Subject: Multi-band sampling strategy
Posted by JessW on Wed, 18 Aug 2010 03:10:45 GMT
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Hi all,

I'm using an IDL script in ENVI to retrieve the values of a multiband image at a user-specified number of pixels. The script works as intended, but is quite slow; sampling an 8-band image at ~ 38,000 pixel locations takes
52.35 minutes. The issue is the following loop:

```
FOR i= 0L, nSamplePix - 1 DO BEGIN
    pixValues[i,*] = ENVI_GET_SLICE(fid=fid,line=(index[1,i]-1),$
    pos=bandsSelected,xs=(index[0,i]-1), xe=(index[0,i]-1))
ENDFOR
```

If anyone can suggest an alternate, faster sampling strategy--preferably one that doesn't include the purchase of a new, faster computer--I would be extremely grateful.

Thanks,

Jess

Subject: Re: Multi-band sampling strategy
Posted by penteado on Wed, 25 Aug 2010 18:30:12 GMT
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On Aug 25, 3:13 pm, JessW <jess.wal...@gmail.com> wrote:
> Wow! I had no idea histograms could deliver that kind of efficient
> performance. It looks like I'll just have to keep the aspirin handy
> from now on.

In IDL 8, the contents of reverse_indices can be more nicely presented in a list, where each element contains the (possibly empty) array of indices for the corresponding bin. I made a simple wrapper to return such a list with a new keyword (reverse_list):

http://www.ppenteado.net/idl/histogram_pp.html
http://www.ppenteado.net/idl/histogram_pp.pro