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Subject: Re: advanced image enhancement  
Posted by [Liam E. Gumley](#) on Mon, 14 Oct 2002 16:51:03 GMT  
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David Oesch wrote:

> Is there any other possibility to enhance the content of an bytarr  
> image? I tried BYTSCL and HIST\_EQUAL, but I'm actually looking for a Root  
> enhancement, also known as a logarithmic transform, which particularly  
> effective with images whose grey level distribution exhibits right  
> skewness. The root enhancement stretches the dynamic range of the low  
> end of the image while compressing its high end. It tends to lend an  
> overall brightening to the resultant image. Has anyone implemented such  
> an enhancement in IDL?

Here's a simple example of a square root enhancement:

```
a = dist(256)
scale = (a - min(a)) / (max(a) - min(a))
tv, byte(255.0 * scale) ; linear enhancement
tv, byte(255.0 * sqrt(scale)) ; square root enhancement
```

For extra credit, turn this into a function that accepts MIN, MAX,  
BOTTOM, and NCOLORS keywords.

Cheers,  
Liam.  
Practical IDL Programming  
<http://www.gumley.com/>

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