
Subject: how to get an array of variable length arrays

Posted by [greec](#) on Sun, 27 Nov 1994 13:35:54 GMT

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Does anyone know how you can create an array of variable length arrays?.

e.g in C you could do it like this:

```
float a[10],b[5],c[14];
```

```
float *arrays[3];
```

```
arrays[0]=a; arrays[1]=b; arrays[2]=c;
```

Thanks in advance for any help you can give.

Chris

greec@essex.ac.uk

Subject: Re: how to get an array of variable length arrays

Posted by [sjt](#) on Mon, 28 Nov 1994 09:43:21 GMT

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greec@essex.ac.uk wrote:

: Does anyone know how you can create an array of
variable length : arrays?.

: e.g in C you could do it like this:

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```
: arrays[0]=a; arrays[1]=b; arrays[2]=c;
```

: Thanks in advance for any help you can give.

: Chris

: greec@essex.ac.uk

The only thing I can think of would be to use a structure: e.g. for you
example

```
a = fltarr(10)
```

```
b = fltarr(5)
```

```
c = fltarr(14)
arrays = {f1:a, f2:b, f3:c}
```

You can then access the fields numerically by using the form:
val = arrays.(n)(m)

But you can't then replace the f3 field with a 6 element array, you would have to make a new structure.

```
--
+-----+-----+-----+
| James Tappin,      | School of Physics & Space Research | O__  |
| sjt@xun8.sr.bham.ac.uk | University of Birmingham      | -- V` |
| "If all else fails--read the instructions!"      |      |
+-----+-----+-----+
```

Subject: Re: how to get an array of variable length arrays
Posted by [dave](#) on Mon, 28 Nov 1994 23:22:15 GMT
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>>>> > "James" == James Tappin <sjt@xun8.sr.bham.ac.uk> writes:
In article <3bc8np\$q64@sun4.bham.ac.uk> sjt@xun8.sr.bham.ac.uk (James Tappin) writes:

James> greec@essex.ac.uk wrote: : Does anyone know how you can
James> create an array of variable length : arrays?.

James> : e.g in C you could do it like this:

James> : float a[10],b[5],c[14]; : float *arrays[3];

James> : arrays[0]=a; arrays[1]=b; arrays[2]=c;

James> : Thanks in advance for any help you can give.

James> : Chris

James> : greec@essex.ac.uk

James> The only thing I can think of would be to use a structure:
James> e.g. for you example

James> a = fltarr(10) b = fltarr(5) c = fltarr(14) arrays = {f1:a,
James> f2:b, f3:c}

James> You can then access the fields numerically by using the

James> form: val = arrays.(n)(m)

James> But you can't then replace the f3 field with a 6 element

James> array, you would have to make a new structure.

The structure approach is the simplest. You could get more flexibility with handles:

```
a = fltarr(10)& b=fltarr(5) &c=fltarr(14)
arrays=lonarr(3)
```

```
array(0)=handle_create(/value=a)
array(1)=handle_create(/value=b)
array(2)=handle_create(/value=c)
```

Of course, the handle mechanism is not as simple or elegant as the C pointer mechanism, and you need to use `handle_value` to access the elements.:

```
; get j=array(x,*):
```

```
handle_value,array(x), j
```

```
--
```

```
David Fenyes                dave@image6.med.uth.tmc.edu
University of Texas Medical School    Houston, Texas
```
