Subject: How to use IDL to read a large file of Geotif format and then write to a new geotif-format file?
Posted by chenshengbj on Tue, 18 Dec 2007 06:19:21 GMT
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Hello,everyone,
this is my first time to post my question in the forum. As a beginner in learning IDL, I found a difficulty in reading a large file and write into a new file.My work is to read large file whose size if about 10 GB. Will anyone tell me how to read a large file of Geotif format and then write to a new geotif-format file with the projection and coordination information from the sourc file?

Subject: Re: How to use IDL to read a large file of Geotif format and then write to a new geotif-format file?
Posted by KRDean on Sat, 29 Dec 2007 06:24:16 GMT
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10 Gb is pretty big. In fact, this is too big for a GeoTIFF. The biggest a GeoTIFF can get is 4.7 Gb. That is because the offset to the first IFD in the TIFF file is an unsign long.

Your GeoTIFF is most likely a 1 Gb. From experience, IDL produces a core dump when you try to read a GeoTIFF over 2.0 Gb.

This is what I do to read a large GeoTIFF (1Gb or larger) with IDL. (see code at end). To write a smaller section as a GeoTIFF, refer to the IDL Help. It provides a nice discussion about preparing the GeoTIFF tags for output.

Kelly Dean
Fort Collins, CO

```
;+
;
;
 ;------------------------------------------------------------ -----------
;

PRO PrintTags, stc, Verbose=Verbose

tags = TAG_NAMES( stc )
ntags = N_TAGS( stc )

FOR i = 0, ntags-1 DO BEGIN
  PRINT, ' Print Tags -- ', tags[i], ' Value -- : ', stc.(i)
ENDFOR
```

```
END

;+
;
; @examples
;  <PRE>
;  TIFFsaw, 'C:\Data\Boulder\05JUL04180116-
P2AS-005554445180_01_P001.TIF'
;  </PRE>
;
 ;------------------------------------------------------------ -----------
PRO TIFFsaw, file, Verbose=Verbose

IF ( FILE_TEST( file ) ) THEN BEGIN
  IF ( QUERY_TIFF( file, info, GEOTIFF=geoinfo ) ) THEN BEGIN

    IF ( KEYWORD_SET( Verbose ) ) THEN PrintTags, info, Verbose =
Verbose
    IF ( KEYWORD_SET( Verbose ) ) THEN PrintTags, geoinfo, Verbose =
Verbose

    startCol = 0UL
    startRow = 0UL
    rows = 1000UL
    cols = info.dimensions[0]
    nchop = info.dimensions[1] / rows
    FOR i = 0, nchop-1 DO BEGIN
      subRect = [ startCol, startRow, cols, rows ]
      imgchop = READ_TIFF( file, SUB_RECT = subRect )
;      startCol = startCol
      startRow = startRow + rows
      title = STRING( subRect, FORMAT='( "IDL chop : ", 4( 1X,
I0) )' )
      WINDOW, 0, XSIZE=cols, YSIZE=rows, TITLE=title
      TVscl, imgChop, /Order
    ENDFOR
  ENDIF ELSE BEGIN
    IF ( KEYWORD_SET( Verbose ) ) THEN MESSAGE, /CONT, ' -- File is
not a TIFF : ' + file
  ENDELSE
ENDIF ELSE BEGIN
  IF ( KEYWORD_SET( Verbose ) ) THEN MESSAGE, /CONT, ' -- File not
found : ' + file
ENDELSE

END
```

On Dec 17, 11:19 pm, chenshen...@gmail.com wrote:
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