?

The data stored in SET can be read through function module **G_SET_GET_ALL_VALUES**.

The FROM and TO values imported from the table parameter **SET_VALUES** gives the data stored in a set.

Example code for ABAPers.

```
REPORT Z_TESTSETS.

DATA: t_set_values TYPE TABLE OF rgsb4,
      wa_tsetvalues TYPE RGSB4.

CALL FUNCTION 'G_SET_GET_ALL_VALUES'
  EXPORTING
    client      = sy-mandt
    setnr       = 'Z_TEST1'
    table       = 'MARA'
    class       = '0000'
    fieldname   = 'MATNR'
  TABLES
    set_values  = t_set_values
  EXCEPTIONS
    set_not_found = 1
    OTHERS      = 2.

IF SY-SUBRC EQ 0.
  WRITE 'SUCCESS'.
ELSE.
  WRITE 'ERROR'.
ENDIF.
```

Debugger Screen Values

Debugger screen show our values which we can verify.

The screenshot displays the SAP ABAP Debugger interface. The top status bar shows the current program as Z_TESTSETS, line 28, and the event as START-OF-SELECTION. The main window is divided into two panes. The left pane, titled 'ABAP Source Code Display', shows the source code with line 28 highlighted. The right pane, titled 'Variables 1', shows a table of variables.

St	Variable	Va	Val.	C	Hexadecimal Value
	t_SET_VALUES		Standard Table[3x21 (456)]		

The source code in the left pane is as follows:

```

1  *&-----
2  *& Report  Z_TESTSETS
3  *&
4  *&-----
5  *&
6  *&
7  *&-----
8
9  REPORT  Z_TESTSETS.
10
11  DATA: t_set_values TYPE TABLE OF rgsb4,
12         wa_tsetvalues TYPE RGSB4.
13
14  CALL FUNCTION 'G_SET_GET_ALL_VALUES'
15     EXPORTING
16       client      = sy-mandt
17       setnr       = 'Z_TEST1'
18       table       = 'MARA'
19       class       = '0000'
20       fieldname   = 'MATNR'
21  TABLES
22     set_values    = t_set_values
23  EXCEPTIONS
24     set_not_found = 1
25     OTHERS       = 2.
26
27  IF SY-SUBRC EQ 0.
28  WRITE 'SUCCESS'.
29  ELSE.
30  WRITE 'ERROR'.

```

Double click on t_set_values.

Z_TESTSETS / Z_TESTSETS / 28 SY-SUBRC 0
 EVENT / START-OF-SELECTION SY-TABIX 1

Desktop 1 Desktop 2 Desktop 3 Standard Structures Tables Objects Detail Displ. Data Explorer Break/Watchpoints Diff

Tables Table Contents

Table T_SET_VALUES
 Table Type Standard Table(3x21(456))

Line	SETNR(C(34))	TITLE(C(40))	FIELD(C(30))	FROM(C(24))	TO(C(24))	FPDOWN(I(4))	SETFLGGLB(C(1))	VARTFLG(C(1))	VARFFLG(C(1))	FORMFLG(C(1))	SETCLA
1	0000Z_TEST1		MATNR	00000010101010101010101010101010							0000
2	0000Z_TEST1		MATNR	00000083290738270000008329073820							0000
3	0000Z_TEST1		MATNR	00000092839082900000009283908290							0000

Output screen.

List Edit Goto System Help

test for sets

test for sets

SUCCESS

Related Content

For more information, visit the [ABAP homepage](#)

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