

Working with the ABAP Editor



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The Goal of This Module

ListEditGotoSettingsSystemHelp



Creating Z_FLIGHT_BOOKING_LIST



ABAP Editor: Initial Screen

Program: Create

Subobject:

☒ Source
☐ Variant
☐ Attribute
☐ Document
☐ Text

Title:
Original language: English

Created:
Last Changed:
Status:

Attributes

Type:
Status:
Application:
Authorization Group:
☐ Editor lock ☒ Fixed point arithmetic
☒ Unicode Checks Active

Save

Lock Entry List

Refresh Details

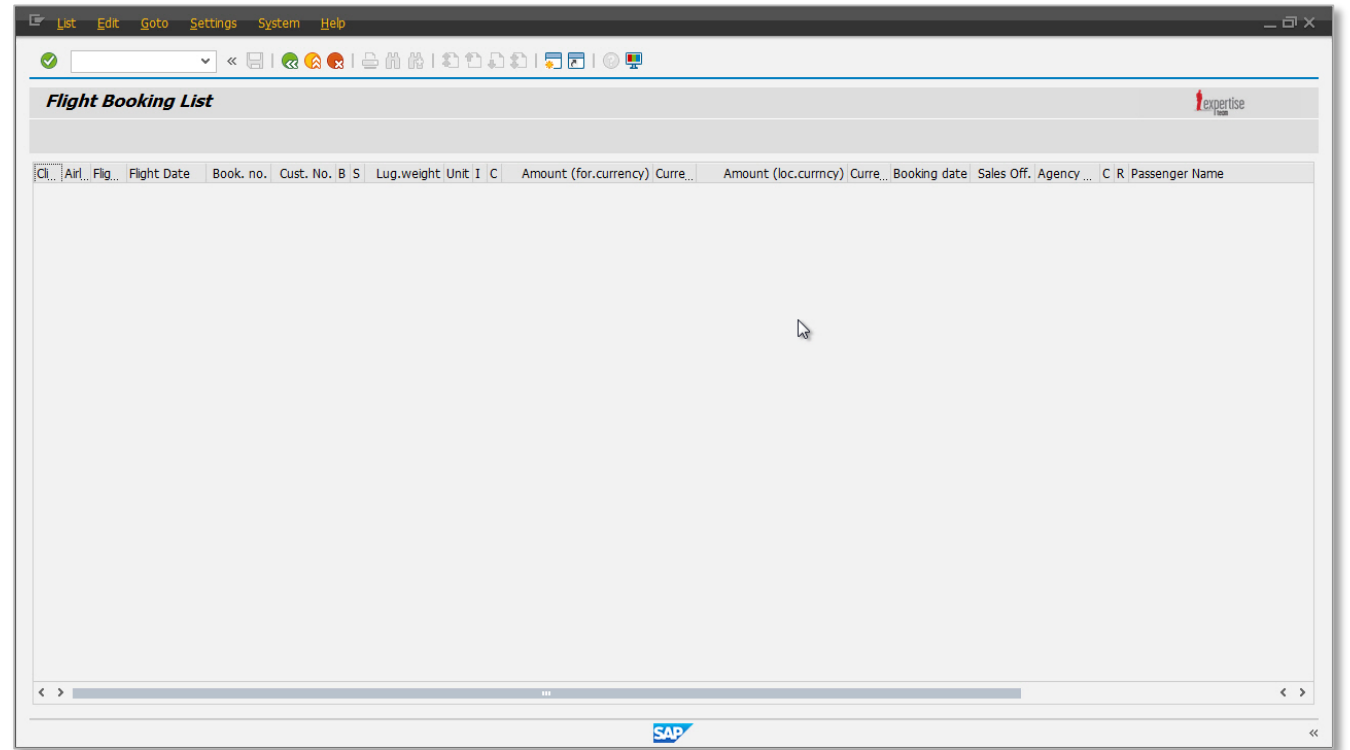
User name	Date/Time	Lock mode	Table	Lock Argument	Use Count.	Use Count.
MESZAROSL	10:01:35	X	TRDIR	Z_FLIGHT_BOOKING_LIST	1	0

✓ The object will be created in the original language English (EN)

SAP



Instantiating an ALV List



Selecting Data from the Database



Table Edit Goto Utilities Extras Environment System Help

Dictionary: Display Table

Transparent Table: SBOOK Active

Short Description: Single Flight Booking

Attributes Delivery and Maintenance Fields Entry help/check Currency/Quantity Fields

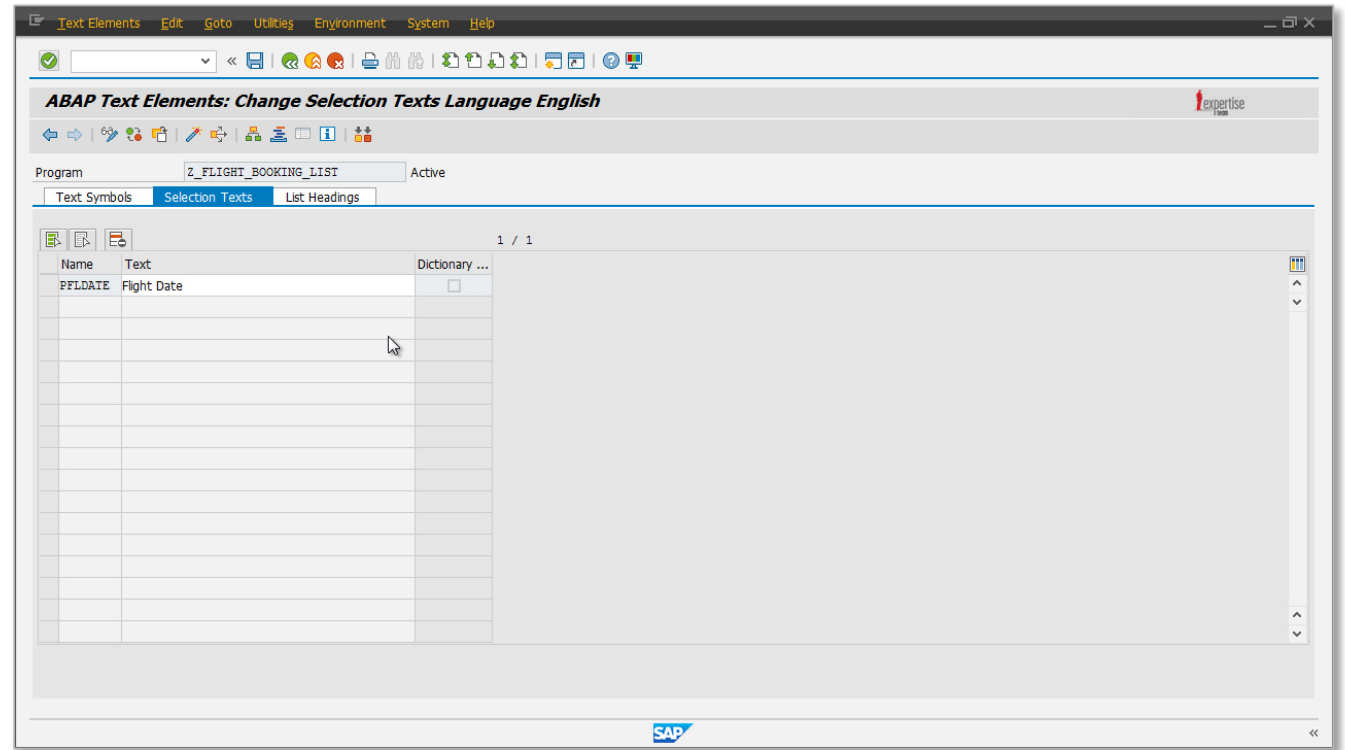
1 / 24

Field	Key	Ini...	Data element	Data Type	Length	Deci...	Short Description	Group
MANDT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S_MANDT	CLNT	3		0 Client	
CARRID	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S_CARR_ID	CHAR	3		0 Airline Code	
CONNID	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S_CONN_ID	NUMC	4		0 Flight Connection Number	
FLDATE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S_DATE	DATS	8		0 Flight date	
BOOKID	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S_BOOK_ID	NUMC	8		0 Booking number	
CUSTOMID	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S_CUSTOMER	NUMC	8		0 Customer Number	
CUSTTYPE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S_CUSTTYPE	CHAR	1		0 Customer type	
SMOKER	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S_SMOKER	CHAR	1		0 Smoker	
LUGGWEIGHT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S_LUGWEIGH	QUAN	8		4 Weight of Luggage	
WUNIT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S_WUNIT	UNIT	3		0 Weight Unit	
INVOICE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S_INVFLAG	CHAR	1		0 Invoice flag	
CLASS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S_CLASS	CHAR	1		0 Flight Class	
FORCURAM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S_F_CUR_PR	CURR	15		2 Booking price in foreign currency (dependent on location)	
FORCURKEY	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S_CURR	CURY	5		0 Payment currency	
LOCCURAM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S_L_CUR_PR	CURR	15		2 Price of booking in local currency of airline	
LOCCURKEY	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S_CURRCODE	CURY	5		0 Local currency of airline	

SAP



Defining a Selection Screen



Using Regions



```
1 REPORT z_flight_booking_list.
2
3 -----
4 "$. Region Define a selection field for Flight Date
5 -----
6 PARAMETERS pflightdate TYPE d OBLIGATORY DEFAULT '20100313'.
7 -----
8 "$. Endregion
9 -----
10
11
12 DATA flight_bookings TYPE TABLE OF sbook.
13
14 SELECT * FROM sbook INTO TABLE flight_bookings UP TO 40 ROWS
15 WHERE flightdate = pflightdate.
16
17 cl_salv_table=>factory(
18   IMPORTING
19     r_salv_table = DATA(alv_object)
20   CHANGING
21     t_table = flight_bookings
22 ).
23
24 alv_object->display( ).
```

#2 Trick
Code Templates



Customizing the ALV List

The screenshot shows the SAP ABAP Editor interface. The title bar reads "ABAP Editor: Change Report Z_FLIGHT_BOOKING_LIST". The editor window displays the following ABAP code:

```
23  
24  
25 " $. Region Display flight bookings in ALV  
26  
27 cl_salv_table=>factory(  
28   IMPORTING  
29     r_salv_table = DATA(alv_object)  
30   CHANGING  
31     t_table = flight_bookings  
32 ).  
33  
34 alv_object->get_functions( )->set_all( ).  
35  
36 alv_object->get_columns( )->set_optimize( ).  
37  
38 alv_object->get_display_settings( )->set_striped_pattern( abap_true ).  
39  
40 alv_object->get_display_settings( )->set_list_header( ).  
41  
42 alv_object->display( ).  
43  
44  
45 " $. Endregion  
46
```

The status bar at the bottom indicates "Program Z_FLIGHT_BOOKING_LIST saved" and shows the SAP logo. The bottom right corner of the editor window displays "ABAP | Ln 40 Col 57 | | | N...".

Formatting the Title of the ALV List

A screenshot of the SAP ABAP Editor interface. The title bar reads "ABAP Editor: Change Report Z_FLIGHT_BOOKING_LIST". The editor shows a code editor with the following ABAP code:

```
19  
20  
21 " $. Endregion  
22  
23  
24  
25 " $. Region Prepare the title of the ALV  
26  
27 DATA(formatted_date) = |({ pfldate(4) }-({ pfldate+4(2) }-({ pfldate+6(2) })|.  
28 DATA(title_of_alv) = |Flight Bookings on { pfldate }, Saturday|.   
29  
30  
31 " $. Endregion  
32  
33  
34  
35 " $. Region Display flight bookings in ALV  
36  
37 TRY.  
38   cl_salv_table=>factory(  
39     IMPORTING  
40       r_salv_table = DATA(alv_object)  
41     CHANGING  
42       t_table = flight_bookings  
43   ).  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
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85  
86  
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93  
94  
95  
96  
97  
98  
99  
100
```

The status bar at the bottom indicates "Scope: \REGION Prepare" and "ABAP | Ln 27 Col 75". The SAP logo is visible in the bottom right corner.

Determining the Name of the Day



ABAP Editor: Change Report Z_FLIGHT_BOOKING_LIST

Report: Z_FLIGHT_BOOKING_LIST Inactive

```
17 SELECT * FROM sbook INTO TABLE flight_bookings UP TO 40 ROWS
18 WHERE fldate = pfldate.
19
20 "-----
21 "$. Endregion
22 "-----
23
24 "-----
25 "$. Region Determine the name of the selected day
26 "-----
27 DATA(day_of_the_week) = pfldate MOD 7.
28
29 IF day_of_the_week > 1.
30   day_of_the_week = day_of_the_week - 1.
31 ELSE.
32   day_of_the_week = day_of_the_week |
33   ENDIF.
34
35 "-----
36 "$. Endregion
37 "-----
38
39 "-----
40 "$. Region Prepare the title of the ALV
41 "-----
```

Adjusted Results

Result	Day	Adjusted Result	Correction
0	Saturday	6	+6
1	Sunday	7	+6
2	Monday	1	-1
3	Tuesday	2	-1
4	Wednesday	3	-1
5	Thursday	4	-1
6	Friday	5	-1

Scope: \REGION Determine | ABAP | Ln 32 Col 37 | N...

SAP



Next

Creating

Z_FLIGHT_BOOKING_LIST



A screenshot of the SAP ABAP code editor. The code is in a loop structure, with line numbers 22 to 41 visible. It calculates the day of the week based on a date and adjusts the result to match a specific format. A table with 4 columns (Result, Day, Adjusted Result, Correction) is displayed on the right side of the editor. The table contains data for days of the week from Saturday to Friday. The status bar at the bottom indicates 'Scope: REGION Determine' and 'ABAP | Ln 32 Col 37'.



Creating Z_FLIGHT_BOOKING_LIST



Instantiating an ALV List



Internal Table



Internal Table



Internal Table

SBOOK

Airline ID	Connection ID	Flight Date	Booking ID	Customer ID	Passenger Name



Internal Table

SBOOK

Airline ID	Connection ID	Flight Date	Booking ID	Customer ID	Passenger Name
AA	17	11.02.2009	1	2128	Simon Henry
AA	17	11.02.2009	2	1037	Jean Miguel
AA	17	11.02.2009	3	2553	Anna Matthaeus
AA	17	11.02.2009	5	4318	Christa Keller
AA	17	11.02.2009	6	675	Siegfried Madeya
AA	17	11.02.2009	7	777	Matthias Schneider
AA	17	11.02.2009	8	1750	Sophie Hunter
AA	17	11.02.2009	9	4322	Achim Detemple
AA	17	11.02.2009	10	2815	Joschka Deichgraeber



Selecting Data from the Database



Defining a Selection Screen



Using Regions



Customizing the ALV List



Formatting the Title of the ALV List



Determining the Name of the Day



Determining The Day of The Week

$$\text{PFLDATE} \bmod 7 =$$



Determining The Day of The Week

$$20100313 \text{ MOD } 7 = 6$$

SATURDAY
6th day



Determining the Day of the Week

$$20100313 \text{ MOD } 7 = 6$$



Determining the Day of the Week

$$20100313 \text{ MOD } 7 = 0$$



Gregorian Calendar

0001.01.01
SATURDAY



Gregorian Calendar

Date	No. Days Past	No. Days Past MOD 7
0001.01.01 SATURDAY	0	0
0001.01.05 WEDNESDAY	4	4
2010.03.13 SATURDAY	733 845	0



Adjusted Results

Result	Day	Adjusted Result	Correction
0	Saturday	6	+6
1	Sunday	7	+6
2	Monday	1	-1
3	Tuesday	2	-1
4	Wednesday	3	-1
5	Thursday	4	-1
6	Friday	5	-1



Adjusted Results

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Adjusted Results

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0	Saturday	6	+6
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4	Wednesday	3	-1
5	Thursday	4	-1
6	Friday	5	-1



Summary



Working with the ABAP Editor

- How to create Report Programs
- How to instantiate CL_SALV_TABLE
- How to query data from the Database
- How to define a Selection Screen
- What are the Regions
- What are the Code Templates
- How to customize the ALV list
- What are the String Templates
- How to determine the name a given day



Next Module

Summary



Working with the Function Builder

- What are the Regions
- What are the Code Templates
- How to customize the ALV list
- What are the String Templates
- How to determine the name a given day

