Subject: Re: referencing structure arrays
Posted by nivedita.raghunath on Fri, 11 Sep 2009 14:50:30 GMT
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On Sep 10, 12:53 pm, "Jean H." <jghas...@DELTHIS.ucalgary.ANDTHIS.ca>
wrote:
> niv wrote:
>> Sorry, looks like what I typed looks gibberish in places. I hope this
>> one is more readable:
>
>> Hi All,
>
>> I have a problem referencing structure arrays and assigning values to
>> them. So here is a snippet of my code:
>
>> junk1=update_state(junk) ;creates a structure called junk1
>> statearr=replicate(junk1,3) ;creates an array of structures
>
>> infoptr=ptr_new({statearr:statearr}) ;need this to pass variables
>> between programs
>
>> align_images,state=state1 ;some program that aligns 2 images and
>> stores the alignment results in state1
>
>> ;assign values from the state1 structure to infoptr.statearr[0]
>> structure
>> (*infoptr).statearr[0].resvol_file_ptr=state1.resvol_file_pt r
>> (*infoptr).statearr[0].air_file_ptr=state1.air_file_ptr
>
>> Now, here is the problem. With the above code, it turns out that...
>
>> (*infoptr).statearr[0].resvol_file_ptr, (*infoptr).statearr
>> [1].resvol_file_ptr, (*infoptr).statearr[2].resvol_file_ptr
>> all have the same values. Similarly with air_file_ptr. Even though I
>> haven't assigned anything to the statearr 1 and 2 yet.
>
>> Is there a specific way to reference these structure arrays? Any help
>> is greatly appreciated!
>
>> Thanks
>> Niv
>
> Hi Niv,
> the "problem" is with replicate (or your structure). If you have a
> pointer in it, you copy the pointer N times, so each of the copies still
> point to the same memory space... here is an example of what is happening:
>
> IDL> a = {b:ptr_new(indgen(10))}

> IDL> c = replicate(a,5)
> IDL> help,c[0].b
> <Expression>  POINTER  = <PtrHeapVar2>
> IDL> help,c[3].b
> <Expression>  POINTER  = <PtrHeapVar2>
>
> so if you modify one, you modify all!
> What you can do is to create your structure with empty pointers,
> replicate the structure and set the pointer's value then.
>
> a = {b:ptr_new()}
> c = replicate(a,5)
> ...
> c[0].b = state1.resvol_file_ptr
>
> Jean

Worked like a charm! Thank you.

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