
Subject: costum stretch an image

Posted by [ivitseva](#) on Mon, 30 Nov 2009 17:57:58 GMT

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Good mornig or evening everybody. I'm trying to solve this stretching issue for some time now, my attempts resulted in a huge mess...Please help!

I'd like to stretch an image of 1 band using IDL or ENVI stretch_doit, whatever is the fastest. I need to script it for I'll need to do it with a huge number of images.

My image is a floating point, the input range of values is 0.000000 to 76.021912 and the output should be integer.

Now, the values 0.000000 till 36.0000 should be stretched into a range of -12 to -1, the values in the range of 37.0000 till 72.0000 should be stretched into a range of 0 till 36, and the values from 72.000000 till 76.021912 should be in the range of 37 to 48.

This might be a piece of cake but I just cannot manage it. I had tried to do it with stretch_doit but not being a programmer I am stuck with this quite easy task...so here is what I did till now but it is completely wrong for all these else-es and endelse-es and if-s and endif-s are wrong...

pro stretch_doit

envi, /restore_base_save_files

```
envi_batch_init, log_file='batch.txt'  
indir='H:\eva\noaaphentimesat\  
infile=dialog_pickfile(path=indir,filter='.bil')  
envi_open_file, infile, r_fid=fid  
if (fid eq -1) then begin  
    envi_batch_exit  
    return  
endif
```

```
bname=file_basename(infile, '.bil')
```

```
outfile=bname+'str'+'.bil'
```

```
envi_file_query, fid, dims=dims, nb=nb
```

```
phe=envi_get_data(fid=fid, dims=dims, pos=0)
```

```
if phe lt 37.000000 then begin
```

```
    envi_doit, 'stretch_doit', fid=fid, pos=0, dims=dims, method=1,  
    i_min=0.000000, i_max=36.000000,$
```

```
    range_by=1, out_min=-12, out_max=0, out_dt=2, r_fid=sfid1,  
in_memory
```

```
endif else begin
```

```
if phe ge 37.00000 and phe le 72.000000
```

```
  envi_doit,'stretch_doit',fid=fid,pos=0,dims=dims,method=1,i_ min=37.000000,  
i_ max=72.000000,$
```

```
  range_by=1, out_min=0, out_max=36, out_dt=2, r_fid=sfid2,/  
in_memory
```

```
  endif
```

```
  endelse
```

```
  else begin
```

```
  envi_doit,'stretch_doit',fid=fid,pos=0,dims=dims,method=1,i_ min=38.000000,  
i_ max= 76.021912,$
```

```
  range_by=1, out_min=37, out_max=48, out_dt=2, r_fid=sfid3,/  
in_memory
```

```
  endelse
```

```
endelse
```

```
outfid=[sfid1,sfid2,sfid3]
```

```
phestr=envi_get_data(fid=outfid, dims=dims,pos=0)
```

```
ENVI_WRITE_ENVI_FILE, phestr, out_name=outfile,data_type=2
```

```
envi_batch_exit
```

```
end
```

I also tried to define ranges like below but then I don't know how to go on:

```
low=where(phe lt 37.000000)
```

```
middle=where(phe ge 37.000000 and phe le 72.000000)
```

```
high=where(phe gt 72.000000 and le 76.021912)
```