Subject: Re: Print format question for the Experts
Posted by Paul van Delst on Thu, 02 Aug 2001 19:24:24 GMT
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John McFee wrote:

>
> I have a question which I think should have a simple answer. Being a master of
> kludging code for physics problems, it's not surprising that I haven't been able
> to figure it out. I'm hoping the experts in this group can.
>
> I am using IDL to read records one at a time from a file and I want to print out
> a message that each record was successfully read, i.e., I would print something
> like the following for record 5:
>
> Record number 5 out of 1500
>
> Because I can have several thousand records in a run, I do not want to have a
> flowing list like:
>
> ...
> Record number 1034 out of 1500
> Record number 1035 out of 1500
> Record number 1036 out of 1500
> ...etc.
>
> but instead just want one line where the record number increments, i.e.,
>
> Record number n out of 1500 [where n changes at the same spot]
>
> To do that I tried the following code:
>
> i=0
> print, format='($,"Record number ",t19,i6,t27,"out of " , t28,i6)',i+1,max_rec
> for i=0,max_rec-1 do begin
>   read_a_record_function
>   print, format='($,tl42,i6)', i+1
> endfor
>
> What I get is something like:
>
> Record number 1 out of 1500 2 3 4 5 6 7 8 9 10 11 13 14
>   15....etc.
>
> In other words, the $ format character supresses the new line, but each new
> print sets the next line's "left-right" pointer at the right edge of the
> previous printed line.
>
> I've tried the t format char as well as the tl character with no more luck.

>
> Does anybody know how to do this?

Let's see, I'm no expert, but your output string has:

```
      1         2          3
123456789012345678901234567890
```

Record number 1034 out of 1500

30 characters and you want the repeat to start at character #15 - so that's 16 backspaces from the end of the string. You can try:


```
; Create backspace array of required length
bksp = MAKE_ARRAY( 16, VALUE = 8B )

; Output "base" string of the correct length
;              Record number XXXX out of XXXX
PRINT, FORMAT = '( 2x, "Record number              ", $ )'

FOR i = 1, number_of_records_to_read DO BEGIN

  PRINT, FORMAT = '( a, i4, " out of ", i4, $ )', $
           STRING( bksp ), i, number_of_records_to_read

  ......etc etc.....

ENDFOR
```


This is a supa kludge. You gotta make sure that the length of the format strings are all consistent, as well as how many backspaces etc. But it seems to work just fine for me. Of course, any other output (e.g. from message or other print statements) will screw up the output.

paulv

p.s. STRING(8B) == ASCII character set backspace character. So, if you're using IDL on a machine that uses EBCDIC (if they still exist?), I have no ideer.

--
Paul van Delst   A little learning is a dangerous thing;
CIMSS @ NOAA/NCEP   Drink deep, or taste not the Pierian spring;
Ph: (301)763-8000 x7274 There shallow draughts intoxicate the brain,
Fax:(301)763-8545   And drinking largely sobers us again.
                           Alexander Pope.

Subject: Re: Print format question for the Experts
Posted by david[2] on Thu, 02 Aug 2001 19:41:24 GMT
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John McFee writes:

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> kludging code for physics problems, it's not surprising that I haven't been able
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> print sets the next line's "left-right" pointer at the right edge of the
> previous printed line.
>
> I've tried the t format char as well as the tl character with no more luck.

>
> Does anybody know how to do this?

How about this:

```
PRO Example
max_rec=20
base = Widget_Base()
text = Widget_Text(base, Value="", Scr_XSize=200, YSize=1)
screenSize = Get_Screen_Size()
xCenter = screenSize(0) / 2
yCenter = screenSize(1) / 2
geom = Widget_Info(base, /Geometry)
xHalfSize = geom.Scr_XSize / 2
yHalfSize = geom.Scr_YSize / 2
Widget_Control, base, XOffset = xCenter-xHalfSize, $
  YOffset = yCenter-yHalfSize
Widget_Control, base, /Realize
maxnumber = StrTrim(max_rec, 2)
for I=0,max_rec-1 do begin
   wait, 0.5 ; Or read a record or whatever.
   number = StrTrim(I+1, 2)
   Widget_Control, text, Set_Value='Record number ' + number + $
     ' out of ' + maxnumber + '.'
endfor
Widget_Control, base, /Destroy
END
```

Cheers,

David
--
David Fanning, Ph.D.
Fanning Software Consulting
Phone: 970-221-0438 E-Mail: davidf@dfanning.com
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Toll-Free IDL Book Orders: 1-888-461-0155

Subject: Re: Print format question for the Experts
Posted by Craig Markwardt on Thu, 02 Aug 2001 20:44:26 GMT
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jmcfee@dres.dnd.ca (John McFee) writes:
>
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> flowing list like:
>

> ...
> Record number 1034 out of 1500
> Record number 1035 out of 1500
> Record number 1036 out of 1500
> ...etc.

If you are on an ANSI-type terminal (VT100, etc, perhaps even the DOS
window), you can check out STATUSLINE in my library for some pointers
on how to move the cursor around on the screen. The essence of the
script is that I use the various ANSI escape codes to push the cursor
to the desired place. I use it everyday to do exactly what you are
describing.

Craig

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

Subject: Re: Print format question for the Experts
Posted by jmcfee on Thu, 02 Aug 2001 20:56:05 GMT
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Many thanks to Paul van Delst and David Fanning. Two different but cool
solutions. It would have taken me lots of time to figure out either on my own.

Thanks

John McFee

In article <MPG.15d35ad1b354565d989e4d@news.frii.com>,
 david@dfanning.com (David Fanning) writes:
|> John McFee writes:
|>
|> > I have a question which I think should have a simple answer. Being a master
...

--
Dr. John E. McFee
Defence Research Establishment Suffield
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(403) 544-4739 (voice)   544-4704 (fax)
e-mail: John.McFee@dres.dnd.ca

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_____

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Subject: Re: Print format question for the Experts
Posted by Pavel A. Romashkin on Thu, 02 Aug 2001 22:51:20 GMT
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David Fanning wrote:
>
> To only print certain lines, you can do...
>
> PRO Example, K
; n*K-th lines only will be printed
> max_rec=20
> base = Widget_Base()
> text = Widget_Text(base, Value="", Scr_XSize=200, YSize=1)
> screenSize = Get_Screen_Size()
> xCenter = screenSize(0) / 2
> yCenter = screenSize(1) / 2
> geom = Widget_Info(base, /Geometry)
> xHalfSize = geom.Scr_XSize / 2
> yHalfSize = geom.Scr_YSize / 2
> Widget_Control, base, XOffset = xCenter-xHalfSize, $
>   YOffset = yCenter-yHalfSize
> Widget_Control, base, /Realize
> maxnumber = StrTrim(max_rec, 2)
if n_elements(k) eq 0 then k=1
> for i=0,max_rec-1 do begin
>   wait, 0.5 ; Or read a record or whatever.
if i mod k eq 0 then number = StrTrim(i, 2)
>   Widget_Control, text, Set_Value='Record number ' + number + $
>   ' out of ' + maxnumber + '.'
> endfor
> Widget_Control, base, /Destroy
> END

Cheers,
Pavel

Subject: sec : U Re: Print format question for the Experts
Posted by Andrew Cool on Fri, 03 Aug 2001 03:22:34 GMT
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John McFee wrote:
>
> Many thanks to Paul van Delst and David Fanning. Two different but cool
> solutions. It would have taken me lots of time to figure out either on my own.
>

John,

 Another "cool" answer, so to speak...

 This bit of code works fine from the old TTY command line
 environment as found on VMS and Unix boxes.

 Doesn't work under IDLDE in the Output log window however,
 in which case you need a van Delst or "von" Fanning solution.

 HTH,

 Andrew


```
pro trace_loop_test
 for i = 0,100 do begin
  trace_loop,i
 end
end

pro trace_loop,i
 cr = STRING(13B) ; ASCII Carriage-return Control Code
 print,format='("Processing index Number ",i4,a,$)',i,cr
end
```

 -- ---------
 Andrew D. Cool   .->-.
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 -- ---------