
Subject: Re: Problem of precedence with pointer and structure

Posted by [L. Testut](#) on Fri, 27 Jan 2006 20:22:24 GMT

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```
a=ptrarr(5,/allocate_heap)
```

```
IDL> help,a
```

```
A          POINTER  = Array[5]
```

```
; A is an array of pointer OK
```

```
IDL> help,a[0]
```

```
<Expression>  POINTER  = <PtrHeapVar1>
```

```
; a[0] is a scalar pointer OK
```

```
IDL> help,/heap
```

```
Heap Variables:
```

```
# Pointer: 5
```

```
# Object : 0
```

```
<PtrHeapVar1>  UNDEFINED = <Undefined>
```

```
<PtrHeapVar2>  UNDEFINED = <Undefined>
```

```
<PtrHeapVar3>  UNDEFINED = <Undefined>
```

```
<PtrHeapVar4>  UNDEFINED = <Undefined>
```

```
<PtrHeapVar5>  UNDEFINED = <Undefined>
```

```
; I've defined 5 differents scalar pointers (included in an array)
```

```
pointing on 5 differents heap variable
```

```
; I can affect to each of them the heap variable I want
```

```
IDL> *a[0]=0.
```

```
IDL> *a[1]='I hate pointers'
```

```
IDL> *a[2]=indgen(10)
```

```
IDL> *a[3]='ok ok we have understoodd !!'
```

```
IDL> *a[4]=4.
```

```
IDL> for i=0,4 do print,*a[i]
```

```
0.00000
```

```
I hate pointers
```

```
0    1    2    3    4    5    6    7
```

```
8    9
```

```
ok ok we understand !!
```

```
4.00000
```

```
; Now if I want to have an array of structure with a field b which is a  
pointer
```

```
IDL> a=replicate({b:ptr_new(/allocate_heap)},5)
```

```
IDL> help,a
```

```
A          STRUCT   = -> <Anonymous> Array[5]
```

```
IDL> help,a.b  
<Expression>  POINTER  = Array[5]
```

; So i think that (a.b) is equivalent to my previous a (e.g an array of pointer pointing a 5 differents heap variable

; but as i *replicate* my structure I have 5 identical pointer variable pointing to only ONE heap variable !!!

```
IDL> *(a[0].b)=0.0
```

```
IDL> *(a[1].b)='I hate pointers'
```

```
IDL> *(a[2].b)=indgen(10)
```

```
IDL> *(a[3].b)='ok ok we have understood !!'
```

```
IDL> *(a[4].b)=4.
```

```
IDL> for i=0,4 do print,*a[i].b
```

```
4.00000
```

```
4.00000
```

```
4.00000
```

```
4.00000
```

```
4.00000
```

; Then can you confirm me that it is stupid to replicate a structure with a pointer variable field

; or that I am stupid to think that !

> P.S. If I'm not mistaken, I think I recommended that structure

> solution. :-)

Yes you did :-)

Thanks,
Laurent
