Subject: how to find continuous regions
Posted by astroboy2k on Mon, 11 Feb 2008 17:16:00 GMT
View Forum Message <> Reply to Message

Hello.

Does anyone know of any code that finds continuous regions? To be more exact:

I have a 3D dataset, say 64x64x64. Within this array, many entries will be 1, some will be zero. Is there an easy way to identify all the groups of array elements equal to 1 which lie adjacent to each other?

For a 1D dataset this is what I'm looking for:

arr=[0, 1, 1, 0, 0, 0, 1, 1, 1, 0, 0, 0, 1,1,1,1,1, 0, 0, 0, 0]
first second third
So, there are three continuous regions. (I don't care about isolated 1's).
I'd like to have an array (arr2) returned where I'd have something like:

arr =[0, 1, 1, 0, 0, 0, 1, 1, 1, 0, 0, 0, 1,1,1,1,1, 0, 0, 0, 0]
arr2=[0, 1, 1, 0, 0, 0, 2, 2, 2, 0, 0, 0, 3,3, 3,3,3, 0, 0, 0, 0]

As I said, I need such a thing for a 3D array....

I expect I'm looking at recursive routines which I've always had trouble getting my mind around. I'd rather not re-invent the wheel if I can avoid it.

Thanks!

Mark