

ABAP Part I

Lesson 04: Selection Screen

Lesson Objectives

After completing this lesson, participants will be able to understand -

- Learn to create a selection screen





There are three ABAP statements for defining selection screens:

- PARAMETERS for single fields
- SELECT-OPTIONS for complex selections
- SELECTION-SCREEN for formatting the selection screen and defining user-specific selection screens

The selection screen that is defined using PARAMETERS or SELECT-OPTIONS statements on their own, has a standard layout in which all parameters appear line by line.

This layout is not always sufficient.

For example, when you define a group of radio buttons, you should set off these buttons against other input fields so that the user can identify them as a group.

Selection Screen: Declaring Fields with Parameters

```
PARAMETERS :      <f>[TYPE <type>][DECIMALS <n>][LIKE <f1>][MEMORY <Bd*>]
                  [OBLIGATORY][DEFAULT <value >][LOWER CASE][VALUE CHECK]
                  [AS CHECKBOX]
                  [RADIOBUTTON GROUP < grp >]
```

```
REPORT sapbc405_  ssod_checkbox_radiobutton .
...
PARAMETERS:  pa_carr LIKE sflight -carrid ,
             pa_name AS CHECKBOX DEFAULT 'X',
             pa_curr AS CHECKBOX DEFAULT 'X',
             pa_lim_1 RADIOBUTTON GROUP    11m ,
             pa_lim_2 RADIOBUTTON GROUP    11m ,
             pa_lim_3 RADIOBUTTON GROUP    11m .

CONSTANTS mark VALUE      'X' .

* Check, if any checkbox has been selected
IF pa_name EQ mark.      ... .  ENDDIF.
IF pa_curr EQ mark.      ... .  ENDDIF.

* Check, which radiobutton has been selected
CASE mark.
  WHEN pa_ 11m_1. ... .
  WHEN pa_ 11m_2. ... .
  WHEN pa_ 11m_3. ... .
ENDCASE.
```

Airline: AA

☒ Output name

☒ Output local currency

Price (local currency): up to 500 (selected), 500 to 1000, 1000 to 1500

PARAMETERS Statement



A parameter is a special type of variable that is defined using the parameters statement.

Parameters is a lot like the data statement, but when you run the program, the system will display the parameters as input fields on a selection screen before the program actually begins to execute.

The rules for parameters names are the same as for variables names, except for the following:

- The maximum length is 8 characters instead of 30.
- You can assign the initial value of a parameter using the parameter default.

Syntax for PARAMETERS Statement



The following code is the syntax for defining a variable using the parameters statement.

```
parameters p1[ (l) ]          [type t]          [decimals d]
```

Or

```
parameters p1  like      v1  
[default 'xxx'] [obligatory]      [lower case]      [as check box]  
[radiobutton group g]
```

Example



parameters p1(2)

type c.

parameters p2

like p1.

parameters max_value

type i default 100.

parameters cur_date

type d default '20030827' obligatory.

parameters cur_date

Like sy-datum default sy-datum
obligatory.

Example



You declare parameters in the PARAMETERS statement analogous to report internal fields:

```
PARAMETERS: NAME(30) OBLIGATORY DEFAULT 'Renu ',  
            AGE(2)      TYPE P.
```

You assign the initial value of a parameter using the parameter DEFAULT.
The parameters statement can not be used for type f .

Additions to Parameter statement



Addition	Use
Type	Same as the data
decimals	Same as the data
Like	Same as the data
default	Same as the <i>value</i> addition on the <i>data</i> statement
obligatory	The user must enter a value into the field before the program will execute
lower case	Prevents values from being translated to uppercase
as checkbox	Displays the input field as check box
Radio button group g	Displays the input field as a radio button belonging to group g



Using the Addition : Lower Case

- All values entered into a parameter are translated into uppercase by default. To turn off this translation, use the addition *lower case*.
- This translation applies only to character fields.

Using the Addition : Check Box

- A checkbox has two states: ticked and clear.
- You use them when you want to present the user with an on/off or true or false type of choice.
- You can use more than one checkbox on a screen.

E.g. parameters: cb1 as checkbox default 'X',
cb2 as checkbox,



Using the Addition : radiobutton group

- Like check boxes, a radio button also has two states: selected and not selected.
- Unlike check boxes, radio buttons never operate alone; they operate in groups.
- You can have any number of radio buttons in a group (greater than 1), but only one can be selected at a time.
- They are used when you need to present the user with a list of alternatives in which only one option can be chosen

To display a parameter as a radio button, use the addition radiobutton group g.

- E.g. parameters: `rb1 radiobutton group g1 default 'X',`
`rb2 radiobutton group g1,`
`rb3 radiobutton group g1.`



Parameter Input Field Labels

- On the selection screen to the left of each parameter's input field is a label.
- By default, the label is the same as the name of the parameter.
- You can set these labels manually.
- For parameters defined like Data Dictionary fields, you can retrieve the label automatically from the data element.

Changing Parameter Labels

- You can change the labels for the parameters appearing on the selection screen by using the text symbols.
- Follow this path to change the text symbols.
 - (Menu bar -GOTO->TEXT ELEMENTS ->SELECTION TEXTS)



Program on using Parameters and its options

Selection Screen: Declaring Fields with Select-Options



OBLIGATORY generates a mandatory field.

NO-EXTENSION suppresses multiple single or multiple range selections.

NO INTERVALS suppresses the SELTAB-HIGH (upper interval limit) entry on the selection screen.

```
SELECT -OPTIONS:  <seltab> FOR <f>.
```

```
REPORT  sapbc405_ ssod _select_options .  
TABLES: sflight .  
SELECT -OPTIONS:  so_carr FOR sflight -carrid  DEFAULT 'AA',  
                  so_fldt FOR sflight -fldate .
```

Internal Table
so_carr

Sign	Option	Low	High
I	EQ	AA	

Airline

AA

to

↕

Flight date

to

↕

Demo

Program on using select-options



Summary

In this lesson, you have learnt:

- How to create a selection screen



Review Question

1. Selection screen elements can be combined into cohesive units called ____.
2. The default selection screen has the number ____.

