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Subject: Why does IDL strip unary dimensions from structure elements?

Posted by [Thomas A McGlynn](#) on Thu, 26 Oct 1995 07:00:00 GMT

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I've been writing some IDL code which does a lot of generic stuff with dynamically defined structures, and I've run into a bug/feature that is causing some problems.

Suppose you have an array of structures, s, with an element e which is itself an array, e.g,

```
s = replicate({e:intarr(e1,e2,e3), s1})
```

If I now extract e from the structure, e.g.,

```
var = s.(0)
```

I'll get var with dimensions, e1,e2,e3,s1. So far so good. However, if the last dimension, or the last several dimensions of this list are 1, then these dimensions will be stripped so that the dimensionality of var will be less than expected. E.g.,

```
s = replicate({e:intarr(10,1,1)},1)
b = s.(0)
```

gives b which is a one dimensional vector, not four dimensions.

IDL is consistent: print, size(s.(0)) yields

```
1      10      2      10
```

Since it's also an error to have more dimensions on the right side of an equation than on the left, this means that I have to keep track of the fact that IDL silently drops these dimensions. I am also a bit concerned if this behavior may change in different versions of IDL since my code is intended to be very portable.

Any ideas on clever ways to deal with this? I've seen this with IDL 3.6 and 4.0.1 on OSF and Ultrix. Is this behavior standard?

Thanks for your help,  
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