

Re: Back to basics: Interpolation teaser

Source: <http://sci.tech-archive.net/Archive/sci.image.processing/2007-09/msg00133.html>

- *From:* "Pixel.to.life" <pixel.to.life@xxxxxxxx>
 - *Date:* Sun, 23 Sep 2007 00:34:11 -0000
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On Sep 22, 1:10 pm, Martin Leese <ple...@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx> wrote:

Pixel.to.life wrote:

Hi, All,

Here is a question on interpolation and resampling.

...

My questions are:

- what can be inferred about the nature of the interpolation method employed given only the above information?
- on the resample circle image, the circle profile displays some 'saw tooth' patterns. Is that an artifact/limitation of interpolation scheme? Or it is expected?
- if you think there are artifacts in the resampled images, what could be a possible solution or a better way to resample?

The interpolated images contain only black and white, no gray. Perhaps the problem is that your output images are binary when they should be graytone.

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Regards,
Martin Leese
E-mail: ple...@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
Web: http://members.tripod.com/martin_leese/

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I found one bug (rather unexpected behavior) already. Right after interpolation, a transfer function was being implicitly applied to the result image, binarizing it so all the greylevels combine into one value. This explains the lack of grey tones. Still there are other bugs, as one can see here:

http://medicalimagingscience.googlegroups.com/web/ResampledCircle_2.jpg