
Subject: Re: Incremental variable names?

Posted by [Jonathan Greenberg](#) on Tue, 03 Feb 2004 05:46:41 GMT

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I should get in the practice of not making "examples" of what I want to do and just come out and say it:

OK, from a previous email we were discussing extracting "rings" of data from an image to calculate a semivariance for each pixel in the image. The previous suggestions helped a lot in optimizing how to extract the data from the array (use where + an array of index values of the ring locations offset from the center pixel).

I'm trying to optimize this algorithm for use with large images. ENVI/IDL work well if you extract a single line of an image at a time (line = y axis, by the way). For a circular mask, however, I'd need to extract at least as many lines as the maximum circular diameter (e.g. If my circle is 3 pixels in radius, I need to pull out 7 lines of data to figure out the values along the ring).

It occurred to me (and tell me if I'm wrong), that while I CAN extract the line I'm working on +/- 3 lines from the image each time, this seems like an awful waste of I/O, when in reality the next line will use all but one of the previous extracted rows (e.g. I just need to read the next line in, and delete the current top line to free up memory). Creating arrays of the lines would require rewriting the arrays each time (e.g. `Arraynew = (arrayold(2:7),newline)` -- I know this isn't idl code, but you get the idea) which seems slower than just having 7 named variables (line1,line2,...line7), doing my calculation, then deleting line1, and adding line8 and repeating.

No? Is there a better way of "preserving" the data I've already read from the HD than using incremental variable names?

--j

On 2/2/04 1:45 PM, in article
df160b8f.0402021345.25b58a8@posting.google.com, "Big Bird"
<condor@biosys.net> wrote:

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> Jonathan Greenberg <greenberg@ucdavis.edu> wrote in message
> news:<BC430FE2.18E9C%greenberg@ucdavis.edu>...
>> Have a question about variable names. Is there any way to create and then
>> call variable names that have some incremental value in them, e.g.:
>>
>> t0
```

```
>> t1
>> t2
>>
>> Etc... I want to be able to first create and assign a value to tn where n =
>> 0 to whatever, and then be able to subsequently call that variable using a
>> loop.
>>
>
>
> OK, now tell us what you REALLY want to do. ;-)
>
> As it is written up there, there doesn't exactly seem to be a reason
> not to use an array for your variables -- instead of tn you write t[n]
> and that's pretty much it.
>
> I assume that there's a reason for you not to do things that way.
>
> Now while there is certainly the possibility to use EXECUTE, I'd be
> surprised if there weren't some cleverer way to do whatever you're
> trying to do and I'm sure a lot of people would be happy to tell you
> about that way if we had a little more information at hand ...
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