Subject: Data Handling
Posted by Neil Winrow on Tue, 21 Apr 1998 07:00:00 GMT
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Can anyone please offer me any advice. I have a file containing several
blocks of data. Each block of data contains the same amount of data.

indata = fltarr(5,100)
readf,10, indata
;define array size and read first block of data into array

Header info from each block of data seperates the data, so I need to
skip over the header and read the next block of data, the number of data
blocks cannot be determinded from any header info. So the problem
involves having X number of blocks that need to be accessed at any
time. If I use pointers to point to each data block then I can retrieve
the data later, but I'm a little unsure how to go about this.

Many Thanks

Neil

Subject: Re: Data Handling
Posted by Harald Jeszenszky on Fri, 24 Apr 1998 07:00:00 GMT
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Hello Neil,

I've tried to send you an E-mail several times but it has been returned by
your server
every time, so I answer you in the newsgroup:

> Harald
>
> Thanks for the help, it has been very useful. However, as I'm relatively
> new to IDL, some of the ideas have been hard to follow:
>
> IF (blocks EQ 1) THEN $; save block position
>   pos = (FSTAT(unit)).CUR_PTR $
> ELSE $
>   pos = [TEMPORARY(pos), (FSTAT(unit)).CUR_PTR]
>
> In the above piece of code I can't understand what "pos" does and where
> it is defined in the function.
>
> Many Thanks for your help

>
> Neil

I'm sorry for this rather complicated code but I'll try to explain it
to you:

- The variable "pos" contains the positions of the data blocks within
 the data file.

- The function FSTAT(unit) returns an IDL structure containing status
 information of the file associated with the logical unit and the
 field CUR_POS reflects the current position of the file pointer. To
 get access to a field of a structure variable you have to use the
 '.' to reference the field.

 The statement

 pos = (FSTAT(unit)).CUR_POS

 is a shorthand for:

 info = FSTAT(unit)
 pos = info.CUR_POS

- In IDL arrays can be concatenated by the "c=[a, b]" statement. The
 statement

 pos = [pos, value]

 adds one element to the variable "pos". If the initial value of
 "pos" is a scalar, the result is a 2-dimensional vector. The
 "TEMPORARY()" function is used to speed up the concatenation
 procedure and is useful for extending long arrays (see IDL
 Reference Guide or Online Help).

After reading the 1st data header (blocks = 1), the variable "pos" is
initialized to a scalar containing the first data block position.
Each new data block (blocks > 1) extends the variable "pos" by one
element. If the data file contains "n" data blocks the variable "pos"
results to an "n"-dimensional vector.

With kind regards
Harald