
Subject: Re: 16 bit / 8 bit depth colors on the mac
Posted by [davidf](#) on Tue, 05 Nov 1996 08:00:00 GMT
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Rick Shafer <rick.shafer@gsfc.nasa.gov>writes:

- > Someone *please* tell me how to get genuine 16 bit colors on my mac with
- > IDL. The default basicly packs the three RGB values into 15 bits,
- > cutting off the lowest 3 significant bits, which is NOT what I want.
- >
- > I used to know the magic incantation to do this, but have forgotten.

I think your question is not how to get thousands of colors on your Macintosh, because the answer is to set your monitor to thousands of colors and use 3D images. For example:

```
TV, image3d, TRUE=1
```

I am sure you know this. Rather, I suspect your question has to do with your data. You probably have 16-bit unsigned data and you want to know how to display that image data properly in IDL, which does not have an unsigned integer data type. That is a different question.

Here is what you can do. Read the image data into 16-bit integers (the default or short IDL integer size). To convert the signed integer array to an unsigned integer array, you will have to convert the array to long integers, like this:

```
image = INTARR(256, 256)
READU, lun, image
image = LONG(image) AND 'FFFF'x
```

(I learned this in a news post compliments of Bill Thompson at NASA Goddard and Peter Mason at CSIRO in Australia.)

Now, I know on *my* Mac I would want to display this kind of data in 256-color mode, so that color tables, etc. still work. I set my monitor to 256-color mode and display the image like this:

```
TV, BYTSCL(image, TOP=!D.N_COLORS-1)
```

- > (I won't even talk about how IDL crashes if I should change the
- > screen depth while running...

Uh, IDL!? I don't think so. Try MacOS. (This from a devoted Mac user.)

David

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