
Subject: pointer problems

Posted by [tkg](#) on Thu, 07 May 2009 18:55:14 GMT

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I'm trying to store an array of pixel xy indicies for later output to a text file. The number of xy pairs is different for each array element. I'm trying to use pointers to do this with the following code snippet:

```
xy = ptrarr(npixels, /ALLOC)
```

```
for ipixel = 0, npixels - 1 do begin
```

```
; much snipped code
```

```
    indi = where(superMask ne 0, count)
```

```
    if (count gt 0) then *xy[ipixel] = array_indices(superMask,  
indi)
```

```
; more snipped code
```

```
endfor
```

npixels can range anywhere from fewer than 100 to 200+ and the xy pairs can be a few pair up to a few hundred.

I find that after a few iterations of the loop (actually ten iterations with the test data i'm using). previously allocated heap pointers are losing their values and become undefined. This would seem to indicate memory allocation problems (the heap pointers are being overwritten by some other portion of the code) , but I'm not sure how to go about troubleshooting it or what I might do to avoid the overwrites. There are no other pointers used anywhere else in the code.

If anyone has a clue as to what the problem might be or a suggestion for a better way to do this, I'd appreciate the help.

Thanks.

Tom

Subject: Re: pointer problems

Posted by [R.G. Stockwell](#) on Fri, 08 May 2009 03:02:06 GMT

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<tkg@lanl.gov> wrote in message

news:e7dfb99c-91cd-483f-93ba-9e13c31f659a@y33g2000prg.google groups.com...

```
>
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> a text file. The number of xy pairs is different for each array
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>
>     indi = where(superMask ne 0, count)
>
>     if (count gt 0) then *xy[ipixel] = array_indices(superMask,
> indi)
>
> ; more snipped code
>
> endfor
```

You need an else branch to assign the values of *xy in the case where count is = 0.

Or else, accessing xy in the future can result in "variable is undefined" error messages.

cheers,
bob

Subject: Re: pointer problems
Posted by [tkg](#) on Fri, 08 May 2009 12:10:51 GMT
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On May 7, 9:02 pm, "R.G. Stockwell" <noemai...@please.com> wrote:

```
> <t...@lanl.gov> wrote in message
>
> news:e7dfb99c-91cd-483f-93ba-9e13c31f659a@y33g2000prg.google groups.com...
>
>
>
>
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>>   indi = where(superMask ne 0, count)
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>>   if (count gt 0) then   *xy[ipixel] = array_indices(superMask,
>> indi)
>
>> ; more snipped code
>
>> endfor
>
> You need an else branch to assign the values of
> *xy in the case where count  is = 0.
>
> Or else, accessing xy in the future can result in
> "variable is undefined" error messages.
>
> cheers,
> bob
```

I saw that possibility and changed the code, but count doesn't have a 'zero' case in the test data I've used so far. Something else is causing the "variable is undefined" message. If this were a C program, I'd suspect a buffer overrun, but, being relatively new to IDL programming, I don't know how to avoid that in IDL.

Thanks,
Tom

Subject: Re: pointer problems
Posted by [R.G. Stockwell](#) on Fri, 08 May 2009 18:20:49 GMT
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<tkg@lanl.gov> wrote in message
news:4a103767-1b93-4173-a127-54266f79d290@x31g2000prc.google groups.com...
On May 7, 9:02 pm, "R.G. Stockwell" <noemai...@please.com> wrote:
> <t...@lanl.gov> wrote in message
>
> news:e7dfb99c-91cd-483f-93ba-9e13c31f659a@y33g2000prg.google groups.com...

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> If this were a C program, I'd suspect a buffer overrun, but,
> being relatively new to IDL programming, I don't know how to
> avoid that in IDL.
```

```
.->Thanks,
> Tom
```

Well, why not check *xy in each iteration of the loop
(just before the endfor)
to make sure each element is indeed getting defined.

for instance: `help,ipixel,ind,*xy[ipixel]`

Another other code in the snipped parts that is redefining 'ipixel'?

Can you give us the line that causes the 'variable is undefined' message?

cheers,
bob
