

```
*&-----
*& Report   ZALV_HIERARCHYLIST
*
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*&-----
*& AS : ALV code for simple hierarchical sequential list display(single child)
*& List of SAP tables and their characteristics are displayed as the header
*& table ( the parent table) and the list of fields and their characteristics
*& form the item table(child table)
*&-----
```

```
REPORT ZALV_HIERARCHYLIST .
```

```
* type-pools declarations for alv and icon
TYPE-POOLS: slis,icon.
```

```
*structure declaration for table details
```

```
TYPES : BEGIN OF ty_dd02l,
        icon type icon_d,
        tabname TYPE tabname,
        tabclass TYPE tabclass,
        contflag type contflag,
        actflag type actflag,
        mainflag type maintflag,
        buffered type buffered,
        as4user type as4user,
        as4date type as4date,
        as4time type as4time,
        expand,
        END OF ty_dd02l.
```

```
*internal table and wa decln for table details
```

```
DATA : it_dd02l TYPE STANDARD TABLE OF ty_dd02l,
        wa_dd02l TYPE ty_dd02l.
```

```
*structure declarations for field details
```

```
TYPES : BEGIN OF ty_dd03l,
        tabname TYPE tabname,
        fieldname TYPE fieldname,
        keyflag type keyflag,
        mandatory type mandatory,
        checktable type checktable,
        rollname type rollname,
        END OF ty_dd03l.
```

```
*Internal table and wa decln for field details
```

```
DATA : it_dd03l TYPE STANDARD TABLE OF ty_dd03l,
        wa_dd03l TYPE ty_dd03l.
```

```
*data declarations for ALV
```

```
DATA : it_fieldcat TYPE slis_t_fieldcat_alv,
        wa_fieldcat TYPE slis_fieldcat_alv,
        it_layout TYPE slis_layout_alv,
        key TYPE slis_keyinfo_alv.
```

```
*Input the tables.User cannot enter a range but can enter a number
*of tables one by one in this select-options
```

```
SELECT-OPTIONS : s_table FOR wa_dd02l-tabname NO INTERVALS.
```

```

*initializatin event
INITIALIZATION.
*start-of-selection event
START-OF-SELECTION.

*subroutine to fetch the data from the tables
  PERFORM fetch_tabledata.
*subroutine to build alv hierarchy output
  PERFORM hierarchyalv_build.

*&-----*
*&      Form  hierarchyalv_build
*&-----*
*      text
*-----*
*  --> p1      text
*  <-- p2      text
*-----*
form hierarchyalv_build .

*fieldcatalogue
perform build_fieldcat.
*layout
perform build_layout.
*key information for hierarchy
perform build_key.
*output
perform list_display.

endform.                " hierarchyalv_build
*&-----*
*&      Form  build_fieldcat
*&-----*
*      text
*-----*
*  --> p1      text
*  <-- p2      text
*-----*
form build_fieldcat .

  CLEAR wa_fieldcat.

  wa_fieldcat-col_pos = 1.
  wa_fieldcat-fieldname = 'TABNAME'.
  wa_fieldcat-tabname = 'IT_DD02L'.
  wa_fieldcat-seltext_m = 'Tablename'.
  wa_fieldcat-key = 'X'.
  wa_fieldcat-emphasize = 'C610'.
  APPEND wa_fieldcat TO it_fieldcat.

  CLEAR wa_fieldcat.
  wa_fieldcat-col_pos = 2.
  wa_fieldcat-fieldname = 'TABCLASS'.
  wa_fieldcat-tabname = 'IT_DD02L'.
  wa_fieldcat-seltext_m = 'Tablecategory'.
  wa_fieldcat-emphasize = 'C600'.

  APPEND wa_fieldcat TO it_fieldcat.
  CLEAR wa_fieldcat.

```

```
CLEAR wa_fieldcat.  
wa_fieldcat-col_pos = 3.  
wa_fieldcat-fieldname = 'CONTFLLAG'.  
wa_fieldcat-tabname = 'IT_DD02L'.  
wa_fieldcat-seltext_m = 'DeliveryClass'.  
wa_fieldcat-emphasize = 'C510'.
```

```
APPEND wa_fieldcat TO it_fieldcat.  
CLEAR wa_fieldcat.
```

```
CLEAR wa_fieldcat.  
wa_fieldcat-col_pos = 4.  
wa_fieldcat-fieldname = 'ACTFLAG'.  
wa_fieldcat-tabname = 'IT_DD02L'.  
wa_fieldcat-seltext_m = 'Activationstatus'.  
wa_fieldcat-emphasize = 'C500'.
```

```
APPEND wa_fieldcat TO it_fieldcat.
```

```
CLEAR wa_fieldcat.
```

```
wa_fieldcat-col_pos = 5.  
wa_fieldcat-fieldname = 'MAINFLAG'.  
wa_fieldcat-tabname = 'IT_DD02L'.  
wa_fieldcat-seltext_m = 'MaintainenceFlag'.  
wa_fieldcat-emphasize = 'C410'.
```

```
APPEND wa_fieldcat TO it_fieldcat.
```

```
CLEAR wa_fieldcat.  
wa_fieldcat-col_pos = 6.  
wa_fieldcat-fieldname = 'BUFFERED'.  
wa_fieldcat-tabname = 'IT_DD02L'.  
wa_fieldcat-seltext_m = 'BufferFlag'.  
wa_fieldcat-emphasize = 'C400'.
```

```
APPEND wa_fieldcat TO it_fieldcat.  
CLEAR wa_fieldcat.
```

```
CLEAR wa_fieldcat.  
wa_fieldcat-col_pos = 7.  
wa_fieldcat-fieldname = 'AS4USER'.  
wa_fieldcat-tabname = 'IT_DD02L'.  
wa_fieldcat-seltext_m = 'User'.  
wa_fieldcat-emphasize = 'C310'.
```

```
APPEND wa_fieldcat TO it_fieldcat.  
CLEAR wa_fieldcat.
```

```
CLEAR wa_fieldcat.  
wa_fieldcat-col_pos = 8.  
wa_fieldcat-fieldname = 'AS4DATE'.  
wa_fieldcat-tabname = 'IT_DD02L'.  
wa_fieldcat-seltext_m = 'Date'.  
wa_fieldcat-emphasize = 'C300'.
```

```
APPEND wa_fieldcat TO it_fieldcat.  
CLEAR wa_fieldcat.
```

```
CLEAR wa_fieldcat.  
wa_fieldcat-col_pos = 9.  
wa_fieldcat-fieldname = 'AS4TIME'.  
wa_fieldcat-tabname = 'IT_DD02L'.  
wa_fieldcat-seltext_m = 'Time'.  
wa_fieldcat-emphasize = 'C210'.
```

```
APPEND wa_fieldcat TO it_fieldcat.  
CLEAR wa_fieldcat.
```

```
CLEAR wa_fieldcat.
```

```
wa_fieldcat-col_pos = 10.  
wa_fieldcat-fieldname = 'ICON'.  
wa_fieldcat-tabname = 'IT_DD02L'.  
wa_fieldcat-seltext_m = 'ICON'.  
wa_fieldcat-ICON = 'X'.  
APPEND wa_fieldcat TO it_fieldcat.
```

```
CLEAR wa_fieldcat.
```

```
wa_fieldcat-col_pos = 11.  
wa_fieldcat-fieldname = 'FIELDNAME'.  
wa_fieldcat-tabname = 'IT_DD03L'.  
wa_fieldcat-key = 'X'.  
wa_fieldcat-seltext_m = 'Field'.  
wa_fieldcat-EMPHASIZE = 'C600'.
```

```
APPEND wa_fieldcat TO it_fieldcat.
```

```
CLEAR wa_fieldcat.
```

```
wa_fieldcat-col_pos = 12.  
wa_fieldcat-fieldname = 'KEYFLAG'.  
wa_fieldcat-tabname = 'IT_DD03L'.  
wa_fieldcat-seltext_m = 'Key'.  
wa_fieldcat-EMPHASIZE = 'C500'.
```

```
APPEND wa_fieldcat TO it_fieldcat.
```

```
CLEAR wa_fieldcat.
```

```
wa_fieldcat-col_pos = 13.  
wa_fieldcat-fieldname = 'CHECKTABLE'.  
wa_fieldcat-tabname = 'IT_DD03L'.  
wa_fieldcat-seltext_m = 'Checktable'.  
wa_fieldcat-EMPHASIZE = 'C400'.
```

```
APPEND wa_fieldcat TO it_fieldcat.
```

```
CLEAR wa_fieldcat.
```

```

wa_fieldcat-col_pos = 14.
wa_fieldcat-fieldname = 'MANDATORY'.
wa_fieldcat-tabname = 'IT_DD03L'.
wa_fieldcat-seltext_m = 'Mandatory'.
  wa_fieldcat-EMPHASIZE = 'C300'.

APPEND wa_fieldcat TO it_fieldcat.

CLEAR wa_fieldcat.

wa_fieldcat-col_pos = 15.
wa_fieldcat-fieldname = 'ROLLNAME'.
wa_fieldcat-tabname = 'IT_DD03L'.
wa_fieldcat-seltext_m = 'Dataelement'.
wa_fieldcat-EMPHASIZE = 'C200'.

APPEND wa_fieldcat TO it_fieldcat.

endform.                " build_fieldcat
*&-----*
*&      Form  build_layout
*&-----*
*      text
*-----*
* --> p1      text
* <-- p2      text
*-----*
form build_layout .

*to expand the header table for item details
  it_layout-expand_fieldname = 'EXPAND'.

  it_layout-window_titlebar = 'Hierarchical ALV list display'.
  it_layout-lights_tabname = 'IT_DD03L'.
  it_layout-colwidth_optimize = 'X'.

endform.                " build_layout
*&-----*
*&      Form  build_key
*&-----*
*      text
*-----*
* --> p1      text
* <-- p2      text
*-----*
form build_key .

*key infomation for the header and item table
  key-header01 = 'TABNAME'.
  key-item01 = 'TABNAME'.

endform.                " build_key
*&-----*
*&      Form  list_display
*&-----*
*      text
*-----*
* --> p1      text

```

```

* <-- p2          text
*-----*
form list_display .

*ALV output
CALL FUNCTION 'REUSE_ALV_HIERSEQ_LIST_DISPLAY'
  EXPORTING
    i_callback_program = sy-cprog
    is_layout           = it_layout
    it_fieldcat         = it_fieldcat
    i_tabname_header   = 'IT_DD02L'
    i_tabname_item     = 'IT_DD03L'
    is_keyinfo         = key
  TABLES
    t_outtab_header    = it_dd02l
    t_outtab_item      = it_dd03l.

endform.                " list_display
*&-----*
*&      Form  fetch_tabledata
*&-----*
*      text
*-----*
* --> p1          text
* <-- p2          text
*-----*
form fetch_tabledata .

*select table data
SELECT tabname
      tabclass
      contflag
      actflag
      mainflag
      buffered
      as4user
      as4date
      as4time
      FROM dd02l
      INTO CORRESPONDING FIELDS OF TABLE it_dd02l
      WHERE tabname IN s_table.

*select field data
IF it_dd02l[] IS NOT INITIAL.

  SELECT tabname
        fieldname
        keyflag
        mandatory
        checktable
        rollname
        FROM dd03l
        INTO CORRESPONDING FIELDS OF TABLE it_dd03l
        FOR ALL ENTRIES IN it_dd02l
        WHERE tabname EQ it_dd02l-tabname.

ENDIF.

*adding icon to the header table
loop at it_dd02l into wa_dd02l.

```

at new tabname.

wa_dd021-icon = '@3M@'.

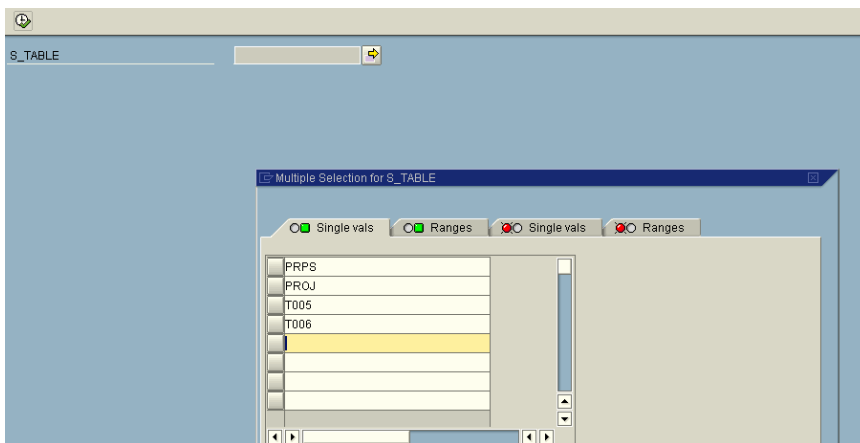
MODIFY it_dd021 FROM wa_dd021 TRANSPORTING icon WHERE tabname EQ wa_dd021-tabname.

CLEAR : wa_dd021.

endat.

endloop.

endform. " fetch_tabledata



Output:

Hierarchical ALV list display

Tablename	Tablecategory	DeliveryClass	Activationstatus	MaintenanceFlag	BufferFlag	User	Date	Time	ICON
Field	Key	Checktable	Mandatory	Dataelement					
PROJ	TRANSP	A				SAP	05.08.2003	16:42:31	
PRPS	TRANSP	A				SAP	05.08.2003	16:43:48	
T005	TRANSP	C		X	E	SAP	05.08.2003	17:15:42	
T006	TRANSP	C			E	SAP	08.11.2000	20:27:57	

On expanding the '+' at the appropriate table, we get the list of fields in the table

Tablename	Tablecategory	DeliveryClass	Activationstatus	MaintenanceFlag	BufferFlag	User	Date	Time	ICON
Field	Key	Checktable	Mandatory	Dataelement					
PRHI	TRANSP	A				SAP	29.07.1998	18:55:34	
MANDT	X	T000		MANDT					
POSNR	X	PRPS		PS_POSNR					
.INCLUDE									
PSPHI		PROJ		PS_PSPHI					
UP		PRPS		PS_PHIUP					
DOWN		PRPS		PS_PHIDO					
LEFT		PRPS		PS_PHILE					
RIGHT		PRPS		PS_PHIRI					
PRPS	TRANSP	A				SAP	05.08.2003	16:43:48	