Subject: Re: Subscripting arrays.
Posted by Michael Galloy on Thu, 02 May 2013 20:22:52 GMT
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On 5/2/13 1:40 PM, rryan@stsci.edu 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

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