Subject: Re: Reading in a binary file in IDL - based on fortran reader?
Posted by Paul Van Delst[1] on Wed, 02 Jul 2014 13:09:15 GMT

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On 07/02/14 07:55, rjp23@le.ac.uk wrote:
> I have (quite a complicated) binary file that I need to read in.
>
> I have a fortran reader for it but would like to re-write this in IDL.
>
> I assume for most of the variables I can just use the corresponding one in IDL but how would I define a string of a specific size in IDL?
>
> The data needs to be:
>
> CHARACTER(len=16) :: description
>
> Can I just use the string format code to define a 16 character string like
>
> a=string('', format='(A16)')
>
> Or do I need to do something differently?

I use BYTARR for this.

For your example, assuming the file has already been opened
appropriately, I would do something like:

```
strlen = 16            ; Define the string length
a = bytarr(strlen)     ; Create a temporary byte array
readu, fid, a          ; Read the string into the byte array
description = string(a)  ; Convert the bytes to an actual string
```

cheers,

paulv

p.s. Here's an example from one of my Fortran-file readers:

```
; Read the sensor info
sensor_id       = BYTARR(SENSOR_ID_STRLEN)
wmo_satellite_id = 0L
wmo_sensor_id   = 0L
sensor_channel  = 0L

READU, fid, $
 sensor_id      , $
```

```
    wmo_satellite_id, $
    wmo_sensor_id   , $
    sensor_channel

  self->Set_Property, $
    Debug = debug, $
    Sensor_Id       = STRING(sensor_id), $
    WMO_Satellite_Id = wmo_satellite_id , $
    WMO_Sensor_Id   = wmo_sensor_id   , $
    Sensor_Channel  = sensor_channel


  ; Read the algorithm name
  algorithm = BYTARR(ALGORITHM_STRLEN)

  READU, fid, algorithm

  self->Set_Property, $
    Debug = debug, $
    Algorithm = STRING(algorithm)
```