
Subject: Re: how to do a loop in idl using multi-commmand?

Posted by [mperrin+news](#) on Fri, 15 Apr 2005 17:15:53 GMT

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lixiaoyao <lixiaoyao5880@yahoo.com> wrote:

```
> I can run this in my idl,who know how to solve it?
> nH2=findgen(10001)*10.0+0.1
> ratio=make_array(10001)
> for i=0,10000 do
> x=2*nH2[i]
> y=x*nH2[i]
> ratio[i]=x/y
> openw,1,'file'
> printf,1,ratio
> close,1
> it seems to show you can not do multicommand in do loop.
```

You need to add "begin" and "end" around the commands you want to loop.

```
nH2=findgen(10001)*10.0+0.1
ratio=make_array(10001)
for i=0,10000 do begin
  x=2*nH2[i]
  y=x*nH2[i]
  ratio[i]=x/y
end
openw,1,'file'
printf,1,ratio
close,1
```

Subject: Re: how to do a loop in idl using multi-commmand?

Posted by [saveie](#) on Fri, 15 Apr 2005 17:19:44 GMT

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I think you want some block statements here.

Save this to afile.pro and try ".run afile.pro"

```
nH2=findgen(10001)*10.0+0.1
ratio=make_array(10001)
for i=0,10000 do begin
  x=2*nH2[i]
  y=x*nH2[i]
  ratio[i]=x/y
endfor
openw,1,'file'
printf,1,ratio
```

close,1

end

"lixiaoyao" <lixiaoyao5880@yahoo.com> writes:

> I can run this in my idl,who know how to solve it?

> <snip/>

> it seems to show you can not do multicommand in do loop.

hth

Matt

--

Matthew Savoie - Scientific Programmer

National Snow and Ice Data Center

(303) 735-0785 <http://nsidc.org>

Subject: Re: how to do a loop in idl using multi-commmand?

Posted by [lixiaoyao](#) on Fri, 15 Apr 2005 18:12:37 GMT

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I use @filename.pro to run it,it is still wrong. any other suggestion?

for i=0,10000 do

^

% Syntax error.

At: /n/a/liletian/test.pro, Line 3

% Variable is undefined: I.

% Execution halted at: \$MAIN\$

% Variable is undefined: I.

% Execution halted at: \$MAIN\$

% Variable is undefined: Y.

% Execution halted at: \$MAIN\$

endfor

^

% Syntax error.

At: /n/a/liletian/test.pro, Line 9

end

^

% Syntax error.

At: /n/a/liletian/test.pro, Line 13

Subject: Re: how to do a loop in idl using multi-commmand?

Posted by [lixiaoyao](#) on Fri, 15 Apr 2005 19:04:35 GMT

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```
it is still wrong. Any other suggestions?
% Attempt to subscript NH2 with I is out of range.
% Execution halted at: $MAIN$
% Attempt to subscript NH2 with I is out of range.
% Execution halted at: $MAIN$
% Variable is undefined: Y.
% Execution halted at: $MAIN$
```

```
end
```

```
^
```

```
% Syntax error.
```

```
At: /n/a/liletian/test.pro, Line 7
```

Subject: Re: how to do a loop in idl using multi-command?

Posted by [Benjamin Hornberger](#) on Fri, 15 Apr 2005 19:49:09 GMT

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If you do @filename, it runs as a batch file, meaning every statement, line by line, is executed as if they were typed on the command line one by one. You get the same error as on the command line.

What was meant in the previous post is a main-level program which has to have an END statement and is run by ".run filename".

Go to the IDL help index and search for "batch file", then choose the subentry "defined". You'll find a description of batch files, main-level programs and named programs. David Fanning's book also describes it in detail.

If you want a FOR loop on the command line or in a batch file, you'll have to write it in one line, combining statements by "&":

```
FOR I=0, 10000 DO BEGIN & x=2*nH2[i] & y=x*nH2[i] & ratio[i]=x/y & ENDFOR
```

Note that the news client might have introduced a line break. This must be all in one line! I guess you realize it's better (more elegant, more understandable) to put it into a main-level or named program.

Good luck,
Benjamin

lixiaoyao wrote:

```
> I use @filename.pro to run it,it is still wrong. any other suggestion?
> for i=0,10000 do
```

```

>      ^
> % Syntax error.
> At: /n/a/liletian/test.pro, Line 3
> % Variable is undefined: I.
> % Execution halted at: $MAIN$
> % Variable is undefined: I.
> % Execution halted at: $MAIN$
> % Variable is undefined: Y.
> % Execution halted at: $MAIN$
>
> endfor
>      ^
> % Syntax error.
> At: /n/a/liletian/test.pro, Line 9
>
> end
>      ^
> % Syntax error.
> At: /n/a/liletian/test.pro, Line 13
>

```

Subject: Re: how to do a loop in idl using multi-command?

Posted by [Paul Selby](#) on Fri, 15 Apr 2005 19:55:24 GMT

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Benjamin Hornberger wrote:

```

>
> If you want a FOR loop on the command line or in a batch file, you'll
> have to write it in one line, combining statements by "&":
>
> FOR I=0, 10000 DO BEGIN & x=2*nH2[i] & y=x*nH2[i] & ratio[i]=x/y & ENDFOR
>
> Note that the news client might have introduced a line break. This must
> be all in one line! I guess you realize it's better (more elegant, more
> understandable) to put it into a main-level or named program.
>
> Good luck,
> Benjamin

```

Actually you can put the statements on separate lines by using the line continuation character "\$" but it looks a bit messy

```

FOR I=0, 10000 DO BEGIN & $
  x=2*nH2[i] & $
  y=x*nH2[i] & $
  ratio[i]=x/y & $
ENDFOR

```

Paul

Subject: Re: how to do a loop in idl using multi-commmand?

Posted by [lixiaoyao](#) on Sat, 16 Apr 2005 16:28:38 GMT

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thanks,it works

Subject: Re: how to do a loop in idl using multi-commmand?

Posted by [lixiaoyao](#) on Sat, 16 Apr 2005 16:29:23 GMT

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thank you so much for tell me this,it is really helpful too

Subject: Re: how to do a loop in idl using multi-commmand?

Posted by [mperrin+news](#) on Sat, 16 Apr 2005 18:41:21 GMT

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lixiaoyao <lixiaoyao5880@yahoo.com> wrote:

```
> it is still wrong. Any other suggestions?
> % Attempt to subscript NH2 with I is out of range.
> % Execution halted at: $MAIN$
> % Attempt to subscript NH2 with I is out of range.
> % Execution halted at: $MAIN$
> % Variable is undefined: Y.
> % Execution halted at: $MAIN$
>
> end
```

endfor, sorry.

That's what I get for thinking "This is so simple, I don't need to test this code before I post it. " ;-)

Subject: Re: how to do a loop in idl using multi-commmand?

Posted by [R.Bauer](#) on Sat, 16 Apr 2005 22:56:02 GMT

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lixiaoyao wrote:

```
> thank you so much for tell me this,it is really helpful too
```

just a hint

Sometimes it helps me to look in source code. Examples for idl source is each routine you have already e.g. /usr/local/rsi/idl/examples/

Sometimes it would help to read the pdf manual building.pdf from /usr/local/rsi/idl/help.

Sometimes the Online Help could help if it would work, this seems to be a never ending story ...

Sometimes a search on [http://groups.google.de](http://groups.google.de/groups?hl=de&lr=&ie=UTF-8&group=comp.lang.idl-pv)
[groups?hl=de&lr=&ie=UTF-8&group=comp.lang.idl-pv](http://groups.google.de/groups?hl=de&lr=&ie=UTF-8&group=comp.lang.idl-pv) wave helps.

Always a request to this marvellous news group helps!

cheers
Reimar

--

Forschungszentrum Juelich
email: R.Bauer@fz-juelich.de
<http://www.fz-juelich.de/icg/icg-i/>

=====

a IDL library at ForschungsZentrum Juelich
http://www.fz-juelich.de/icg/icg-i/idl_icglib/idl_lib_intro.html

Subject: Re: how to do a loop in idl using multi-command?

Posted by [lixiaoyao](#) on Sun, 17 Apr 2005 02:40:04 GMT

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the search website that you give me that can not be opened.can you tell me again?

Thanks

Subject: Re: how to do a loop in idl using multi-command?

Posted by [Ben Panter](#) on Sun, 17 Apr 2005 10:58:45 GMT

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lixiaoyao wrote:

> the search website that you give me that can not be opened.can you tell
> me again?

> Thanks

>

The line was a bit broken in my newsreader, either go to

google -> groups -> comp.lang.idl-pvwave

or

<http://groups-beta.google.com/group/comp.lang.idl-pvwave>

which can be reached from

<http://tinyurl.com/84n8l>

Ben

Subject: Re: how to do a loop in idl using multi-command?

Posted by [Dick Jackson](#) on Mon, 18 Apr 2005 05:37:54 GMT

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Hi,

"lixiaoyao" <lixiaoyao5880@yahoo.com> wrote in message
news:1113584939.738412.136930@o13g2000cwo.googlegroups.com.. .

> I can run this in my idl, who know how to solve it?

> nH2=findgen(10001)*10.0+0.1

> ratio=make_array(10001)

> for i=0,10000 do

> x=2*nH2[i]

> y=x*nH2[i]

> ratio[i]=x/y

> openw,1,'file'

> printf,1,ratio

> close,1

> it seems to show you can not do multicommand in do loop.

> thanks

The suggestions that others have given are all great, but you may want to know that you can do the work of this loop using IDL's powerful (and much faster) array operations as follows:

```
nH2=findgen(10001)*10.0+0.1
```

```
x=2*nH2
```

```
y=x*nH2
```

```
ratio=x/y
```

or, if you don't need to make x and y for any other reason:

$$\text{ratio} = (2 * nH2) / (2 * nH2 * nH2)$$

or then, by factoring:

$$\text{ratio} = 1 / nH2$$

A useful section in IDL Online Help that covers some features that are different from many other languages is "Writing Efficient IDL Programs" (in Programming in IDL: Basics of IDL Programming).

Cheers,

--

-Dick

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