
Subject: Converting 24 bit images to 8 bit images with a specific colour table

Posted by [philaldis](#) on Thu, 06 May 1999 07:00:00 GMT

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

Well, the subject says it all, really.

If I have a 24bit image and I want to convert it to an 8bit image which uses a particular table, so find nearest values.

This is of particular use, when you're writing multiple gifs from 24 bit images, because color_quan, will obviously not work, because the colour table has to be global.

The only way I can think to do it is very slow and certainly not using IDL array operations. For simplicity I'll assume that the image is interleaved true=1, i.e. 3 x n x m

```
FUNCTION ConvertTo8Bit, image, r, g, b, TRUE=true
```

```
colours = BytArr(3,256)
```

```
colours[0,*] = r
```

```
colours[1,*] = g
```

```
colours[2,*] = b
```

```
convertedImage = BytArr((Size(image, /DIMENSIONS))[1],(Size(image, /DIMENSIONS))[2])
```

```
multiplier = REPLICATE(1B, 256)
```

```
FOR i=0, (Size(image, /DIMENSIONS))[1]-1 DO BEGIN
```

```
  FOR j=0, (Size(image, /DIMENSIONS))[2]-1 DO BEGIN
```

```
    temp = TOTAL(ABS(colours-([image[0,i,j],image[1,i,j],  
image[2,i,j]]#multiplier)), 1)
```

```
    temp1 = (WHERE(temp EQ Min(temp)))[0]
```

```
    convertedImage[i,j] = temp1
```

```
  ENDFOR
```

```
ENDFOR
```

```
RETURN, convertedImage
```

```
END
```

There must be a better way to do it.....

Cheers,
Phil Aldis
