Quick Start Guide

The following sections show the basic flow of operation from startup through calibration and measurements to exiting the program to help you get started quickly.

Quick Start: 1 Starting SpectraMagic NX2

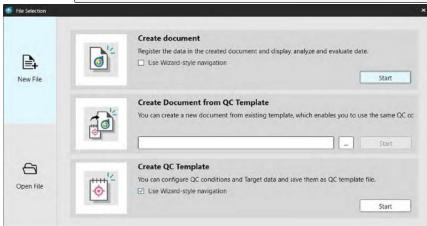
- For information on installing SpectraMagic NX2, refer to the Installation Guide.
- 1. Select the SpectraMagic NX2 icon in the Windows Start menu or double-click on the icon on the desktop. The SpectraMagic NX2 Launcher will start.
 - For information about Launcher items other than the Color QC button, see 1.1 SpectraMagic NX2 Launcher on p. 2.



2. Click the [Color QC] button. The SpectraMagic NX2 QC module will start, and the File Selection dialog will appear.

In this dialog, you can create a document or QC template, or open an existing document or QC template. When using SpectraMagic NX2 for the first time, it is recommended that you create a document using the wizard-style navigation.

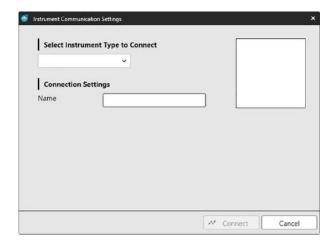
- For other functions of the File selection dialog, see 2.1.1 File Selection Dialog on p. 36.
- **3.** In the Create document section, if *Use wizard-style navigation* is not checked, click on the checkbox to check it, and then click [Start]. The New Document Wizard will start.
- 4. In the Select Instrument tab, select the instruments to use with the document and click [OK].
 - To filter the instruments which are shown, click on the **Instrument Type** drop-down to select the type of instrument, and click the checkboxes for the desired measurement types.
- **5.** In the Select Display Layout tab, select the layout style to be used.



- · An example screen will be shown when a layout style is selected.
- To select a template instead of a listed style, select Load Template and click [Browse] to browse to the desired template.
- 6. Click [OK]. A document with the selected layout will be opened.

Quick Start: 2 Connecting an Instrument

- 1. For more information on connecting an instrument, see 2.3 Connecting/Disconnecting an Instrument on p. 43.
- 1. Click the Connect button in the toolbar or select *Instrument Connect*. The Instrument Communication Settings dialog will open.
 - If a default instrument has been defined, connection to that instrument will be performed and the following steps can be omitted.
 - It is also possible to connect to an instrument via the Instrument Registration dialog. See 2.3.3.1 Connecting with a Registered Instrument on p. 45.
- 2. Click on the Select Instrument Type to Connect drop-down and select the desired instrument from the list that appears.
 - If the instrument to be used is a CM-25cG, CM-25d/26d/26dG, or CM-M6 and Bluetooth will be used, click on the *Use Bluetooth* checkbox to make it checked if necessary.
- 3. The Name textbox will show a default name for the connection. If you want to change the name, click in the textbox and edit the name.
- 4. If the Port No. or Baud Rate items are shown, click on the respective drop-down list and select the desired setting from the list that appears.
- 5. When settings have been completed, click [Connect]. A dialog asking whether you want to register the connection settings will appear.
 - · Registering the connection settings will set the instrument as the default instrument and make connecting easier in the future.
- **6.** Click [Yes] to register the connection settings or [No] to continue without registration.
- 7. The instrument will be connected to and the Instrument Window will appear on the left side of the program screen.



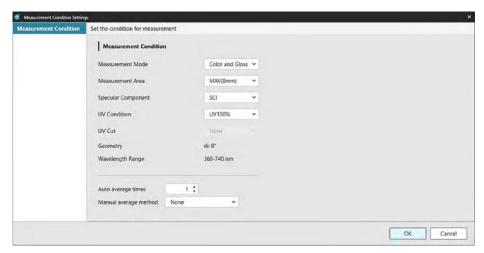
Quick Start: 3 Setting Measurement Condition Settings

Measurement condition settings such as measurement mode (reflectance, transmittance, etc.), measurement area, specular component, etc. should be set before performing calibration.

- For details of instrument settings, see 2.4 Setting Measurement Condition Settings on p. 50.
- To set instrument settings such as reflectance or transmittance, SCI/SCE, measurement area, etc, do any of the following:
 - Click the Measurement Condition Settings button in the toolbar.
 - Click Measurement Conditions or in the Instrument Window.
 - Select Instrument Measurement Conditions.

The Instrument Measurement Conditions dialog will appear.

- 2. For each changeable item, click on the current setting and select the desired setting.
 - It may be necessary to use the scroll bar on the right side of the dialog to scroll down and see some settings.
 - Some settings are shown as information only and cannot be changed.
 - The specific settings which are shown will depend on the connected instrument.
- 3. When all setting have been set as desired, click [OK].



Quick Start: 4 Performing Calibration

To ensure accurate measurement, calibration should be performed at the current settings after switching the instrument on. Depending on the instrument, SpectraMagic NX2 can be used to take reflectance or transmittance measurements. Follow the procedure below to perform calibration for the type of measurement selected in Measurement Conditions. For more information on calibration, see 2.5 Calibration on p. 60.

Quick Start: 4.1 For reflectance or opacity measurements

For reflectance or opacity measurements, zero calibration and white calibration will be performed. If the selected measurement conditions include gloss, gloss calibration will also be performed.

- 1. To start calibration, do any of the following:
 - Click the Calibration button in the toolbar.
 - Click Calibration or in the Instrument Window.
 - Select Instrument Calibration.

The Zero Calibration dialog will appear.

Follow the instructions in the dialog and click [Calibration] to perform zero calibration.

• If the [Skip] button is enabled because the instrument maintains previous zero calibration results, you can click [Skip] to proceed to the next step without performing zero calibration.

- 2. The White Calibration dialog will appear.
 - Follow the instructions in the dialog and click [Calibration] to perform white calibration.
 - If a CM-36dG series instrument with a valid Wavelength Analysis & Adjustment (WAA) license is being calibrated, progress bars for white calibration and WAA will be shown. Performing both processes will take several seconds.

If the instrument does not support gloss measurements or if Color & Gloss is not selected in Measurement Conditions, calibration is complete.





3. If Color & Gloss is selected in Measurement Conditions, the Gloss Calibration dialog will appear. Follow the instructions in the dialog and click [Calibration] to perform gloss calibration.



Quick Start: 4.2 For transmittance or haze measurements

For transmittance or haze measurements, 0% calibration and 100% calibration will be performed. For transmittance measurements of solids, 100% calibration is performed to air (with nothing in the instrument's transmittance chamber). For transmittance measurements of liquids, 100% calibration is performed to water (with a cell containing distilled water in the instrument's transmittance chamber).

- When performing transmittance measurements, the white calibration plate must always be placed over the reflectance measurement port for both calibration and measurements.
- For haze measurements, the white calibration plate must always be placed over the reflectance measurement port for calibration; for measurements, follow the instructions in the dialogs that will be shown during measurements.
- 1. To start calibration, do any of the following:
 - Click the Calibration button in the toolbar.
 - Click Calibration or in the Instrument Window.
 - Select Instrument Calibration.

The Zero Calibration dialog will appear.

Follow the instructions in the dialog and click [Calibration] to perform zero calibration.

• If the [Skip] button is enabled because the instrument maintains previous zero calibration results, you can click [Skip] to proceed to the next step without performing zero calibration.



2. The 100% Calibration dialog will appear.

For 100% calibration to air (transmittance measurements of solids):

Make sure that there is nothing in the instrument's transmittance chamber.

For 100% calibration to water (transmittance measurements of liquids):

Use a cell with parallel sides and having the same optical path length (distance between the sides) as the cell which will be used to hold samples for measurements. Pour distilled (or pure) water into the selected cell and place the cell in position inside the transmittance chamber.

• The depth of the water in the cell must be higher than the top of the illumination window (window on integrating sphere side of transmittance chamber).

Click [Calibration]. 100% calibration will be performed.



Quick Start: 5 Measurements

SpectraMagic NX2 can be used to take both absolute color measurements which quantify a color without reference to a target, and color-difference measurements which determine the difference between a measurement and a target.

Quick Start: 5.1 Absolute Color Measurements

- 1. In the Tree Window, check that Absolute is selected.
- 2. Position the sample and instrument for measurement, and do any of the following:
 - Click the Sample Measurement button in the toolbar
 - Click Sample Measurement or in the Instrument Window
 - Select Instrument Measurement Sample Measurement.
 - Press F4.

The Measurement Data Setting dialog will appear.

3. Fill in the desired information and click [OK]. A measurement will be taken and the data will be registered as sample data.

Quick Start: 5.2 Color-Difference Measurements

Color-difference measurements are used to determine the difference in color between a measured sample and a target color, and are often used for quality control. In order to take color-difference measurements, a target must be set. In addition, tolerances can be set to allow the software to perform pass/fail judgments.

Quick Start: 5.2.1 Setting Target

A basic way to set a target is to measure the target sample.

- SpectraMagic NX2 offers various ways to set the target, including a Target Color Wizard to guide you through setting the target and performing various other settings related to color-difference measurements. For more information on targets, see 2.8 Targets on p. 97.
- 1. To measure a target, position the target and instrument for measurement, and do any of the following:
 - Click the Target Measurement button in the toolbar
 - Click Target Measurement or in the Instrument Window
 - Select Instrument Measurement Target Measurement.
 - Press F3.

The Measurement Data Setting dialog will appear.

2. Fill in the desired information and click [OK]. A measurement will be taken and the data will be registered as target data.

Quick Start: 5.2.2 Setting Tolerances

In order to perform pass/fail judgments, it is necessary to set the tolerances to be used. When a target measurement is first taken, the default tolerance values are applied.

• For more information on editing tolerances, see 2.8.7.1 Editing Tolerances on p. 107.

To change the tolerance values for a target

- 1. Select the target in the Tree Window, and do either of the following:
 - Select Instrument Edit Target Tolerance ...
 - Right-click on the target, select "Edit Target" from the right-click menu, and select Tolerance ... from the pop-out menu that appears The Create Target dialog will appear, with the Tolerance Settings step displayed.
- 2. Click on the checkbox for the condition and then on the checkbox next to each tolerance value that will be used, and set the desired value for each tolerance value.
- **3.** When all tolerances have been set as desired, click [Save] to save the values.
- 4. Click [Exit] to close the dialog.

Quick Start: 5.2.3 Measuring Color Difference

- 1. In the Tree Window, in Classification by Target select the target to be used.
- 2. Position the sample and instrument for measurement, and do any of the following:
 - Click the Sample Measurement button in the toolbar
 - Click Sample Measurement or in the Instrument Window
 - Select Instrument Measurement Sample Measurement.
 - Press F4.

The Measurement Data Setting dialog will appear.

3. Fill in the desired information and click [OK]. A measurement will be taken and the data will be registered as sample data under the target selected in step 1.

Quick Start: 6 Saving the Document

- 1. To save the currently active document under its current name, do any of the following:
 - Click the Save button in the toolbar.
 - Select File Save.
 - Press Ctrl + S.

The document will be saved.

- If the file has never been saved, the Save As dialog will appear. Input the desired file name and click [OK]. The file will be saved and the dialog will close.
- 1. To save the currently active document under a new name, or if the document has never been saved:
 - **1-1.** Select *File Save As* The Save As dialog will appear.
 - 1-2. Input the desired file name and click [OK]. The file will be saved and the dialog will close, and the file name shown in the document tab or title bar will change to the title which was input.

Quick Start: 7 Disconnecting the Instrument

Click the Disconnect button in the toolbar or select "Disconnect" in the Instrument menu.
SpectraMagic NX2 will disconnect from the instrument. The Instrument Window will close and the Disconnect toolbar button will change to Connect.

Quick Start: 8 Exiting from SpectraMagic NX2

- 1. To exit from SpectraMagic NX2, do any of the following:
 - Click on the [x] in the upper right corner of the software window.
 - Select File Exit.
 - Press Alt + F4.

The SpectraMagic NX2 QC module will close and the SpectraMagic NX2 Launcher will be shown.

- If there are open documents which have not been saved since their last change, a dialog asking whether to save the document will appear for each document. Click [OK] to save the document. If the document has never been saved, the Save As dialog will appear. Input the desired file name and click [OK] to save and close the document.
- 2. Click on the [x] in the upper right corner of the Launcher window.