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 ouput')
  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
```