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Subject: Negative array indices

Posted by [b\\_gom](#) on Thu, 02 Dec 2010 21:54:41 GMT

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I've been stumbling around trying to figure out uses for the negative array indexing in IDL 8. As usual, the documentation doesn't fully describe the logic behind the syntax rules.

One rule that I've discovered is that negative array indices shouldn't be thought of as indices 'rolling over' as you cross zero. For example:

If `x=findgen(10)`, then `x[-1]` is the same as `x[9]`, and `x[-10]` is the same as `x[0]`, but `x[-11]` isn't allowed. I can see why this follows from not allowing positive indices greater than the number of elements in `x`.

I guess this leads to this behaviour:

```
IDL> x=findgen(10)
```

```
IDL> print,x[-4:0]
```

```
% Illegal subscript range: X.
```

because this gets translated to:

```
IDL> print,x[6,0]
```

which isn't allowed.

Now, on to the real question. Why does the following not work:

```
IDL> print,x[1:3]
```

```
1.00000  2.00000  3.00000
```

```
IDL> print,x[[1,2,3]]
```

```
1.00000  2.00000  3.00000
```

```
IDL> print,x[-3:-1]
```

```
7.00000  8.00000  9.00000
```

```
IDL> print,x[[-3,-2,-1]]
```

```
0.000000  0.000000  0.000000
```

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