
Subject: Re: about color table

Posted by [Jeremy Bailin](#) on Fri, 19 Jun 2009 04:30:27 GMT

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On Jun 18, 6:01 pm, David Fanning <n...@dfanning.com> wrote:

> Hu writes:

>> I want to do something like this: I got an 2-D array with values range
>> from 0.0 to 1.0. and I want to display the array using different
>> colors. for example, if the value is greater than 0.8, the elements
>> will be displayed as red, if the values is between 0.5 and 0.8, the
>> color will be blue, and the relationship can be listed as follows:

>

>>> 0.8 red

>> 0.5-0.8 blue

>> 0.3-0.5 yellow

>> 0.2-0.3 green

>> <0.2 white

>

>> I know I need to set up a color table, and the book 'IDL Programming
>> techniques' demonstrate how to set up a color table, and I set up the
>> table including those above colors.

>

>> The question is , How can I set up the relationship between the color
>> table and the different ranges? I mean how to 'tell' the computer
>> display the array using this relationship?

>

> TVLCT, FSC_Color(['white','green','yellow','blue','red'], /TRIPLE), 1

> s = Size(array, /DIMENSIONS)

> scaledData = BytArr(s[0], s[1])

> I = Where(array LT 0.2, count)

> IF count GT 0 THEN scaledData[I] = 1

> I = Where(array GE 0.2 AND array LT 0.3, count)

> IF count GT 0 THEN scaledData[I] = 2

> I = Where(array GE 0.3 AND array LT 0.5, count)

> IF count GT 0 THEN scaledData[I] = 3

> I = Where(array GE 0.5 AND array LT 0.8, count)

> IF count GT 0 THEN scaledData[I] = 4

> I = Where(array GT 0.8, count)

> IF count GT 0 THEN scaledData[I] = 5

> TVImage, scaledData, /KEEP, /NOINTERP

>

> Cheers,

>

> David

> --

> David Fanning, Ph.D.

> Coyote's Guide to IDL Programming (www.dfanning.com)

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

Another way of going from array to scaledData (i.e. everything in between TVLCT and TVImage in David's code), that's probably easier to deal with if you want to change the values (or number) of the cutoffs, is:

```
cutoffs = [0.2, 0.3, 0.5, 0.8]  
scaledData = byte(value_locate(cutoffs, array) + 2)
```

-Jeremy.
