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Subject: Re: Subscripting arrays.

Posted by [Russell Ryan](#) on Fri, 03 May 2013 20:09:57 GMT

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A ha. Sounds reasonable, but I'm not sure why it's "designed" this way, but c'est la vie. I passed your response on to the friend, who groaned. We nearly said (in unison), I never pay much attention to those compiler options.

Thanks!

Russell

On Thursday, May 2, 2013 4:22:52 PM UTC-4, Mike Galloy wrote:

> On 5/2/13 1:40 PM, u wrote:

>

>> So someone showed me this and I'm trying to wrap my head around it.

>

>> Sorry if it's already posted, I didn't know how to begin to search

>

>> The Group for it...

>

>>

>

>>

>

>> Create an array:

>

>>

>

>> a = intarr(3)

>

>>

>

>> Using IDL 8, subscript with 4 (ie. an index that's too large and

>

>> should be out of bounds)

>

>>

>

>> a[4]=3

>

>>

>

>> Obviously, this crashes.

>

>>

>

>> Conversely subscript with a negative index:

>

```

>>
>
>> a[-1]=2
>
>>
>
>> does what you expect.
>
>>
>
>> But, now subscript the array, WITH an array:
>
>>
>
>> a[[4]]=2
>
>>
>
>> voila. It works, and simply truncates to the last element of the
>
>> array... Spooky. Now do that with a negative index:
>
>>
>
>> a[[-1]]=4
>
>>
>
>> Like before, it works. But now, it doesn't wrap the index, but
>
>> rather truncates to the first element of the array.
>
>>
>
>> Hmm.. I can't tell if this is the designed behavior, because I have a
>
>> hard time describing it --- it's easier to show it.
>
>
>
>
> Yes, this is the "designed" behavior. You can turn off the odd array
>
> indexing (and just give an error) with compile_opt:
>
>
>
> IDL> x = findgen(10)
>

```

```
> IDL> print, x[[-1, 0, 9, 10]]
>
>      0.00000    0.00000    9.00000    9.00000
>
> IDL> compile_opt strictarrsubs
>
> IDL> print, x[[-1, 0, 9, 10]]
>
> % Array used to subscript array contains out of range subscript: X.
>
> % Execution halted at: $MAIN$
>
>
>
> Mike
>
> --
>
> Michael Galloy
>
> www.michaelgalloy.com
>
> Modern IDL: A Guide to IDL Programming (http://modernidl.idldev.com)
>
> Research Mathematician
>
> Tech-X Corporation
```

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