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## Convert XSTRING of CSV to Internal Table for mass actions

December 8, 2014 | 2,518 Views |



Ekansh Saxena more by this author

SAP Gateway

abap | csv to internal table | excel to internal table | gateway | netweaver gateway | odata | ui5



Hi All,

To perform mass operations, one of the most popular method is to upload an excel or csv file. Although we have GUI\_UPLOAD function module to upload a file and get the data in the internal table but this is limited to SAP GUI only. In cases where the file is getting uploaded from UI5 front end, we get xstring file in the back end. We need to parse this file and extract data from it. There is some limitations in terms of converting the data of excel file(xstring) into internal table (explored on SCN and found out that we cannot easily convert the xstring of .xls into internal table while its easy in case of .csv) so we are restricted to use CSV files.

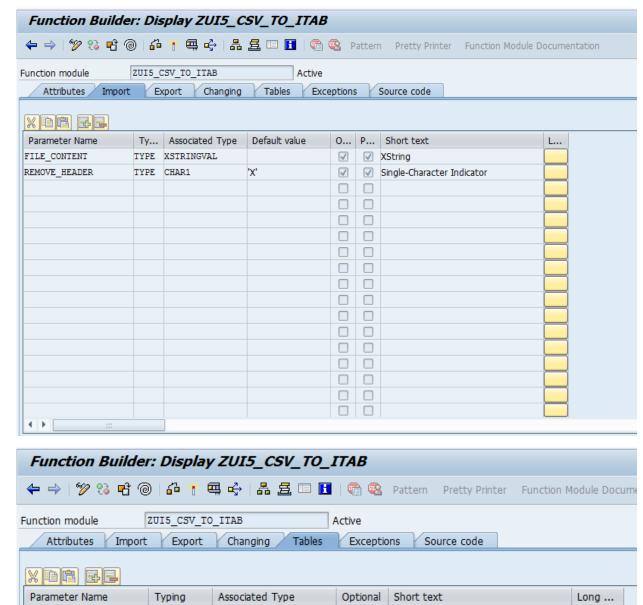
The scope of this blog does not contain the process of file uploading from UI5 front end and receiving it in the Gateway service. This part you can easily achieve using by these references:

- 1) Gateway service part: How To Upload and Download Files Using SAP NW Gateway SP06
- 2) File Uploading part: Uploading files to SAP using HTML5 /AJAX/Gateway media links with real-time progress bar

I am gonna cover only the conversion part of that csv to any internal table using dynamic internal table concept. Once you get the data in your internal table you can use it in any way.

Once you get the xstring of csv file in back-end, you can use the below FM to extract data. The input and output parameters are as below:

DATA TABLE



In input parameters, you need to pass remove\_header flag as 'X' if the first line of your csv file contains header field names. In tables, you can pass any internal table for getting the data. I am using dynamic internal table for this.

**V** 

The code is:

```
FUNCTION zui5 csv to itab.
*"*"Local Interface:
*" IMPORTING
      VALUE(FILE CONTENT) TYPE XSTRINGVAL OPTIONAL
      VALUE(REMOVE HEADER) TYPE CHAR1 DEFAULT 'X'
   TABLES
       DATA TABLE OPTIONAL
  DATA struct descr TYPE REF TO cl abap structdescr.
  FIELD-SYMBOLS:
     <comp descr> LIKE LINE OF cl abap structdescr=>components,
     <comp> TYPE any.
  DATA: Is string TYPE string,
         it line TYPE TABLE OF string,
         wa line TYPE string,
         it line2 TYPE TABLE OF string,
         wa line2 TYPE string,
         1 regex TYPE string.
  DATA: 1 tab TYPE c VALUE cl abap char utilities=>horizontal tab.
  CALL FUNCTION 'HR KR XSTRING TO STRING'
    EXPORTING
     FROM CODEPAGE = '8500'
      in xstring = file content
     OUT LEN
    IMPORTING
      out string = ls string.
  SPLIT ls string AT cl abap char utilities=>cr lf INTO TABLE it line.
  TRY.
       struct descr ?= cl abap typedescr=>describe by data( data table ).
    CATCH cx sy move cast error.
      RETURN.
   ENDTRY.
  LOOP AT it line INTO wa line.
    IF sy-index = 1 AND remove header = 'X'.
    ELSE.
      REPLACE ALL OCCURRENCES OF
      REGEX ',(?=(?:[^"]*$)|(?:[^"]*"[^"]*"[^"]*)*$)'
       IN wa line WITH l tab.
       REPLACE FIRST OCCURRENCE OF
        REGEX '^"'
```

```
IN wa_line WITH ' '.
      CONCATENATE '"' l_tab '"|"' l_tab '|' l_tab '"' INTO l_regex.
      REPLACE ALL OCCURRENCES OF
                                                 '"l tab"|"l tab|l tab"'
        REGEX 1_regex
        IN wa line WITH l tab.
      REPLACE ALL OCCURRENCES OF '""' IN wa line
        WITH '"'. "Added during testing
      REPLACE ALL OCCURRENCES OF REGEX '"$' IN wa line
        WITH ' '.
      SPLIT wa_line AT l_tab INTO TABLE it_line2.
      LOOP AT struct descr->components ASSIGNING <comp descr>.
        ASSIGN COMPONENT <comp_descr>-name
               OF STRUCTURE data table TO <comp>.
        READ TABLE it_line2 INTO <comp> INDEX sy-tabix.
      ENDLOOP.
      APPEND data_table TO data_table.
      REFRESH it line2.
    ENDIF.
  ENDLOOP.
ENDFUNCTION.
```

Reference: ABAP RegEx met CSV and said 'I'll keep a Tab on you' | & amp;#169; Passionate about SAP

– A Blog

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## 3 Comments

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Former Member

December 8, 2014 at 8:50 am

Nice Document...!!



Ekansh Saxena Post author

December 8, 2014 at 8:56 am

Thanks Kishan.



Former Member

December 11, 2014 at 5:57 am

GoodOne Ekansh:)















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