```
*&---------------------------------------------------------------------*
*& Report z001_alv_selection_spfli
*&---------------------------------------------------------------------*
*&
*&---------------------------------------------------------------------*
REPORT z001_alv_selection_spfli.

TABLES:    SPFLI.

TYPE-POOLS: slis.                          " ALV Declarations

*Data Declaration
*---------------------------------------------------------------------*
TYPES: BEGIN OF t_spfli,
  mandt    TYPE spfli-mandt,
  carrid    TYPE spfli-carrid,
  connid    TYPE spfli-connid,
  countryfr TYPE spfli-countryfr,
  cityfrom  TYPE spfli-cityfrom,
  airpfrom  TYPE spfli-airpfrom,
  countryto TYPE spfli-countryto,
  cityto    TYPE spfli-cityto,
  airpto    TYPE spfli-airpto,
  fltime    TYPE spfli-fltime,
  deptime   TYPE spfli-deptime,
  arrtime   TYPE spfli-arrtime,
  distance  TYPE spfli-distance,
  distid    TYPE spfli-distid,
  fltype    TYPE spfli-fltype,
  period    TYPE spfli-period,
 END OF t_spfli.

DATA: it_spfli TYPE STANDARD TABLE OF t_spfli INITIAL SIZE 0,   "Table
     wa_spfli TYPE t_spfli.                         "Row

*ALV data declarations
*---------------------------------------------------------------------*
DATA: fieldcatalog TYPE slis_t_fieldcat_alv WITH HEADER LINE,   "Table + Row
     gd_tab_group TYPE slis_t_sp_group_alv,            "table
     gd_layout    TYPE slis_layout_alv,                "Row
     gd_repid     LIKE sy-repid.                    "Field


DATA : t TYPE slis_t_sp_group_alv .                    "Table

*Selection
*---------------------------------------------------------------------*
SELECTION-SCREEN BEGIN OF BLOCK part1 WITH FRAME TITLE text-001.
SELECT-OPTIONS s_carrid FOR spfli-carrid.
SELECT-OPTIONS s_connid FOR spfli-connid.
```

```abap
SELECTION-SCREEN SKIP.
SELECT-OPTIONS s_cntrfr FOR spfli-countryfr.
SELECT-OPTIONS s_cityfr FOR spfli-cityfrom.
SELECT-OPTIONS s_airpfr FOR spfli-airpfrom.
SELECT-OPTIONS s_cntrto FOR spfli-countryto.
SELECT-OPTIONS s_cityto FOR spfli-cityto.
SELECT-OPTIONS s_airpto FOR spfli-airpto.
SELECT-OPTIONS s_fltime FOR spfli-fltime.
SELECT-OPTIONS s_deptm FOR spfli-deptime.
SELECT-OPTIONS s_arrtm FOR spfli-arrtime.
SELECT-OPTIONS s_dist FOR spfli-distance.
SELECT-OPTIONS s_distid FOR spfli-distid.
SELECT-OPTIONS s_fltype FOR spfli-fltype.
SELECT-OPTIONS s_period FOR spfli-period.
* PARAMETERS p_carrid  TYPE spfli-carrid OBLIGATORY DEFAULT 'AA'.  "Key 필
드라서 무조건 값을 넣게 해야 함 = OBLIGATORY. 디폴트 값이 숫자면 따옴표 필요없음
SELECTION-SCREEN SKIP.
PARAMETERS width TYPE i DEFAULT 250.
PARAMETERS num            TYPE i DEFAULT 200.

SELECTION-SCREEN END OF BLOCK part1.

*Initialization
*-------------------------------------------------------------------*
INITIALIZATION.

  s_carrid-sign   = 'I'.
  s_carrid-option = 'EQ'.
  s_carrid-low    = 'AA'.
  s_carrid-high   = ''.
  APPEND s_carrid TO s_carrid.
  CLEAR  s_carrid.

* 도움말 만들기
*-------------------------------------------------------------------*
AT SELECTION-SCREEN ON VALUE-REQUEST FOR s_dist-low.           " 도움말
만드는 구문

TYPES : BEGIN OF abc,
  distance TYPE spfli-distance,
END of abc.

DATA: IT_F4HELP3 TYPE TABLE OF abc.

SELECT DISTANCE FROM spfli
     INTO TABLE IT_F4HELP3.


DATA: IT_RETURN_TAB TYPE ddshretval OCCURS 0 WITH HEADER LINE .
```

```abap
CALL FUNCTION 'F4IF_INT_TABLE_VALUE_REQUEST'

   EXPORTING

     RETFIELD        = 'DISTANCE'

     VALUE_ORG       = 'S'

     DYNPROFIELD     = 's_dist-low'

     DYNPPROG        = SY-REPID

     DYNPNR          = SY-DYNNR

     CALLBACK_FORM    = 'CALL_BACK2'

     CALLBACK_PROGRAM = SY-REPID

   TABLES

     VALUE_TAB       = IT_F4HELP3

     RETURN_TAB      = IT_RETURN_TAB

   EXCEPTIONS

     PARAMETER_ERROR  = 1

     NO_VALUES_FOUND  = 2

     OTHERS          = 3.

   NUM = 10.

AT SELECTION-SCREEN ON VALUE-REQUEST FOR s_dist-high.


TYPES : BEGIN OF abc,
 distance TYPE spfli-distance,
END of abc.

DATA: IT_F4HELP3 TYPE TABLE OF abc.


SELECT DISTANCE FROM spfli
     INTO TABLE IT_F4HELP3.


DATA: IT_RETURN_TAB TYPE ddshretval OCCURS 0 WITH HEADER LINE .
```

```
CALL FUNCTION 'F4IF_INT_TABLE_VALUE_REQUEST'

  EXPORTING

   RETFIELD      = 'DISTANCE'

   VALUE_ORG     = 'S'

   DYNPROFIELD    = 's_dist-high'

   DYNPPROG      = SY-REPID

   DYNPNR       = SY-DYNNR

   CALLBACK_FORM   = 'CALL_BACK2'

   CALLBACK_PROGRAM = SY-REPID

  TABLES

   VALUE_TAB     = IT_F4HELP3

   RETURN_TAB     = IT_RETURN_TAB

  EXCEPTIONS

   PARAMETER_ERROR  = 1

   NO_VALUES_FOUND  = 2

   OTHERS       = 3.


*&---------------------------------------------------------------------*
*&    Form  call_back2
*&---------------------------------------------------------------------*
*      text
*----------------------------------------------------------------------*
*     -->RECORD_TAB  text
*     -->SHLP_TOP    text
*     -->CALLCONTROL  text
*----------------------------------------------------------------------*

FORM CALL_BACK2 TABLES RECORD_TAB STRUCTURE SEAHLPRES

         CHANGING SHLP_TOP TYPE SHLP_DESCR

            CALLCONTROL LIKE DDSHF4CTRL.
```

```abap
   SHLP_TOP-INTDESCR-DIALOGTYPE = 'A'.   "A 100개 이상이면 다이알로그 조회, D
즉시조회,  C 다이알로그 조회



ENDFORM.                "call_back


************************************************************************
*Start-of-selection.
START-OF-SELECTION.

  PERFORM data_retrieval.
  PERFORM build_fieldcatalog.
  PERFORM build_layout.
  PERFORM display_alv_report.



*&---------------------------------------------------------------------*
*&      Form  BUILD_FIELDCATALOG
*&---------------------------------------------------------------------*
*       Build Fieldcatalog for ALV Report
*----------------------------------------------------------------------*
FORM build_fieldcatalog.

  fieldcatalog-fieldname  = 'MANDT'.
  fieldcatalog-seltext_m   = 'Client'.
  fieldcatalog-col_pos     = 0.
  fieldcatalog-outputlen   = 10.
  fieldcatalog-key         = 'X'.
  fieldcatalog-just        = 'C'.
  APPEND fieldcatalog TO fieldcatalog.
  CLEAR  fieldcatalog.

  fieldcatalog-fieldname  = 'CARRID'.
  fieldcatalog-seltext_m   = 'Airline Code'.
  fieldcatalog-col_pos     = 1.
  fieldcatalog-key         = 'X'.
  fieldcatalog-just        = 'C'.
  APPEND fieldcatalog TO fieldcatalog.
  CLEAR  fieldcatalog.

  fieldcatalog-fieldname  = 'CONNID'.
  fieldcatalog-seltext_l   = 'Flight Connection Number'.
  fieldcatalog-col_pos     = 2.
  fieldcatalog-key         = 'X'.
  fieldcatalog-just        = 'C'.
```

```
APPEND fieldcatalog TO fieldcatalog.
CLEAR  fieldcatalog.

fieldcatalog-fieldname  = 'COUNTRYFR'.
fieldcatalog-seltext_m  = 'Country Key'.
fieldcatalog-col_pos    = 3.
fieldcatalog-key        = ''.
fieldcatalog-just       = 'C'.
APPEND fieldcatalog TO fieldcatalog.
CLEAR  fieldcatalog.

fieldcatalog-fieldname  = 'CITYFROM'.
fieldcatalog-seltext_m  = 'Departure City'.
fieldcatalog-col_pos    = 4.
fieldcatalog-key        = ''.
fieldcatalog-just       = 'C'.
APPEND fieldcatalog TO fieldcatalog.
CLEAR  fieldcatalog.

fieldcatalog-fieldname  = 'AIRPFROM'.
fieldcatalog-seltext_m  = 'Departure Airport'.
fieldcatalog-col_pos    = 5.
fieldcatalog-key        = ''.
fieldcatalog-just       = 'C'.
APPEND fieldcatalog TO fieldcatalog.
CLEAR  fieldcatalog.

fieldcatalog-fieldname  = 'COUNTRYTO'.
fieldcatalog-seltext_m  = 'Country Key'.
fieldcatalog-col_pos    = 6.
fieldcatalog-key        = ''.
fieldcatalog-just       = 'C'.
APPEND fieldcatalog TO fieldcatalog.
CLEAR  fieldcatalog.

fieldcatalog-fieldname  = 'CITYTO'.
fieldcatalog-seltext_m  = 'Arrival City'.
fieldcatalog-col_pos    = 7.
fieldcatalog-key        = ''.
fieldcatalog-just       = 'C'.
APPEND fieldcatalog TO fieldcatalog.
CLEAR  fieldcatalog.

fieldcatalog-fieldname  = 'AIRPTO'.
fieldcatalog-seltext_l  = 'Destination Airport'.
fieldcatalog-col_pos    = 8.
fieldcatalog-key        = ''.
fieldcatalog-just       = 'C'.
APPEND fieldcatalog TO fieldcatalog.
CLEAR  fieldcatalog.
```

```
fieldcatalog-fieldname   = 'FLTIME'.
fieldcatalog-seltext_m   = 'Flight Time'.
fieldcatalog-col_pos     = 9.
fieldcatalog-key         = ''.
fieldcatalog-just        = 'C'.
APPEND fieldcatalog TO fieldcatalog.
CLEAR  fieldcatalog.

fieldcatalog-fieldname   = 'DEPTIME'.
fieldcatalog-seltext_m   = 'Departure Time'.
fieldcatalog-col_pos     = 10.
fieldcatalog-key         = ''.
fieldcatalog-just        = 'C'.
APPEND fieldcatalog TO fieldcatalog.
CLEAR  fieldcatalog.

fieldcatalog-fieldname   = 'ARRTIME'.
fieldcatalog-seltext_m   = 'Arrival Time'.
fieldcatalog-col_pos     = 11.
fieldcatalog-key         = ''.
fieldcatalog-just        = 'C'.
APPEND fieldcatalog TO fieldcatalog.
CLEAR  fieldcatalog.

fieldcatalog-fieldname   = 'DISTANCE'.
fieldcatalog-seltext_m   = 'Distance'.
fieldcatalog-col_pos     = 12.
fieldcatalog-key         = ''.
fieldcatalog-just        = 'C'.
APPEND fieldcatalog TO fieldcatalog.
CLEAR  fieldcatalog.

fieldcatalog-fieldname   = 'DISTID'.
fieldcatalog-seltext_l   = 'Mass Unit of Distance'.
fieldcatalog-col_pos     = 13.
fieldcatalog-key         = ''.
fieldcatalog-just        = 'C'.
APPEND fieldcatalog TO fieldcatalog.
CLEAR  fieldcatalog.

fieldcatalog-fieldname   = 'FLTYPE'.
fieldcatalog-seltext_m   = 'Flight Type'.
fieldcatalog-col_pos     = 14.
fieldcatalog-key         = ''.
fieldcatalog-just        = 'C'.
APPEND fieldcatalog TO fieldcatalog.
CLEAR  fieldcatalog.

fieldcatalog-fieldname   = 'PERIOD'.
```

```
  fieldcatalog-seltext_l   = 'Arrival n Day(s) Later'.
  fieldcatalog-col_pos    = 15.
  fieldcatalog-key        = ''.
  fieldcatalog-just       = 'C'.
  APPEND fieldcatalog TO fieldcatalog.
  CLEAR  fieldcatalog.

ENDFORM.                  " BUILD_FIELDCATALOG



*&---------------------------------------------------------------------*
*&      Form  BUILD_LAYOUT
*&---------------------------------------------------------------------*
*       Build layout for ALV grid report
*----------------------------------------------------------------------*
FORM build_layout.

 gd_layout-no_input          = 'X'.
 gd_layout-colwidth_optimize = 'X'.
 gd_layout-zebra = 'X'.
* gd_layout-info_fieldname =     'LINE_COLOR'.
* gd_layout-def_status = 'A'.

ENDFORM.                  " BUILD_LAYOUT



*&---------------------------------------------------------------------*
*&      Form  DISPLAY_ALV_REPORT
*&---------------------------------------------------------------------*
*       Display report using ALV grid
*----------------------------------------------------------------------*
FORM display_alv_report.
 gd_repid = sy-repid.
 CALL FUNCTION 'REUSE_ALV_GRID_DISPLAY'
  EXPORTING
   i_callback_program = gd_repid
   is_layout          = gd_layout
   it_fieldcat        = fieldcatalog[]
   i_save             = 'X'
  TABLES
   t_outtab           = it_spfli
  EXCEPTIONS
   program_error      = 1
   OTHERS             = 2.
 IF sy-subrc <> 0.
* MESSAGE ID SY-MSGID TYPE SY-MSGTY NUMBER SY-MSGNO
*      WITH SY-MSGV1 SY-MSGV2 SY-MSGV3 SY-MSGV4.
 ENDIF.
ENDFORM.                  " DISPLAY_ALV_REPORT
```

```
*&---------------------------------------------------------------------*
*&      Form  DATA_RETRIEVAL
*&---------------------------------------------------------------------*
*       Retrieve data form EKPO table and populate itab it_ekko
*----------------------------------------------------------------------*
FORM data_retrieval.
  DATA: ld_color(1) TYPE c.

  SELECT *
    UP TO num ROWS
    FROM spfli
    INTO TABLE it_spfli
    WHERE carrid    IN s_carrid
      AND connid    IN s_connid
      AND countryfr IN s_cntrfr
      AND cityfrom  IN s_cityfr
      AND airpfrom  IN s_airpfr
      AND countryto IN s_cntrto
      AND cityto    IN s_cityto
      AND airpto    IN s_airpto
      AND fltime    IN s_fltime
      AND deptime   IN s_deptm
      AND arrtime   IN s_arrtm
      AND distance  IN s_dist
      AND distid    IN s_distid
      AND fltype    IN s_fltype
      AND period    IN s_period.
*     WHERE carrid = p_carrid.

ENDFORM.                    " DATA_RETRIEVAL
```