
Subject: Re: grey scale

Posted by [Richard Meyer](#) on Wed, 19 Aug 1998 07:00:00 GMT

[View Forum Message](#) <> [Reply to Message](#)

Harry Reisig wrote:

> We tried loadct, 0 - but it is not publishing quality. Is there another
> grey scale that give sharper images? We are trying to print color images,
> which gives a lot of information that is lost in ct 0.

it's still there but you don't see it. Your problem is not IDL-specific. Human eyes cannot distinguish many more than 16 different grey tones. If you stick to grey scales, you should try some modifications to the linear scale you load by loadct,0.

1. Apply a gamma correction (interactively by the IDL-routine xloadct). The response function of the human eye is not linear. That's why digital cameras and displays often have gamma correction (ca. 0.7).
2. Analyze your data! The plotting routine tvscl reduces the scale to the range of your data, but overshooters may still occupy a large range of your scale, reducing contrast for the more interesting data. Cut off these by e.g. "tvscl,image <0. >11." or make a histogram equalization.
3. Optimize the scale to the specific data. If you like to see certain structures in your image, try to give your greyscale maximum slope in the interesting ranges (interactively by modifying functions with xloadct). Also think about $/|/|/|$ -like functions. But this makes assigning values impossible!

Schoene Gruesse / Kind Regards,
Richard Meyer

DLR-Institut fuer Physik der Atmosphaere / |
Oberpfaffenhofen ,---/--|---, / |
D-82234 Wessling / / / /
Germany '---|--/---'
| /
tel.: +49-8153-28-2571 | / DLR
fax.: +49-8153-28-1841 '
mailto:Richard.Meyer@dlr.de http://www.op.dlr.de/ipa/
