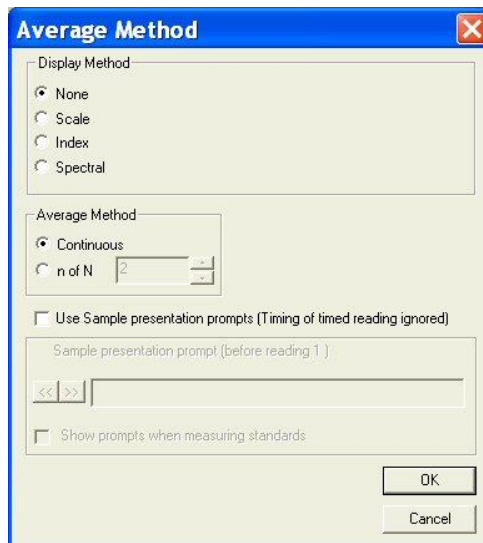


Easy Match® QC Lesson 12

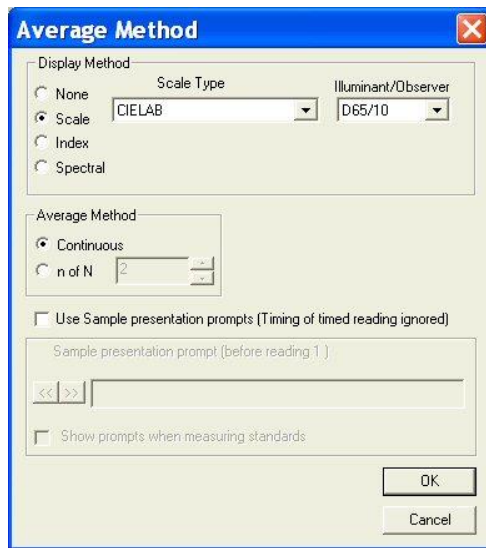
Averaging Readings

Suppose you are measuring a sample, such as corduroy, which is very directional. You've decided that the best way to measure it, taking its directionality into account, is to make four readings of the sample, rotating the fabric 90° between readings so that the instrument looks at it from all directions. The four readings will be averaged into the final result, which you will report. Configure the averaging and read the sample as described below.

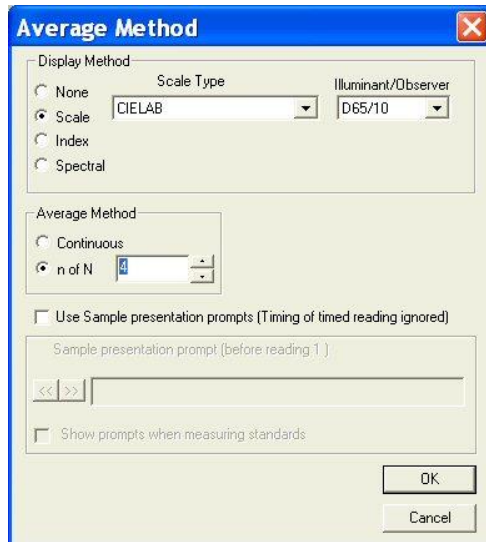
1. **Open a new job** and configure its Color Data Table to display CIELAB for D65/10°. You may configure the other parameters however you like.
2. Open the **Measurements** menu and select **Average** so that it is checked.
3. Open the **Options** menu and select **Average Method**. The Average Method screen appears.



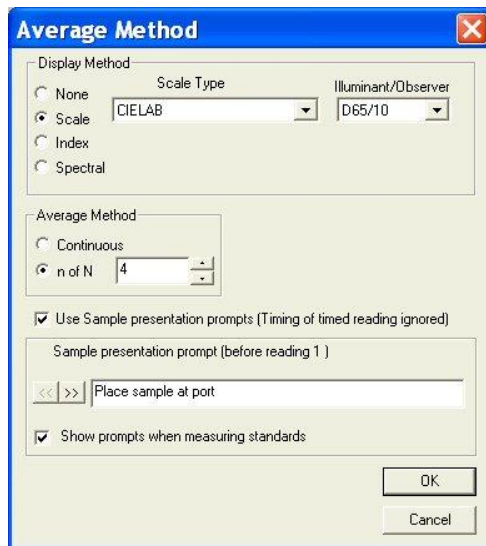
- a. In the Display Method area, click the radio button next to Scale and choose CIELAB as the Scale Type and D65/10 as the Illuminant/Observer. This ensures that the data shown on the Average Reading screen uses the same parameters you are displaying in your Color Data Table.



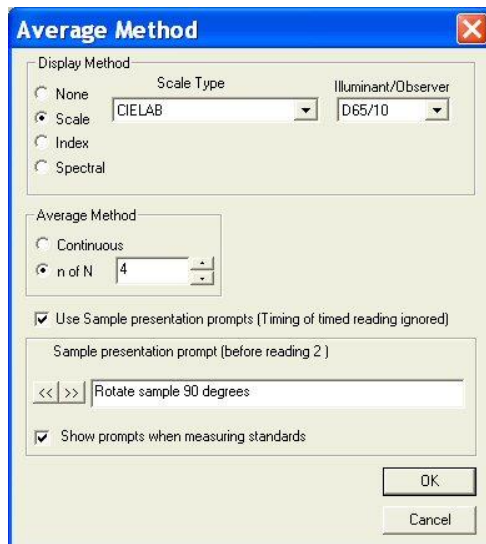
- b. In the Average Method area, click the radio button next to n of N and select 4 as the number of readings to average.



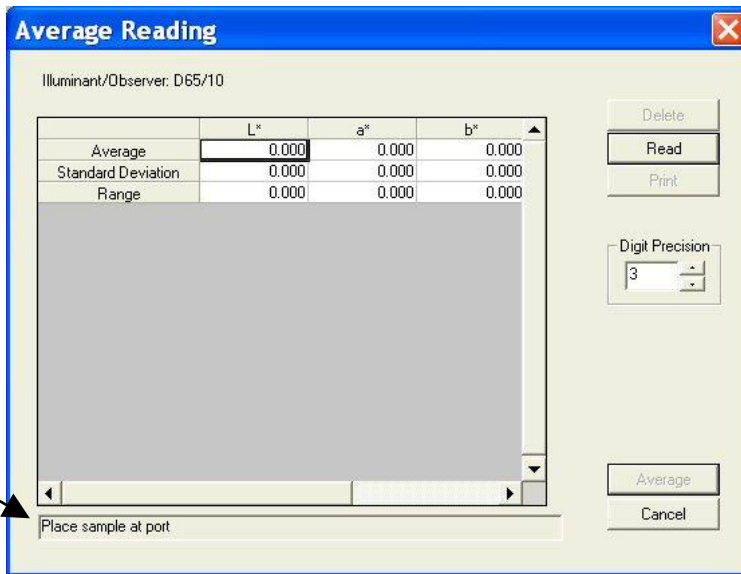
- c. At the bottom of the screen, check the boxes next to both “Use Sample presentation prompts” and “Show prompts when measuring standards.” The white box for Sample presentation prompt (Before reading 1) will be activated. Type “Place sample at port” into this box.



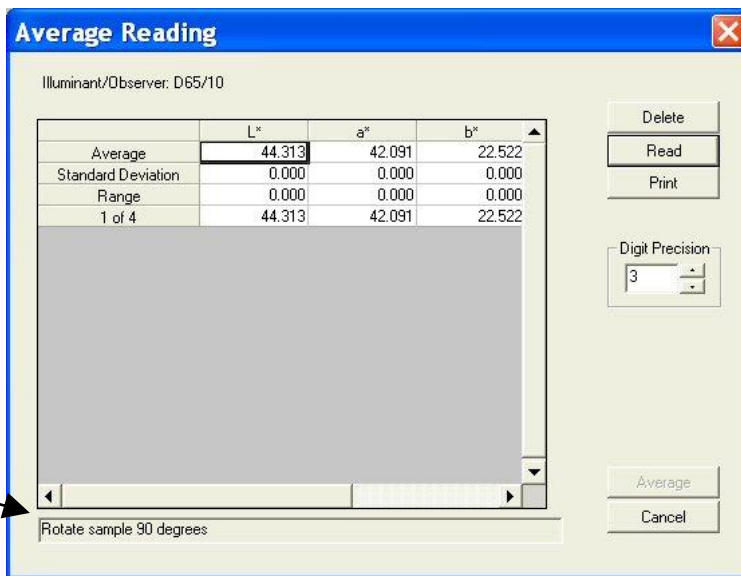
- d. Click the right arrow (>>) button. The text above the box will change to “Sample presentation prompt (Before reading 2).” Type “Rotate sample 90 degrees” into this box.



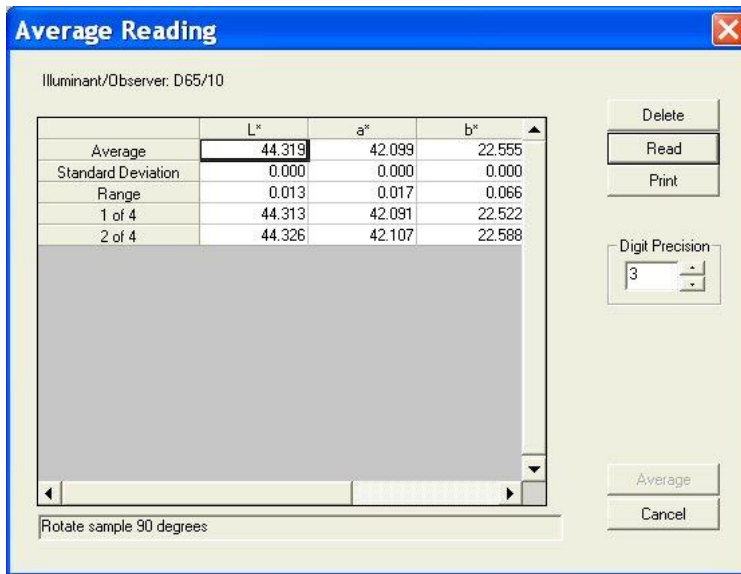
- e. Click the right arrow button to move to the prompt boxes for readings 3 and 4. Enter “Rotate sample 90 degrees” for these prompts, as well.
 - f. Click **OK** to close the Average Method screen.
4. **Initiate the reading of a standard.** The Average Reading screen appears as follows. Note the prompt to place the sample at the port shown at the bottom of the screen.



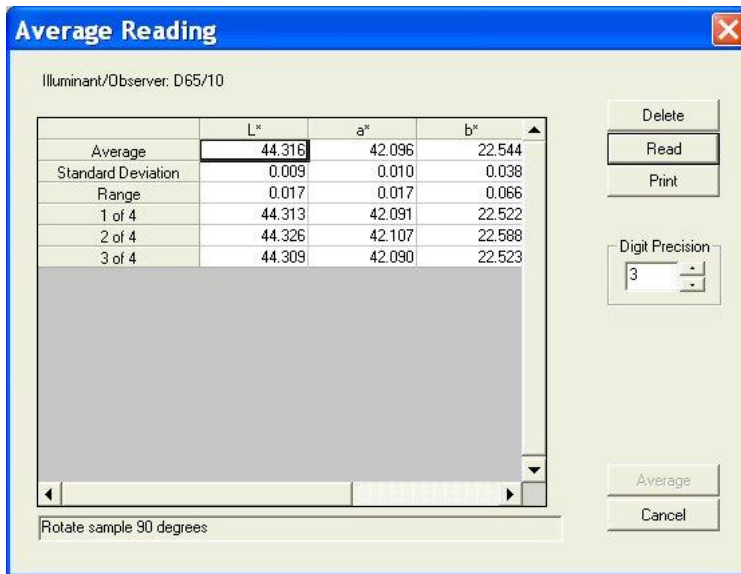
5. **Read the Sample.** Place the sample at the measurement port and click **Read**. The standard is read and the values for the reading are placed in the Average Reading spreadsheet. Note the prompt to rotate the sample 90 degrees shown at the bottom of the screen.



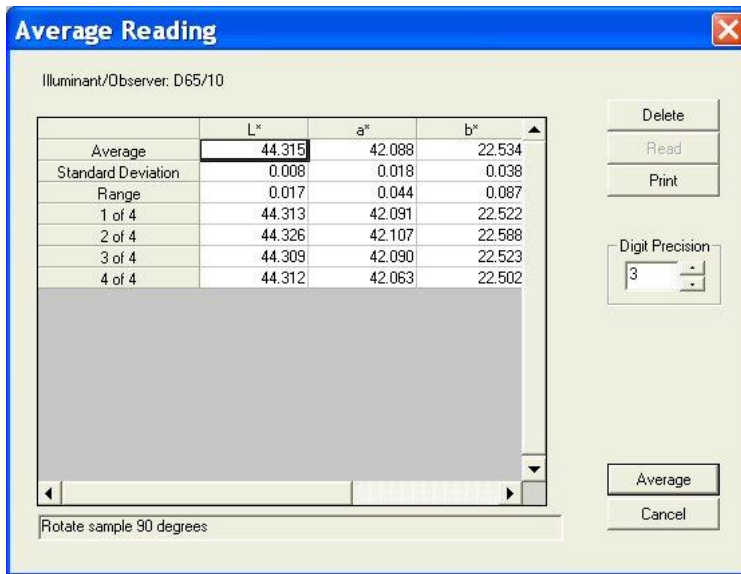
- a. Rotate the sample 90 degrees and replace it at the port. Click **Read**. The standard is read again and its values placed in the Average Reading spreadsheet.



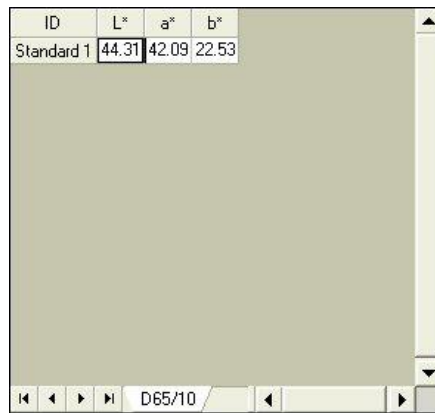
- b. Per the prompt, rotate the sample 90 degrees again and replace it at the port. Click **Read**. The standard is read for the third time and its values placed in the Average Reading spreadsheet.



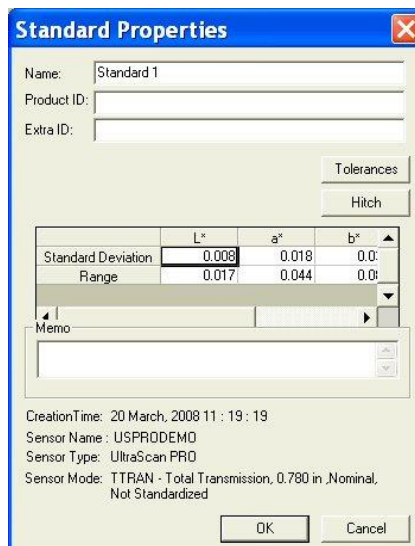
- c. Per the prompt, rotate the sample 90 degrees again and replace it at the port. Click **Read**. The standard is read for the fourth time and its values placed in the Average Reading spreadsheet.



- d. Click the **Average** button. The Average Reading screen closes and the averaged reading is placed into the job as a single standard measurement.



- e. Right-click the averaged standard in the Job Tree and select **Properties**. The Standard Properties screen appears.



- f. Note that the standard deviation and range for the 4 readings made and averaged are still available. When you initialize a sample reading, the same sequence of events is observed.