

# The Ideal Digital Imaging Workroom

by Lindsay Merritt CPP. M.Photos.

There are many problems associated with creating your own digital files for output on an RGB printer (Lambda, Pegasus, LightJet etc.), fortunately, most problems have solutions and there is also a great deal of satisfaction by being able to control your own prints to the nth degree if you have the sufficient skill levels.

The first of three really important things to prepare for when you start scanning negs, using digital capture and/or manipulating your digital files is that your *imaging room* is set up *correctly* (note the careful term I used as I want you to think of it as important as did your now defunct darkroom).

No one with any skill would embark on building a darkroom that leaked light, thereby fogging your expensive paper or trying to work with all the lights on and a window open, yet the conditions we often find when we are at a studio calibrating a monitor can be either less than ideal or simply quite appalling.

Problems such as brightly coloured walls, the Monitor against a bright window, reflections coming from the side or rear, brightly coloured clothing reflecting off the screen, cyan/green fluorescent lighting and mixed lighting sources etc. The list could go much further.

No-one, even the very best, can extract the maximum from a digital file under those conditions, much less someone just starting out. Following is my recommendations for setting up your workspace.

Firstly, buy a *colour corrected* viewing light from Pixel Perfect or Multimatch. If you are a Pixel Perfect client, you will have received one in your initial pack. *Use it.* Don't be cheap and buy a daylight balanced fluorescent, they're not perfectly balanced and may create more problems for you.

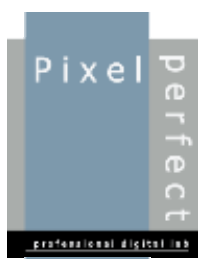
Secondly, paint your walls a neutral grey and your ceiling white (pure white) and bounce the single colour correct globe from the ceiling to illuminate the room. Use a monitor shield. No, I don't mean darkened perspex or glass over the monitor, I mean either buy a commercial shield or make one from card. This should be black or a very dark neutral grey, three sided and extend at least 18cm on the top and two sides. If you can't grasp what I am describing, think of how you shield your eyes in bright sunlight. This will effectively remove reflections coming from the top and sides of the screen. The possibility that light striking your monitor may effectively lower the apparent contrast that you see, and in response, you compensate by adding more contrast. You may not be happy with your extra snappy prints at all.

Thirdly, *have your monitor calibrated to the D65 International standard by an expert using a measuring device.* Boy, has this created more disinformation than any other that I can think of in my 37 years of professional photography.

Simplistically, calibration simply creates the correct white point (6500K) and an "invisible filter" which removes from view the vagaries of your particular screen and video card combination. It enables you to "see" the real file which exists on your hard drive instead of a skewed rendition of it by your monitor. This allows you to "soft proof" using your monitor, you can then trust what you see on your screen to be accurate to within a few percentage points. This is essential for monitor to print accuracy in an RGB workflow.

Realistically, you will need to re-profile your monitor twice a year for light usage, 3-4 times for medium to heavy usage and for absolute colour critical use (maybe more for commercial clients) once a week or more. Monitors do drift but not by a large amount unless it's getting long in the tooth. Purchasing your own calibration device is becoming a more popular endeavour and these are also available from Pixel Perfect and MultiMatch (at Pixel Perfect's office). I recommend the X-Rite Monitor Optimiser or the new Spyder. I am also a big fan of the Gretag-MacBeth monitor optimiser, the Eye-One Monitor.

Finally, *don't fiddle with your monitor after it has been profiled.* We have had cases where the kids in the family use the imaging computer for games and wind the brightness and contrast levels waaay up, thereby undoing your calibration. Aside from that, judging the print against the monitor is a tricky process due to the changeability of the print dependent of the volume and colour temperature of the light source illuminating it.



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ideal digital imaging workroom 02 Page 1 of 2

90 Abercrombie Street, Chippendale  
NSW, 2008, Australia  
Tel: 0500 823 450 or (02) 9319 0455  
Fax: 0500 823 451 or (02) 9310 7566  
Web : [www.pixelperfect.com.au](http://www.pixelperfect.com.au)  
E-Mail : [info@pixelperfect.com.au](mailto:info@pixelperfect.com.au)

To accurately judge the accuracy from monitor to print, you will need a 6500K light source illuminating the print with no spill from the viewing light hitting your screen. These are available from Pixel Perfect and require an inexpensive light holder, available from most good lighting stores.

I can only speak about our Lab, Pixel Perfect, but we calibrate the Lambda to a Neutral Grey before we print each day, between paper changes and sometimes, if we have a huge print run, in between 30-40 Meters of paper or more. Our chemicals are plotted several times daily and a graph created to keep that in line. We know that our printer profile is dead accurate at any time during a working day. Our monitors are calibrated weekly so that we can judge the accuracy of the prints coming through the lab for printing. I can say with complete confidence that 99% of problem prints are caused by file error by the creator of the file.

We are prepared to state that, providing you have an accurate monitor profile, set initially and maintained to the D65 International Standard, the Hue and Saturation of Pixel Perfect prints are as you send them. Perceived density inaccuracies are something over which we have no control. This is entirely dependant on the lighting conditions under which you view the work. We suggest that the light which illuminates your print to compare with your monitor should be at least 1.5 metres from the print. An ideal and inexpensive idea is to place the print on the floor and illuminate it from above. Please make sure that there is no spill from the light onto your monitor.

PS. Blame the lab last, look for problems closer to home, use the *info palette and colour picker* and you will quickly become a competent Photoshopper and digital image maker. The Pixel Perfect Tech Support line is open from Tuesday to Saturday if you need assistance.

(Lindsay Merritt accepts no responsibility for the *misuse* of the above information)



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ideal digital imaging workroom 02 **Page 2 of 2**

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Fax: 0500 823 451 or (02) 9310 7566  
Web : [www.pixelperfect.com.au](http://www.pixelperfect.com.au)  
E-Mail : [info@pixelperfect.com.au](mailto:info@pixelperfect.com.au)