Subject: Re: trouble with pointers within array of structures
Posted by wlandsman on Wed, 24 May 2017 01:12:12 GMT
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When you replicate a scalar pointer, you are making duplicate copies of the *same* pointer

```
IDL> p = ptr_new(dist(256))
IDL> pp = replicate(p,10)
IDL> help,pp[0],pp[1],pp[2]
<Expression>    POINTER   = <PtrHeapVar23>
<Expression>    POINTER   = <PtrHeapVar23>
<Expression>    POINTER   = <PtrHeapVar23>
```

To make an array of distinct pointers, use ptrarr()

```
IDL> p = ptrarr(3,/all)
IDL> help,p[0],p[1],p[2]
<Expression>    POINTER   = <PtrHeapVar24>
<Expression>    POINTER   = <PtrHeapVar25>
<Expression>    POINTER   = <PtrHeapVar26>
```

In your structure example, I think what you want is

```
main = { name:'', image : ptrarr(10,/allocate) }
*main.image[5] = world()
*main.image[4] = ct()
```

--Wayne

On Tuesday, May 23, 2017 at 8:12:58 PM UTC-4, Ann Nonymous wrote:
> I apologize for what I'm sure is a dumb question but I've looked all through the documentation for three days and I apparently am missing something.
>
> I'm trying to store a pointer to a vector as an entry within a structure of arrays. This is the basic idea:
>
>
> a = { name:'', image : ptr_new(/allocate) }
> main = replicate(a,10)
>
> ;world() returns a 256x256 floating point image of the world,
> ;ct() returns a 256x256 floating point CT image
>
>
> *main[5].image = world()
> *main[4].image = ct()
>
> tv, *main[4].image   ;gives an image of the CT scan, which is what I expected

> tv, *main[5].image ;gives an image of the CT scan
> tv, *main[0].image ; ditto
> tv, *main[9].image ; ditto
>
> Obviously, I'm missing something fundamental about the syntax here but I've tried every permeation of parentheses and indices I can think of, and no matter what, the last pointer assigned overwrites every other pointer in the structure array.
>
> Can anyone tell me what I should be doing here?
>
> Thanks very much,