
Subject: A strange error with WHERE

Posted by [Lindzen](#) on Fri, 31 Jul 2009 03:08:04 GMT

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Dear all,

I come across a strange error with WHERE function. Could you please help me to check it?

Here is part of the code. I will explain below the code.

```
outer1_begin: id_hr = where(r03_temp ge 50)
               n_hr  = n_elements(id_hr)

if (n_elements(id_hr) gt 1) then begin
  id_max  = where(r03_temp eq max(r03_temp))
  lonc    = lon_aoc(id_max)
  latc    = lat_aoc(id_max)

  ii=0
  outer2_begin: print,ii
  ii=ii+1
  lon_left = lonc-ii*0.5
  lon_right = lonc+ii*0.5
  lat_up    = latc+ii*0.5
  lat_down  = latc-ii*0.5
  id_box    = where(lon_aoc ge lon_left)
```

Here lon_left=117.25, is a float number. lon_aoc is a 80*30 matrix, with many values larger than 117.25.

If I use id=where(lon_aoc ge 117.25), id returns right results.

However, the above code returns -1 to id_box. It is really strange.

Could anyone help me? Thank you very much!

Lin

Subject: Re: A strange error with WHERE

Posted by [David Fanning](#) on Fri, 31 Jul 2009 20:13:46 GMT

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Paul van Delst writes:

> I enjoy watching you grok people's problems from afar. It's quite instructive when
> contemplating debugging in general.

Yeah, getting color to work is so yesterday. My big mission now is to get people to actually think a little. :-)

Cheers,

David

P.S. There are a couple of articles about this Where gotcha on my web page:

http://www.dfanning.com/misc_tips/brokenwhere.html
http://www.dfanning.com/misc_tips/noidea.html

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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.")

Subject: Re: A strange error with WHERE
Posted by [David Fanning](#) on Fri, 31 Jul 2009 20:19:36 GMT
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Paul van Delst writes:

> I enjoy watching you grok people's problems from afar. It's quite instructive when
> contemplating debugging in general.

Speaking of which. I have a new book on my desk.

Debugging: The 9 Indispensable Rules for Finding
Even the Most Elusive Software and Hardware Problems
by David J. Agans

I haven't finished reading it yet, so I haven't reviewed it. But you could probably read it in one or two sittings and probably glean something useful from it.

A lot of it is what I think of as common sense, but I'm always surprised to see how uncommon it is when I work with other programmers. ;-)

Cheers,

David

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David Fanning, Ph.D.

Subject: Re: A strange error with WHERE
Posted by [Paul Van Delst\[1\]](#) on Fri, 31 Jul 2009 20:44:56 GMT
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David Fanning wrote:

> Paul van Delst writes:

>

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>> contemplating debugging in general.

>

> Speaking of which. I have a new book on my desk.

>

> Debugging: The 9 Indispensable Rules for Finding
> Even the Most Elusive Software and Hardware Problems
> by David J. Agans

Here's two more for general consumption:

<http://www.pragprog.com/titles/ahptl/pragmatic-thinking-and-learning>
<http://www.pragprog.com/titles/pbdp/debug-it>

The first one was a good ego-deflater (which is good for debugging) just what one needs to overcome a creeping superiority complex where one believes they know what they're doing! Just when you think you're becoming an expert, you realise you're still an advanced beginner[*]. Sigh. Oh well.

The second one I'm still saving up for.

> I haven't finished reading it yet, so I haven't reviewed
> it. But you could probably read it in one or two sittings
> and probably glean something useful from it.
>
> A lot of it is what I think of as common sense, but I'm
> always surprised to see how uncommon it is when I work
> with other programmers. ;-)

I hear ya. But, we (IDL programmers I mean) are at an advantage with respect to folks using other languages because we **have** to think illogically to make **any** sense of it all.... :o)

cheers,

paulv

[*] A former boss of a boss of mine once defined four stages of professional development:

- 1) Unconscious incompetence.
- 2) Conscious incompetence.
- 3) Conscious competence.
- 4) Unconscious competence.

Needless to say it caused a bit of uproar at the time since some people took offense at being labeled incompetent. The pragmatic-thinking-and-learning book above has a more politically correct list:

- 1) Beginner
- 2) Advanced beginner
- 3) Proficient
- 4) Expert

where Expert == the sort of folks that get invited to speak at conferences in exotic locales, all expenses paid.

But I still prefer the first list. :o)
