
Subject: 2 questions

Posted by [Bob Fugate](#) on Thu, 16 Aug 2001 02:49:24 GMT

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I am batch processing a number of HDF files, saving output to results files. I have a short procedure that first checks the validity of the files using HDF_ISHDF -- just to avoid file access problems during the main processing routines. The files are located on a server, or if old enough, on a tape library, with only a stub left on the server. A file on tape opened by HDF_ISHDF (or any other routine) is automatically restored from tape to the server. The problem is, if the file is on tape, HDF_ISHDF times out before the file gets reloaded. HDF_ISHDF fails. I could modify the check routine to put these files in a separate list to process on the second pass once the files are restored. I don't have a simple way (and apparently not even a complicated way) to check on the status of these files to know whether they are on the server or in the library.

Question: Is there a better way to handle this? For instance, is there a way to extend the time-out period to allow the file to be restored so it can be checked and subsequently processed? Is there a way to terminate the HDF_ISHDF query before it times out and put this file on a list to process in a second batch? Any suggestions greatly appreciated.

Question 2: I am using IDL on 2 platforms: MacOS and Windows NT, both versions 5.4. On the Mac, there is a feature that lets one select any number of lines in the editor and comment them all out in one command (and subsequently uncomment them when needed)--- a very valuable feature for someone like me who is not proficient at programming. I can't find this feature in the Windows version. Am I missing it somehow? Any suggested approaches short of saving the file under a new name and deleting lines in that file?

Thanks in advance. This group is one reason I like IDL.

Subject: Re: 2 questions

Posted by [Vince Hradil](#) on Tue, 11 Dec 2007 19:24:56 GMT

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On Dec 11, 12:50 pm, nakisa <nakisa.noor...@gmail.com> wrote:

- > Hi everybody
- > I have some question.
- > 1) How can I convert the plotted figure to eps format?
- > 2) I use "trigrd " for plot a three dimensional, is it possible to
- > plot contour in the same plot ?
- > Best, nakisa

1) http://www.dfanning.com/tips/postscript_preview.html

2) Maybe look into the T3D graphics keyword.

Subject: Re: 2 questions

Posted by [Paul Van Delst\[1\]](#) on Tue, 11 Dec 2007 19:29:09 GMT

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Vince Hradil wrote:

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> 1) http://www.dfanning.com/tips/postscript_preview.html

To the OP,

FWIW, I use the epstool method to convert ps to eps and include them in latex documents.
Works great.

> 2) Maybe look into the T3D graphics keyword.

Subject: Re: 2 questions

Posted by [David Fanning](#) on Tue, 11 Dec 2007 19:40:38 GMT

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nakisa writes:

> 1) How can I convert the plotted figure to eps format?

You don't usually "convert" anything. You either draw your figure to the display device, or you draw your figure to the PostScript device. Suppose you wrote an IDL program named DRAWPLOT to draw a graphics plot:

```
IDL> Drawplot, mydata
```

Then to draw the same plot in a PostScript file (assuming the code is written correctly), you would do something like this:

```
thisDevice = !D.Name  
keywords = PSConfig(/Encapulated, _Extra=PSWindow(), Cancel=cancel)
```

```
IF ~cancel THEN BEGIN
  Set_Plot, 'PS'
  Device, _EXTRA=keywords
  Drawplot, mydata
  Device, /Close
  Set_Plot, thisDevice
ENDIF
```

> 2) I use "trigrd " for plot a three dimensional, is it possible to
> plot contour in the same plot ?

If you have set up a 3D coordinate system (by typing a command like SURFR, or SCALE3D, or even SURFACE), then you can make a CONTOUR command use the save 3D coordinate system by setting the T3D keyword.

You will find LOTS of information about producing PostScript output on my web page. :-)

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: 2 questions

Posted by [R.G.Stockwell](#) on Tue, 11 Dec 2007 19:44:41 GMT

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"Paul van Delst" <Paul.vanDelst@noaa.gov> wrote in message
news:fjmoe7\$rji\$1@news.nems.noaa.gov...

> Vince Hradil wrote:

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> latex documents. Works great.
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I have never been clear on what makes a ps file be an 'eps' file,
but I just use the idl ps output (and rename the file *.eps).
IDL includes the bounding box statement, which seems to be
what the request for eps is really asking for.
I use the IDL ps files in latex, and they are accepted by
journals as photo-ready figures.

Cheers,
bob

Subject: Re: 2 questions
Posted by [David Fanning](#) on Tue, 11 Dec 2007 20:00:14 GMT
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R.G. Stockwell writes:

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> journals as photo-ready figures.

I think IDL includes the bounding box so that whatever
application you intend to include your EPS file in can
at least save the space for the graphic, even if it
can't render the PostScript itself. That is why, for
example, if you included your "renamed" file in
a Word document it would show up as a big rectangle
with an X though it said "IDL graphic" or some such
written at the top.

Most EPS files, though, also contain, in addition to
the PostScript part of the file, another part that
allows the graphic to be "previewed" in applications.
So, if you had created your PostScript file in IDL
with the ENCAPSULATED and PREVIEW keywords set
appropriately, and you include THAT file in your
Word document, you might see more than a big
rectangle with an X in it. If you had been living
a pious life, you might even see something that looked

like the graphic you intend to print.

However, when you send that Word file to a PS printer, the graphic will use the PostScript part to render it, not the low-level preview part.

Of course, IDL preview images suck, but I--like you--have never been too bothered by that. They print correctly, that's the main thing. :-)

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: 2 questions

Posted by [Paul Van Delst\[1\]](#) on Tue, 11 Dec 2007 20:07:08 GMT

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R.G. Stockwell wrote:

> "Paul van Delst" <Paul.vanDelst@noaa.gov> wrote in message

> news:fjmoe7\$ri\$1@news.nems.noaa.gov...

>> Vince Hradil wrote:

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> what the request for eps is really asking for.

> I use the IDL ps files in latex, and they are accepted by

> journals as photo-ready figures.

Hi,

I Use eps so I can also stick the images in, e.g., a word doc with a preview. The reason I use eps in latex is because the first time I tried it (I use the graphicx package) the eps was positioned correctly, but the ps file was not. I did not investigate any further - I just went with what worked.

cheers,

paulv

Subject: Re: 2 questions

Posted by [wgallery](#) on Tue, 11 Dec 2007 21:00:31 GMT

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On Dec 11, 3:00 pm, David Fanning <n...@dfanning.com> wrote:

> R.G. Stockwell writes:

>> I have never been clear on what makes a ps file be an 'eps' file,

.....

> Most EPS files, though, also contain, in addition to
> the PostScript part of the file, another part that
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> So, if you had created your PostScript file in IDL
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> have never been too bothered by that. They print correctly,
> that's the main thing. :-)

>

As David F. stated, an idl-created preview to an eps file sucks.

However, you can include your own high quality preview to an eps file which will look good both on screen and printed to a postscript printer. Details below. Note that as of Microsoft Office 2002, Word discards any preview supplied with an .eps file and substitutes its own even suckier preview (see: <http://support.microsoft.com/kb/290362/en-us>).

My solution to this problem is to create an eps file without a preview and convert it to a high resolution (300 dpi) .png file using epstool. This file looks good both on screen (even in Word) and printed. Details below.

To add a high quality (i.e., high resolution) preview to the .ps file idl.ps:

```
epstool -w --dpi 300 idl.ps idl.eps
```

You can use epstool either on a Linux/Unix box or in Windows under cygwin.

For epstool, see: <http://pages.cs.wisc.edu/~ghost/gsview/epstool.htm>

To create a high-quality .png file from an .eps file:

```
gs -sDEVICE=png256 -r300 -d BATCH -dNOPAUSE -sEPSCrop -q -
sOutputFile=idl.png idl.eps
```

For ghostscript (gs) see: <http://pages.cs.wisc.edu/~ghost/doc/AFPL/index.htm>

Finally, I have an idl procedure `eps_to_png.pro` which does the creation of a high-quality .png file. It works on both Windows and Linux/Unix (but requires ghostscript to be installed.) Here it is:

```
-----
;+
; $Name: $
; $Id: eps_to_png.pro,v 1.7 2007/07/30 15:17:31 wgallery Exp $
;
; NAME:
;   eps_to_png
;
; PURPOSE:
;   To convert an postscript plot file (.ps or .eps) to a Portable
;   Network Graphics
;   file (.png).
;
; CATEGORY:
;   Graphics
;
; CALLING SEQUENCE:
;   eps_to_png, filename, error, delete = delete, resolution =
;   resolution, true = true
;
;
; INPUTS:
```

```

; filename = string: fully qualified name of the postscript file.
The .png file will have
;   the same base name but with .ps or .eps replaced with .png.
;
; KEYWORD PARAMETERS:
; delete: if set and spawn executes successfully, then delete the .eps
file
; resolution: int: resolution of the .png file, in pixels-per-inch,
default = 300
; true: if set, then the .png file is in 24 bit truecolor. Default: 8
bit color.
;
; OUTPUTS:
; error: 0: no error occurred, 1: an error occurred in processing
;
; PROCEDURE:
; This procedure should work on either Windows or Unix (Linux)
platforms that have the
; program ghostscript installed (program name: Windows=gswin32c.exe,
Unix=gs). It runs
; ghostscript with the proper parameters to convert the postscript
file (.ps or .eps) to
; a .png file. The resolution of the .png file is by default 300
pixels-per-inch which
; is sufficient for inclusion in Word or Powerpoint documents. For
multipage .ps files,
; each page will be sent to separate file with a sequence number
before the .png. E.g.,
; a 3 page .ps file named foo.ps will produce foo_01.png, foo_02.png,
and foo_03.png.
;
; MODIFICATION HISTORY:
; Created:
;   Oct. 31, 2006 William Gallery, AER, Inc wgallery@aer.com
;   Jan. 31, 2006 William Gallery,
;       Added capability of converting multipage .ps file to
sequential .png files
;-
pro eps_to_png, filename, error, delete = delete, resolution =
resolution, true = true

error = 0

;;Check that the file exists
r = file_test(filename, /read)
if r ne 1 then begin
    print, 'Error: file does not exist or is not readable, file: ',
filename

```



```

    error = 1
    return
endif

;;Separate the file root from the extension
separate_filename_parts, filename, name = name, ext = ext, path =
path, drive = drive

if ext ne 'eps' and ext ne 'ps' then begin
    print, 'Error: file does not have .eps or .ps extention, file: ',
filename
    error = 1
    return
endif

;;Get the absolute path: the relative path will not work on Windows
path = file_expand_path(path)

;;In Windows, file_expand_path prepends the drive so don't include it
again
case ext of
    'eps': png_filename = path+path_sep()+name+'.png'
    'ps': png_filename = path+path_sep()+name+'_%02d.png' ;add sequence
number
endcase

case strupcase(!version.os_family) of
    'UNIX': gs_name = 'gs'
    'WINDOWS': gs_name = 'gswin32c.exe'
    else: begin
        print, 'OS not recognized, OS: ', !version.os_family
        error = 1
        return
    end
endcase

;;Options for the gs command. Note: capitalization is important
if n_elements(resolution) gt 0 then res = strtrim(fix(resolution), 2)
else res = '300'
if keyword_set(true) gt 0 then out_dev = 'png16m' else out_dev =
'png256'

gs_options = ['-sDEVICE='+out_dev, '-r'+res, '-dBATCH', '-dNOPAUSE ',
'-sEPSCrop ']

;;Run spawn with the /noshell option to make it run faster.
;;(Note: in this form, it hangs idl!!!????)
; cmd_ns = [gs_name, gs_options, '-sOutputFile='+png_filename,
```

```

filename]
; spawn, cmd_ns, /noshell, $
;   sp_out, sp_err_out, $
;   count = sp_count, exit_status = exit_status
cmd = gs_name+' '+strjoin(gs_options, ' ')+ $
    '-sOutputFile='+png_filename+' '+ $
    file_expand_path(filename)

case strupcase(!version.os_family) of
'UNIX': begin
    spawn, cmd, sp_out, sp_err_out, $
    count = sp_count, exit_status = exit_status
end
'WINDOWS': begin
    spawn, cmd, sp_out, sp_err_out, $
    count = sp_count, exit_status = exit_status, $
    /hide
end
endcase

if exit_status ne 0 then begin
    print, 'Error: from eps_to_png: exit status = ', exit_status
    print, sp_out
    print, sp_err_out
    error = 1
    return
endif

if keyword_set(delete) then file_delete, filename

return

end

```

Subject: Re: 2 questions

Posted by [R.G.Stockwell](#) on Thu, 13 Dec 2007 01:12:06 GMT

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"Bill Gallery" <wgallery@aer.com> wrote in message
news:db33b76f-7c42-47de-9a74-5b2de78d4b3f@d27g2000prf.google groups.com...

...

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thanks for all the info!

Cheers,
bob
