

MONITOR SETTINGS FOR II SYSTEM CALIBRATION

INTRODUCTION

To properly calibrate and profile a monitor, you need to know how to adjust the contrast and brightness. These settings are important for anyone who wants reliable on-screen color, especially those who edit images for print. Since some monitors offer more options than others—and some do not offer contrast controls at all—adjusting these settings can be a confusing task.

This document will walk you through the steps for adjusting contrast and brightness for a system calibration with i1Match software and an i1Display 2 Colorimeter or i1Pro Spectrophotometer. Use it as a companion to the wizard-based steps in i1Match.

BRIGHTNESS & CONTRAST

MONITOR CONTROLS

Many monitors do not offer user control over contrast settings. This is not necessarily a bad thing because it often means the monitor and calibration software will take care of it without your input.

For instance, Apple® Cinema displays, iMacs® and laptops don't offer any easily accessible contrast controls. There is a contrast adjustment in the Universal Access control panel, but it is intended for those with vision problems, not for normal use.

How to Set Brightness and Contrast

- 1. When you start i1Match, always select the **Advanced Profiling** mode.
- 2. Choose your monitor type and calibration settings. The recommended default settings for an LCD monitor are:
 - Color Temperature Medium White (6500)
 - Gamma **2.2**
 - Luminance 120



- 4. The software will offer an ambient light check. It is just for informational purposes and does not affect the calibration and profiling.
- 5. Next, adjust the contrast based on your display.
 - If your monitor doesn't offer a contrast adjustment (as with the Apple displays) it is already set and you can skip this step.
 - If there is an option to reset to factory defaults, select it. Otherwise select **100%**.
 - If your monitor has front panel controls or an On-Screen Display (OSD) that allows you to access brightness and contrast, etc., set the contrast and brightness to **100%**, or reset them to factory defaults.

Hot Tip

The best position to run calibration and profiling is the center of the screen, so psition the OSD in a corner so that it will not interfere with the colorimeter's ability to measure the screen.

6. Next, select the white point controls your monitor supports.



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- If you have an Apple display or your display offers choices like "sRGB, Adobe RGB, Video", or color temperature choices like "5000K, 6500K, 9300K", choose RGB Presets.
- If your monitor has individual options for RGB and allows you to set each color channel individually, choose **RGB Controls**, but don't make any manual adjustments to these settings.
- When you click the Start button, the software will locate the device and read the monitor contrast by sending different values to the screen.
- 8. An indicator gauge will appear and show the contrast. The goal is to get the contrast level into the green area, ideally in the center. Unless you manually adjusted the contrast down below 100%, this measurement should be correct without any input from you. If the contrast is not in the green area and your monitor has contrast controls, adjust it accordingly.



- 9. Handle color temperature the same way.
 - If your monitor has RGB presets, the color temperature will be assigned automatically.



- If you have individual RGB controls, you have the option of adjusting them to bring the color temperature to the desired setting if the reading is off the target color.
- 10. The last step is the brightness or luminance setting. When you click **Start**, an on-screen gauge will appear. Using the brightness control, adjust the monitor until the indicator falls into the center of the green tolerance range. Many monitors (especially laptops) adjust in fairly large jumps, so do your best to get the indicator somewhere into the green area.



After these adjustments have been made, the calibration of the monitor is complete and the software will continue with the profiling process to insure that color and tonally range are displayed accurately and consistently.

SUMMARY

Monitor brightness and contrast are two very important components of the calibration and profiling process. Optimizing these settings for your display is the first step in ensuring your colors will print correctly, and will display your images with the most accurate color and tonal range possible.

For information on a variety classroom, custom on-site, and highly interactive on-line training options, see X-Rite's Color Services web site at http://www.xrite.com/top_services.aspx Contact us at: Email: training@xrite.com Phone: 800.248.9748 x2685

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