

Making the right monitor choice

Although the right calibration system can help you get the best out of your monitor, it can't improve the display quality or increase the colour gamut. If colour accuracy is critical to your work, then so is a good quality monitor. When evaluating a monitor, these are some important considerations to bear in mind:



Colour gamut and bit-depth – The larger a monitor's colour gamut, the wider the range of colours it can display. A monitor with a greater bit-depth can represent tones and shades within an image more accurately. At present, 16-bit is the greatest bit-depth achievable by high-end monitors.

Hoods – Supplied as standard with many quality monitors, a hood – a removable side and top surround – is designed to shield a monitor from unwanted light or reflections, meaning there is less chance of lighting conditions affecting your on-screen colour.

Uniformity – Monitors featuring uniformity are 'factory balanced' to avoid variations in contrast or colour cast from side to side, providing a more accurate picture.

Luminance – The measure of a monitor's brightness. Contrary to popular belief, brighter is not better for colour critical work – 100 - 120 cd/m² is considered optimum, while most monitors have a luminance level of 250 or 500 cd/m². Therefore brightness should typically be set at 50% or 25% for colour work depending on the monitor.

Contrast ratio – The ratio of minimum black to maximum white (d-min into max luminance). A higher contrast ratio improves clarity of images. The effect of contrast ratio is directly linked to a monitor's luminance; the luminance divided by the contrast ratio calculates a display's blackpoint. As a rule, a blackpoint of 0.5 or below is optimum – above 0.5 and images start to appear flatter and less defined.

Digital/analogue connections – Most monitors come with both types of cable and connections. Digital is generally better for optimum display performance; however, a properly calibrated monitor, using either digital or analogue connections, is the most important thing.

OSD hardware control – On-screen display hardware control refers to colour settings that require manual adjustment. When used in conjunction with a third party monitor calibration instrument and software, these controls can provide accurate results.

DDC software – Display data channel software is calibration software built into most quality monitors, eliminating the need to manually adjust settings.