
Subject: Re: newbie question / concatenation of arrays of nested structure

Posted by [Liam Gumley](#) on Wed, 08 Sep 1999 07:00:00 GMT

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Thomas Launey wrote:

```
> how can I concatenate 2 arrays of anonymous nested structures?
> In other word, try to concatenate the two arrays below
>
> first=replicate({a:0,b:'name',c:{d:0,e:0}},5)
> second=replicate({a:0,b:'name',c:{d:0,e:0}},3)
> third=[first,second]
> % Conflicting data structures: B,concatenation.
> % Execution halted at: $MAIN$
```

Since first and second are anonymous structures, IDL has no way of knowing that they contain the same fields, e.g.

```
IDL> first = replicate({a:0,b:'name',c:{d:0,e:0}},5)
IDL> second = replicate({a:0,b:'name',c:{d:0,e:0}},3)
IDL> help, first, /structure
** Structure <1373ab8>, 3 tags, length=16, refs=1:
A      INT      0
B      STRING   'name'
C      STRUCT   -> <Anonymous> Array[1]
IDL> help, second, /structure
** Structure <13734c8>, 3 tags, length=16, refs=1:
A      INT      0
B      STRING   'name'
C      STRUCT   -> <Anonymous> Array[1]
```

You can see that the structure ids are different (1373ab8 vs. 13734c8). IDL uses the structure id to determine if structures are equivalent.

The only way to create equivalent structures is to use named structures, e.g.

```
IDL> record = {z, a:0, b:'name', c:0}
IDL> first = replicate(record, 5)
IDL> second = replicate(record, 3)
IDL> combo = [first, second]
IDL> help, first, /structure
** Structure Z, 3 tags, length=16:
A      INT      0
B      STRING   'name'
C      INT      0
IDL> help, second, /structure
** Structure Z, 3 tags, length=16:
A      INT      0
```

```
B      STRING  'name'  
C      INT     0
```

Now first and second have the same structure id (z), and they can be concatenated. Note that IDL does not like nested anonymous structures inside a named structure, e.g.

```
IDL> record = {x, a:0, b:'name', c:{d:0, e:0}}  
% Structures can't have anonymous structure members  
% Execution halted at: $MAIN$
```

so you may have to re-think your original record format.

Cheers,
Liam.

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--  
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