

---

Subject: Re: Medical Imaging Question

Posted by [Struan Gray](#) on Mon, 09 Aug 1999 07:00:00 GMT

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

---

David Fanning, davidf@dfanning.com writes:

- > This is basically what I thought, but didn't
- > have the background to support my beliefs.

Well, the eye stuff I've culled from other sources. Fortunately this is not the only newsgroup with knowledgeable posters :-)

- > I'm going to write it up as an article, if you
- > don't mind, so that I don't have to keep
- > answering this question over and over. :-)

Sure. You might want to emphasise that modelling the eye as an n-bit linear detector is a very dodgy approximation, and even using a fixed point representation (which is closer to logarithmic seeing) only gets you so far. The brain is very good at outwitting simplistic models, both by concentrating attention and by learning over time.

I think another poster said that medics don't need the whole 4096 levels by the time they've identified what they're interested in. Something like a chest X-ray is a classic survey problem, where you need lots of detail, both spatial and spectral, but don't know exactly where until after you've taken the data. This is one of the last redoubts of big pieces of photographic film, along with wide-area sky surveys for transient things like comets, where the problem is much the same.

Struan

---