
Subject: Re: Medical Imaging Question

Posted by [Struan Gray](#) on Tue, 17 Aug 1999 07:00:00 GMT

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Pavel Romashkin (promashkin@cmdl.noaa.gov) writes:

- > If the 4096 grayscale levels are needed for *visual*
- > analyses then is it not possible to map them to color
- > scale - I'd imagine a human eye should be able to
- > recognize variety in color easier than in grayscale.

There's a technical problem, in that you need to find 4096 different points in colour space that can be represented on a monitor (easy), which allow adjacent colours in the 12-bit table to be differentiated by the human eye (fairly easy) and which form a 'logical' ordered series (oops).

However you solve that last hiccup, some of the transitions from one level to the next end up being more obvious to the viewer than others. Playing with a normal image and the built-in colour maps with well-defined bands shows this nicely: some maps make certain features really jump out at you, while others will emphasise something completely different. When done right it can be an aid to visualisation, but unless you allow the user to fiddle in realtime, you need to know which density areas are most important before you start.

Struan
