
Subject: Re: There is NO TRUTH! Re: Histogram Hot-shots Required

Posted by [davidf](#) on Tue, 20 Jul 1999 07:00:00 GMT

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Liam Gumley (Liam.Gumley@ssec.wisc.edu) writes:

> Sounds like we need a nice histogram plotting procedure: any takers?

Uh, I'm busy this morning. :-(

> I'd keep the protection against integer binsize values by converting to

> a float, e.g.

>

> `bin_index = (pixel_value - histogram_min_value) / FLOAT(binsize)`

> `bin_index = FLOOR(bin_index)`

>

> and then to protect against pixel values LT histogram minimum value, or

> GE histogram maximum value

>

> `bin_index = (bin_index > 0L) < (number_of_bins - 1L)`

Liam's absolutely right here. And, of course, I had this in my **real** code, even if I didn't have it in the demo I showed here. :-)

> I'm very fond of testing algorithms on paper before I implement them in

> code. I tested the method shown above with a few examples on a notepad,

> so I was 99% sure it would work. My advice to those starting out in IDL

> is this: even though IDL offers a wonderful range of time-saving

> shortcuts (e.g. HISTOGRAM), it often pays to do a reality-check on paper

> before coding up an algorithm.

Testing algorithms is probably a great idea, but truthfully, I solved this problem by using IDL! The best and most powerful feature of IDL is the ability to **see** what you are doing. I could literally see the pixels I was selecting (by turning them green) and count the suckers. A couple of lines of code here and there brought the visual problem into sharp focus.

I thought it odd, too, that the problem turned out to be a graphical problem. That is the **last** place I was looking for it. (I thought sure it was buried deep in reverse indices. :-) But what I like about IDL is that once I knew what the problem was, I was able to fix it in one line of code. You gotta like that!

Cheers,

David

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