Subject: finding boundary in image having multiple region of interest
Posted by gunvicsin11 on Tue, 30 Aug 2016 06:07:44 GMT
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Hi all,
I need to select roi having combined pixel area above 3493pixels and intensity above 1.25.

I tried using find_boundary which gives the pixel area for pixels above the threshold for one roi that we give as input. But in one image I have multiple rois to be selected. so find_boundary will not work.

I have several images like this.

So do anyone have any idea to do this.

The threshold should be the intensity should be more than 1.25 and the combined pixel area should be greater than 3493 pixels.

thanks

Subject: Re: finding boundary in image having multiple region of interest
Posted by Helder Marchetto on Tue, 30 Aug 2016 08:52:13 GMT
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On Tuesday, August 30, 2016 at 8:07:48 AM UTC+2, sin wrote:
> Hi all,
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Hi,
I don't understand why you tried find boundary. But I think what you're looking for is a combination of "greater then" and label_region.

```
subImage = myImage gt 1.25
lr = label_region(subImage)
```

then use histogram to identify the regions and look for the one's with more than 3493 pixels. In case of doubt, follow the example given for label_region:
http://www.harrisgeospatial.com/docs/LABEL_REGION.html

Here is what is of interest for you:

```
h = histogram(lr, REVERSE_INDICES=r)

; Print the mean and standard deviation of each region
FOR i=0, N_ELEMENTS(h)-1 DO if h[i] gt 3493 then $
  PRINT, 'This region ', i, ', has a population greater than 3493 and has = ', h[i], $
  ', elements. The indices of this region are between ', r[i],' and ', r[i+1]-1
```

I hope this helps.

Cheers,
Helder

Subject: Re: finding boundary in image having multiple region of interest
Posted by gunvicsin11 on Wed, 31 Aug 2016 06:21:41 GMT
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On Tuesday, August 30, 2016 at 2:22:18 PM UTC+5:30, Helder wrote:
> On Tuesday, August 30, 2016 at 8:07:48 AM UTC+2, sin wrote:
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Thanks a lot helder, it is very helpful.
But I couldnt understand how to get array x,y coordinates from the indices r(i).
can i use array_indices for this purpose.
I tried but i am not sure whether it is correct or not.

thanks

Subject: Re: finding boundary in image having multiple region of interest
Posted by Helder Marchetto on Wed, 31 Aug 2016 09:37:10 GMT
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Hi,
I can't tell if what you did is correct or not, but if you want to convert one-dimensional subscript to two dimensional, then array_indices is the way to go.
For some examples, to learn how to use it, have a look at the help pages:
http://www.harrisgeospatial.com/docs/ARRAY_INDICES.html

I also think that the label_region page has an example on how to use the reverse_indices of the histogram function to retrieve one-dimensional subscripts:
http://www.harrisgeospatial.com/docs/LABEL_REGION.html
I think the last line of the example is the most important one:
img[r[r[i]:r[i+1]-1]]

The histogram function help page also has some more info on how to use the reverse indices:
http://www.harrisgeospatial.com/docs/histogram.html

Good luck,

Helder

On Wednesday, August 31, 2016 at 8:21:46 AM UTC+2, sin wrote:
> On Tuesday, August 30, 2016 at 2:22:18 PM UTC+5:30, Helder wrote:
>> On Tuesday, August 30, 2016 at 8:07:48 AM UTC+2, sin wrote:
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Subject: Re: finding boundary in image having multiple region of interest
Posted by gunvicsin11 on Wed, 31 Aug 2016 10:46:17 GMT
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On Wednesday, August 31, 2016 at 3:07:14 PM UTC+5:30, Helder wrote:
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