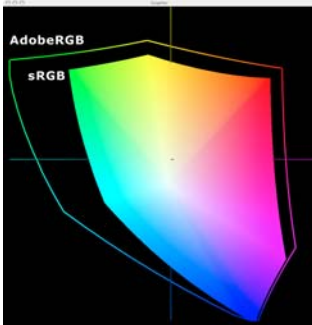


Colour Confidence Technical Tips - sRGB or Adobe RGB?



If you do not understand colour management sufficiently to answer the above question the answer is that you will be better off using sRGB. However, that does not imply that if you do understand colour management using AdobeRGB will be a better choice. The basic difference is quite simply that Adobe RGB defines a larger colour-space than sRGB. The following points may help give justification to your decision to work within either the Adobe RGB or sRGB colour-space.

The key advantage of Adobe RGB

- Colours of a stronger saturation can be defined when working in Adobe RGB. In practical terms of ink on paper, this means that some colours which use the Cyan - Yellow range of printing inks will not be reproduced at their full intensity when working in sRGB. The strongest Cyan printing colour that can be defined within sRGB equates to a 75% intensity of a Cyan printing ink, 85% of Green or 95% of Yellow, dependent on your ink and paper combination. Because of this, Adobe RGB is the preferred source colour-space for conventional print when converting to a press CMYK.

The key disadvantages of Adobe RGB

- *Monitor capabilities* - Most monitors (all CRT and all but a few specialist wide gamut LCD displays) can only display up to the sRGB colour space; therefore the increased intensity of colours definable within Adobe RGB is not actually visible on screen. While sRGB may sound restricting in terms of colour vibrancy, the greater saturation of Adobe RGB colours is not necessarily that 'natural', and in practice may only be relevant to a few percent of the pixels in your general photographic imagery.
- *Colour quality* - Colour in RGB is defined in steps; from white through to the most saturated level of Red, Green or Blue. Therefore the larger the colour space, the larger the steps have to be, as there will always be the same amount of steps in the range. Working in a smaller colour gamut (sRGB) means smaller steps, i.e. less of a colour jump from one step to the next. As such, an image that only uses sRGB colours will contain a larger range of intermediary colour values, resulting in smoother colour transitions.
- *Common use of sRGB* - Web browsers automatically interpret images as being in sRGB, so for colour accurate display online, images should be in sRGB. Cameras without a specific Adobe RGB setting are more likely to capture images closer to the sRGB colour-space than Adobe RGB. Most photo labs will assume images are in sRGB, so sending images for external processing in that format may produce more accurate results. Most desktop inkjet printers also have default print settings closer to sRGB than Adobe RGB.
- *Converting images to a printer colour space* - Visible colour shift is more likely when starting from Adobe RGB. When converting from sRGB, the 'Relative Colorimetric' intent



combined with 'Use Black Point Compensation' can be used to achieve a good colour match. When converting from Adobe RGB, the 'Perceptual' intent is safer to avoid clipping colours, but this can result in a slight colour shift in the image.

In summary, working in sRGB is the best route to accurate colour for many users. However, once you understand and appreciate the potential pitfalls of working in Adobe RGB, you are in a far better position to benefit from its advantages. If you need more information on colour-spaces or anything colour management related, why not download our free [Guidance Document](#)?