Subject: Another Color Twist
Posted by davidf on Wed, 15 Dec 1999 08:00:00 GMT
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Hi Folks,

Because I know your day, like mine, just doesn't feel complete without learning about yet another little color twist in IDL, I have this observation from a course I am teaching this week:

People who pay attention to this newsgroup (except the ones who count, apparently) have heard me bemoan the fact that 24-bit images cannot be displayed correctly on Macs and PCs unless color decomposition is ON. If color decomposition is OFF, the image pixel values are always routed through the color tables, where--if you have anything other than a gray-scale color table loaded--your colors get totally screwed up.

What I learned yesterday is that the same problem exists in reverse, but only on Macintosh computers. That is to say, suppose you have a 24-bit image displayed correctly on your 24-bit display. But you have color decomposition turned OFF and a color table loaded (say, to correctly display a companion 2D image). Now suppose you wish to make a JPEG color image of the window holding the 24-bit image. The proper way to get a screen dump or snapshot of the window is like this:

```
snapshot = TVRD(True=1)
```

Snapshot will now be a 24-bit image holding the color information. Well, at least it will be on UNIX and PCs. On Macintosh computers, it will be a 24-bit image holding the color information obtained not from the image, but from the *color tables*. Hence, the resulting JPEG image will be totally screwed up.

The trick is to be sure color decomposition is turned ON whenever you fool around with a 24-bit image. (Which, now that I think about it, is surely the message RSI is trying to get across to us. But it seems like an awful lot of work to me. Couldn't TV and TVRD be made

just a *little* bit smarter when it comes to
24-bit images? Please.)

In any case, here is one more reason (if you
needed another) to become intimately familiar
with the !Version system variable. :-)

Cheers,

David

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