Working with Select Options in Web Dynpro for ABAP

Applies to:
SAP ECC 6.0 (Release 700, SP 12).

Summary
To show a select options screen in Web Dynpro ABAP we have to use SAP's Standard component. This article will brief you about how to use sap standard Web Dynpro component WDR_SELECT_OPTIONS. Select options in Web Dynpro work the same way as in ABAP reports.

Author: Abhimanyu Lagishetti
Company: Satyam Computer Services Ltd.
Created on: 17 December 2007

Author Bio
Abhimanyu L, Satyam Computer Services Ltd
B.Tech Computer Science Graduate, working on Technologies like Web Dynpro Java, Web Dynpro ABAP, Enterprise Portals and Business Workflows.
Introduction

Let’s start with an application which shows a select-options screen field Airline ID of type S_CARR_ID and displays the entered values in a table control.

Select-Options in ABAP

Using Select-Options, the user can specify complex selection criteria. If the selection criteria is complex, you need not write lengthy logical expressions in the select query, which is solved by the select-options statement. Select-Options defines a range table which is having four columns Sign, Option, Low and High.

In Reports you use select-options statement to hold range of values, which can be illustrated from the following ABAP code:

data: s_carr_id type s_carrid.
select-options : r_carrid for s_carr_id.

This will declare a range table called r_carrid to hold single values and ranges. The selection screen will look like this:
Select-Options in Web Dynpro for ABAP

Create a Web Dynpro Component ZTEST_SELECT_OPTIONS.
Add the Component Usage to use the standard component WDR_SELECT_OPTIONS.

Create a View and create the context to store the Range table.

SIGN TYPE SIGN, OPTION TYPE OPTI, LOW TYPE S_CARR_ID, HIGH TYPE S_CARR_ID
Add the Component Usage and the Interface Controller of the Select Option to the created View in Properties Tab.

Design the View as shown, place a viewContainerUIElement to show the Select-Options screen, a button to fetch the entered values and a table to display the range table.

At this point of time, the selection-screen is empty as we have not supplied any data to the component WDR_SELECT_OPTIONS to display a selection-screen.

The following code is to show Airline ID as the selection screen item, put this code in the WDDOINIT.

```plaintext
DATA: LR_SELECT_OPTIONS TYPE REF TO IWCI_WDR_SELECT_OPTIONS.
DATA LR_HELPER TYPE REF TO IF_WD_SELECT_OPTIONS.
DATA: LT_RANGE TYPE REF TO DATA.
DATA: LR_COMP_USAGE TYPE REF TO IF_WD_COMPONENT_USAGE.
```
Working with Select Options in Web Dynpro for ABAP

*This code is to instantiate the component WD_SELECT_OPTIONS

LR_COMP_USAGE = WD_THI S->WD_CPUSE_SELECT_OPTI ONS( ).
IF LR_COMP_USAGE->HAS_ACTIVE_COMPONENT( ) IS INITIAL.
   LR_COMP_USAGE->CREATE_COMPONENT( ).
ENDIF.

call the interface controller method init_selection_screen to get the helper class

LR_SELECT_OPTI ONS = WD_THI S->WD_CPI FC_SELECT_OPTI ONS( ).
LR_HELPER = LR_SELECT_OPTI ONS->INIT_SELECTION_ONSCREEN( ).

*Use the helper class to create a range table for the data element S_CARR_ID

LT_RANGE = LR_HELPER->CREATE_RANGE_TABLE( I_TYPENAME = 'S_CARR_ID' ).

*Add a Selection Screen Field

LR_HELPER- >ADD_SELECTION_FIEL D( I_ID = 'S_CARR_ID'
   I_IT_RESULT = LT_RANGE ).

endmeth hod.

Create an Action and bind the action to the Button you placed in the Layout. Provide the following code in the event handler to fetch the input values that user entered at runtime.

method ONACTIVATE.

DATA: LR_SELECT_OPTI ONS TYPE REF TO IWCI_WD_SELECT_OPTI ONS.
DATA LR_HELPER TYPE REF TO IF_WD_SELECT_OPTI ONS.
DATA: LT_RANGE TYPE REF TO DATA.

FI ELD SYMBOLS: <LT_RANGE_TABLE> TYPE WD_THI S->ELEMENTS_RANGE,
   <LS_FIEL D> TYPE LINE OF
   IF_WD_SELECT_OPTI ONS=>TT_SELECTI ONSCREEN_ITEM

DATA: LR_COMP_USAGE TYPE REF TO IW_CI_WD_COMPONENT_USAGE.
DATA: LT_FIEL DS TYPE REF TO IW_CI_WD_SELECT_OPTI ONS->TT_SELECTI ONSCREEN_ITEM

LR_COMP_USAGE = WD_THI S->WD_CPUSE_SELECT_OPTI ONS( ).
IF LR_COMP_USAGE->HAS_ACTIVE_COMPONENT( ) IS INITIAL.
   LR_COMP_USAGE->CREATE_COMPONENT( ).
ENDIF.

LR_SELECT_OPTI ONS = WD_THI S->WD_CPI FC_SELECT_OPTI ONS( ).
LR_HELPER = LR_SELECT_OPTI ONS->INIT_SELECTION_ONSCREEN( ).

LR_HELPER- >GET_SELECTION_ONSCREEN_ITEMS( IMPORTING
   ET_SELECTION_SCREEN_ITEMS = LT_FIEL DS ).

READ TABLE LT_FIEL DS ASSIGNING <LS_FIEL D> INDEX 1.
ASSI GNI NG <LS_FIEL D>-MT_RANGE_TABLE-> TO <LT_RANGE_TABLE>.

DATA: LR_RANGE TYPE REF TO IW_CI_WD_CONTEXT_NODE.

LR_RANGE = WD_CONTEXT- >GET_CHILD_NODE( 'RANGE' ).
LR_RANGE- >BIND_TABLE( <LT_RANGE_TABLE> ).

endmeth hod.
Related Content

Please include at least three references to SDN documents or web pages.

- Web Dynpro Tutorials