Subject: Re: Data Handling
Posted by Harald Jeszenszky on Fri, 24 Apr 1998 07:00:00 GMT
View Forum Message <> Reply to Message

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
