
Subject: Re: Trouble writing very large files
Posted by [Craig Markwardt](#) on Sat, 27 Sep 2008 22:16:10 GMT
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Vince Hradil <vincehradil@gmail.com> writes:

```
> I want to write a very large array to a file. I'm trying:
>
> array = intarr(640,640,1073,15) ;; 13,185,024,000 bytes!
>
> openw, lun, 'foo.dat', /get_lun
> writeu, lun, array
> free_lun, lun
>
> IDL crashes when the writeu fires up.
```

Wait, if IDL crashes, how were you able to check the file pointer location afterward??? If you mean that IDL reported an error but continued to run, what was the error?

Craig

```
>
> print, !version
> { x86_64 Win32 Windows Microsoft Windows 7.0 Oct 25 2007    64
> 64}
>
> The pointer seems to expand okay:
>
> IDL> point_lun, -lun, pos
> IDL> help, pos
> POS          LONG      =          0
> IDL> point_lun, lun, 640ll * 640ll * 1073ll * 15ll * 2ll
> IDL> point_lun, -lun, pos
> IDL> help, pos
> POS          LONG64    =      13185024000
> IDL> point_lun, lun, 0
> IDL> point_lun, -lun, pos
> IDL> help, pos
> POS          LONG      =          0
```

--

Craig B. Markwardt, Ph.D. EMAIL: cbmarkwardt+usenet@gmail.com

Subject: Re: Trouble writing very large files
Posted by [Vince Hradil](#) on Mon, 29 Sep 2008 13:31:47 GMT
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```
On Sep 27, 5:16 pm, Craig Markwardt
<craigm...@REMOVEcow.physics.wisc.edu> wrote:
> Vince Hradil <vincehra...@gmail.com> writes:
>> I want to write a very large array to a file. I'm trying:
>
>> array = intarr(640,640,1073,15) ;; 13,185,024,000 bytes!
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>> openw, lun, 'foo.dat', /get_lun
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> location afterward??? If you mean that IDL reported an error but
> continued to run, what was the error?
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> Craig
>
>
>
>
>
>> print, !version
>> { x86_64 Win32 Windows Microsoft Windows 7.0 Oct 25 2007    64
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>> IDL> point_lun, -lun, pos
>> IDL> help, pos
>> POS          LONG64    =      13185024000
>> IDL> point_lun, lun, 0
>> IDL> point_lun, -lun, pos
>> IDL> help, pos
>> POS          LONG      =          0
>
> --
> -----
> Craig B. Markwardt, Ph.D.    EMAIL: cbmarkwardt+use...@gmail.com
> -----
```

IDL crashes when I let it try to write the file. However, I can do the commands that I typed manipulating the pointer. Sorry it wasn't that clear. So, to summarize - The point_lun commands seems to work fine, but the writeu command crashes.

Subject: Re: Trouble writing very large files
Posted by [David Fanning](#) on Mon, 29 Sep 2008 13:42:37 GMT
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Vince Hradil writes:

> IDL crashes when I let it try to write the file. However, I can do
> the commands that I typed manipulating the pointer. Sorry it wasn't
> that clear. So, to summarize - The point_lun commands seems to work
> fine, but the writeu command crashes.

Have you tried writing the array in pieces?

Cheers,

David

--

David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: <http://www.dfanning.com/>
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: Trouble writing very large files
Posted by [Vince Hradil](#) on Mon, 29 Sep 2008 13:51:23 GMT
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On Sep 29, 8:42 am, David Fanning <n...@dfanning.com> wrote:

> Vince Hradil writes:
>> IDL crashes when I let it try to write the file. However, I can do
>> the commands that I typed manipulating the pointer. Sorry it wasn't
>> that clear. So, to summarize - The point_lun commands seems to work
>> fine, but the writeu command crashes.
>
> Have you tried writing the array in pieces?
>
> Cheers,
>
> David
> --

- > David Fanning, Ph.D.
- > Fanning Software Consulting, Inc.
- > Coyote's Guide to IDL Programming: <http://www.dfanning.com/>
- > Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Yes, my solution (for now?) is to write out pieces, then spawn a "copy /b file1 + file2 ..." I guess I'd like to know how this lun pointer is working, though...

Subject: Re: Trouble writing very large files
Posted by [David Fanning](#) on Mon, 29 Sep 2008 13:56:02 GMT
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Vince Hradil writes:

- > Yes, my solution (for now?) is to write out pieces, then spawn a
- > "copy /b file1 + file2 ..." I guess I'd like to know how this lun
- > pointer is working, though...

I meant, can you write the array, in pieces, into the same file.

```
FOR j=0,9 DO BEGIN
```

```
    writeU, lun, array[j*start: j*start+chunk]
```

```
ENDFOR
```

I just wondered if you could figure out where it started having problems writing.

Cheers,

David

--

David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: <http://www.dfanning.com/>
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: Trouble writing very large files
Posted by [Vince Hradil](#) on Mon, 29 Sep 2008 14:16:56 GMT
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On Sep 29, 8:56 am, David Fanning <n...@dfanning.com> wrote:

> Vince Hradil writes:
>> Yes, my solution (for now?) is to write out pieces, then spawn a
>> "copy /b file1 + file2 ..." I guess I'd like to know how this lun
>> pointer is working, though...
>
> I meant, can you write the array, in pieces, into the same
> file.
>
> FOR j=0,9 DO BEGIN
>
> writeU, lun, array[j*start: j*start+chunk]
>
> ENDFOR
>
> I just wondered if you could figure out where it started
> having problems writing.
>
> Cheers,
>
> David
> --
> David Fanning, Ph.D.
> Fanning Software Consulting, Inc.
> Coyote's Guide to IDL Programming: <http://www.dfanning.com/>
> Sepore ma de ni thui. ("Perhaps thou speakest truth.")

I'll try it and see what happens.

Subject: Re: Trouble writing very large files
Posted by [Vince Hradil](#) on Mon, 29 Sep 2008 15:57:22 GMT
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On Sep 29, 9:16 am, Vince Hradil <vincehra...@gmail.com> wrote:
> On Sep 29, 8:56 am, David Fanning <n...@dfanning.com> wrote:
>
>
>
>> Vince Hradil writes:
>>> Yes, my solution (for now?) is to write out pieces, then spawn a
>>> "copy /b file1 + file2 ..." I guess I'd like to know how this lun
>>> pointer is working, though...
>
>> I meant, can you write the array, in pieces, into the same
>> file.
>
>> FOR j=0,9 DO BEGIN
>

```

>> writeU, lun, array[j*start: j*start+chunk]
>
>> ENDFOR
>
>> I just wondered if you could figure out where it started
>> having problems writing.
>
>> Cheers,
>
>> David
>> --
>> David Fanning, Ph.D.
>> Fanning Software Consulting, Inc.
>> Coyote's Guide to IDL Programming: http://www.dfanning.com/
>> Sepore ma de ni thui. ("Perhaps thou speakest truth.")
>
> I'll try it and see what happens.

```

FWIW - that worked fine. I was able to write each of the 15 time frames separately:

```

openw, lun, oname, /get_lun
for f=0L, nframes-1 do writeu, lun, array[*, *, f]
free_lun, lun

```

Subject: Re: Trouble writing very large files
 Posted by [David Fanning](#) on Mon, 29 Sep 2008 16:04:23 GMT
[View Forum Message](#) <> [Reply to Message](#)

Vince Hradil writes:

```

> FWIW - that worked fine. I was able to write each of the 15 time
> frames separately:
>
> openw, lun, oname, /get_lun
> for f=3D0L, nframes-1 do writeu, lun, array[*, *, f]
> free_lun, lun

```

Humm. Well, not sure exactly what that tells us, but my guess (having tried to do this a time or two myself) is that the calculation of some internal pointer is off. If my experience is any indication, off by 1. :-)

My theory is that by writing the file differently, the pointer was calculated differently in the code. Good as any, I guess. :-)

Cheers,

David

--

David Fanning, Ph.D.

Coyote's Guide to IDL Programming (www.dfanning.com)

Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: Trouble writing very large files

Posted by [Jeremy Bailin](#) on Tue, 30 Sep 2008 14:41:41 GMT

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On Sep 29, 12:04 pm, David Fanning <n...@dfanning.com> wrote:

> Vince Hradil writes:

>> FWIW - that worked fine. I was able to write each of the 15 time

>> frames separately:

>

>> openw, lun, oname, /get_lun

>> for f=3D0L, nframes-1 do writeu, lun, array[*, *, *, f]

>> free_lun, lun

>

> Humm. Well, not sure exactly what that tells us,

> but my guess (having tried to do this a time or

> two myself) is that the calculation of some internal

> pointer is off. If my experience is any indication,

> off by 1. :-(

>

> My theory is that by writing the file differently,

> the pointer was calculated differently in the code.

> Good as any, I guess. :-)

>

> Cheers,

>

> David

> --

> David Fanning, Ph.D.

> Coyote's Guide to IDL Programming (www.dfanning.com)

> Sepore ma de ni thui. ("Perhaps thou speakest truth.")

It might be interesting to know whether an array of the same total size but with different dimensions works or not.

-Jeremy.
