Subject: Cyclic array interfaces
Posted by Jonathan Greenberg on Tue, 13 Jul 2004 00:42:56 GMT
View Forum Message <> Reply to Message

A few months back I was asking about efficient ways of interacting with images where I can perform spatial transforms (e.g. Applying a 5 x 5 filter of some sort to the image), and I got lots of good information back, and one idea in particular intrigued me: working with an array in a cyclic fashion. My question is: is replacing a single "line" of an N x M arrau with a 1 x M vector using something like:

A=[[1,2,3],[4,5,6]]
B=[7,8,9]
A[*,1]=B

... An efficient method of replacing data in an array? Or does A get completely rewritten and takes as much time as:

C=[[10,11,12],[13,14,15]]
A=C

(e.g. Does IDL actually rewrite the entire array, regardless of how many elements are being changed, or does it only change the particular elements and hence the first example should be about twice as fast as the second)?

If example #1 is faster than #2, then I can implement a cyclical array approach, where if I want to work with 5 lines of an image at a time, the "line index" the first iteration would be:
0,1,2,3,4
And the second iteration (as I shift down one line):
5,1,2,3,4 (so I'm overwriting only one line of data at a time).

Thoughts?

--j

--
Jonathan Greenberg
Graduate Group in Ecology, U.C. Davis
http://www.cstars.ucdavis.edu/~jongreen
http://www.cstars.ucdavis.edu
AIM: jgrn307 or jgrn3007
MSN: jgrn307@msn.com or jgrn3007@msn.com