Color iQC and Color iMatch

Getting Started and Spectrophotometer Setup Guide

Version 8.0 | July 2012

Color iControl Getting Started

Once Color iControl is installed on your system, there are still a few preliminary actions you must perform prior to being able to run the software fully. Each of these is explained below.

Initial Logon for Color iControl

Double-click the program icon installed to your desktop. The opening splash screen and log-on screen will be displayed.   The image displayed here will vary depending on your software configuration: Color iQC, Color iMatch, etc. Type your initials into the Operator ID field in the log-on screen and then click on one of the "Open" icons in the lower left. (Operator ID's are limited to six characters maximum.)
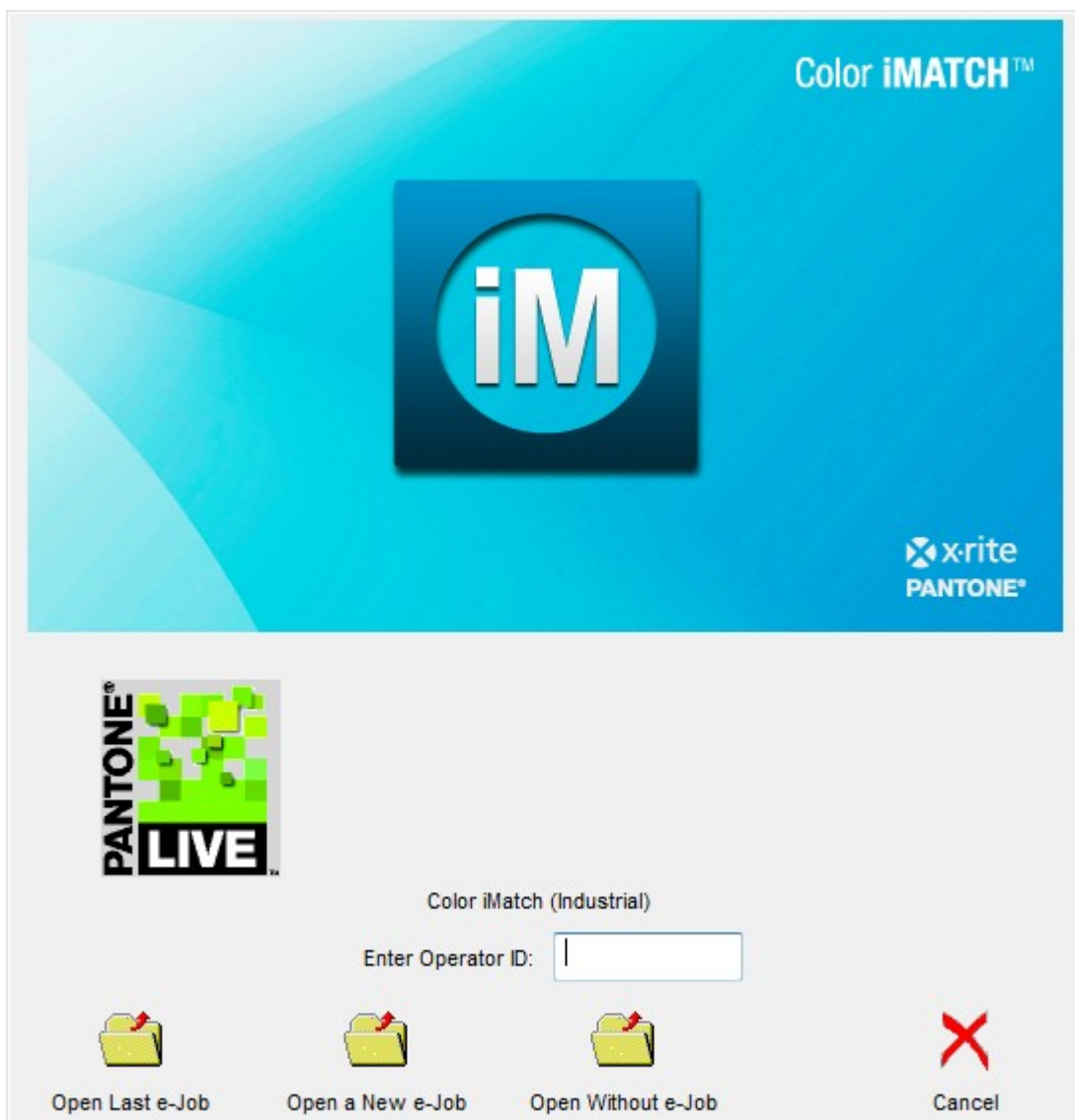
Installing an Instrument

Prior to beginning this operation, be sure that the spectrophotometer is connected to the computer via a communication port and that you know the ID for that port. In addition, check to make sure the instrument is plugged into the power outlet and powered up.

Once the instrument is physically connected to your computer, you must install it in terms of the software. To do this, follow the steps provided below:
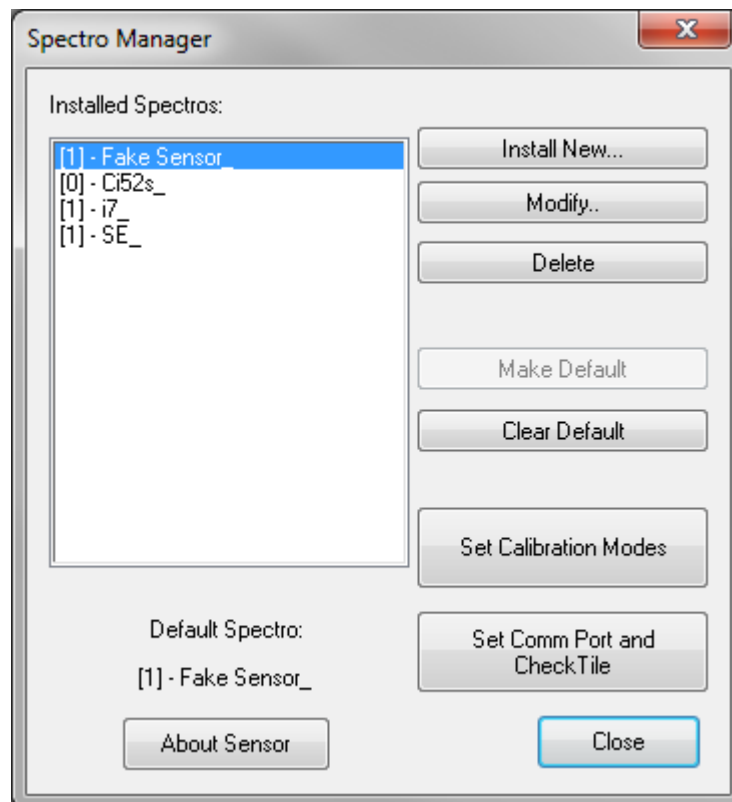

Figure 1 —Spectro Manager Dialog

1. From the main menu select "Spectro" then "Install or configure…"
2. A dialog box titled "Spectro Manager" (See Figure 1) will be displayed.
3. Click on the "Install New…" button. A second dialog titled "New Spectro" will appear with a list of available instruments for Color iControl (See Figure 2).
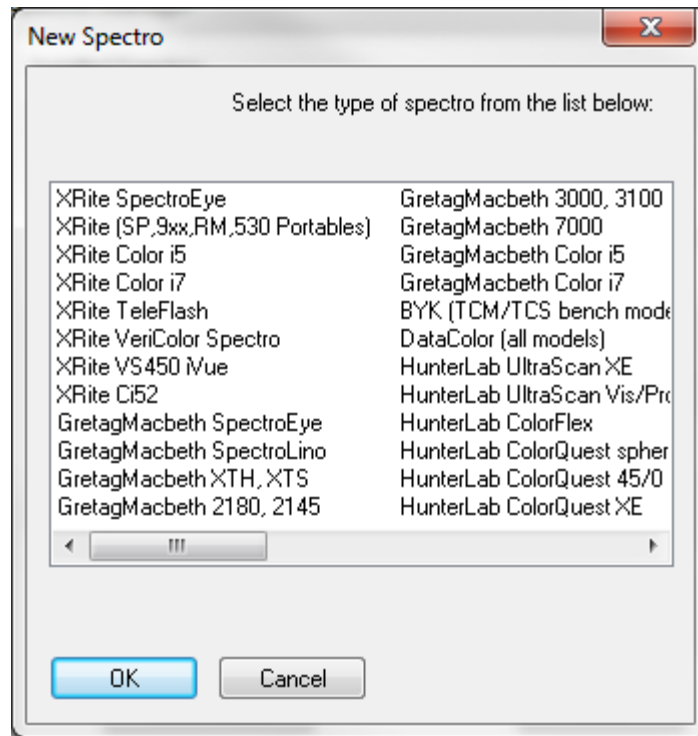
Figure 2 —New Spectro

4. Select the instrument you wish to install by clicking once on the instrument name (or manufacturer) and clicking "OK." (You may also at this point be asked for a calibration disk(s) that should have been provided with your instrument. If this is the case, follow the instructions that appear onscreen.)
5. The Spectrophotometer Installation Wizard dialog box will appear.
6. Depending on the type of sensor you are installing, the Choose Sensor Model dialog box may appear (See Figure 3). If it does, select your instrument's model type from the drop-down list and click <Next>.
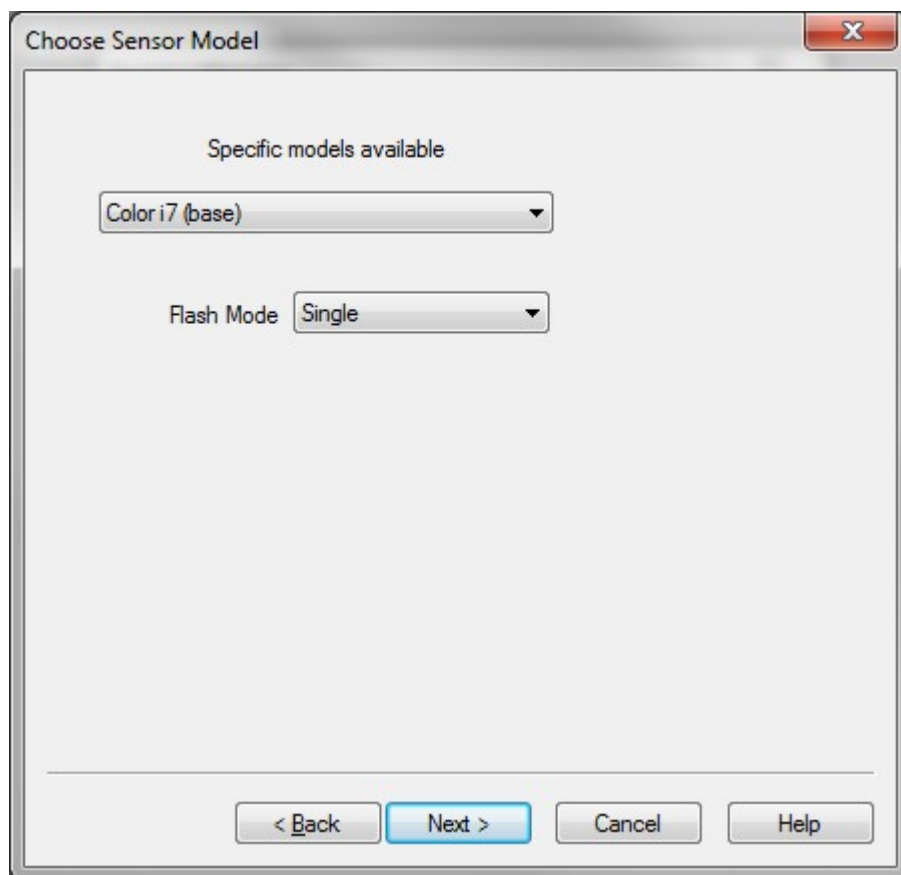
Figure 3 —Choose Sensor Model

7. On the next dialog (see Figure 4), enter the name of your spectrophotometer into the space provided. Depending on your instrument make and model, you may need to enter the serial number of your instrument and click <Next>.
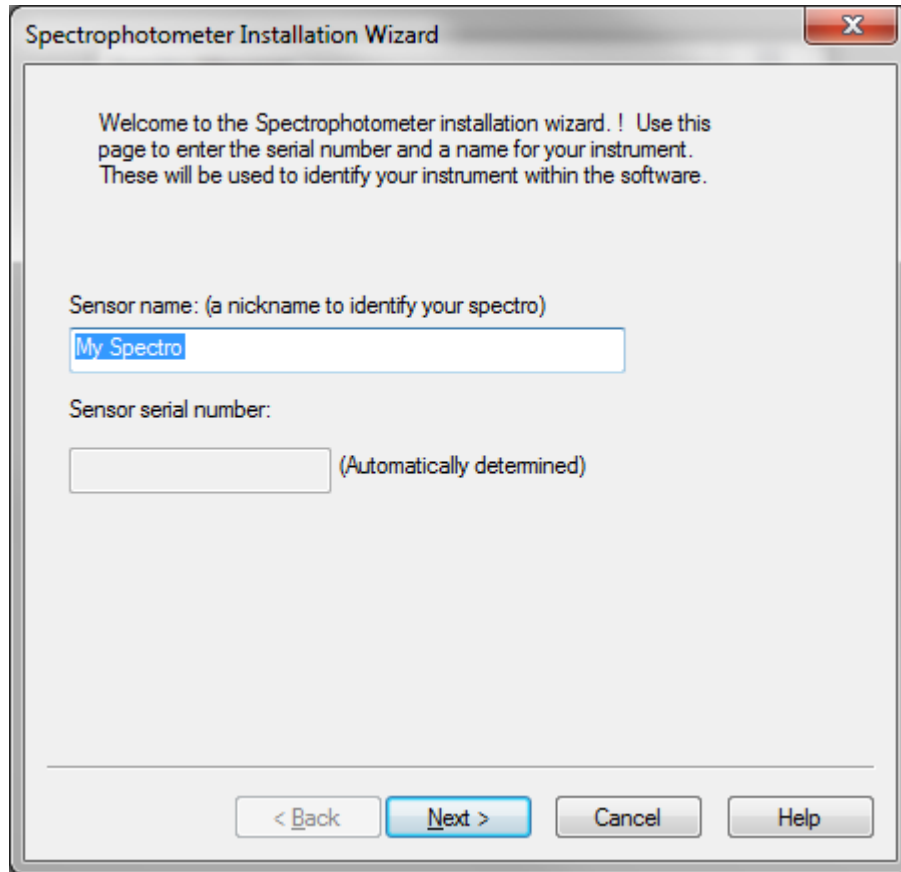
Figure 4 —Sensor Name

8. Again, depending on the type of sensor you are installing, the Instrument Wavelength Range dialog may appear at this point (also not pictured). This dialog allows you to select the default wavelength range for taking measurements.

9. A dialog box allowing you to select the communications port and the baud rate of the instrument will appear next (see Figure 5).
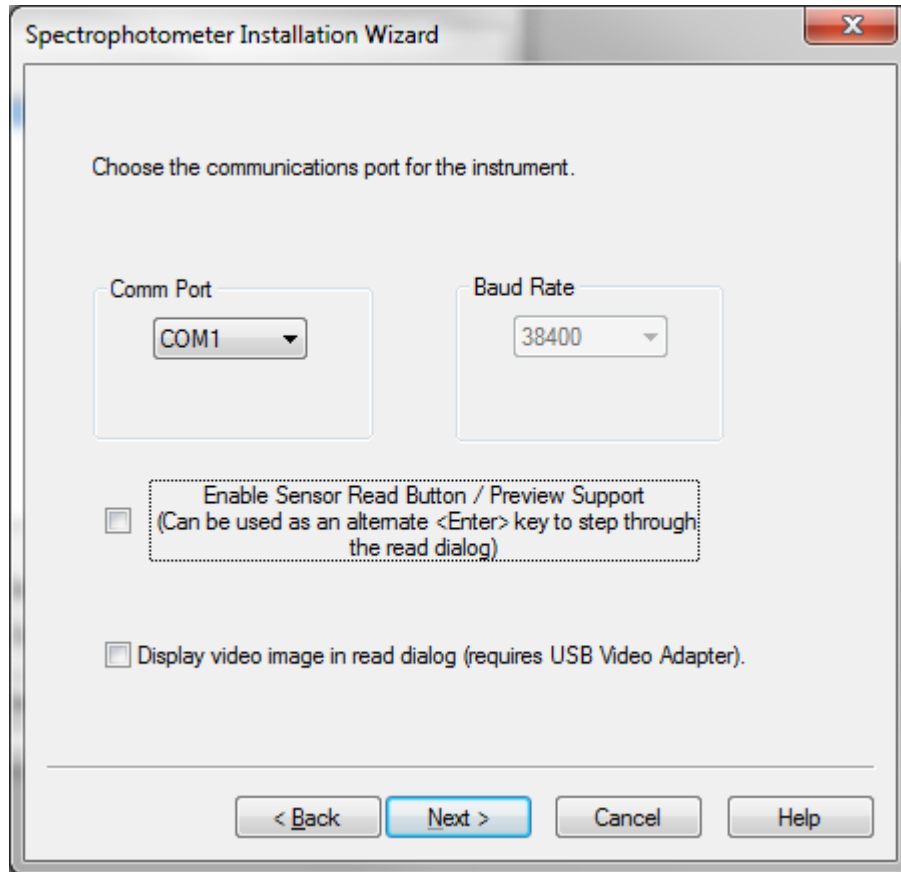
Figure 5 —Communication Port and Baud Rate

10. Click on the drop down to identify the communication port where you have the instrument connected. The default is to have your instrument connected to comm. port one. The baud rate should default to the correct setting. If your instrument is incapable of communicating at multiple baud rates, this section of the dialog will be unavailable. You may also enable the Read button on the sensor if you wish. Click <Next> once you have selected the comm. port and baud rate.

11. The next dialog (see Figure 6) will appear and prompt you to select a pre-defined calibration mode for your instrument. This dialog allows you to create an initial calibration mode for the instrument just installed. The mode contains such information as the size of the sample port, the type of illumination the instrument uses, whether or not you are taking reflectance or transmittance data, etc.

12. Click the <Finish> button to accept the current settings as the default initial mode.
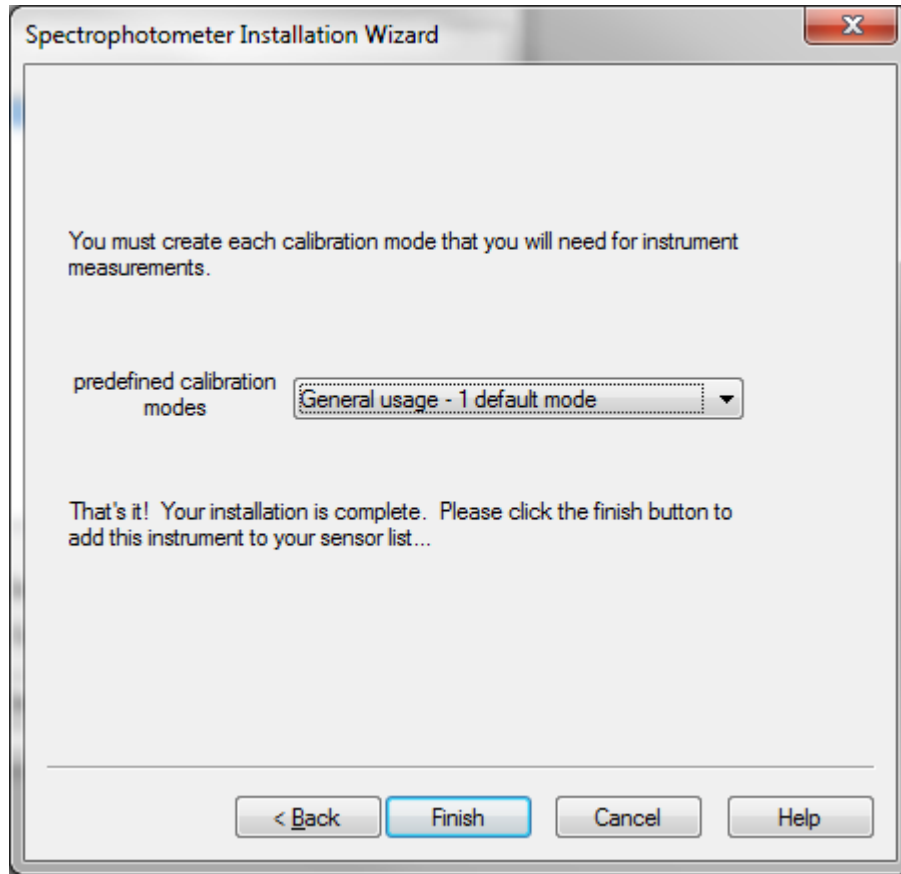
Figure 6 —Calibration Modes

13. Once you have closed the Calibration Mode, the Choose Calibration Mode dialog box will appear, allowing you to create more calibration modes for that instrument (see Figure 7). The default mode just defined should be listed as the only mode. You may define an entirely new mode by clicking on the "Define New" button. You should refer to the documentation provided with your instrument to determine what capabilities your sensor has and what variety of calibration modes you may want to define. (See Spectro under Menu Commands in the Help file for more information about setting the various sensor modes in Color iControl.)
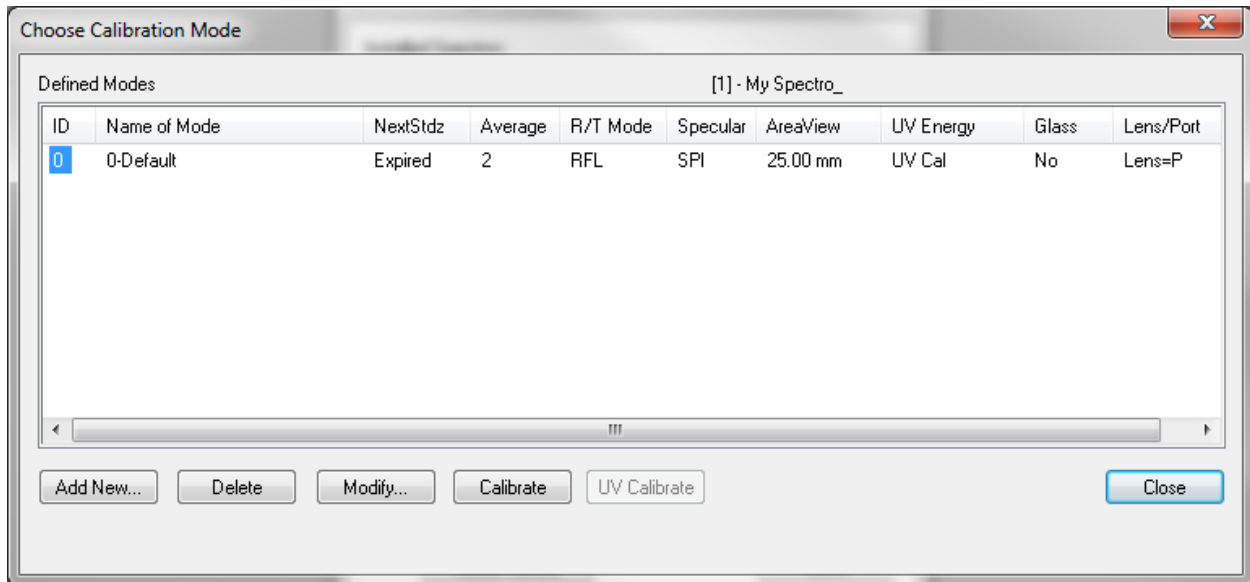
Figure 7 —Choose Calibration Modes

14. Once you have selected the sensor, its communication port, and the mode in which it will operate, all that remains to do is to calibrate the instrument. Do this by clicking on the "Calibrate" command under the "Spectro" menu and following the instructions on the screen. You must have a job opened in order for the "Calibrate" command to appear as one of the options under the Spectro menu. Calibration generally consists of taking readings of one or more tiles. These tiles should be supplied with your instrument; refer to your instrument's documentation for more information. The next section guides you through this process.

Calibrating the Sensor / Taking a Measurement

The next action to take is to calibrate the sensor and to take a measurement in order to be sure that the instrument installation has been successful. Obtain a standard and three trial samples prior to starting (we will use the trials in the Color iControl Tutorial which is included as a Adobe PDF file along with this document and the Installation instructions.)

Important Note: These instructions use the menu commands as the main method of accessing Color iControl's various functions. However, buttons on the toolbar as well as keyboard shortcuts exist for most of the commonly used menu commands, such as taking measurements and calibrating the spectrophotometer.

1. Click on the Spectro menu.

2. Click on "Calibrate"

3. Depending upon your instrument model, the system will prompt you to read the light trap/black tile. Place the light trap or black tile on the instrument port and click <OK>.

4. The system will prompt you to read the white tile. Place the white tile on the instrument port and click <OK>.

5. The system should report that the sensor has been successfully standardized.

6. Place the standard you obtained on the sensor port.

7. Open a new job. [By selecting "New e-Job" from the "e-Job" menu item on the main system menu.]

8. Click on Data menu.

9. Click on "Measure with Spectro..." A sub-menu will appear. Click on "Measure Standard."

10. A dialog box will appear allowing you to name the standard. Enter a name and click <Next>. Instructions for continuing will be displayed under the field where you entered the name. Follow those instructions until the system prompts you to enter another name for a measurement.

11. The Standard should appear as the first item in the Tree View at the upper left of the open job.

12. Click on e-Job menu item.

13. Click on "Close Current Job" from the drop down menu. A standard Windows "Save As…" dialog box will open.

14. Enter a name and click <OK>. The system will automatically append the extension to the job when it is saved.

15. Click on e-Job menu item

16. Click on "Exit" from the drop down menu. The program should close.

17. The sensor is now installed and correctly functioning.

Editing the Default Job Settings File

Once the instrument has been configured, you should edit the default settings file. Color iControl originally ships with two default settings files, one for screen resolution set at 800x600 and one for screen resolution set at 1024x768. One of these settings files will be the basis for any job opened in Color iControl without specifying an alternative (i.e., another settings file or template). Which one gets used depends on the resolution of your monitor. This will be true even if you select to store your settings in the job and not in a settings file, because even if you select to store the settings in each individual job, the program has to have some settings to include when each job is initially created. Editing the default job settings file is described below.

Editing the Default Settings File
1. To edit the default settings, first click once on "Edit Default Job Settings" under the File menu. (This option will only appear when there are no open jobs. If a blank job appeared when you started running the program, you must close it before you can use this option.   Use the "Close Current Job" command under the e-Job menu or click once on the Windows close button in the upper right corner of the job window.)

2. A job window will open with the title "_800.st3" or "_1024.st3," depending on your monitor's resolution. Click once on the "Settings" option under the Application menu.

3. The Settings dialog box will appear. Click on the General tab. (For now, we will only set up the most basic settings needed. You may need to edit this file again once your familiarity with the software has increased.)
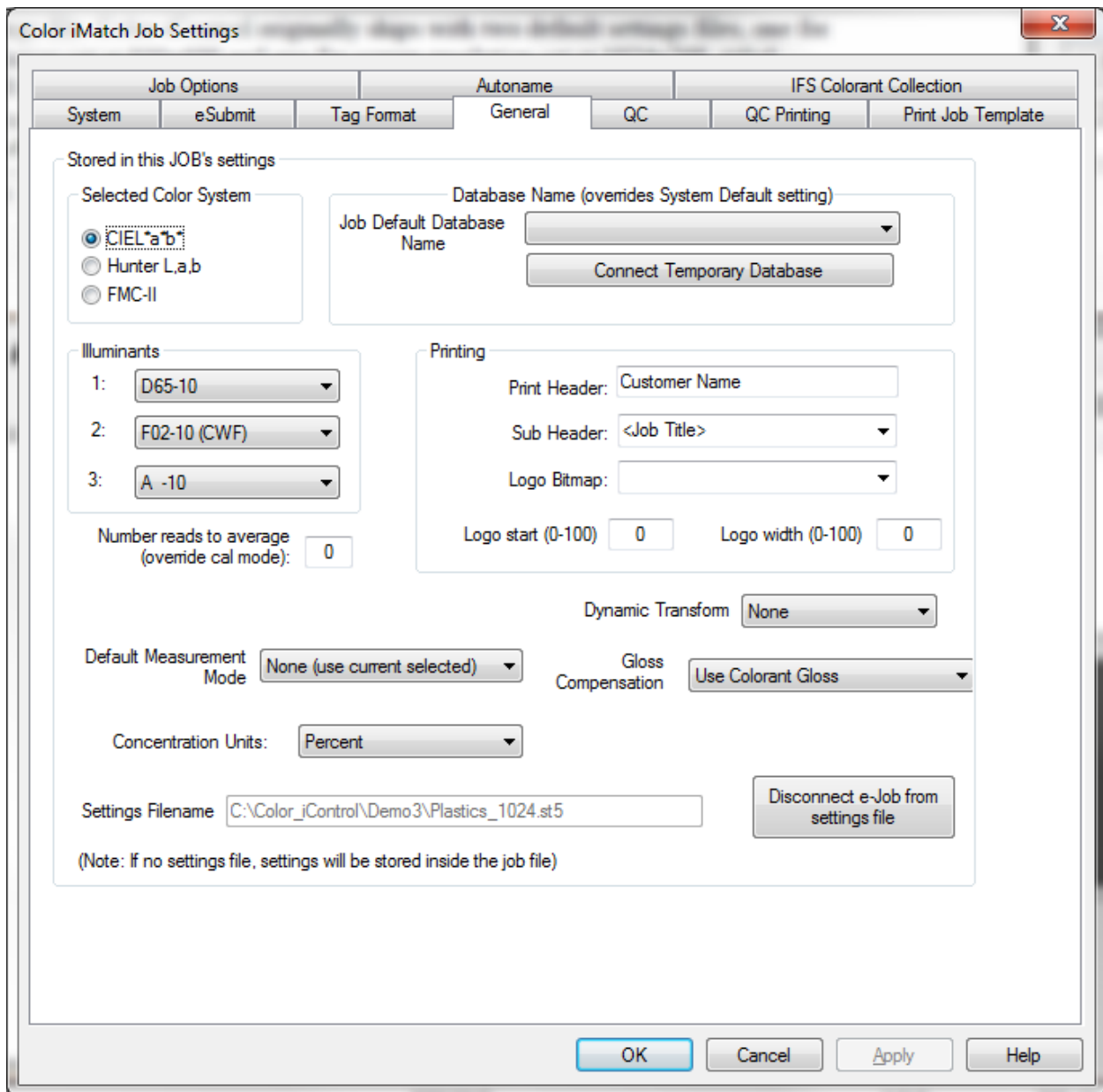
Figure 8 —Settings | General Tab

4. At the top left of the dialog are three radio buttons for selecting the desired color space. The options are: CIEL*a*b*, Hunter, or FMCII. The system will default to CIEL*a*b*. Select an option or leave the system set to CIEL*a*b*.

5. In the center left of the dialog are three drop-down lists allowing you to select the primary, secondary, and tertiary illuminants for the system. The defaults are: D6510, F02-10, and A-10. The appended 10 on the end of the illuminant means that it is using the ten-degree observer. Two-degree observer illuminants are available and designated with a "-02". Select your illuminants from the drop-down lists.

6. Once you have selected these settings, click on the "Close Current Job" command under the Job menu. The default settings you selected will be stored into the file. These settings will be in place for every new job you open without specifying a template. Of course, there are many other settings, both in the General tab and in the Quality Control tab. Once you gain more familiarity with the software, you may want to return to re-edit the settings stored in the default settings file.