Subject: Re: gamma correction
Posted by Dick Jackson on Wed, 26 Jun 2002 21:17:11 GMT
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Hi all,

"David Fanning" <wrote in message
news:MPG.1783bfeb1d50d36a989916@news.frii.com...
> Med Bennett (no.spam@this.address.please) writes:
>
>> Hmmm... my Irfanview software happily gamma corrects 24-bit JPEGs - I do it
all
>> the time. Why shouldn't IDL be able to do it?
>
> I'm not suggesting gamma correction is impossible.
> I just don't know what it means. What do you think it
> means for 24-bit images? In other words, what are you
> doing to the image when you gamma correct it?

Usually, colortables are used with 2D (nx, ny) images where the byte values are looked up in the RGB colortables, while 3D images (3, nx, ny) have their byte values used exactly as given.

Less common, but equally valid, is to display a 3D image where each plane's byte values are looked up in the colortables. Gamma_CT changes the colortables so that an image that uses them appears to have had its 'gamma' changed.

Quick examples:

=====

```
COMMON Colors                   ; allow access to color tables
Device, Decomposed=0              ; set to use color tables for lookup

file = FilePath('rose.jpg', SubDir=['examples', 'data'])
Read_JPEG, file, image

TV,/True,image                  ; show original image

Gamma_CT,0.5                    ; set gamma 0.5
Plot,[r_curr,g_curr,b_curr]     ; show the colortables (crudely!)
TV,/True,image                  ; show image

Gamma_CT,2.0                    ; set gamma 2.0
Plot,[r_curr,g_curr,b_curr]     ; show the colortables
TV,/True,image                  ; show image

END
```

=====

No need to recompute the image array, it just passes through the transforming colortables on its way to the display. Hope this helps!

Cheers,
--
-Dick

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