

### 3.3 “4:1 Rule” & Other Tips for Good Screening

(1) Before starting, know the lines per inch (lpi) screen ruling or screening resolution required to print your image. Ask your printer.

(2) Start with Input Photo resolution that is at least 4 times the lpi required for printing your image. **(4:1 Rule)**. For example if your image is to be printed at 65 lpi, then start with a grayscale image that is at least  $65 \times 4 = 260$  dots per inch. If the resolution is higher than 4 times lpi, you will get even better detail, as long as your output recorder can output at that resolution. However, if it is lower, the screening will be poor since screen pattern will appear pixelated. If your input image does not meet the 4:1 rule, consider using Image Size command in Photoshop to increase resolution by interpolation or better yet get a higher resolution scan.



Poor 65 lpi screening  
Image Res. 200dpi  
Does not meet 4:1 rule



Good 65 lpi screening  
Image Res. 300dpi  
Meets 4:1 rule



Better 65 lpi screening  
Image Res. 600dpi  
Exceeds 4:1 rule

(3) The 4: 1 rule applies to Presets in Novice mode and of course any work done in Expert Mode.

(4) Check the quality of the screen in the Preview Window always at 1:1 magnification.

(5) Clicking on the OK button saves the current settings and begins to apply them to the high resolution image stored in the Host Application. A progress bar appears to indicate the current status of the screening operation. When done, you have a screened output image that is pure black and white line art, **in Photoshop change the Mode to Bit Map with 50% Threshold, for a significantly smaller file size & faster printing speed.**

(6) The screened output from Series 3 should not be scaled.

(7) If you are experimenting with the filter, we suggest you work with a 600 dpi gray scale input photo. Applying the 4:1 rule, this allows a range of 10 to 150 lpi output screening resolution for experimentation. It also allows spectacular camera ready proofs on your 600 dpi desktop laser printer.