


Monitor Calibration

A How-To Guide
For Members Only

Color  Casters

Background

An important step in color management is making sure your tools and software are set up correctly. In this guide, we walk you through the steps for calibrating your computer monitor using i1 Profiler. This software program is a free download for both PC and Mac. Google “i1 Profiler download” or go to this link: https://www.xrite.com/service-support/downloads/i/i1profiler-i1publish_v1_7_1. You must also have a spectrophotometer.

How To Calibrate Monitors

Step 1

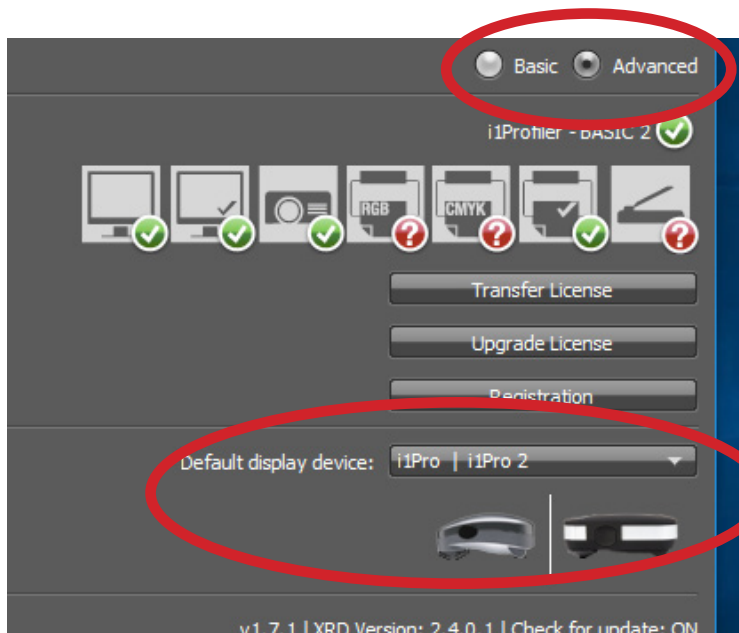
In your computers Settings, go to Display and make sure Automatic Brightness is NOT checked.

Launch i1 Profiler. It will either be in the app dock or in the Applications folder.

Plug in the spectrophotometer to the USB port on the computer. It need to be directly connected to the computer.



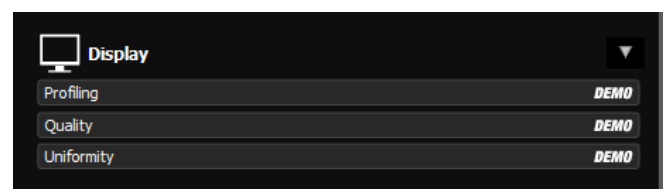
Step 2



On the introduction screen, make sure the Advanced radio button is clicked and that the display device at the bottom is showing the correct tool you'll be using for measurement.

Select the Display option on this screen (top left).

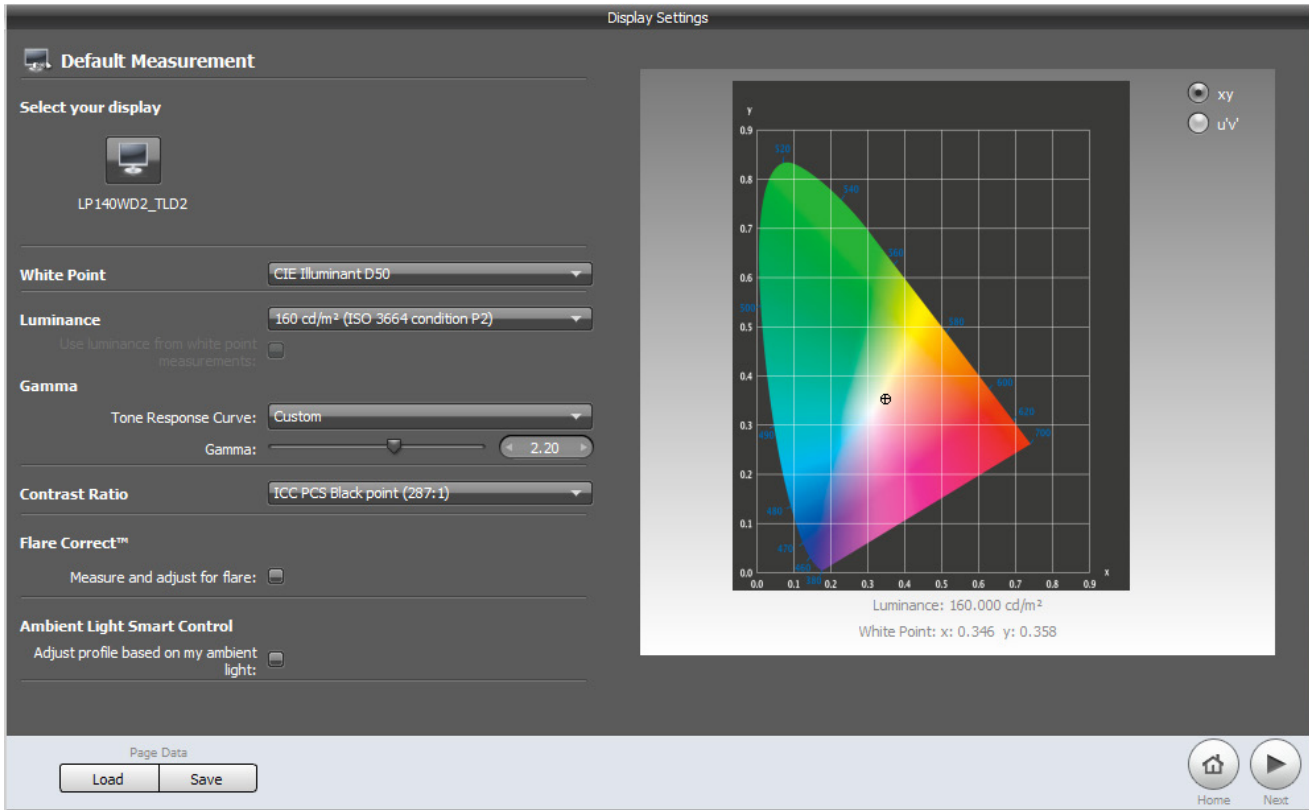
Click Next (bottom right).



Step 3

The settings are important on this next screen. If you have mirrored monitors, you'll need to select which one you are calibrating under Select Your Display. If not mirrored, you'll only see one option. Make sure the rest of the settings match what you see below.

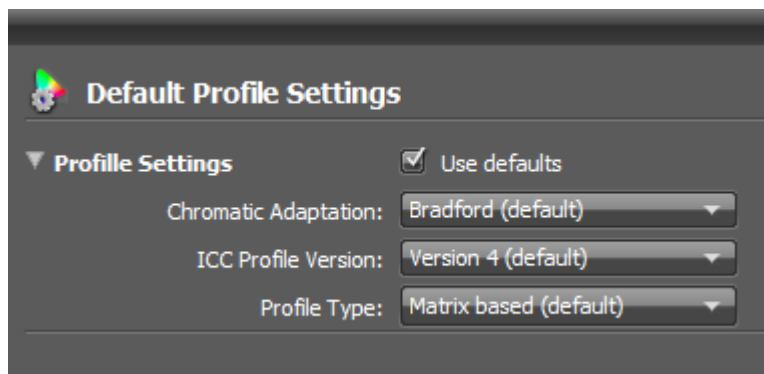
Click Next.



Step 4

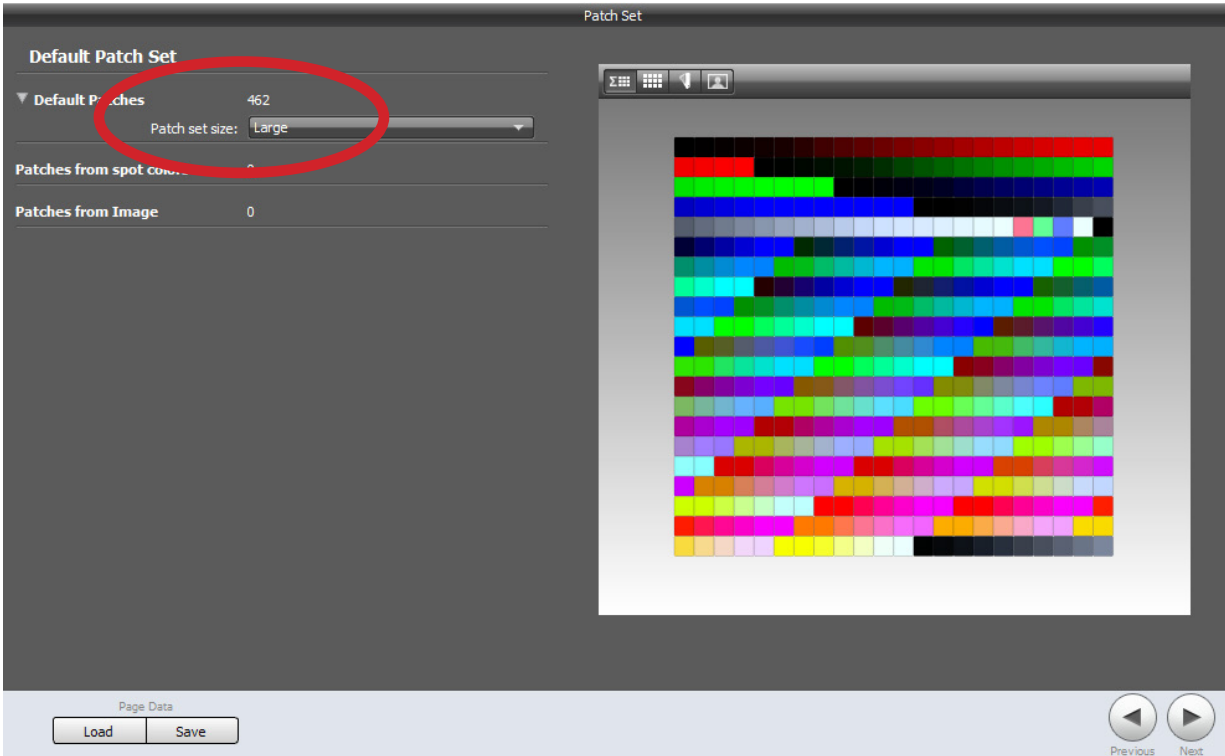
On the next screen, the default settings do not need to be changed. They should look like the image below.

Click Next.



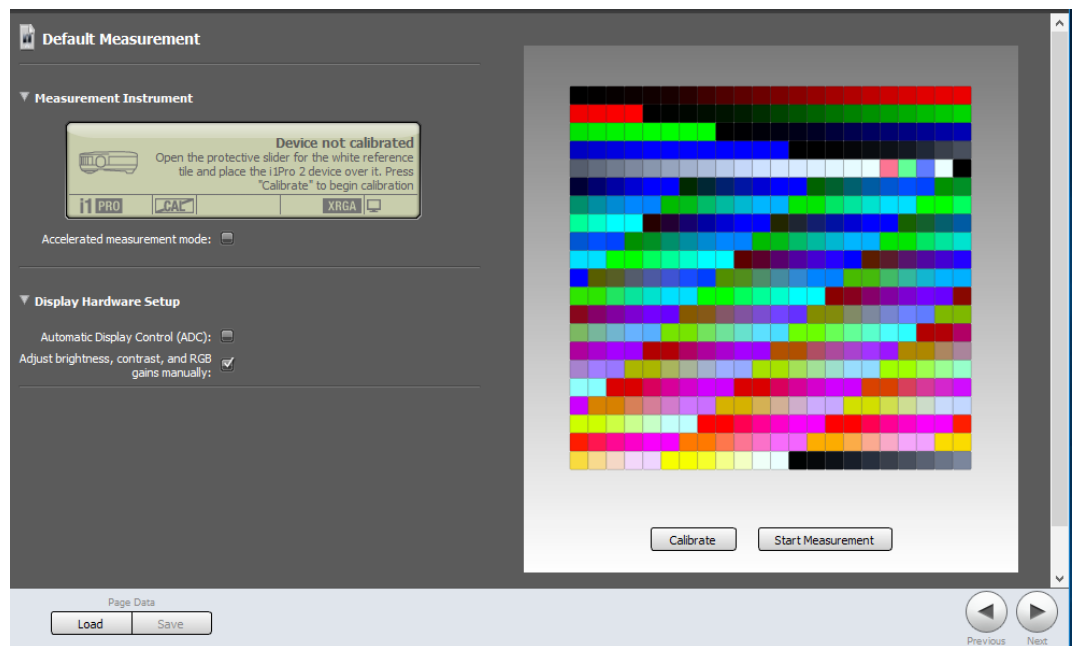
Step 5

Choose the large patch set to measure. The larger set gives you more accurate results.
Click Next.



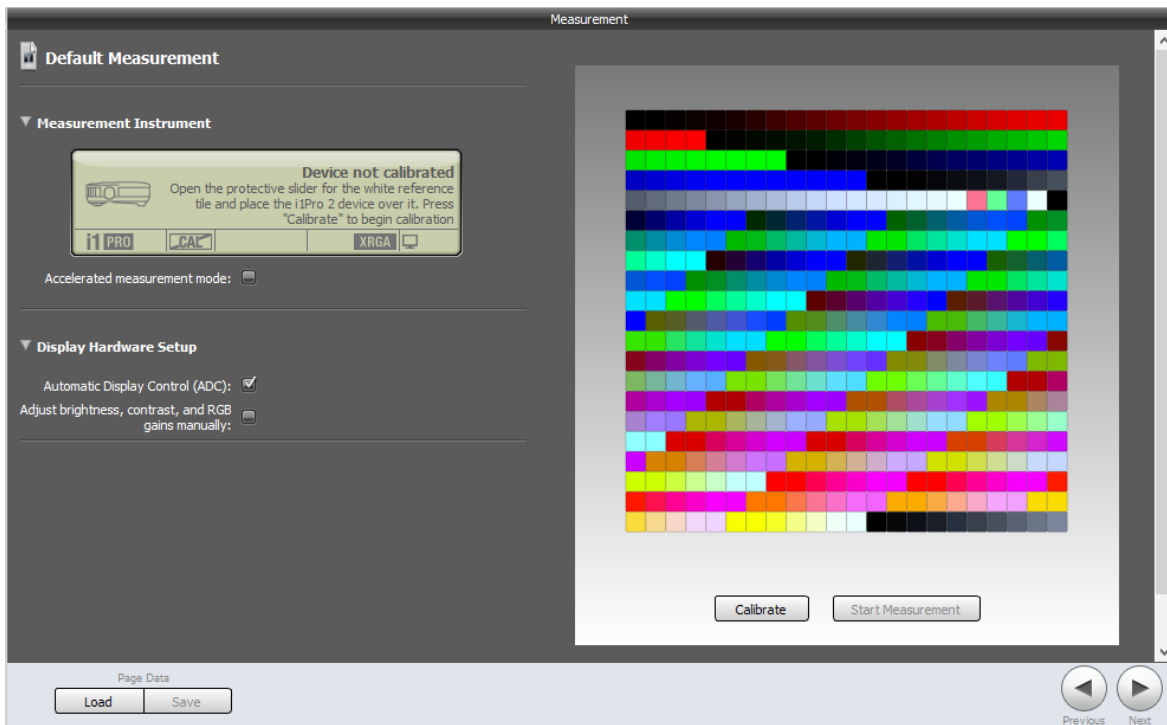
Step 6

Note the yellowish box on this screen. The spectrophotometer needs to be calibrated. Make sure you slide the plastic covering on the cradle so that the white point is showing. Place the instrument on the cradle and click Calibrate below the image of the patch set.



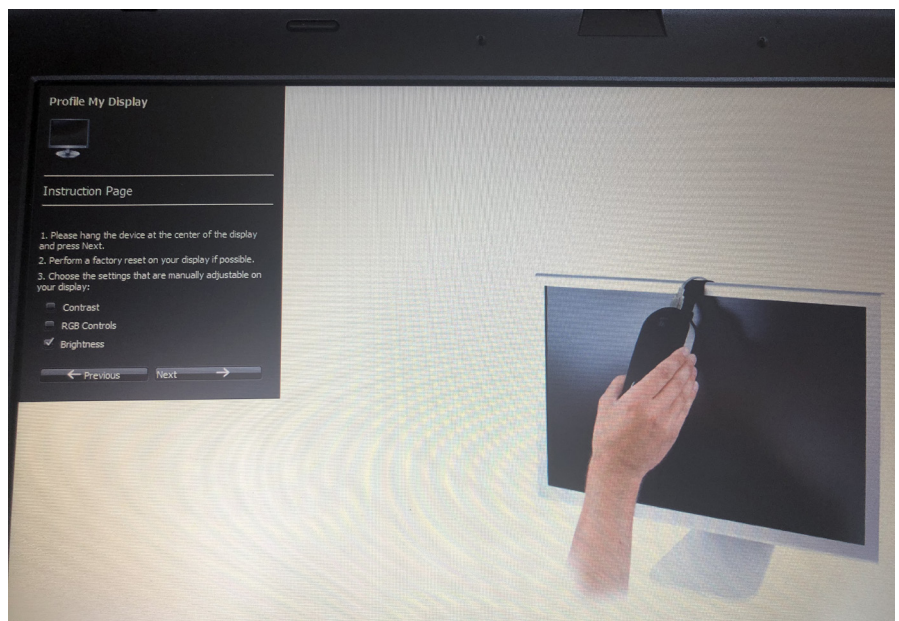
Step 7

Once the yellowish box displays that the device is ready, click the Start Measurement button below the image of the patch set.



Step 8

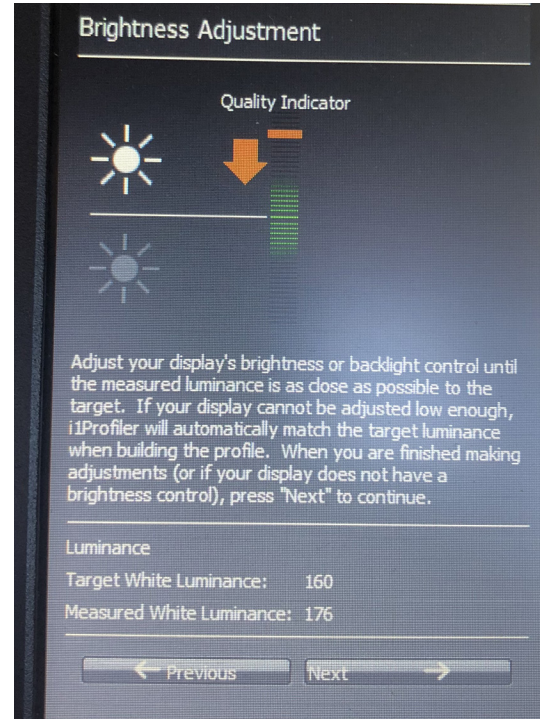
Using the weight tool provided with the instrument, hang it over your monitor as shown on screen. Make sure it's as centered as possible and that it is flush with the monitor screen. If your monitor allows for brightness control, click that option in the black box on the left. Then click Next.



Step 9

The measurement process will start but there will be a pause for brightness adjustment if you checked it. Use the keyboard to increase and decrease the brightness to get close to the white line. Pick the option that is brighter if you can't hit it exactly.

Click Next.



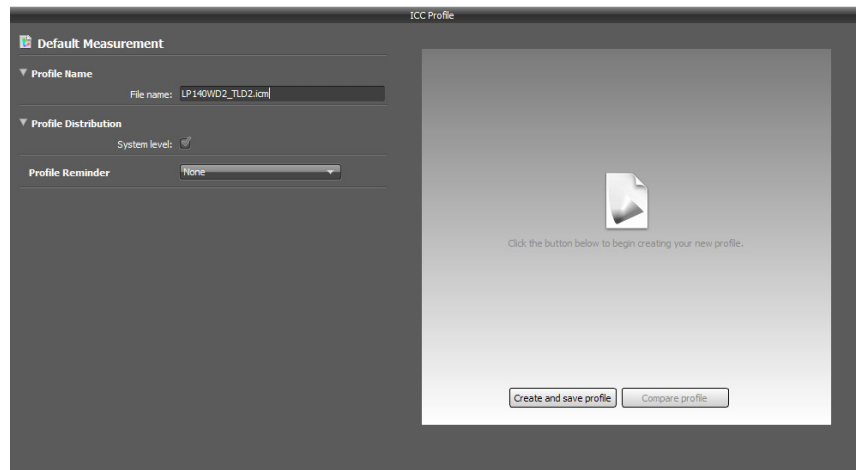
Step 10

The measurement process will continue for about 25 minutes. There will be a timer at the bottom of the screen. Do not move the spectrophotometer or touch the computer during this time.



Step 11

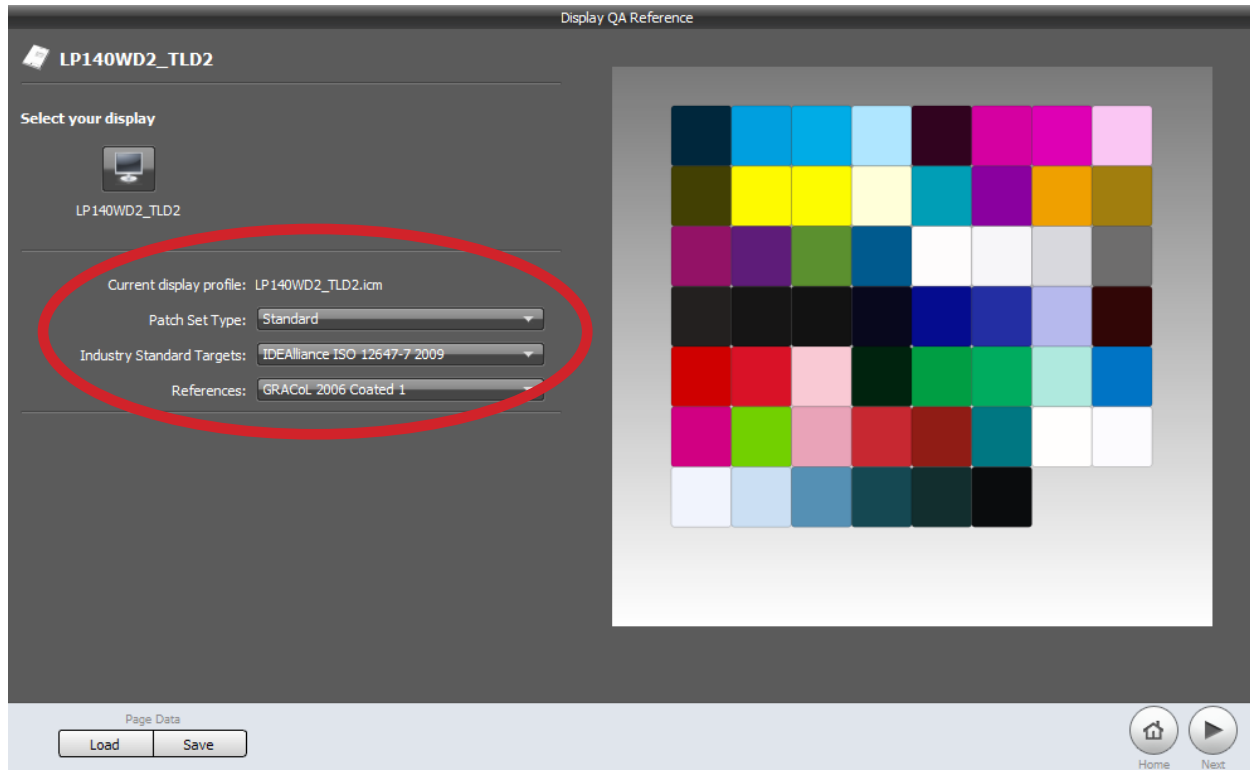
When the measurement is finished, you'll be able to name the profile (upper left). Then click the "Create and Save Profile" button.



Step 12

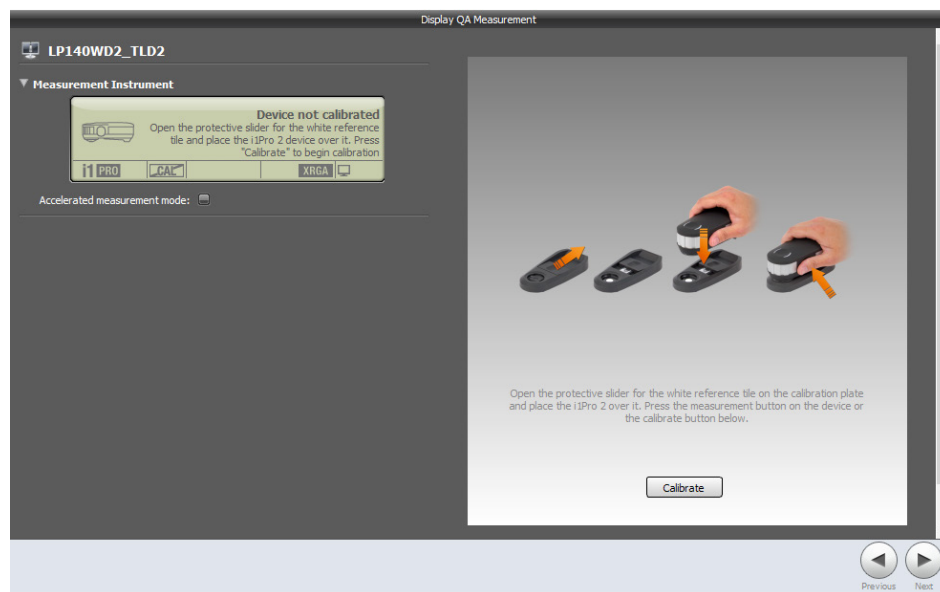
At the bottom of the screen in the workflow box, click on the words “Display Quality.” This will give you the verification screen. Make sure you select the correct display again (if mirrored). Also make sure the settings match the ones below.

Click Next.



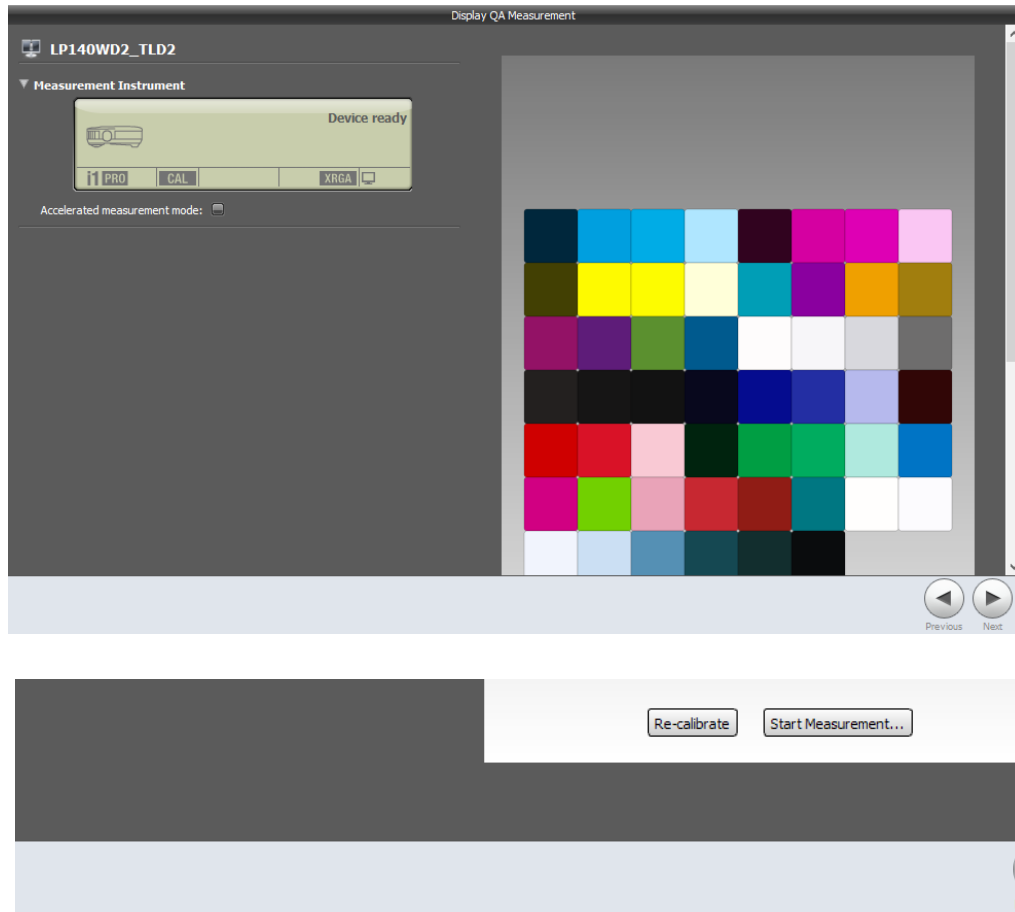
Step 13

Like before, you'll need to calibrate the instrument. Make sure the white chip is showing and put the instrument on its cradle. Then click Calibrate.



Step 14

Once the device is ready, click the “Start Measurement” button. (You may have to scroll down to see it.)



Step 15

Once again, follow the instructions and use the weighted tool to hang the spectrophotometer over the top of your monitor. Make sure it's about in the center of the screen and flush with the screen. This measurement will not take as long - usually about 5 minutes.

Click Next.

Step 16

When finished, this screen will pop up. Make sure the settings match the ones circled below. A fail doesn't mean that the monitor calibration is no good. But you'll want to look for numbers that are way off. Below the patches, you can also save a report as a PDF that compares the measurements to Gracol 2006.

Calibration is complete. You can exit the program.

Report

LP140WD2_TLD2

Data Set

Reference: GRACol 2006 Coated 1

Measurement: Completed

Result: Fail

ΔE Type: ΔE 2000(1:1:1)

Average ΔE Threshold: 3

Maximum ΔE Threshold: 6

Results Category	Value	Measured (Patches)	Tolerance	Status
Average ΔE results				
All patches:	2.93	(54)	3	✓
Of the lowest 90%:	2.32	(49)	-	-
Of the highest 10%:	8.85	(5)	-	-
Standard deviation results				
All patches:	2.84	(54)	-	-
Of the lowest 90%:	2.22	(49)	-	-
Of the highest 10%:	0.37	(5)	-	-
Maximum ΔE results				
All patches:	9.55	(54)	6	✗
Of the lowest 90%:	8.54	(49)	-	-

Save report... Add to Trending

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