
Subject: Arrays in structures; workarounds?

Posted by [Craig Markwardt](#) on Thu, 04 May 2000 07:00:00 GMT

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We've seen this one before, but it still astounds me that it stays around from version to version of IDL.

IDL routinely drops the last dimension if the length is 1. We know that and can deal with it for the most part. For example, we can ensure the dimensions by REFORMing the array. The thing that gets me is when a structure element is a one-element array, like this:

```
IDL> z1 = {x:reform(dblarr(1,1),1,1)}
IDL> help, /struct, z1
** Structure <40047208>, 1 tags, length=8, refs=1:
  X          DOUBLE   Array[1, 1]
```

Sure enough, it's a 1x1 element array, containing just one value of course. But when you try to extract that element, it comes out like this:

```
IDL> help, z1.x
<Expression>  DOUBLE   =    0.0000000
```

Huh? A scalar? This is worse than IDL dropping the last dimensions. It's dropping *all* the dimensions. This can be a problem, if for example, you will be passing the value to PLOT, which takes only arrays. And it aggravates me to h*ll!

Does anybody know a way to work around this? I've thought of some pretty wierd things to try, like passing the struct as _EXTRA. The only thing I can come up with is to parse the result of HELP, OUTPUT=out, but that seems like the crappiest solution ever.

Any ideas?

Craig

P.S. ... and it goes without saying that I don't necessarily know the tag name ahead of time.

P.P.S.

```
IDL> print, !version
{ alpha OSF unix 5.2 Oct 30 1998}
```

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