Subject: post script printing
Posted by staten on Sat, 27 May 1995 07:00:00 GMT
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Hi. I'm running IDL on a powermac 7100 and I'm trying to create an encapsulated post script file. For some reason, the following code creates a file which is unreadable by Word, Adobe, or Aldus:

```
image = fltarr(256,256)
set_plot,'ps'
device,/encapsulated,filename = 'test.eps'
tv,image
device,/close_file
```

The file 'test.eps' cannot be opened as an eps file by Word, Adobe Photoshop, or Aldus. What am I doing wrong?

Question 2: I'm running IDL on a mixed platform (SUN SPARCSTATION and Powermac] and I'm looking into getting a dye-sub color printer for outputting color overlayed brain MRI images (publication quality]. Has anyone had any experience with this (or similar applications) on the Tek Phaser 440 vs other printers?

Thanks,

Joe Maldjian
Neuroradiology
University of Pennsylvania

Subject: Re: post script printing
Posted by staten on Mon, 29 May 1995 07:00:00 GMT
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In article <1995May29.100100.8788@newsserver.rrzn.uni-hannover.de>
knipp@ipi.uni-hannover.de (K Knipp) writes:
> From: knipp@ipi.uni-hannover.de (K Knipp)
> Subject: Re: post script printing
> Date: Mon, 29 May 1995 10:01:00 GMT

> In article 0013F647@mail.med.upenn.edu, staten@mail.med.upenn.edu writes:
>> Hi. I'm running IDL on a powermac 7100 and I'm trying to create an
>> encapsulated post script file. For some reason, the following code creates a
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>>
> ...
>> Thanks,
>>
>> Joe Maldjian
>> Neuroradiology
>> University of Pennsylvania

> Maybe Word, Adobe Photoshop, or Aldus expect the Enc. PostScript Interchange/
> Preview format, so try

> device,/ENCAPSULATED,filename = 'test.eps', /PREVIEW

> Karl

> ---------- ----------

> Karlheinz Knipp
> knipp@ipi.uni-hannover.de

> ---------- ----------

The PREVIEW keyword doesn't work either. Is there something wrong with the first character of the header being written to an encapsulated post script file using the powerpc version of IDL v3.6.1b ?

Joe

Subject: Re: post script printing
Posted by knipp on Mon, 29 May 1995 07:00:00 GMT
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In article 0013F647@mail.med.upenn.edu, staten@mail.med.upenn.edu writes:

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Preview format, so try

device,/ENCAPSULATED,filename = 'test.eps', /PREVIEW

Karl

Karlheinz Knipp
knipp@ipi.uni-hannover.de

Subject: Re: post script printing
Posted by Keith Horton on Tue, 30 May 1995 07:00:00 GMT
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knipp@ipi.uni-hannover.de (K Knipp) wrote:
> In article 0013F647@mail.med.upenn.edu, staten@mail.med.upenn.edu writes:
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>
> Karl
>

I've never gotten the /PREVIEW switch to work in IDL 3.6.x
Does anyone know if it works in 4.0? Right now, I pull in
the IDL-generated EPS file to ghostscript to attach the preview.
Works well, but its a real pain having to go through multiple
steps to create the final graphic.

Aloha, Keith

Subject: Re: post script printing
Posted by Joel Smith on Tue, 06 Jun 1995 07:00:00 GMT
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I've been having similar problems with postscript files on a Powermac using
3.6.1. The problem I've been having is that if I create a file using something
simple such as

```
set_plot, 'ps'
plot,x,y,psym=1
device,/close        ;only done after the plot statement has finished
```

This will generate a file on the Sun which can be ftp'd to the Mac and used
fine. (Hint - it will not be seen as a Postscript file unless you change the
filetype - this will be a problem where your application in the mac is
specifically searching and filtering for PS files).

However, on the Powermac, it generates the correct filename, but the file is empty with 0 bytes. It doesn't seem to matter if it is standard or eps (with or without preview). Has anyone else had similar problems?

I've been waiting to see release 4.0 to see if the problem is still there (when it finally arrives later this week - I hope!).

Is this similar to the other problems?

Joel

Subject: Re: post script printing
Posted by chase on Wed, 14 Jun 1995 07:00:00 GMT
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>>>> > "Keith" == Keith Horton <keith@guinness.pgd.hawaii.edu> writes:

Keith> I've never gotten the /PREVIEW switch to work in IDL 3.6.x
Keith> Does anyone know if it works in 4.0? Right now, I pull in
Keith> the IDL-generated EPS file to ghostscript to attach the preview.
Keith> Works well, but its a real pain having to go through multiple
Keith> steps to create the final graphic.

On the Macintosh a preview of an EPS file is a QuickDraw representation stored as a PICT resource number 256 in the EPS file. This is machine specific to the Macintosh. Postscript also provides for a device-independent screen preview called encapsulated Postscript interchange format (EPSI). (see the Postscript Language Reference Manual).

Apparently, IDL uses the EPSI format when the PREVIEW keyword is used. I do not know of any Mac applications that support the EPSI format. In an idl.ps file generated with the PREVIEW keyword look for a line like:

%%BeginPreview: 128 128 1 41

The parameters are: width height depth lines

In this example the preview is a 128x128 binary bitmap with 0 meaning white and 1 meaning black. The previews that IDL generates are VERY low resolution. They are also upside down from the Postscript defintion for the preview.

Here is a routine that reads the EPSI preview from a postscript file which can then be displayed in IDL using tvscl.

Chris Chase

---- begin file ----

```
function epsi_image, fn
;; Extract preview from an EPSI file fn and return an array containing
;; the preview.

on_ioerror, error
openr, un, fn, /get_lun
l = ''
map = bytarr(256)
map(byte('0123456789ABCDEF'))=bindgen(16)
readf, un, l
key = "%%BeginPreview:"

while strpos(l, key) ne 0 do readf, un, l

;; Get image parameters: width, height, depth, lines
;; depth can be 1,2,4,8
p = intarr(4)
reads, strmid(l, strlen(key), 256), p
;; Pixels are left to right, bottom to top.
;; IDL stores the image upside down from the Postscript defintion of
;; the Preview.

him = 0b
for i=0, p(3)-1 do begin
   readf, un, l
   him = [him, map(byte(strupcase(strmid(l, 1, 256))))]
endfor
free_lun, un
him = reform(him(1:*), 2, (n_elements(him)-1)/2)
him = him(0, *)*16B+him(1, *)
mask = byte(2^p(2)-1)
;; Image pixels per byte
bp = 8/p(2)
;; For each packed byte the left most pixel corresponds to the most
;; significant bits of the packed byte.
im = bytarr(bp, n_elements(him))
for i=0, bp-1 do begin
   im(bp-i-1, *) = ishft(him and mask, -i*p(2))
   mask = ishft(mask, p(2))
endfor
im = reform(im(0:p(0)*p(1)-1), p(0), p(1))
return, im
error:
print, 'Unable to find preview'
```

```
free_lun, un
return, 0
end

----- End file -----
--
```

```
==============================
```
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