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ULTIMATE PRINT CHECKER

This procedure will test the accuracy of your in-house or lab's ability to produce fine detail in your prints. Labs will insist they are working to the tightest of quality controls, but you would be amazed at the difference in quality you can receive depending on the machines used, different operators and the different methods by which they calibrate their machinery.

One of the common faults with inkjet prints is that they often suffer a little in tonal range when compared to wet prints, although the technology is very good these days with professional grade printers. To find the tonal range of your printer, use the Print Detail Checker. Although only produced in black and white, it also works with your colour images.

The computer sees 0's and 1's and not colours! Black, White and all the Grey Tones in between, have the same numeric value in each of the Red, Green and Blue channels when viewing a neutral Black and White Image in the RGB colour space. Black is represented by 0, 0, 0 and white has a value of 255, 255, 255, shades of Grey have values between these points – (50, 50, 50) or 128, 128, 128) etc.

How to Use

- 1 Ensure that your monitor has been fully calibrated and colour corrected.
- 2 Open the 'Ultimate Print Checker' file – make sure that you do not alter the image!
- 3 Insert the paper media you intend to print on, into your printer. Note: this process is required for each paper type that you use!
- 4 Select the appropriate print settings and colour profile for your chosen paper in the print dialogue box.
- 5 Print the file.....

When printed, look at the '*If you can see it, you can print it*' strip. There will be a point at which the numbers in the white and black areas disappear. These are the limits at which the combination of printer and paper can see detail.

If the numbers in the Black strip disappear at around 30 – this is the lowest point that detail will appear in the shadows on that paper. Everything below this value (30, 30, 30) will just be black. If the numbers in the White strip disappear at around 245 – this is the highest point that detail will appear in your highlights (245, 245, 245). Everything above this value will probably have not much or no ink at all on the paper. It is irrelevant that you may be able to see the numbers on your monitor, it's what appears on the paper that counts!

The image at the bottom of the paper should not have any colour casts and show detail throughout.

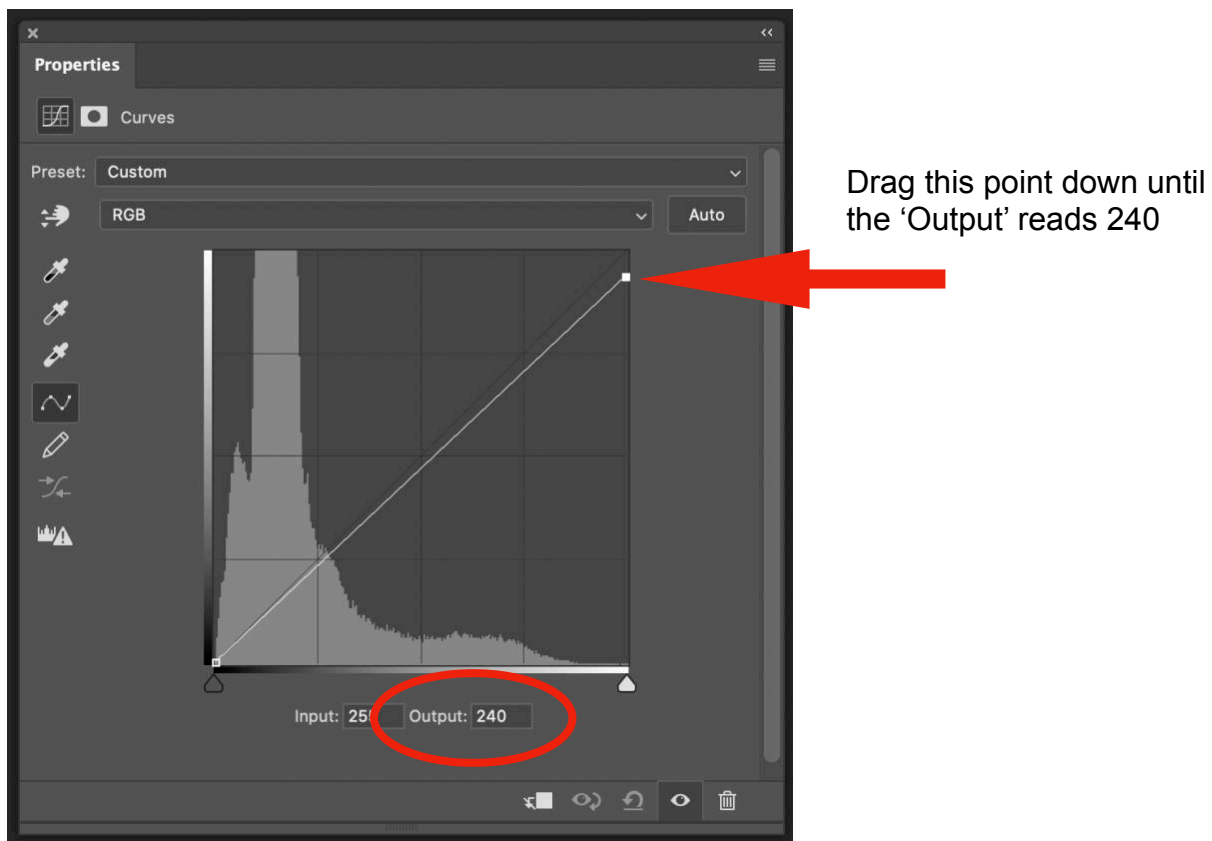
Compensating for Lack of Detail

If your lab is not capable of printing full detail in the checker, then I suggest you change your lab; however, there are certain quirks of inkjets that you can work around.

If you have a cheap consumer printer it may not be up to the task in the first place, but try re-profiling for each paper type that you use. The results will vary with paper stock, type, substrate and manufacturer.

Another problem is the falloff at areas of high contrast in the highlights. This is characterised by an area of the print where no ink has been laid on the paper, and can form a ridge at the boundary of the two areas when held at an angle to the light.

Examine your test print and look for the point at which the numbers disappear in the highlights (White strip). Let's say that you can see 235 clearly and just make out 240. This means that there is little or no ink being laid down between values 240 – 255. We can make sure that it's laid down over the entire image by clipping the overall print range at the highlight end to 255. Open a Curves Adjustment layer and reduce the highlight output to 240 as shown in the image below.



Layer>New Adjustment Layer>Curves to open the dialogue box
Pull the highlight output handle down until it reaches your max highlight detail.

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