
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 '0A'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 69 times
 - 2) [file_strarr.doc](#), downloaded 67 times
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