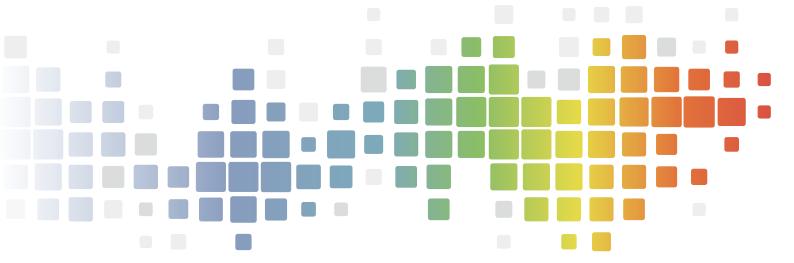


Color Data Software

SpectraMagic NX2

Pro version Lite version













Configuration Tool

Instrument Check App

Easy to use / Streamlines workflow / QC software used in fields around the world





Color Data Software Spectra Magic NX2

Redesigned user interface Long-awaited software with enhanced QC functions

SpectraMagic NX2 consists of three apps



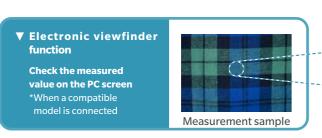
Color QC App Connect measuring instruments and easily perform advanced color quality control

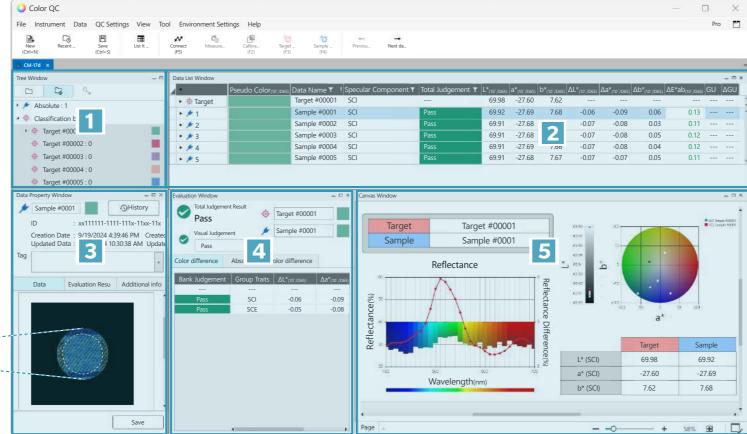


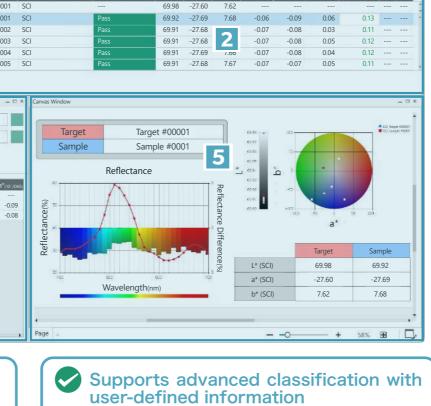


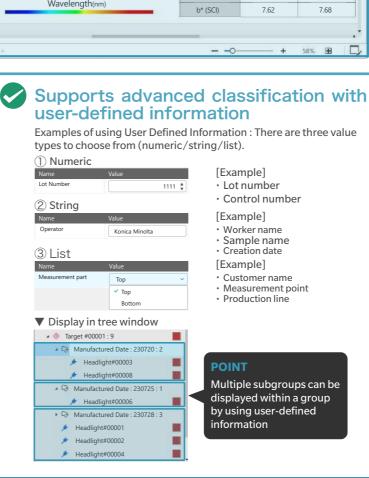


The software's main function, "Color QC App" can display various screens such as pass/fail judgement, color analysis, and process management by connecting spectrophotometers or colorimeters to the computer and measuring sample data.









User-defined information (Pro version only) is additional information

Measured data can be quickly identified by setting this information in



Screens that users have arranged and edited can be saved as

Objects such as measurement data and graphs can be copied directly to Excel® for easy data management and report creation.

1 Tree Window

Shows document measurements organized into absolute and target measurements.

2 Data List Window

Shows the measurement data for the selected branch in the Tree Window.

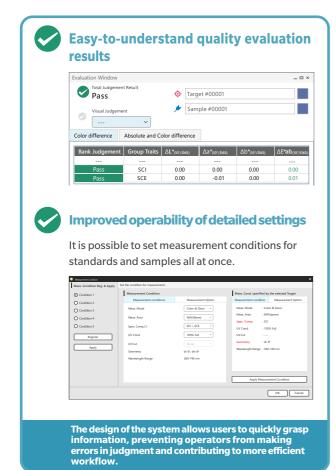
3 Data Property Window

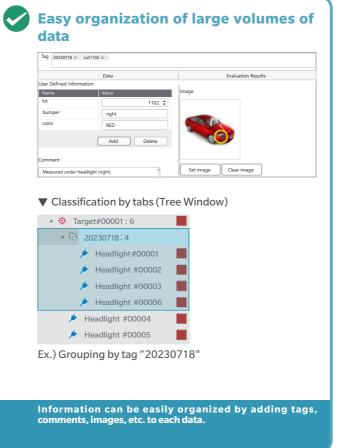
Shows the data properties for the selected sample.

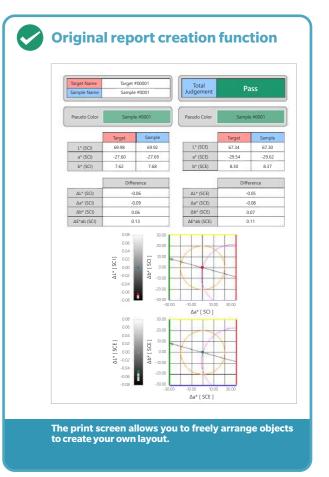
4 Evaluation Window

Shows the evaluation results and measurement data for the selected sample

An area in which various graphic elements such as spectral graphs, data tables, etc. can be placed







Ver. 1.4 or later

Instrument Check App

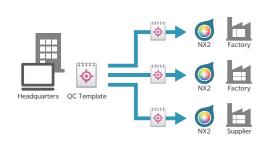


*The new application "Instrument Check App" can be used for free for 1 year after purchase!

* Premium license (Listed on page 6) is required for continuous use.



Enables consistent color management across factories



Data Name Y | L*(10°/D65) | L*(10°/LED-B3) | L*(10°/USER2

by CI -500A

68.41

: Light source in real environment captured

69.42

69.98

CENTER : LED-B3

Brand owners/managers can use QC templates (Pro version only) to standardize workflows and streamline inspection tasks.

By setting measurement types, multiple color tolerances, and display layout, the operator does not need to configure the settings in advance, which helps preventing errors.

<Differences between two types of templates>

Display Templates: Only display layouts and list items can be saved. QC Templates: In addition to display templates, you can save target data and tolerance settings, target and sample measurement conditions, display layout, instrument settings, etc.



Monitor the status of measuring instruments **Inspection information is** linked to the Color QC App



Understand results and trends with reports and graphs







Maintain the performance of the instrument in combination with periodic calibration

The condition of measuring instruments can be easily checked and monitored. By comparing measured results with past data, you can understand performance fluctuations and prevent problems during use.

<Three indicators>

1 Tabular format

Repeatability: Evaluates the short-term repeatability by using the white calibration plate and the gloss plate.

It shows changes in the variability of measurement data.

Reproducibility: Evaluates color differences by remeasuring a reference sample. Allows monitoring of long-term

variations in measurement data.

Light source output: Evaluates the amount of variation in light source light intensity from the shipment of the

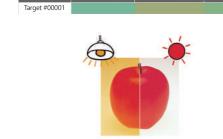
instrument (or from the completion of calibration service).

• After periodic calibration at a Konica Minolta-authorized service factory, this application can monitor the measuring instruments to ensure high accuracy until the next periodic calibration.

• The report function can also be used as a tool for efficient supply chain management.

Periodic calibration: In addition to inspection and calibration of the equipment, cleaning and replacement of parts according to their condition is performed. To maintain the accuracy of the instruments, we recommend a combination of daily inspections using this application and periodic calibration





Target #00001

In the data list window, you can set indexes according to various standards and color space.

The increased number of configurable items means that it is no longer necessary to switch settings for each measurement, and it is possible to display and evaluate under multiple observation conditions (Observer/ Illuminant) at the same time. (There is no limit to the number of light sources.) In addition to improving work efficiency, it also makes it easier to evaluate how colors appear under various environments.

Now possible to evaluate LED illuminants!

Usage example:

Data comparison under multiple observation conditions (Observer/Illuminant) is possible

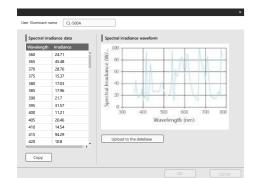
Acquiring measurement data based on visual perception in a room using LED lamps

LED illuminants

LED-B1 LED-B2 LED-B3 LED-B4 LED-B5 LED-BH1 LED-RGB1 LED-V1



Evaluation using user light sources of real environments is also possible



Now you can import data from Illuminance Spectrophotometer CL-500A!

By connecting CL-500A (optional), you can import light source information of the actual environment during measurement in order to quantify colors that are closer to what the human eye sees and in the field. Up to 100 user light sources can be registered.

Example of use: Evaluating how car body colors appear under various lighting conditions in a car showroom





(2) Import the light source data from (1) into SpectraMagic NX2



(3) Color evaluation is possible by selecting



9/4/2024 10:16:32 AM Pass 9/4/2024 10:16:30 AM White Cali Warning 9/2/2024 9:50:19 AM **2** Graphical format 3 Calendar format

Easy-to-read PDF reports are automatically generated



For reproducibility evaluation, we recommend using the green tile for control

It is also possible to select an optional color plate (14 colors in total) that is close to the actual evaluation sample, or a sample that the customer owns.

Recommended for:

- Those who carry out periodical inspections and calibrations every year.
- Those who need to manage the history of instrument inspections, calibrations, etc. in ISO quality management.
- Those who need PQ (Performance Qualification).



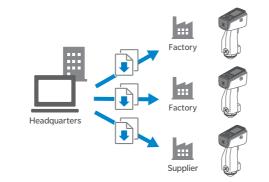


Convenient setting software is integrated into this package

The CM-CT1 gives manufacturers the means for easily and quickly setting up their spectrophotometers. Moreover, when multiple devices are used or when the same conditions need to be set amongst multiple factories or suppliers, settings can be compiled into a file and shared.

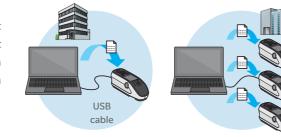
Setting of User Index*1 has been added.

- *1: Settings can be made when CM-17d/16d, CM-26dG/26d/25d, CM-25cG or CM-5/CR-5 is
- The feature is only available when SpectraMagic NX2 dongle is plugged into the PC or a dongleless license is activated.



Instrument Settings

CM-CT1 allows various instrument settings, such as measurement conditions, instrument display contents, user-based instrument operation restrictions, WLAN/Bluetooth® settings, etc. to be set using a computer. The software also allows setting contents to be exported to a file which can then be applied to multiple spectrophotometers.



Export Data

Data saved to a spectrophotometer (spectral reflectance data, plus gloss data for CM-26dG or CM-25cG) can be saved to a CSV file.



Calibration Data Settings

When purchasing a new white calibration plate or gloss calibration plate, the calibration plate data must be set in the instrument before measurement can be performed.



Remote Control

While displaying the LCD screen of the spectrophotometer* on a computer in real time, CM-CT1 enables control equivalent to key operations on the actual instrument (except for control by power switch and measurement area switch)

In addition, by accessing (via remote desktop, etc. over a network) a computer connected to the spectrophotometer, control of the spectrophotometer is possible even from remote locations.

* CM-26dG series, CM-25cG, CM-17d series, or CM-M6 devices only





SpectraMagic NX2 continues to evolve to meet customer needs



Greatly improved usability compared to previous NX Added LED light sources Added connection for new products "CM-17d/16d"



Added Instrument Check App



Added connection for new products "CM-3700A Plus"

What is Premium License?

SpectraMagic NX2 is also available as a term-based premium license (paid) which allows you to experience special value in addition to regular use.

By signing up this license, you can use the Instrument Check App that allows you to check the status of your instrument, as well as additional functions that come with version upgrades.

When you purchase this software, a one-year free premium license is included.

Main Specifications



Measuring

Configuration Tool CM-CT1

<Compatible Instruments>

instruments	
<main feat<="" th=""><th>ures></th></main>	ures>
Features*1	Connect / Disconnect insturument, Display instrument information, Setting of instrument settings (System, measurement conditions, Display*d, Default toleranse, Target filter*5, User Index*6), File import / export, Data output, Setting of calibration data, Remorte control of instrument*7, WLAN connection settings*8*10
	Input/output instrument settings file: *.cm17d, *.cm16d, *.cm26dg, *.cm26d, *.cm23d, *.cm23d, *.cm25cg, *.cmm6, *.cm700d, *.cm600d, *.cnd

CM-17d/CM-16d. CM-26dG/CM-26d/CM-25d/CM-23d*9*10. CM-25cG*10. CM-M6. CM-700d/CM-600d. CM-5/CR-5*9*10

Supported file Output data file: *.csv formats*2 Input calibration data file: *.cwl, *.cwm, *.cws, *.cw6, *.gum, *.gus Input/output WLAN connection settings file: *.wcsf

Display languages | Japanese, English

<Minimum Computing Requirements*3>

: Windows® 10 Pro 64 bit Version 1903 or higher/Windows® 11 Pro : Intel® Core i5 2.7GHz or higher processor (recommended)

Memory: 2GB or more (4GB or more recommended)

Storage: 10GB or more

USB port: Required for connection with measuring instrument, Required for SpectraMagic NX2 dongle

- *1: The functions that can be displayed, set, and executed differ depending on the connected instrument.
- *2: The file that can be input/output differs depending on the connected instrument.
- * 3: The hardware of the computer system must meet or exceed the greater of the mended system requirements for the compatible OS being used or the above specifications.
- *4: Available only when using CM-17d/16d, CM-26dG/26d/25d/23d, CM-25cG, CM-M6 or CM-5/CR-5.
- *5: Available only when using CM-17d/16d, CM-26dG/26d/25d/23d or CM-25cG.
- *6: Available only when using CM-17d/16d, CM-26dG/26d/25d/23d, CM-25cG or CM-5/CR-5 and only with SpectraMagic NX2 license
- *7: Available only when using CM-17d/16d, CM-26dG/26d/25d/23d, CM-25cG or CM-
- *8: WLAN settings possible when optional WLAN/Bluetooth $^{\circledR}$ Module is installed.
- *9: Not available in some countries.
- *10: Instruments with new firmware versions only. Instruments with old firmware versions may not be supported. Click here for firmware versions of compatible instruments. ↓

https://www.konicaminolta.com/instruments/ download/software/color/cmct/index.html



Instrument Check App

<Compatible Instruments>

Measuring	CM-3700A Plus, CM-3700A*1, CM-36dG/CM-36d/CM-36dGV, CF-300*2, CM-17d/CM-16d, CM-26dG/CM-26d/CM-25d/CM-23d*2, CM-25cG,
instruments	CM-700d*1/CM-600d*1

<Main features>

Check items*3	Repeatablility, Reproducibility, Light Source output, Repeatability (Gloss), Reproducibility (Gloss)				
Features	[Measurement] Checking of instruments condition [Data] Exporting results of check to instruments [Graphs] Check results shown on trend graphs, lists, and calendar [Others] Saving/printing of check report				
External I/O	Importing/exporting of data files in original format Exporting report files in PDF format				
Display languages	Japanese, English, German, French, Spanish, Italian, Portuguese, Chinese (Simplified and Traditional), Turkish, Russian, Polish, Korean				

- *1: Instruments with new firmware versions only. Instruments with old firmware versions may not be supported. Firmware version of compatible instruments conform to Color QC
- *2: Not available in some countries.
- *3: Items available depend on the instrument model (Gloss) items available only for CM-36dG, CM-36dGV, CM-26dG, and CM-25cG.





In addition to the "PRO version" with enhanced, further developed basic functions, there is also a "Lite version" with limited functions.

<Compatible Instruments>

Measuring		CM-3700A Plus, CM-3700A ⁴⁶ , CM-36dG/CM-36d/CM-36dGV, CF-300 ⁴⁴ , CM-5 ⁴⁶ , CM-3600A ⁴⁶ /CM-3610A ⁴⁶ , CM-17d/CM-16d, CM-26dG/CM-26d/CM-25d/CM-23d ⁴⁴ , CM-M6, CM-25cG, CM-700d ⁴⁶ /CM-600d ⁴⁶ , CM-512m3A ⁴⁶ , CM-2500c ⁴⁶ , CM-2500c ⁴⁶ , CM-2500c ⁴⁶
instruments		CIVI-2500/CIVI-250/CIVI-2500 /CIVI-25000 /CIVI-25000 /CIVI-25000 /CIVI-25000 /CIVI-25000 /CIVI-25000
	Chroma Meter	CR-5*4*6, CR-400*6/CR-410*6, DP-400*6

<Main features>

Observer		2°, 10°						
Color system/	Pro, Lite	L*a*b*, L*C*h, Lab99, LCh99, Lab99o, LCh99o, Hunter Lab, and their color differences; Munsell (C, D65)						
color space	Pro only	XYZ, Yxy, u'v', u*v*, and their color differences						
Index	Pro, Lite	MI; GU and difference (CM-25cG, CM-26dG, CM-36dG/CM-36dGV); Opacity (ISO 2471, TAPPI T425 89% white plate)*1						
		CM-5/CR-5 only: Gardner, Iodine Color Number, Hazen/APHA, European Pharmacopoeia, US Pharmacopeia						
	Pro only	WI (CIE1982, ASTM E313-73, Hunter, ASTM E313-98, BERGER, TAUBE, STENSBY, Ganz); YI (ASTM D1925-70, ASTM E313-73, ASTM E313-98, DIN 6167); B (ASTM E313-73); Tint (CIE 1982, ASTM E313-98, Ganz); Standard Depth (ISO 105.A06); Brightness (TAPPI T452, ISO 2470); Density (Status A, Status T); Dominant Wavelength; Excitation Purity; 555; RxRyRz; Grey Scale /Grey Scale Rating (ISO 105.A05); K/S Strength (Apparent, (ΔΕ* _{ab} , ΔL*, ΔC*, ΔH*, Δa*, Δb*, Maximum absorption, Total wavelength), User wavelength); Strength; Pseudo strength; Staining degree/degree grade (ISO 105.A04E); NC#; NC#Grade; Ns; Ns Grade; Signal color index; 8° gloss (for simultaneous SCI/SCE measurements only); FF (CM-M6); User equation; Haze (ASTM D1003-97)*¹; Blackness (My) (ISO18314-3/DIN55979); Jetness (Mc) (ISO18314-3); Undertone (dM) (ISO18314-3), and their differences						
Color difference	Pro, Lite	$\Delta E^* ab \ (CIE 1976); \Delta E_{90} \ (CIE \ DE 2000) \ and \ each \ component \ of \ lightness, saturation \ and \ hue; \Delta E99 \ (DIN99), \Delta E \ (Hunter); \Delta E^*_{94} \ (CIE \ 1994) \ and \ each \ component \ of \ lightness, saturation \ and \ hue; \Delta E990 \ and \ each \ component \ of \ lightness, saturation \ and \ hue$						
formula	Pro only	ΔΕ* ₉₄ (Special)* ⁵ and each component of lightness, saturation and hue; ΔΕc (degree) (DIN 6175-2); ΔΕp (degree) (DIN 6175-2); FMC-2; NBS 100; NBS 200; Audi2000						
Illuminant	Pro, Lite	A, C, D ₅₀ , D ₆₅ , F2, F11						
Illuminant	Pro only	D ₅₅ , D ₇₅ , F ₆ , F ₇ , F ₈ , F ₁₀ , F ₁₂ , U ₅₀ , ID ₅₀ , I						
Graph and canvas objects	Pro, Lite	Spectral reflectance (transmittance) and its difference; L*a*b* absolute color distribution; Hunter Lab absolute color distribution; ΔL*a*b* color difference distribution; Hunter ΔLab; xy chromaticity diagram; Trend graph; Histogram; Multichannel graph; 2D user-specified axis graph Text labels, Numerical labels, Images, Data lists, Statistics, Pseudo-color patches						
	Pro only	K/S and its difference; Absorbance and its difference						
Features	Pro, Lite	[Measurement] Viewfinder (CM-3700A Plus/CM-3700A-U Plus, CM-17d, CM-36d series, CF-300*2); Manual averaging measurement; Trigger measurement (excluding CF-300, CM-3700A, CM-3600A and CM-3610A) [Data] Categorize by tags; Attaching images/comments; Evaluation results-pass/fail judgment; Import/export; Stored data reading/target data writing (excluding CM-3700A Plus/CM-3700A-U Plus, CM-3700A, CM-3600A, CM-3610A, CM-36d series and CF-300); Target data protection [Other] Shortcut key settings; Display template creation/output/application; Report printing; Printing to serial printer; Sound (on measurement, pass judgment, fail judgment); Job settings (CM-17d/CM-16d, CM-26dG/CM-26d/CM-25d, CM-25cG)						
	Pro only	[Calibration] User calibration, UV adjustment [Measurement] Interval measurement [Security] User management/operation restrictions [Data] Data search under specified conditions; User illuminant source registration (manual input, from file, from CL-500A); Automatic selection of standards; Auto tolerance; Classification by user defined information [Other] QC template creation/editing/output; Macro function; External software startup						
Number of files and data		Number of files that can be opened simultaneously: 10 Number of data that can be stored in a file: 10,000 (total of target data and measurement data)						
Supported file formats		NX2 (.mesx2, .mtpx2), NX (.mtp, .mes, .mea; reading only); CM-5/CR-5 (.bdt; reading only); Other (.csv (output only), .cxf); SpectraMagic DX files (.mesx) need to be converted to .mes with a conversion tool NX2 QC template (.qctp; Lite: application only)						
Display languages		Japanese, English, German, French, Spanish, Italian, Portuguese, Chinese (Simplified and Traditional), Turkish, Russian, Polish, Korean						

<Minimum Computing Requirements*3>

OS: Windows® 10 Pro 64 bit Version 1903 or higher/Windows® 11 Pro CPU: Intel® Core i5 2.7GHz or higher processor (recommended) Memory: 2GB or more(4GB or more recommended)

Storage: 10GB or more

USB port: Required for dongle version

Connection to external network: Required for activation

- *1: For opacity (ISO 2471, TAPPI T425 89% white plate) and haze (ASTM D1003-97) measurements, software measurement $procedure \ and \ calculations \ follow \ the \ corresponding \ standard. \ Whether \ the \ geometric \ requirements \ of \ the$ corresponding standard are met depends on the instrument used.
- *2: Requires optional accessories
- * 3: The hardware of the computer system must meet or exceed the greater of the recommended system requirements for the compatible OS being used or the above specifications $\,$
- *4: Not available in some countries.
- *5: When comparing two colors, please use ΔE*94(Special) if you do not want to set one as the standard.
- *6: Instruments with new firmware versions only. Instruments with old firmware versions may not be supported. Click here for firmware versions of compatible instruments. \downarrow https://www.konicaminolta.com/instruments/download/software/color/smnx2/index.html



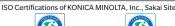
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 Displays shown are for illustration purposes only.



SAFETY PRECAUTIONS

For correct use and for your safety, be sure to read the instruction manual before using the instrument.

 Always connect the instrument to the specified power supply voltage. Improper connection may cause a fire or electric shock





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https://konicaminolta.com/instruments/network