Subject: Re: IDL 5.2 array definition question.
Posted by Craig Markwardt on Sat, 26 Aug 2000 07:00:00 GMT
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Paul van Delst <pvandelst@ncep.noaa.gov> writes:

> Hi,
>
> I'm sure this is a another hoary old chestnut of a question but here
> goes....
>
> I have an IDL routine that returns the atomic weight of a requested
> element - defined by symbol, name, or atomic number. I check the
> validity of all these. Can somebody tell me why - in IDL 5.2 - my array
> containing the valid symbol names has to be defined like:
...

Short answer: the IDL parser had a limit on the number of array
elements that could be specified explicitly. The number was 129 I
believe. It may be that this restriction was relaxed in IDL 5.3.

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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Subject: Re: IDL 5.2 array definition question.
Posted by Craig Markwardt on Mon, 28 Aug 2000 07:00:00 GMT
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Paul van Delst <pvandelst@ncep.noaa.gov> writes:
> The documentation (that I read before posting the original message)
> actually specifies this except the number that they guarenteed across
> versions was only 25!. My (badly formed) question can be rephrased as:
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> why?
>
> Like I alluded to previously, IDL 5.3 raised the limit to 65536 (or
> thereabouts) which is way larger than any array initialisation anyone
> would want to type by hand, but I would still like to know what design
> decisions the pre-5.3 behaviour was based on. That's all.

My guess is that this is a limitation of the IDL parser, the part of
IDL that converts tokenized text into the compiled form.

Most modern parsers today are written with assistence from programs
like lex and yacc. These parsers *can* have problems handling large
lists of items, but not if they are written properly. In principle
they can handle lists of unbounded size.

I would further guess that the IDL parser is more home-brew than
yacc-descended, and as such has some hardwired limits for things like
array size. They probably just bumped up those limits for IDL v5.3.

Craig

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-- --------------
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Subject: Re: IDL 5.2 array definition question.
Posted by Paul van Delst on Mon, 28 Aug 2000 07:00:00 GMT
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David Fanning wrote:
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> Memory limitations on a PDP-11 computer. :-)

I remember using one of those to do my fortran assignments on back in
'83. Was I glad when they updated to a DEC-20!

I believe a well know poster to this newsgroup (who shall remain
un-named) used to have to boot one of those PDP-11's with 8" floppies
and cassettes, flicking switches and blinking lights, to process lidar
data. Man. Couldn't boot that thing a couple of years after I got there
as we used the boot discs for late afternoon "duck-or-die" sessions.
Getting hit by a frisbee-ing 8" floppy (with the case on) shure hurts.
Yow.

paulv

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Rm.202, 5200 Auth Rd. Email: pvandelst@ncep.noaa.gov
Camp Springs MD 20746

Subject: Re: IDL 5.2 array definition question.
Posted by davidf on Mon, 28 Aug 2000 07:00:00 GMT
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Memory limitations on a PDP-11 computer. :-)

Cheers,

David

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Fanning Software Consulting
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Coyote's Guide to IDL Programming: http://www.dfanning.com/
Toll-Free IDL Book Orders: 1-888-461-0155

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paulv

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