
Subject: Re: reading ASCII Data

Posted by [David Foster](#) on Tue, 13 Apr 1999 07:00:00 GMT

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Mirko wrote:

>
> Hello
>
> We have ASCII files (floats) with a different number of lines and
> different number of data in each line. The data was generated by a mass
> spectrometer software under Win 3.11. Each measurement line ends with
> '0D'xb instead of '0D'xb and '0A'xb. Is there a way to find the END OF
> LINE with an IDL function (like EOF) because each line starts with some
> "header information" which has to be skipped before the measured data
> starts.
> How can you handle a variable number of floats?
>
> Cheers
>
> Mirko

A good start would be to use FILE_STRARR.PRO to read the file into an array of strings. This could be parsed fairly easily. I thought it'd be trivial using IDL's STR_SEP(), but you can't get rid of the extra space characters easily (it gets confused when two delimiting characters are next to each-other...dreadful programming!).

Anyways, FILE_STRARR.PRO and FILE_STRARR.DOC are included below.

Dave

--

```
~~~~~  
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~~~~~
```

```
; FILE_STRARR.PRO  5-27-94  
;  
; Routine to read text file and return a STRARR containing  
; the lines of text. Returns a STRARR(2) containing the null  
; string " and the value of !err_string if an I/O error is encountered  
;  
; This code adapted from XDISPLAYFILE
```

FUNCTION file_strarr, fname

ON_IOERROR, IO_ERROR

```
openr, unit, fname, /get_lun, error=err
if (err ne 0) then begin
  return, ['ERROR', !err_string]
endif else begin
  max_lines = 1000
  a = strarr(max_lines)
  i = 0
  c = ""
  while (not eof(unit)) do begin
    readf, unit, c
    a[i] = c
    i = i + 1
    if (i eq max_lines - 2) then begin
      a = [a, strarr(max_lines)]
      max_lines = max_lines + max_lines
    endif
  endwhile
  a = a[0:i-1]
  free_lun, unit
  return, a
endelse
```

IO_ERROR:

```
message, 'Error reading file: ' + fname, /continue
print, !err_string
return, ['ERROR', !err_string]
```

END

FILE_STRARR

Use this routine to read a text file and return a STRARR variable containing the lines of text. This is useful when displaying text-files in text widgets. If an I/O error such as file-not-found occurs then returns a STRARR(2) containing the string 'ERROR' and the value of the IDL system variable !ERR_STRING.

Calling Sequence

Text = FILE_STRARR(Filename)

Arguments

Filename

The name of the file containing the text you wish to return as a STRARR.

Outputs

Returns the lines of text from the file as a STRARR variable. If an I/O error occurs then this will contain two elements: the string 'ERROR' and the value of the IDL system variable !ERR_STRING when the error occurred.

Example

```
; Locate an IDL program file  
  
Ret = FIND_PROCEDURE('mrsegreg.pro',Filename)  
  
; Put this file into a STRARR  
  
Text = FILE_STRARR(Filename)  
  
if (Text(0) eq 'ERROR' and $  
    n_elements(Text) eq 2) then  
    message, 'Error reading file ' + Filename
```

File Attachments

- 1) [file_strarr.pro](#), downloaded 96 times
 - 2) [file_strarr.doc](#), downloaded 115 times
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