Subject: Re: Structure field concatenation
Posted by Martin Schultz on Wed, 06 Sep 2000 15:13:00 GMT
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David Fanning wrote:
>
> Martin Schultz (martin.schultz@dkrz.de) writes:
>
>> Only if you want
>> to replace the data in a structure element, then you need to free
>> the pointer beforehand:
>>
>> ;; Replace data of first structure
>> IF Ptr_Valid(periodcube.freq) THEN Ptr_Free,
>> periodcube.freq
>> periodcube.freq = Ptr_New(DIndgen(200)*0.1)
>
> Actually, as I've been trying to point out for
> months now to no avail, it is NOT necessary to
> free the pointer in this instance. IDL *takes
> care of the memory management for you*. :-)
>
> IF Ptr_Valid(periodcube.freq) THEN $
> *periodcube.freq = newThingy
>
> Cheers,
>
> David
>
> P.S. I'm sure Martin knows this. He is just being
> thorough. A trait I have noticed among Germans. :-)

Actually, I didn't know! Well, I've heard this before, but I never believed it would be that easy. Maybe I am just old-fashioned, but I always feel like an equilibrist with no safety net if I replace the contents of a pointer before actually deallocationg the memory it occupies. And I think I will stick to this habit if only for compatibility reasons with FORTRAN. Just imagine I would allow our models to deallocate memory automatically - ain't never gonna happen I fear...

The second motive for doing it my way is that you will need to have two statements anyhow. In your example: what happens if the pointer is not valid? Well, then you need to allocate memory for it, so you write:

```
IF Ptr_Valid(periodcube[0].freq) THEN $
    *periodcube[0].freq = newThingy $
```

```
 ELSE  $

      periodcube[0].freq  = Ptr_New(newthingy)
```

The only reason to do this that I could accept without further quirking is if you tell me there is a lot of penalty if you manually deallocate and reallocate the memory instead of letting IDL do it. Haven't tested, but I would doubt that it makes a big difference.

Cheers,
Martin

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[[[[[[[[[
[[Dr. Martin Schultz   Max-Planck-Institut fuer Meteorologie   [[
[[Bundesstr. 55, 20146 Hamburg   [[
[[phone: +49 40 41173-308   [[
[[fax: +49 40 41173-298   [[
[[martin.schultz@dkrz.de   [[
[[[[[[[[[