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Subject: Re: byte offset in POINT\_LUN

Posted by [Josh](#) on Wed, 08 Aug 2007 20:05:38 GMT

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On Aug 8, 2:03 pm, Josh <joshuamonta...@gmail.com> wrote:

- > as i'm cruising through, reading a large ascii file, I'd like to keep
- > track of the beginning of certain "blocks" of code. in the event that
- > i find what i'm looking for within the block, I'd like to PRINTF the
- > entire block (the beginning of which is now above my file position).
- > I've used POINT\_LUN to return to the start of a file before, by
- > setting position=0, but is there a way I can use POINT\_LUN to go to a
- > specific line within the file (since I'm not sure how that would
- > correspond to a byte offset) ?

sorry, where I said ".... certain 'blocks' of code," I meant "....  
certain 'blocks' of text." That is, the data in the file (which are  
in ascii format).

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Subject: Re: byte offset in POINT\_LUN

Posted by [James Kuyper](#) on Wed, 08 Aug 2007 21:30:39 GMT

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Josh wrote:

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- > track of the beginning of certain "blocks" of code. in the event that
- > i find what i'm looking for within the block, I'd like to PRINTF the
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- > setting position=0, but is there a way I can use POINT\_LUN to go to a
- > specific line within the file (since I'm not sure how that would
- > correspond to a byte offset) ?

Sure. Just keep track of the byte offsets corresponding to the start  
of the lines you're interested in.

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Subject: Re: byte offset in POINT\_LUN

Posted by [David Fanning](#) on Wed, 08 Aug 2007 21:36:56 GMT

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Josh writes:

- > as i'm cruising through, reading a large ascii file, I'd like to keep
- > track of the beginning of certain "blocks" of code. in the event that
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- > I've used POINT\_LUN to return to the start of a file before, by
- > setting position=0, but is there a way I can use POINT\_LUN to go to a
- > specific line within the file (since I'm not sure how that would
- > correspond to a byte offset) ?

I've never used POINT\_LUN like this in an ASCII file, but I had an idea that seems to work in the few tests I've just made.

Suppose you open an ASCII data file:

```
OPENR, lun, 'myfile.txt', /GET_LUN
```

And suppose you read the first 10 lines of the file:

```
data = StrArr(10)  
READF, lun, data
```

Now, say you want to come back to this spot later, you need to know where you are in the file. In an unformatted file you could probably count and get the value correctly. An ASCII file is \*way\* more complicated, but POINT\_LUN can tell us if we use a "negative" value for the logical unit number:

```
POINT_LUN, -lun, thisPoint
```

Now you could read more data:

```
READF, lun, data
```

When you want to return to the previous point in the file, you can use POINT\_LUN again:

```
POINT_LUN, lun, thisPoint
```

And, viola! You are back! :-)

Cheers,

David

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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.")

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Subject: Re: byte offset in POINT\_LUN  
Posted by [Josh](#) on Wed, 08 Aug 2007 22:15:39 GMT  
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>  
> And, viola! You are back! :-)  
>

Thanks, David. I saw that in the manual, but misinterpreted its results. Much appreciated!

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Subject: Re: byte offset in POINT\_LUN  
Posted by [badjelly.witch](#) on Thu, 09 Aug 2007 22:44:50 GMT  
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>> And, viola! You are back! :-)

Magniifique!

I'd just like to add a warning: jumping around in a file \*may\* not be as efficient as you might think, especially if you're going backwards from the current position. Specifically, if you have gzipped your large ASCII file and opened it in IDL with the `OPENR COMPRESS` keyword (and why wouldn't you?) then moving around with `POINT_LUN` involves reinitialising the compressed data stream. I think to all intents and purposes it means IDL goes back to the start of the file and reads up to the saved position again.

I remember years ago I discovered a `BACKSPACE` command in an old version of Fortran on a PDP 11. I wrote a program that read a line, thought about it for a while and then backspaced to the start of the line and reread it. It worked beautifully on a small file but bogged down horribly on a large one, because `BACKSPACE` was rereading the entire file. A valuable lesson!

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