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 View Forum Message <> Reply to Message

On Apr 23, 1:00 pm, Bennett < juggernau...@gmail.com> wrote:

> 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.
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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 View Forum Message <> Reply to Message

Bennett wrote:

> On Apr 23, 1:00 pm, Bennett < juggernau...@gmail.com> wrote:

- - -

- >> 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
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- >> the edge pixels which you can set to zero or truncate or handle
- >> separately...
- >> whatever you please really. Who needs edges anyway, right?)

>>

>> Bennett

>

> 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 < juggernau...@gmail.com> wrote:

> ...

>>> In IDL you can do a

```
>>> newArray = CONVOL(imageArray, [[1,1,1],[1,0,1],[1,1,1]], /CENTER)
>>> This will compute theaveragevalue 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
>> I forgot to say also divide your resulting newArray by 8.
> Alternatively, you could divide the array of weighting factors by 8.
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
Ifile id
arrayAvgYear = make array(20,24, /float); ### ~ 24 periods per year
for 20 years.
noPixels = 9
countYear =0;
ENVI_FILE_QUERY, Ifile_id, NS = ns, NL = nl, NB = nb, sname=sname,
interleave=interleave
pb= indgen(nb)
line1 = ENVI_GET_SLICE (fid = Ifile_id, line=640,
pos=pb,xs=initSample, xe=lastSample)
line2 = ENVI GET SLICE (fid = Ifile id, line=641,
pos=pb,xs=initSample, xe=lastSample)
line3 = ENVI GET SLICE (fid = Ifile 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