
Subject: Printer colors (Re: colorbar help)

Posted by [Stein Vidar Hagfors H](#) on Wed, 01 Oct 1997 07:00:00 GMT

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Martin Schultz wrote:

[..snip..]

- > Anyhow, I got another question concerning a related issue:
- > I discovered that (at least with our color printer which is a QMS
- > magicolor CX) a decrease in the RGB levels does not necessarily lead to
- > darker colors but may actually yield brighter ones. Furthermore, it is
- > quite hard to find RGB values that are not dithered on this printer
- > (although I am using bits_per_pixel=8). So, I wonder whether this is a
- > general problem of postscript or IDL or a specific problem of our
- > printer.
- >
- > Thanks for any help,
- > Martin.

It is a problem on many color printers - the trick is often to use e.g., CMY (cyan, magenta, yellow) "coding" when inventing your plot colors instead of RGB. The reason is that printing on paper "subtracts" light by adding ink - whereas the screen adds light by ... well, adding light :-)

So, instead of units of Red (1,0,0), Green (0,1,0) and Blue (0,0,1), try units of (I'm sure I'll get the names wrong again, try them out yourself) Cyan/Magenta/Yellow, i.e., (0,1,1), (1,0,1), and (1,1,0). These are often very "clear and bright" colors when printed. Mixing them *will* lead to dithering, but mixing two of them will probably lead to less dithering than mixing three of them.

Regards,

Stein Vidar
