
Subject: Re: V6.0 indexing change
Posted by [andrew.cool](#) on Tue, 12 Aug 2003 23:04:47 GMT
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Wayne Landsman <landsman@mpb.gsfc.nasa.gov> wrote in message news:<3F39035C.8070409@mpb.gsfc.nasa.gov>...

- > I haven't installed V6.0 yet myself but I have been informed by Mike
- > Corcoran of a change that can break some existing code.
- >
- > Formerly, if one had a structure, say $a = \{x: \text{indgen}(10)\}$ which was
- > accessed by a 1 element vector, say $i = [3]$, then the result $a.x[i]$
- > would be a scalar. In V6.0, however, the result is now a 1 element
- > vector.
- >
- > I have to say that the V6.0 method makes more more sense -- subscripting
- > with a 1 element vector should return a 1 element vector. But it can
- > break existing code because logical tests such as
- >
- > if $a.x[i]$ EQ 3 then stop
- >
- > will no longer work. The fix is simple enough (set $i = i[0]$ first)
- > but users might want to fix the code before upgrading to V6.0.
- >
- > --Wayne Landsman landsman@mpb.gsfc.nasa.gov

Wayne,

You sure about this? Yes, a 1 element vector is now returned, but your example

if $a.x[i]$ EQ 3 then stop

works just fine for me under the 6.0 Beta (Win2000), as does

if $a.x[i[0]]$ EQ 3 then stop

Andrew
DSTO, Adelaide, South Australia

Subject: Re: V6.0 indexing change
Posted by [Mark Hadfield](#) on Wed, 13 Aug 2003 00:45:58 GMT
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Andrew Cool wrote:

> Wayne Landsman <landsman@mpb.gsfc.nasa.gov> wrote in message
news:<3F39035C.8070409@mpb.gsfc.nasa.gov>...

>

>> I haven't installed V6.0 yet myself but I have been informed by Mike
>> Corcoran of a change that can break some existing code.

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> You sure about this? Yes, a 1 element vector is now returned, but
> your example

>

> `if a.x[i] EQ 3 then stop`

>

> works just fine for me under the 6.0 Beta (Win2000), as does

>

> `if a.x[i[0]] EQ 3 then stop`

And for me under 6.0 final (Win 2000). But then this...

```
IDL> if [1] eq 1 then print, 'comparison is OK'
```

...works (ie prints out the message) under IDL 6.0 and 5.6. In other words an if statement doesn't seem to care if its condition is a scalar or a 1-element array. News to me!

Still, Wayne's warning is correct: there may be cases where the new, improved structure indexing in 6.0 will break code.

--

Mark Hadfield "Ka puwaha te tai nei, Hoesa tatou"
m.hadfield@niwa.co.nz
National Institute for Water and Atmospheric Research (NIWA)

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Subject: Re: V6.0 indexing change
Posted by news.verizon.net on Wed, 13 Aug 2003 01:51:34 GMT
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"Mark Hadfield" <m.hadfield@niwa.co.nz> wrote in message
news:bhc1o5\$kl2\$3@newsreader.mailgate.org...

>

> Still, Wayne's warning is correct: there may be cases where the new,
> improved structure indexing in 6.0 will break code.

>

Yes, the problem evidently was not with a logical test, but with a case
statement, e.g.

```
case a.x[i] of  
1: print,'hi'  
else: print,'bye'  
endcase
```

where a.x[i] is required to be a scalar and not a 1 element vector. --Wayne

P.S. The V6.0 incompatibility occurred in the program tbget.pro in the IDL
Astro library.

Subject: Re: V6.0 indexing change
Posted by [R.Bauer](#) on Thu, 14 Aug 2003 06:20:10 GMT
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Wayne Landsman wrote:

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> if a.x[i] EQ 3 then stop
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> will no longer work. The fix is simple enough (set i = i[0] first)
> but users might want to fix the code before upgrading to V6.0.

Could this change be interpreted that's trailing dimensions 1 sometimes
later not more removed automaticly.

```
a=make_Array(4,1)
IDL> help,a
A          FLOAT    = Array[4]
```

Reimar

>
> --Wayne Landsman landsman@mpb.gsfc.nasa.gov

--

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

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