Subject: OOB array indexing with an array gives no error message
Posted by Bobstrosity on Fri, 04 Jun 1999 07:00:00 GMT
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Array indexing is always a popular thread!

I ran into a seemingly strange feature in IDL
{ x86 Win32 Windows 5.1.1 Jul 20 1998}
If this has been discussed before, and is a well
known feature, my apologies.

It seems that you can index an array with a "bad value"
if that bad value is an array rather than a scaler.

The Point: some code could potentially run off the end of
an array by replicating the last part, without telling you.

(Below I show the result of some IDL commands)

;Make an array:

```
test = findgen(10)
IDL> help,test
TEST           FLOAT     = Array[10]
```

;Then acces it an index value that is out of bounds.

```
IDL> print,test(100)
% Attempt to subscript TEST with <INT      (     100)> is out of range.

; now change the 100  <Expression>    INT       =      100, to [100]
<Expression>    INT       = Array[1]

IDL> print,test([100])
      9.00000

IDL> help,test([100])
<Expression>    FLOAT     = Array[1]


IDL> print,test[test+100]
      9.00000      9.00000      9.00000      9.00000      9.00000
9.00000     9.00000      9.00000      9.00000      9.00000
```

```
IDL> help,test[test+100]
<Expression>    FLOAT     = Array[10]
```

Also,

```
IDL> print,test(-1)
% Attempt to subscript TEST with <INT      (      -1)> is out of range.

IDL> print,test([-1])
     0.000000
```

Also,

```
IDL> test = indgen(10,10,10,10)
IDL> help,test
TEST            INT       = Array[10, 10, 10, 10]
IDL> print,test(-1,-1,-1,55)
% Attempt to subscript TEST with <INT      (      -1)> is out of range.
IDL> print,test([-1],[-1],[-1],[55])
    9000
; which is
IDL> print,test(0,0,0,9)
    9000
```

anyways, I just thought it was neat,
a great way to sneak errors into your code!

have a NICE life!
bob
