
Subject: Re: HDF Data sets containing strings?

Posted by [Martin Schultz](#) on Mon, 02 Nov 1998 08:00:00 GMT

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David Fanning wrote:

> Richard Penrose (rpenrose@uk.ibm.com) writes:

>

>> I would very much like to be able to append an array of three character
>> strings to an HDF file using the 'HDF_SD_ADDDATA' command. I have tried
>> to do this without any luck, and can find no documentation to help me
>> with this.

>>

>> In the end I have had to resort to appending a 3*n dimensional array,
>> i.e. 3 characters * however many dimensions are required.

>>

>> Does anyone have a solution to this problem, I would be most grateful!

>

> I'm no HDF expert by any means, [...]

me neither, but what David suggests next

> [...]. For character data, I guess I would

> use a byte array. [...]

prompts me to advertise my str2byte function that may help you getting byte
arrays with fixed length from strings with variable length. Please find it
attached below.

Regards,
Martin.

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```

; $Id: str2byte.pro,v 1.1 1998/10/09 19:53:32 mgs Exp $
;-----
;+
; NAME:
;   STR2BYTE (function)
;
; PURPOSE:
;   Convert a string into a byte vector of a given length
;   for output in binary data files.
;
; CATEGORY:
;   Tools
;
; CALLING SEQUENCE:
;   bstr = STR2BYTE(string [,length])
;
; INPUTS:
;   STRING -> The string to be converted
;
;   LENGTH -> Length of the byte vector. Default is to use the
;   length of the string. If LENGTH is shorter, the string
;   will be truncated, if it is longer, it will be filled
;   with blanks (32B).
;
; KEYWORD PARAMETERS:
;   none
;
; OUTPUTS:
;   A byte vector of the specified length
;
; SUBROUTINES:
;
; REQUIREMENTS:
;
; NOTES:
;
; EXAMPLE:
;   ; write a 80 character string into a binary file
;   openw,lun,'test.dat',/F77_UNFORMATTED,/get_lun
;   writeu,lun,str2byte('Test string',80)
;   free_lun,lun
;
; MODIFICATION HISTORY:
;   mgs, 24 Aug 1998: VERSION 1.00
;
;-----
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; please contact the author to arrange payment.
; Bugs and comments should be directed to mgs@io.harvard.edu
; with subject "IDL routine str2byte"
;-----
```

```
function str2byte,str,len
```

```
  if (n_elements(str) eq 0) then return,[0B]
```

```
  ; if len argument is not given, use actual string size
```

```
  if (n_elements(len) eq 0) then len=strlen(str)
```

```
  if (len le 0) then return,[0B]
```

```
  ; convert string to byte; cut if too long
```

```
  bytstr = byte(strmid(str,0,len))
```

```
  ; make result array of desired length
```

```
  result = bytarr(len)+32B  ; byte array, fill with spaces
```

```
  ; copy string into result array
```

```
  result[0:n_elements(bytstr)-1] = bytstr
```

```
  return,result
```

```
end
```

File Attachments

1) [str2byte.pro](#), downloaded 103 times
