
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\n00aa\phentimesat\'
    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 37.000000 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)

```
