Subject: Re: Arrays in structures; workarounds?
Posted by Craig Markwardt on Thu, 04 May 2000 07:00:00 GMT
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Ed Santiago <esm@lanl.gov> writes:

>> Does anybody know a way to work around this? [...] 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.
>
> Yep. Crappy indeed... but I couldn't find an alternative, either.
>
> Below is a copy of "esmsize", a function I wrote last year when I
> *absolutely needed* to obtain true dimensions within a struct.
>
> Hope it helps,
...

Yes, that's what I was afraid I might have to do. Unfortunately I'd
still like it to work for IDL 4, for which HELP, OUTPUT doesn't work.

Here was one trick I found to determine the size of a structure tag,
if it has *at least* two elements. Try this:

  IDL> zz = {x:reform(dblarr(2,2,1),2,2,1)}
  IDL> help, zz([0,0]).x
  <Expression>   DOUBLE   = Array[2, 2, 1, 2]

In this case, I index the structure with the [0,0] list while at the
same time extracting the X tag. You get the correct dimensions, with
an extra "2" tacked on the end, which you can then hack off. You need
to handle the case of X being 8 dimensional (!), but it works.
Unfortunately this *doesn't* work if X has only element. Arghh!

A comment on your procedure. I believe that you are treating the
output of HELP too simply. When tag names are long enough, help will
wrap the type description to the next line. Consider this:

  IDL> zz = {sdlfkjsdlkfjsdklfjslkfjsldkfjsdlkfjsljfsldkfjsdf:1}
  IDL> help, /struct, zz
  ** Structure <40045788>, 1 tags, length=2, refs=1:
     SDLFKJSDLKFJSDKLFJSLKFJSLDKFJSDLKFJSLJFSLDKFJSDF
            INT   =   1

This will affect both the first tag, and any of the following ones.
Maybe it's better to do a search for the tag you want.

Craig

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Craig B. Markwardt, Ph.D.   EMAIL: craigmnet@cow.physics.wisc.edu
Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response
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