Subject: Re: how to find continuous regions
Posted by Jean H. on Mon, 11 Feb 2008 17:46:09 GMT
View Forum Message <> Reply to Message

Mark wrote:
> 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

Hi Mark,
have a look at LABEL_REGION
Note that, to get correct result, you would have to increase the size of
each dimension by 1, as the outer limit is not considered in the algorithm.

```
data = indgen(10,10)
==> data2 = intarr(12,12)
data2[1:10,1:10] = data

result = lab_region(data2)
```

Jean

Subject: Re: how to find continuous regions
Posted by Michael Galloy on Mon, 11 Feb 2008 17:49:42 GMT
View Forum Message <> Reply to Message

On Feb 11, 10:16 am, Mark <astrobo...@gmail.com> wrote:
> 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.

Check out LABEL_REGION.

Mike
--
www.michaelgalloy.com
Tech-X Corporation
Software Developer II