Subject: Re: New Image Processing Routines
Posted by David Fanning on Tue, 25 Apr 2006 16:01:44 GMT
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Marshall Perrin writes:

> I think that you're correct here, but the "right" correlation between
> nonlinearity and beta isn't too hard. To convert Lupton's beta into
> nonlinearity, we just have to account for what Scale_Vector is doing,
> right?
>
> scaled_beta = (beta - MinValue) / (MaxValue - MinValue)
> nonlinearity = 1./scaled_beta
>
> This is actually a useful way to parametrize things, because then
> you can let beta equal whatever you think the noise level in the
> image is, and the above code will compute the nonlinearity factor
> which lets you simultaneously see the noise *and* the image maximum.

OK, new versions of both ASINHSCL and XSTRETCH up on my
web page. I've removed the NONLINEARITY keyword (which my
fingers could never type correctly anyway) and replaced
it with a BETA keyword, which directly corresponds now
(I'm pretty sure) with Lupton's "softening parameter".
In any case, I have a rational explanation for their
default value of 3, which I never had before. That seems
like progress to me. :-)

I kept the nonlinearity variable internally, because it
gives me a good sense of what is actually happening to
the equation, but I create it with your formula above.

I also fixed the scaling problems you were having with
ASINHSCL and the COLORBAR program. (Although I am not
fully finished with the testing yet.)

Let me know. I really appreciate the help with this! :-)

Cheers,

David

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