

Display Flat file data in ALV Grid.

Here is a small code that will display data from flat file in an ALV Grid. This code handles TAB as default delimiter and is also capable performing the same for other delimiters that the user can specify. Further this is created using a Object Oriented Concept that makes it much more good enough. The Grid can be created by specifying the structure of the file and a field catalogue. Thus it helps one to get a good idea about the data present in the flat file, and hence preprocessing of data becomes much simpler.

This is a prototype program where it can handle records up to length of 255 characters. The same can be extended and modified to provide the same operation for huge file too.

The Source Code.

```
*-----*
* Report  ZC1_FILE_TO_ALV                                     *
*-----*
* Description      : Display data in ALV Grid for any flat file
*                  : that is selected. Applicable for other
*                  : delimiters also.
* Program By      : Kathirvel Balakrishnan.
* Created on      : 21 December 2004.
* Transport Request : PDCK902348.
* Development Class : ZC1DEVCLASS.
* Transaction Code :
*-----*
* Revision History
*-----*
* Modification Summary :
* Modified By          :
* Last Modified        :
* Reasons              :
* Transport Req.       :
* Development Class    :
*-----*

REPORT zc1_file_to_alv MESSAGE-ID zc1alvmsg.

*&-----*&
*&          Declaration Section for the Internal Tables      *&
*&-----*&

TYPES: BEGIN OF type_data_tab,
        str(255) TYPE c,
      END OF type_data_tab.

DATA: tl_table TYPE TABLE OF type_data_tab,
      w_table LIKE LINE OF tl_table,
      t_string TYPE TABLE OF string,
      wa_string LIKE LINE OF t_string.

DATA : hash TYPE x VALUE '09', " to check the TAB in a file.
      temp TYPE c,
      len TYPE i,
      other_flag TYPE i.

DATA: BEGIN OF intab,
```

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```
mandt LIKE mara-mandt,
matnr LIKE mara-matnr,
ersda LIKE mara-ersda,
ernam LIKE mara-ernam,
laeda LIKE mara-laeda,
aenam LIKE mara-aenam,
END OF intab.

DATA: t_intab LIKE TABLE OF intab WITH HEADER LINE.

DATA: ok_code LIKE sy-ucomm,
      i_container TYPE scrfname VALUE 'FILE_GRID',
      file_grid TYPE REF TO cl_gui_alv_grid,
      file_container TYPE REF TO cl_gui_custom_container,
      i_fcat TYPE lvc_t_fcat,
      w_fcat LIKE LINE OF i_fcat,
      i_layout TYPE lvc_s_layo,
      i_variant TYPE disvariant,
      x_save.

*&-----*
*&           Selection ScreenSection for the list generator
*&-----*
SELECTION-SCREEN BEGIN OF BLOCK block WITH FRAME TITLE text-001.

PARAMETER: d_file TYPE rlgap-filename MEMORY ID file .

PARAMETERS: tab RADIOBUTTON GROUP rad1 DEFAULT 'X',
             others RADIOBUTTON GROUP rad1,
             specify TYPE c.

SELECTION-SCREEN END OF BLOCK block.

AT SELECTION-SCREEN ON VALUE-REQUEST FOR d_file.

***** Di playing the dialog box for opening the file *****

CALL FUNCTION 'WS_FILENAME_GET'
  EXPORTING
    mask      = '*.*,*.*,*'
  IMPORTING
    filename = d_file.

START-OF-SELECTION.

IF d_file IS INITIAL. " check to ensure file.
  MESSAGE i001.
  EXIT.
ENDIF.

IF others = 'X'. " check to ensure delimiter.
  IF specify = ' '.
    MESSAGE i002.
    EXIT.
  ENDIF.
ENDIF.

CALL FUNCTION 'WS_UPLOAD'
  EXPORTING
    filename      = d_file
    filetype      = 'ASC'
  TABLES
    data_tab      = tl_table
```

```
EXCEPTIONS
  conversi on_error      = 1
  file_open_error       = 2
  file_read_error       = 3
  inval id_type         = 4
  no_batch              = 5
  unknown_error         = 6
  inval id_table_wi dth = 7
  gui_refuse_filetransfer = 8
  customer_error        = 9
  OTHERS                = 10.
```

```
IF sy-subrc <> 0.
  MESSAGE ID sy-msgid TYPE sy-msgty NUMBER sy-msgno
    WITH sy-msgv1 sy-msgv2 sy-msgv3 sy-msgv4.
ENDIF.
```

```
PERFORM delimi ter_check. " check for the delimi ter.
```

```
IF others = 'X'.
  IF other_flag = 0.
    MESSAGE i000.
    EXIT.
  ENDIF.
ENDIF.
```

```
PERFORM load_into_i tab. " displays the data in the file a list.
```

```
CALL SCREEN 3000.
```

```
*&-----*
*&      Form  load_into_i tab
*&-----*
*      This extract the data from the given file and copies it in the
*      internal table.
*-----*
```

```
FORM load_into_i tab.
```

```
  LOOP AT tl_table INTO w_table.
```

```
* This is where the string is actually split into the different fields.
```

```
  IF tab = 'X'.
    SPLIT w_table-str AT hash INTO TABLE t_string.
  ELSE.
    SPLIT w_table-str AT specifi INTO TABLE t_string.
  ENDIF.
```

```
  LOOP AT t_string INTO wa_string.
```

```
    IF sy-tabix = 1.
      MOVE wa_string TO t_intab-mandt.
    ENDIF.
```

```
    IF sy-tabix = 2.
      MOVE wa_string TO t_intab-matnr.
    ENDIF.
```

```
    IF sy-tabix = 3.
      MOVE wa_string TO t_intab-ersda.
    ENDIF.
```

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```
IF sy-tabix = 4.
  MOVE wa_string TO t_intab-ernam.
ENDIF.

IF sy-tabix = 5.
  MOVE wa_string TO t_intab-laeda.
ENDIF.

IF sy-tabix = 6.
  MOVE wa_string TO t_intab-aenam.
ENDIF.

ENDLOOP.

APPEND t_intab. " Append the data into internal table.

ENDLOOP.

ENDFORM.                " load_into_i tab

*&-----*
*&      Form  delimiter_check
*&-----*
*      text
*-----*
* This section check for the other kind of delimiters if other than
* the defalut tab is used.
*-----*
FORM delimiter_check.

DATA: s1 TYPE string.

LOOP AT tl_table INTO w_table.
  s1 = w_table-str.
  len = strlen( s1 ).

  * The check whether delimiter specified is found in the file or not.
  IF others = 'X'.
    DO len TIMES.
      temp = s1.
      IF temp = specify.
        other_flag = 1.
        EXIT.
      ENDIF.
      SHIFT s1.
    ENDDO.
  ENDIF.
  EXIT.
ENDLOOP.
ENDFORM.                " delimiter_check

*&-----*
*&      Module  STATUS_3000  OUTPUT
*&-----*
*      text
*-----*
MODULE status_3000 OUTPUT.

  SET PF-STATUS 'ALV_FILE'.
  SET TITLEBAR 'ALV FOR FILE'.
```

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```
IF file_container IS INITIAL.
  CREATE OBJECT file_container      "Creating a container object
  EXPORTING
    container_name = i_container.

  CREATE OBJECT file_grid           "Creating a ALV Grid Object
  EXPORTING
    i_parent = file_container.

  PERFORM create_field_catalogue. "Field Catalogue creation

  CALL METHOD file_grid->set_table_for_first_display
  EXPORTING
    is_variant = i_variant
    i_save      = x_save
    is_layout   = i_layout
  CHANGING
    it_outtab = t_intab[]
    it_fielddatalog = i_fcat.
ENDIF.

ENDMODULE.                                " STATUS_3000  OUTPUT

*&-----*
*&      Module  USER_COMMAND_3000  INPUT
*&-----*
*      text
*-----*
MODULE user_command_3000 INPUT.

  CASE ok_code.

    WHEN 'BACK' OR 'EXIT'.
      SET SCREEN 0.
      LEAVE SCREEN.

  ENDCASE.

ENDMODULE.                                " USER_COMMAND_3000  INPUT

*&-----*
*&      Form  create_field_catalogue
*&-----*
*      text
*-----*
*      --> p1      text
*      <-- p2      text
*-----*
FORM create_field_catalogue.

  * Field 1
  w_fcat-fielddname = 'MANDT'.
  w_fcat-ref_table = 'MARA'.
  w_fcat-ref_fieldd = 'MANDT'.
  w_fcat-col_pos = 1.
  APPEND w_fcat TO i_fcat.
  CLEAR w_fcat.

  * Field 2
  w_fcat-fielddname = 'MATNR'.
  w_fcat-ref_table = 'MARA'.
  w_fcat-ref_fieldd = 'MATNR'.
```

```
w_fcat-col_pos = 2.
APPEND w_fcat TO i_fcat.
CLEAR w_fcat.

* Field 3
w_fcat-fieldname = 'ERSDA'.
w_fcat-ref_table = 'MARA'.
w_fcat-ref_field = 'ERSDA'.
w_fcat-col_pos = 3.
APPEND w_fcat TO i_fcat.
CLEAR w_fcat.

* Field 4
w_fcat-fieldname = 'ERNAM'.
w_fcat-ref_table = 'MARA'.
w_fcat-ref_field = 'ERNAM'.
w_fcat-col_pos = 4.
APPEND w_fcat TO i_fcat.
CLEAR w_fcat.

* Field 5
w_fcat-fieldname = 'LAEDA'.
w_fcat-ref_table = 'MARA'.
w_fcat-ref_field = 'LAEDA'.
w_fcat-col_pos = 5.
APPEND w_fcat TO i_fcat.
CLEAR w_fcat.

* Field 6
w_fcat-fieldname = 'AENAM'.
w_fcat-ref_table = 'MARA'.
w_fcat-ref_field = 'AENAM'.
w_fcat-col_pos = 6.
APPEND w_fcat TO i_fcat.
CLEAR w_fcat.

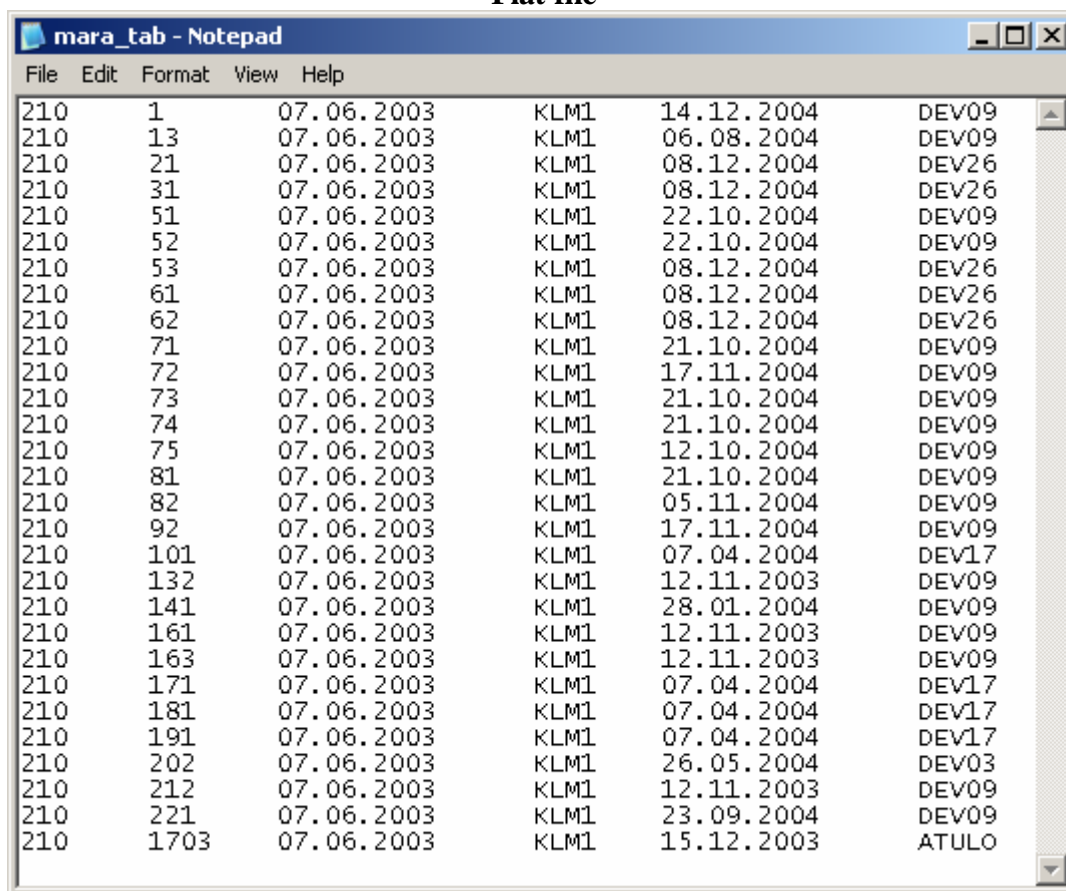
i_layout-grid_title = 'ALV GRID FOR FLAT FILES'.
i_layout-zebra = 'X'.
i_layout-sel_mode = 'A'.
i_variant-report = sy-repid.
x_save = 'A'.

ENDFORM.                " create_field_catalogue
```

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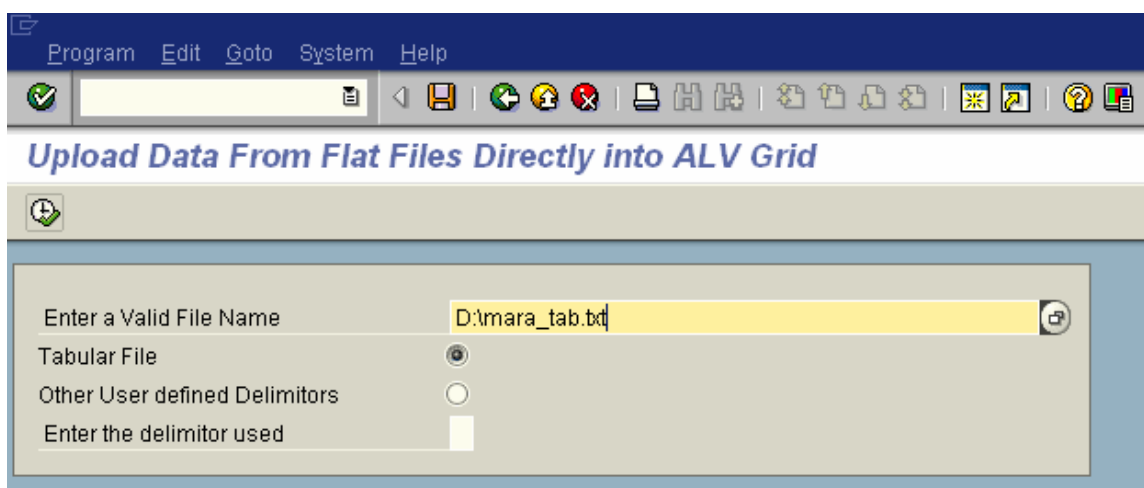
The System Output

Flat file



210	1	07.06.2003	KLM1	14.12.2004	DEV09
210	13	07.06.2003	KLM1	06.08.2004	DEV09
210	21	07.06.2003	KLM1	08.12.2004	DEV26
210	31	07.06.2003	KLM1	08.12.2004	DEV26
210	51	07.06.2003	KLM1	22.10.2004	DEV09
210	52	07.06.2003	KLM1	22.10.2004	DEV09
210	53	07.06.2003	KLM1	08.12.2004	DEV26
210	61	07.06.2003	KLM1	08.12.2004	DEV26
210	62	07.06.2003	KLM1	08.12.2004	DEV26
210	71	07.06.2003	KLM1	21.10.2004	DEV09
210	72	07.06.2003	KLM1	17.11.2004	DEV09
210	73	07.06.2003	KLM1	21.10.2004	DEV09
210	74	07.06.2003	KLM1	21.10.2004	DEV09
210	75	07.06.2003	KLM1	12.10.2004	DEV09
210	81	07.06.2003	KLM1	21.10.2004	DEV09
210	82	07.06.2003	KLM1	05.11.2004	DEV09
210	92	07.06.2003	KLM1	17.11.2004	DEV09
210	101	07.06.2003	KLM1	07.04.2004	DEV17
210	132	07.06.2003	KLM1	12.11.2003	DEV09
210	141	07.06.2003	KLM1	28.01.2004	DEV09
210	161	07.06.2003	KLM1	12.11.2003	DEV09
210	163	07.06.2003	KLM1	12.11.2003	DEV09
210	171	07.06.2003	KLM1	07.04.2004	DEV17
210	181	07.06.2003	KLM1	07.04.2004	DEV17
210	191	07.06.2003	KLM1	07.04.2004	DEV17
210	202	07.06.2003	KLM1	26.05.2004	DEV03
210	212	07.06.2003	KLM1	12.11.2003	DEV09
210	221	07.06.2003	KLM1	23.09.2004	DEV09
210	1703	07.06.2003	KLM1	15.12.2003	ATULO

Selection Screen



Program Edit Goto System Help

Upload Data From Flat Files Directly into ALV Grid

Enter a Valid File Name

Tabular File ☒

Other User defined Delimiters ☐

Enter the delimiter used

The ALV Grid

SAP R/3

[ALV Grid for the data in the Flat file.]

ALV GRID FOR FLAT FILES

Cl.	Material No	Created on	Created by	Last change	Changed by
2	1	20.6.07.0	KLM1	20.2.14.1	DEV09
210	13	20.6.07.0	KLM1	20.8.06.0	DEV09
210	21	20.6.07.0	KLM1	20.2.08.1	DEV26
210	31	20.6.07.0	KLM1	20.2.08.1	DEV26
210	51	20.6.07.0	KLM1	20.0.22.1	DEV09
210	52	20.6.07.0	KLM1	20.0.22.1	DEV09
210	53	20.6.07.0	KLM1	20.2.08.1	DEV26
210	61	20.6.07.0	KLM1	20.2.08.1	DEV26
210	62	20.6.07.0	KLM1	20.2.08.1	DEV26
210	71	20.6.07.0	KLM1	20.0.21.1	DEV09
210	72	20.6.07.0	KLM1	20.1.17.1	DEV09
210	73	20.6.07.0	KLM1	20.0.21.1	DEV09
210	74	20.6.07.0	KLM1	20.0.21.1	DEV09
210	75	20.6.07.0	KLM1	20.0.12.1	DEV09
210	81	20.6.07.0	KLM1	20.0.21.1	DEV09
210	82	20.6.07.0	KLM1	20.1.05.1	DEV09
210	92	20.6.07.0	KLM1	20.1.17.1	DEV09
210	101	20.6.07.0	KLM1	20.4.07.0	DEV17
210	132	20.6.07.0	KLM1	20.1.12.1	DEV09

PDC (1) (210) sappdc INS

Messages

Message class: ZC1ALVMSG Active

Attributes Messages

Message shorttext	Self-explanatory
000 The Delimiter is not valid.	<input type="checkbox"/>
001 Enter a Valid File	<input type="checkbox"/>
002 Enter a Valid Delimiter	<input type="checkbox"/>

Delimiter Check

The screenshot shows the 'Upload Data From Flat Files Directly into ALV Grid' dialog box in SAP R/3. The menu bar includes 'Program', 'Edit', 'Goto', 'System', and 'Help'. The toolbar contains various icons for file operations. The dialog box has a title bar with a green checkmark icon. The main area contains the following fields and options:

- 'Enter a Valid File Name' text box with the value 'D:\mara_semi.bt' and a file selection icon.
- 'Tabular File' radio button (unselected).
- 'Other User defined Delimiters' radio button (selected).
- 'Enter the delimiter used' text box (empty).

The screenshot shows the 'SAP R/3' dialog box. The menu bar includes 'System' and 'Help'. The toolbar contains various icons. The dialog box has a title bar with a green checkmark icon. The main area contains an 'Information' message box with the following content:

- Information icon (i) and the text 'Enter a Valid Delimiter'.
- Buttons for 'OK' (green checkmark) and 'Cancel' (yellow question mark).