Subject: Re: which array dimensions are contiguous?
Posted by David Fanning on Mon, 13 Feb 2006 20:04:43 GMT

greg michael writes:

> I know somebody wrote this only recently, but I can't find it again. If
> the function below, EvaluateFunctionSection, returns a 2-d array
> (ns,nl), will assignment put it into contiguous memory, or make some
> kind of awful (slow?) mess?
>
> b=fltarr(ns,nl,n_elements(f))
> for i=1,n_elements(f) do begin
>
> b[*,*,i]=self-> EvaluateFunctionSection(f[i],ln,sm,nl,ns,downsample=downsamp le)
> endfor

It will make a (slow) mess. Do this, instead:

```
 b[0,0,I]=self->EvaluateFunctionSection[I], $
   ln,sm,nl,ns,downsample=downsample)
```

See this article:

   http://www.dfanning.com/misc_tips/submemory.html

Cheers,

David
--
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Coyote's Guide to IDL Programming: http://www.dfanning.com/

Subject: Re: which array dimensions are contiguous?
Posted by greg michael on Tue, 14 Feb 2006 10:31:45 GMT

Thanks, David. My question was really only about whether the first
dimensions of an array are the contiguous ones, to which I understand
the answer is yes. The indexing mess is different (and probably worse)
than the one I was imagining, so thanks for that, too.

Still, there's something in that article I couldn't grasp...

```
   IDL> myArray = FltArr(3660, 1680)
   IDL> indices = Randomu(seed, 100000) * 3660L * 1680L
```

IDL> myArray[indices, indices] = 5

I'd have understood if the 3rd line said myArray[indices] = 5. What's
going on here? Why doesn't it cause an error to put in a list of
indices which exceed the dimension?

IDL> print,max(indices)
 6.14869e+006

I suppose they're being first enumerated into a single list, and then
being applied as 1-d subscripts? I wouldn't have said "No problems with
this. "!

regards,
Greg

Subject: Re: which array dimensions are contiguous?
Posted by greg michael on Tue, 14 Feb 2006 10:51:33 GMT
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oops - that was the original question... don't bother to answer that!

greg