
Subject: Re: Extracting average pixel value
Posted by [Juggernaut](#) on Thu, 23 Apr 2009 17:00:46 GMT
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On Apr 22, 3:48 am, GP <gepo...@gmail.com> wrote:

> Hello...
>
> I have an .img file composed of 24 images (one every two weeks) and I
> want to extract an spectral average pixel value for a 3x3 window with
> the center pixel in sample=4567 and line 643.
> Anyone know what would be the best approach to do this with IDL or
> ENVI?
>
> The .img file is a layer stacking... So the 24 images are represented
> as "bands" if I open it with ENVI
>
> Thanks in advance...
> Geo

In IDL you can do a
newArray = CONVOL(imageArray, [[1,1,1],[1,0,1],[1,1,1]], /CENTER)
This will compute the average value in a 3x3 box around each pixel
(except
the edge pixels which you can set to zero or truncate or handle
separately...
whatever you please really. Who needs edges anyway, right?)

Bennett

Subject: Re: Extracting average pixel value
Posted by [Juggernaut](#) on Thu, 23 Apr 2009 17:11:46 GMT
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On Apr 23, 1:00 pm, Bennett <juggernau...@gmail.com> wrote:

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> Bennett

I forgot to say also divide your resulting newArray by 8.

Subject: Re: Extracting average pixel value
Posted by [jameskuyper](#) on Fri, 24 Apr 2009 09:53:22 GMT
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Bennett wrote:

> On Apr 23, 1:00 pm, Bennett <juggernaut...@gmail.com> wrote:
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> I forgot to say also divide your resulting newArray by 8.

Alternatively, you could divide the array of weighting factors by 8.

Subject: Re: Extracting average pixel value
Posted by [GP](#) on Mon, 04 May 2009 07:46:34 GMT
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On Apr 24, 2:53 am, James Kuyper <jameskuy...@verizon.net> wrote:
> Bennett wrote:
>> On Apr 23, 1:00 pm, Bennett <juggernaut...@gmail.com> wrote:
> ...
>>> In IDL you can do a

```

>>> newArray = CONVOL(imageArray, [[1,1,1],[1,0,1],[1,1,1]], /CENTER)
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```

What do you think about this ENVI-approach to extract an average window (profiled)

Once I open the stacked file (24 stacked layers) and get the id
lfile_id

```

...
arrayAvgYear = make_array(20,24, /float) ; ### ~ 24 periods per year
for 20 years.
noPixels = 9
countYear = 0;
ENVI_FILE_QUERY, lfile_id, NS = ns, NL = nl, NB = nb, sname=sname,
interleave=interleave
pb= indgen(nb)
line1 = ENVI_GET_SLICE (fid = lfile_id, line=640,
pos=pb,xs=initSample, xe=lastSample )
line2 = ENVI_GET_SLICE (fid = lfile_id, line=641,
pos=pb,xs=initSample, xe=lastSample )
line3 = ENVI_GET_SLICE (fid = lfile_id, line=642,
pos=pb,xs=initSample, xe=lastSample )

```

```

For i=0, nb-1 Do Begin
  arrayAvgYear[countYear,i] = (total(line1[* ,i]) + total(line2[* ,i])
+ total(line3[* ,i])) / noPixels ;### Get the average for each image
of stacked layers
EndFor
countYear+=1 ;count for each year
fn+=1
IF (fn eq 2009) THEN BREAK
Endwhile

```

Then I just save the arrayAvgYear into a text file and I got a file
with one values for each year (every 14 days)

```

Date, Year1, Year2,... Year20
1, 0.3343, 0.233,
14, 0.3344, 0.334,

```

28, 0.3323, 0.344,

...

365

Any opinions...

Geo
