Measuring Emissive-Monitor Specimens

Step 1   **Start SpectraShop.**

Step 2   **Click the *Measure Specimens* button.**

Step 3   **Select your instrument**

For this tutorial the i1Pro will be used.

Step 4   **Click the *Connect* button.**

When the connection is made the serial number of the instrument is displayed and the button's title is changed to *Disconnect*.

Step 5   **Select the Specimen Type to measure.**

For this tutorial select *Emissive-Monitor*.

Step 6   **Place the i1Pro on its calibration plate.**

Step 7   **Click the *Calibrate* button.**

When the calibration is completed successfully the *Measure Monitor Specimens* and the *Measure Monitor* windows will appear.

Step 8   **Enter the *Specimen Information*.**

By default the *Auto Id* is active which will automatically generate Identifier 1 for each measured specimen. *Auto Id* is a very time saving feature if the specimens have a sequential naming system. Turn this off to manually enter each *Identifier 1*.

The *Auto Id* generation method can be chosen from the standard method or one created from the RGB values used for the *Measure Monitor* window.

Step 9   **Select the measurement parameters.**

Selecting more than one *Measurement/specimen* will average the specified number of measurements. As each intermediate measurement is made a high pitched tone is sounded. A low pitched tone is produced to signify the last measurement for the specimen.

Step 10   **Measure the specimens.**

The Measure Monitor window should be positioned to the place on the monitor where the measurement is to be made.

For better accuracy, this window should be resized to make the patch fill as much of the subject monitor as possible.

Select the color to measure for the *Measure Monitor* window by either entering RGB values into the appropriate text fields or by using the sliders in the *RGB Patch* area.

The measurements can be made by either pressing the button on the i1Pro or by clicking the window's *Measure* button.

When making monitor measurements, the orientation of the spectrometer's measuring head to the monitor's surface can be affected by clicking the instrument's measure button. Many LCD monitors are sensitive to the pressure change of the instrument on its surface as the instrument's measure button is pressed. For these reasons, it is usually best to use the *Measure* button in the *Measure Monitor Specimens* window instead of the instrument's measure button.

As each specimen is measured, the data is sent to the topmost collection window.

Step 11 **Disconnect the instrument when finished.**

When all the specimens have been measured the *Disconnect* button in the *Instrument Connection* window may be clicked to prevent accidentally measuring additional specimens.

As each specimen's data is sent to the collection window, the specimen is selected in the specimen list, causing the spectrum, a simulated color patch, the metadata and the associated colorimetric values to be

displayed. This gives visual authentication that the specimen was measured correctly.

Step 12 **Convert the colorimetry to relative values.**

The colorimetric values which depend on having a reference white point (i.e. CIELAB 1976, CIELUV 1976, CIECAM02 and CIE 1964 UCS) are not initially displayed because the white point is unknown. To produce these relative values, the white point can be defined as follows.

When all the measurements have been made, click on the *Collection Inspector* icon in the upper-right corner of the collection window.

Click on the *Colorimetry properties* button in the Inspector.

Drag the measurement of the monitor's white to the *Reference Specimen* field in the *Relative Spectral Reference* area of the Inspector.

The CIELAB 1976, CIELUV 1976, CIECAM02 and CIE 1964 UCS values will now be calculated relative to the monitor's white and displayed.

Drop the white measurement here