
Subject: Re: Get pixel info from an geotiff ROI (lat long)
Posted by [David Fanning](#) on Sun, 16 Dec 2007 14:19:03 GMT
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aleks.franca@gmail.com writes:

> I have a problem with georeferenced tiff files. I need to get pixel
> information from a geotiff image. I have the coordinates LAT LONG of a
> ROI. Inside the Region of interest I need to get information about the
> pixels, such as the many of pixels, and their values.
> It seems to be very simple, but I can't find the right function. I've
> tried to use CONTOUR, but it doesn't give pixel values. I've also
> tried POLYFILL, but it just draws the polygons.
> Could somebody please advise me with a function in IDL, so I could
> work on?

POLYFILLV will return all the pixel indices inside your
polygon. But I would really think about putting these
ROIs into IDLanROI objects. That way you get methods that
do just about everything you can think of to do with an
ROI.

Cheers,

David

--

David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: <http://www.dfanning.com/>
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: Get pixel info from an geotiff ROI (lat long)
Posted by aleks.franca@gmail.co on Mon, 17 Dec 2007 01:10:15 GMT
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> polygon. But I would really think about putting these
> ROIs into IDLanROI objects. That way you get methods that
> do just about everything you can think of to do with an
> ROI.
>
> Cheers,
>
> David

Thank you David. Your hint was of good help, but I still have some
problems. I'm using POLLYFILLV because I still have problems with

objects, but I'll get over it soon.

The input is a txt file with the coordinates of a Region in lat long.
I take that and interpret each coordinate in a pixel value:

```
vetGridX = intarr(n_elements(vetLonX))
vetGridY = intarr(n_elements(vetLatY))

for i=0, n_elements(vetGridX)-1 do $
begin
  vetGridX[i] = fix((vetLonX[i] - LongMin) / pixelSize_X)
  vetGridY[i] = fix((vetLatY[i] - LatMin) / pixelSize_Y)
endfor
vetGridY = (2791-vetGridY) ;2791 is the ysize of the image
```

```
;I have then 2 vectors if integer
VETGRIDX      INT      = Array[554]
VETGRIDY      INT      = Array[554]
```

```
;After that I make them become vectors of a single string.
vetGridX = strtrim(vetGridX, 2)
vetGridY = strtrim(vetGridY, 2)
```

```
vetGridX = STRJOIN(vetGridX, ',')
vetGridY = STRJOIN(vetGridY, ',')
```

```
;This is an example of the first and last points of the string.
```

```
;Note that some points are repeated.
```

```
VETGRIDX      STRING   = 769,769,770,770,770 ...
771,771,770,770,770,770,770,770,770
VETGRIDY      STRING   = 1100,1100,1100,1100,1100 ...
1101,1101,1101,1101,1101,1101,1101,1100,1100,1100
```

```
;I use the function like this:
```

```
P = img[polyfillv([VETGRIDX], [VETGRIDY], 4453, 2791)]
```

And this is the result

```
% POLYFILLV: Not enough valid and unique points specified.
```

I've thought that the first and the last point cannot repeat, so I've tried that and the function works just once and never happened again.
That's very crazy.

Would someone help me on that?

Thank you!

Subject: Re: Get pixel info from an geotiff ROI (lat long)
Posted by [David Fanning](#) on Mon, 17 Dec 2007 01:36:22 GMT
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aleks.franca@gmail.com writes:

```
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> The input is a txt file with the coordinates of a Region in lat long.
> I take that and interpret each coordinate in a pixel value:
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> for i=0, n_elements(vetGridX)-1 do $
> begin
>   vetGridX[i] = fix((vetLonX[i] - LongMin) / pixelSize_X)
>   vetGridY[i] = fix((vetLatY[i] - LatMin) / pixelSize_Y)
> endfor
> vetGridY = (2791-vetGridY) ;2791 is the ysize of the image
>
> ;I have then 2 vectors if integer
> VETGRIDX      INT      = Array[554]
> VETGRIDY      INT      = Array[554]
>
> ;After that I make them become vectors of a single string.
> vetGridX = strtrim(vetGridX, 2)
> vetGridY = strtrim(vetGridY, 2)
>
> vetGridX = STRJOIN(vetGridX, ',')
> vetGridY = STRJOIN(vetGridY, ',')
>
> ;This is an example of the first and last points of the string.
> ;Note that some points are repeated.
> VETGRIDX      STRING   = 769,769,770,770,770 ...
> 771,771,770,770,770,770,770,770,770,770
> VETGRIDY      STRING   = 1100,1100,1100,1100,1100 ...
> 1101,1101,1101,1101,1101,1101,1101,1101,1100,1100
>
> ;I use the function like this:
> P = img[polyfillv([VETGRIDX], [VETGRIDY], 4453, 2791)]
>
> And this is the result
```

> % POLYFILLV: Not enough valid and unique points specified.
>
>
> I've thought that the first and the last point cannot repeat, so I've
> tried that and the function works just once and never happened again.
> That's very crazy.
>
> Would someone help me on that?

Humm, I'm going to a concert tonight. But have you tried NOT treating them as strings. (I've never heard of this, honestly.) Try just passing the integers. I've no idea why POLYFILLV is complaining, but it is possible he is as confused about your method as I am. If you have too many of the same points, you might have to decimate your polygon. See my article on MESH_DECIMATE for some suggestions. Then I would have a look at your polygons to see if they still look right.

Wife's calling, have to go...

Cheers,

David

--

David Fanning, Ph.D.
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