
Subject: Request for help using IDL in ENVI
Posted by [lmartinez](#) on Mon, 09 Jun 2003 18:35:12 GMT
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I am wondering if anyone can help me out with this problem I am having. What I am doing is (or trying to do) trying to allow the user to select a file to perform a certain math process on, then just simply output the resulting image file to either memory or a file. However, I get the following error..."String expression required in this context. PROC_NAME. The result may be invalid." An image pops up afterwards, but is not quite what i expected. I dont know if I am calling the bands wrong because it is a 250(x) by 250(y) by 256(z) image. I took an IDL Intro programming class, but didnt quite learn how to tie it in with ENVI, so PLEASE HELP!!! Below is my code for you to look over.

Thanks, Luis

```
;-----  
pro test_8, ev  
;  
;-----  
; The user will be able to modify these band values depending on  
binning  
  
redband = 119  
greenband = 74  
blueband = 27  
band_1 = 179 ;*nm  
band_2 = 199 ;*nm  
c1 = 816 ; Absorption coefficient for Hbo2 at *nm  
c2 = 586 ; Absorption coefficient for HbO2 at *nm  
c3 = 1548.52 ; Absorption coefficient for Hb at *nm  
  
widget_control, ev.id, get_uvalue=uvalue  
if (uvalue eq 'user ratio') then begin  
  
envi_select, title='Select Input File', fid=fid, dims=dims, pos=pos  
print, 'dims ', dims  
if (fid eq -1) then return  
  
envi_file_query, fid, ns=ns, nl=nl, nb=nb, bnames=bnames  
print, 'ns= ', ns, ' nl =', nl, ' nb =', nb  
;  
;-----  
; The user will be able to modify the value for 'nb' depending on  
binning
```

```

if (nb ne 256) then return

envi_display_bands, [fid,fid,fid], [redband,greenband,blueband], /new
;
;-----
; Create a widget for the input parameters

base = widget_auto_base(title='Ratio Parameters', /xbig, /ybig)
a0 = widget_base(base, /column, /frame, /ALIGN_CENTER)
label1 = widget_label(a0, value = 'NOTE:Changing these bands would
result in invalid output')
a1 = widget_param(a0, /auto_manage, dt=4, field=2, prompt = 'Band 1
= (760nm)', $
    uvalue = 'band_1', default = band_1)
a2 = widget_param(a0, /auto_manage, dt=4, field=2, prompt = 'Band 2
= (800nm)', $
    uvalue = 'band_2', default = band_2)
;
;-----
; Create a widget for the output parameters

a3 = widget_outfm(base, uvalue='Outf', default=file_output,
prompt=prompt, /auto_manage)

result = auto_wid_mng(base)
if (result.accept eq 0) then return
if ((result.outf.in_memory) eq 1) then begin
    band_1 = result.band_1
    band_2 = result.band_2

print, '760nm = ', band_1, '800nm = ', band_2
endif else return

;-----
; Calculate the ratio

a = alog10(1/(band_1/100))
b= alog10(1/(band_2/100))
results = ((c1/(c2-c3)) * (a/b)) - (c3/(c2-c3))

envi_enter_data, results, r_fid = results
;print, 'file name = ', results
;
;-----
; Output the file

envi_check_save, /utility

```

```
envi_output_to_external_format, dims = dims, pos = spos, fid = results
```

```
envi_display_bands, [fid], [results], /new
```

```
endif
```

```
end
```
