Subject: changing contrast and brightness on the fly
Posted by Simon Williams on Sat, 16 Jun 2001 00:13:03 GMT

Greetings,

I'm looking for tips on how to implement an image display feature that's bugging me. I'm new to widget programming, trying to get up to speed with David Fanning's book and other helps, but any short-cuts would be appreciated.

The job is to display one or more grayscale MRI images (mostly small, 256 pixels squared is common) and then to be able to adjust the image brightness and contrast interactively, without going to any special widgets like sliders. The functionality I have in mind is to middle-click the image and then have drag right/left control contrast and drag up/down control brightness.

The plan is to replicate functionality that the end users (radiology folks) are already familiar with from other image viewers. In the longer term plan, the display would also be re-sizable and allow interactive ROI drawing as well.

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It sounds easy but I can't find anything similar described on the web etc. to use as a suitable starting point. Question: is changing the (familiar to me) contrast and brightness equivalent to re-defining the color table and re-scaling the data (more often discussed with color images). What parameters really define contrast and brightness?

Thanks for any help you can offer,

Simon Williams