Subject: simple question about bytes
Posted by Gerhard D. Rappold on Thu, 02 Sep 1999 07:00:00 GMT
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Hi,

I want to check if a line in an ascii file starts with a number or character. My idea was to read the first character and convert it to "byte" and check if its in or out the range of '48b' and '58b'. The code example is :

```
    ; check for header
    header=''
    readf, lun, header
    firstchar=strmid(header,0,1)
    first_byte=byte(firstchar)

    no_head=0
    head_index=0
    WHILE ((first_byte LT 48b) AND (first_byte GT 57b)) DO BEGIN
        readf, lun, header       ; reads next line
        head_index=head_index+1  ; counts header lines
        no_header =head_index
    ENDWHILE
...
```

it compiles fine but on runtime I get the errormessage :

```
    Expression must be a scalar in this context: <BYTE      Array(1)>
```

How can I change the variable 'first_byte' from byte array to a byte scalar ?

Or any other hint for a solution would be great!

Thank's

Gerhard

Subject: Re: simple question about bytes
Posted by R.Bauer on Fri, 03 Sep 1999 07:00:00 GMT
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rappold wrote:

> Hi,
>

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> character. My idea was to read the first character and convert it to
> "byte" and check if its in or out the range of '48b' and '58b'. The code
> example is :
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>   header=''
>   readf, lun, header
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>   no_head=0
>   head_index=0
>   WHILE ((first_byte LT 48b) AND (first_byte GT 57b)) DO BEGIN
>   readf, lun, header   ; reads next line
>   head_index=head_index+1 ; counts header lines
>   no_header =head_index
>   ENDWHILE
> ...

You have to use the first index type e.g.

```
WHILE ((first_byte[0] LT 48b) AND (first_byte[0] GT 57b)) DO BEGIN
```

you can declare header as bytarr with one element

```
header=bytarr(1)
readf, lun, header
first_byte=header[0]
```

R.Bauer

Subject: Re: simple question
Posted by promashkin on Thu, 18 May 2000 07:00:00 GMT
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Isn't breaking out of DO loops the same as using conditional loops? FOR
/ DO have a particular purpose, to execute a certain number of times.
For repeating under a condition, WHILE and REPEAT are provided, I think.
Cheers,
Pavel

Paul van Delst wrote:
>
> Craig Markwardt wrote:
>>

>> "richard hilton" <rdh5@dmu.ac.uk> writes:
>>
>>> This probably sounds like a stupid question but does anybody know of an IDL
>>> equivilent to the CONTINUE command in C/C++ ? Your help would be much
>>> appreciated.
>>
>> I've wished for an equivalent to continue and break, but have never
>> found it. You will have to do use GOTO explicitly.
>>
>> for i = 0, n-1 do begin
>> if val(i) EQ 0 then goto, NEXT_VAL ;; equivalent to continue
>> compute_val, val(i)
>> if val(i) LT 0 then goto, DONE_VAL ;; equivalent to break
>> NEXT_VAL:
>> endfor
>> DONE_VAL:O

Subject: Re: simple question
Posted by Paul van Delst on Thu, 18 May 2000 07:00:00 GMT
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Craig Markwardt wrote:
>
> "richard hilton" <rdh5@dmu.ac.uk> writes:
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> compute_val, val(i)
> if val(i) LT 0 then goto, DONE_VAL ;; equivalent to break
> NEXT_VAL:
> endfor
> DONE_VAL:

If there's one thing I loathe, it's GOTO'ing _out_ of DO/IF
loops/constructs. I, too, wish IDL would introduce statements such as
the CYCLE (equiv to CONTINUE) and EXIT (equiv to BREAK) statements in
F90/F95. Sure makes logic in DO loops and IF constructs supa-easy to
follow (although I have to admit the example above is clear and easy to
follow).

How would one begin the process of doing this, i.e. getting RSI to introduce new control transfer statements such as CYCLE and BREAK? I can't see that it would be a terribly difficult thing to do but I don't write compiler type stuff.

paulv
--
Paul van Delst Ph: (301) 763-8000 x7274
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Rm.202, 5200 Auth Rd. Email: pvandelst@ncep.noaa.gov
Camp Springs MD 20746

Subject: Re: simple question
Posted by Craig Markwardt on Thu, 18 May 2000 07:00:00 GMT
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"richard hilton" <rdh5@dmu.ac.uk> writes:

> This probably sounds like a stupid question but does anybody know of an IDL
> equivilent to the CONTINUE command in C/C++ ? Your help would be much
> appreciated.

I've wished for an equivalent to continue and break, but have never found it. You will have to do use GOTO explicitly.

```
for i = 0, n-1 do begin
  if val(i) EQ 0 then goto, NEXT_VAL ;; equivalent to continue
  compute_val, val(i)
  if val(i) LT 0 then goto, DONE_VAL ;; equivalent to break
  NEXT_VAL:
endfor
DONE_VAL:
...
```

Craig

--
Craig B. Markwardt, Ph.D. EMAIL: craigmnet@cow.physics.wisc.edu
Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response

---

Subject: Re: simple question
Posted by Paul van Delst on Fri, 19 May 2000 07:00:00 GMT
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Pavel Romashkin wrote:
>
> Isn't breaking out of DO loops the same as using conditional loops? FOR
> / DO have a particular purpose, to execute a certain number of times.
> For repeating under a condition, WHILE and REPEAT are provided, I think.

I agree. But both WHILE and REPEAT exit the conditional loop once a specified condition occurs. Sometimes, you don't want to exit the loop, just skip the current cycle and continue. The existence of WHILE and REPEAT certainly limit the need for a BREAK type of statement, but not a CONTINUE (or CYCLE). In addition, the WHILE and REPEAT don't provide you with the current loop index (i.e. you have to do your own i = i + 1 within the loop). I guess one's preference for using WHILE/REPEATs or FOR loops with CONTINUE/BREAKs stems non-trivially from personal aesthetic.

paulv
--
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