Subject: Re: Constructing Color Tables in IDL
Posted by agraps on Tue, 18 Feb 1997 08:00:00 GMT
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davidf@dfanning.com (David Fanning) writes:

> Jack Saba writes:

>> Thanks for the review. However, those of us who are not used to building
>> color tables should know that generating one that gives the best
>> representation of the data for a particular purpose is trickier than
>> might be expected. See, for example,
>>
>> Rogowitz, Bernice E., and Lloyd A. Treinish
>> "How Not to Lie with Visualization",
>> Computers In Physics 10(3):268, 1996

[...]
> I would recommend two additional books by Edward Tufte if
> people are interested in this topic: _The Visual Display of
> Quantitative Information_ and _Envisoning Information_.
> These books have really changed the way I write IDL programs.

(same for me)

Anyone here seen the movie: "The Glitzomatic", which is a very funny sequence about vizualizing data (You start with data that is practically nothing and you end with a full-color-shaded-surface animation with a narrator, meanwhile the Glitz factor increases and increases until an overload value is reached.) ? This movie was shown at a SIGRAPH 4 or 5 years ago, and later, a nice article in Science News was written about it.

If you are interested in this subject (vizualization), there is another reference I can recommend. Al Globus (NASA Ames), who was strongly influenced by Edward Tufte, wrote a classic (in my opinion) satirical paper a few years ago:

"14 Ways to Say Nothing with Scientific Visualization," A. Globus, E. Raible, IEEE Computer, July 1994.

Which you can get in postscript form from:

http://www.nas.nasa.gov/NAS/TechReports/RNRreports/aglobus/R NR-92-006/RNR-92-006.html

The abstract follows.

"Scientific visualization can be used to produce very beautiful images. Frequently users and others not properly initiated into the mysteries of visualization research fail to appreciate the artistic qualities of these images. Scientists will frequently use our work to needlessly understand the data from which it is derived. This paper describes a number of effective techniques to confound such pernicious activity."

Amara

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 ** *************

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Jack Saba writes:

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Jack is absolutely right. People often talk about "seeing their data" when they look at an image. I have been making a bigger and bigger point in the IDL classes that I teach that you are seldom, if ever, really "seeing" your data. You are seeing an *abstraction* of your data, forced--for the most part--into viewing it with something less than 256 colors or shades of gray. And, of course, the colors you select effects what you "see".

I would recommend two additional books by Edward Tufte if people are interested in this topic: _The Visual Display of Quantitative Information_ and _Envisoning Information_. These books have really changed the way I write IDL programs.

Cheers,

David

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

Subject: Re: Constructing Color Tables in IDL
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David Fanning wrote:
>
> Folks,
>
> Several people have asked me this week how to construct a
> color table. I've taken this to mean (perhaps erroneously)
> that there is general interest in the subject. :-)
>

David:

Thanks for the review. However, those of us who are not used to building color tables should know that generating one that gives the best representation of the data for a particular purpose is trickier than might be expected. See, for example,

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Jack Saba