Subject: Re: Medical Imaging Question
Posted by pford on Wed, 11 Aug 1999 07:00:00 GMT
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David Fanning (davidf@dfanning.com) wrote:
: Larry Busse (ljb@ljbdev.com) writes:

: > In MR and CT, images are usually displayed with a gray map that is
: > appropriate for the particular area being imaged or diagnostic
: > procedure. The look-up tables are sometimes referred to as
: > "lung-window", or "bone-window", or "soft-tissue-window". These
: > correspond to different window/level settings where
: > window = (WhiteValue - BlackValue) and
: > level = (WhiteValue + BlackValue)/2.

: Let me see if I understand this correctly. Are you saying
: that I might have sliders that would select a "window" of
: data. Say between the values of 1000 and 3500, and that
: what I would see on my display would be something like
: this:

:   TV, BytScl(image, Max=3500, Min=100, Top=!D.Table_Size-1)

: In other words, the gray scale values could be a portion
: or window onto the entire data universe. If this is so,
: how do you usually implement such a sliding window into
: your data?

: Many thanks to all (including bashful e-mail senders)
: for their comments. :-)

: Cheers,

: David
: --
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   TV, BytScl(image, Max=3500, Min=100, Top=!D.Table_Size-1)
is basically what is done. There is usually a LUT associated with it that
references the pixel value to the intensity or color that may not be
'linear.' The window, as explained earlier, depend on the target.

One of the problems with the above scheme with nuclear medicine images is

that there may be a few pixels that are several magnitude larger than all the other pixel, therefore using a range 0-100, the max value is set at 100 and everything else falls into the range 0 to 10 for example. This can be corrected by truncating the max pixel value. Unfortunately, the vendors seem to be clueless how to do this other than manual trial and error method.

Regards

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