
Subject: Re: Indexing structures of different type
Posted by [Craig Markwardt](#) on Thu, 17 Jun 1999 07:00:00 GMT
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Donglai Gong Rm3110 x1569 <donglai@eden.rutgers.edu> writes:

>
> Hi, does anyone know how to index structures of different types in IDL?
>
> REPLICATE won't work since it creates an array of the same structure, so
> I'm thinking of doing a structure of structures. However I don't know
> how to index them for use in a loop. Thanks in advance.

If you are *really* trying to glue a bunch of different types together, you should probably structures as you say.

How to loop over them? This is easily done with a little magic:

```
:: Initialize your structure  
s = {u:0L, v:0D, w:intarr(5), x:{a:1, b:2}, y:'hello'}
```

```
n = n_tags(s)  
for i = 0L, n-1 do begin  
  ;; The magic is here:  
  f = s.(i)
```

```
  ;; Operate on f here:  
  print, f  
endfor
```

However, you should be aware that IDL structures are pretty slow to operate on, especially when you build large ones. [Some versions of IDL have a limit on the number of elements in a structure too.]

Good luck,
Craig

--

```
-----  
Craig B. Markwardt, Ph.D.      EMAIL: craigmnet@astrog.physics.wisc.edu  
Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response  
-----
```

Subject: Re: Indexing structures of different type
Posted by [Liam Gumley](#) on Thu, 17 Jun 1999 07:00:00 GMT

Donglai Gong Rm3110 x1569 wrote:

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Perhaps the following example might help:

```
a = {name:'test', value:intarr(10)}
b = {time:0L, lat:0.0, lon:0.0}
c = {part1:replicate(a, 100), part2:replicate(b, 20)}
help, a, b, c, /structure
```

```
print, c.part1[10].name
print, c.part1[10].value[0:5]
print, c.part2[15:*.].time
```

Cheers,
Liam.

--

Liam E. Gumley
Space Science and Engineering Center, UW-Madison
<http://cimss.ssec.wisc.edu/~gumley>

Subject: Re: Indexing structures of different type
Posted by [Donglai Gong Rm3110 x](#) on Thu, 17 Jun 1999 07:00:00 GMT
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David Fanning wrote:

- >
- > Donglai Gong Rm3110 x1569 (donglai@eden.rutgers.edu) writes:
- >
- >> Hi, does anyone know how to index structures of different types in IDL?
- >
- > Uh, pointers?
- >
- > Cheers,
- >
- > David
- >
- > --
- > David Fanning, Ph.D.
- > Fanning Software Consulting
- > Phone: 970-221-0438 E-Mail: davidf@dfanning.com

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

I don't know pointer very well, if you could kindly show me how to approach this problem(or pointer in general) I'd appreciate it.

Thanks,
Donglai

Subject: Re: Indexing structures of different type
Posted by [davidf](#) on Thu, 17 Jun 1999 07:00:00 GMT
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Donglai Gong Rm3110 x1569 (donglai@eden.rutgers.edu) writes:

> Hi, does anyone know how to index structures of different types in IDL?

Uh, pointers?

Cheers,

David

--

David Fanning, Ph.D.
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