
Subject: Re: Saving Color Tables

Posted by [Michael Wallace](#) on Mon, 13 Sep 2004 18:19:44 GMT

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modifyct

Thundurstruck wrote:

> Hello all,

> I would like to be able to save the color tables I create in

> xpalette. Any ideas on how one can do this?

Subject: Re: Saving Color Tables

Posted by [Rick Towler](#) on Tue, 14 Sep 2004 17:13:51 GMT

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Michael Wallace wrote:

> modifyct

>

>

> Thundurstruck wrote:

>

>> Hello all,

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>> xpalette. Any ideas on how one can do this?

>

>

On a similar note, how can you create a brand new color table file? I tried the obvious, setting the FILE keyword to a new file name and selecting an ITAB of 0(or 1 or 10 or 100) but that fails.

Not a pressing issue, and the workaround was trivial (I already had a function that created the table so I simply create an instance of IDLgrPalette when the application starts) but I did find this annoying.

Also, I am sure I could copy the built in color table file and then modify that but it really seems like I should be able to create a shiny new color table file... Is it possible?

-Rick

Subject: Re: Saving Color Tables

Posted by [Michael Wallace](#) on Tue, 14 Sep 2004 18:18:05 GMT

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- > function that created the table so I simply create an instance of
- > IDLgrPalette when the application starts) but I did find this annoying.
- > Also, I am sure I could copy the built in color table file and then
- > modify that but it really seems like I should be able to create a shiny
- > new color table file... Is it possible?

I tried to do this very same thing a while back, but was met with the same failure. Instead, I modified a copy of colors.tbl to include my tables in index 41 and greater. This way I can use this single file for all color tables and don't have to code up any kind of special case scenario.

-Mike

Subject: Re: Saving Color Tables

Posted by [David Fanning](#) on Tue, 14 Sep 2004 20:09:10 GMT

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Rick Towler writes:

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- > function that created the table so I simply create an instance of
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- > Also, I am sure I could copy the built in color table file and then
- > modify that but it really seems like I should be able to create a shiny
- > new color table file... Is it possible?

A standard color table file has a byte that tells you how many color tables are in the file, and then three 256-byte vectors with the red, green, and blue values. These are replicated by as many color tables as there are in the file. The file is stored in binary format. Should be fairly easy to duplicate. :-)

Cheers,

David

--

David W. Fanning, Ph.D.
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Coyote's Guide to IDL Programming: <http://www.dfanning.com/>
Phone: 970-221-0438, IDL Book Orders: 1-888-461-0155

Subject: Re: Saving Color Tables
Posted by [kklare](#) on Wed, 15 Sep 2004 20:57:29 GMT
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In 1995 and 1996 I added a number of tables ~62. Some are stolen from defunct Macintosh Spyglass Transform (an uncredited rip off of public domain NCSA Image), the NIH Image program with correction for 13 converted into 10 or vv, and the old MAC-OS colors. One is 10 cycles of colors with different shading and is good for contours. The routine to read these was last changed 2/2000 and given below and is not checked to be current. Replace JINIT and EXTR_FILE_NAME by your own path parser. BTW for true color, I did a 26 cycles of colors but have never used it.

```
;+
;NAME: CT_READ
;PURPOSE: read Macintosh color tables for use in IDL
; reads 970 byte Spyglass/NIH Image
; and 2056 byte ResEdit resource saved using HexEdit
;CATEGORY: Colors
;CALL:
;INPUT:
; file name of file to read, default is a Pickfile
;OUTPUTS:
; R, G, B 256-byte lists of color components
;SIDE EFFECTS:
; opens file on unit 1
; overwrites current window
; changes color table
; may modify system colors
;HISTORY:
; KAK 960913 New
;-
PRO CT_READ, file, r, g, b

IF NOT KEYWORD_SET(path) THEN path = XPICKFILE(/READ, /MUST_EXIST)
IF NOT KEYWORD_SET(path) THEN RETURN
JINIT
file = EXTR_FILE_NAME(path)
PRINT, 'For color table name "'+file+'"'
ON_IOERROR, err
```

```

CLOSE, 1
OPENR, 1, path
stat = FSTAT(1)
CASE stat.size OF
970: BEGIN
  x = BYTARR(202) & READU, 1, x
  x = BYTARR(3,256) & READU, 1, x
  ENDCASE
2056: BEGIN
  x = BYTARR(8) & READU, 1, x
  x = INTARR(4,256) & READU, 1, x
  x = BYTE(ISHFT(x(1:3,*),-8))
  ENDCASE
ELSE: BEGIN
  MESSAGE, /INFO, 'Unknown file size '+STRTRIM(stat.size)
  RETURN
  ENDCASE
ENDCASE
CLOSE, 1
r = REFORM(x(0,*))
g = REFORM(x(1,*))
b = REFORM(x(2,*))
TVLCT, r, g, b
ERASE
PLOT, r, YRANGE=[0,255], TITLE=file & OPLOT, g & OPLOT, b
TV, BINDGEN(256)#REPLICATE(1b,20)
PRINT, ' 0:', r(0), g(0), b(0)
PRINT, '255:', r(255), g(255), b(255)
PRINT, 'Enter id (42-255) of local file=colors1.tlb'
PRINT, 'To cancel enter 0.'
PRINT, 'To assign a new number enter 255.'
id = 0B
READ, id
IF id LT 42B THEN PRINT, 'Cannot change standard colors'$
ELSE BEGIN
  MODIFYCT, id, file, r, g, b, FILE='colors1.tlb'
  PRINT, id, ' entry modified'
ENDELSE

RETURN
err:
HELP, /STR, stat
MESSAGE, /INFO, !err_string
CLOSE, 1
RETURN
END

```
