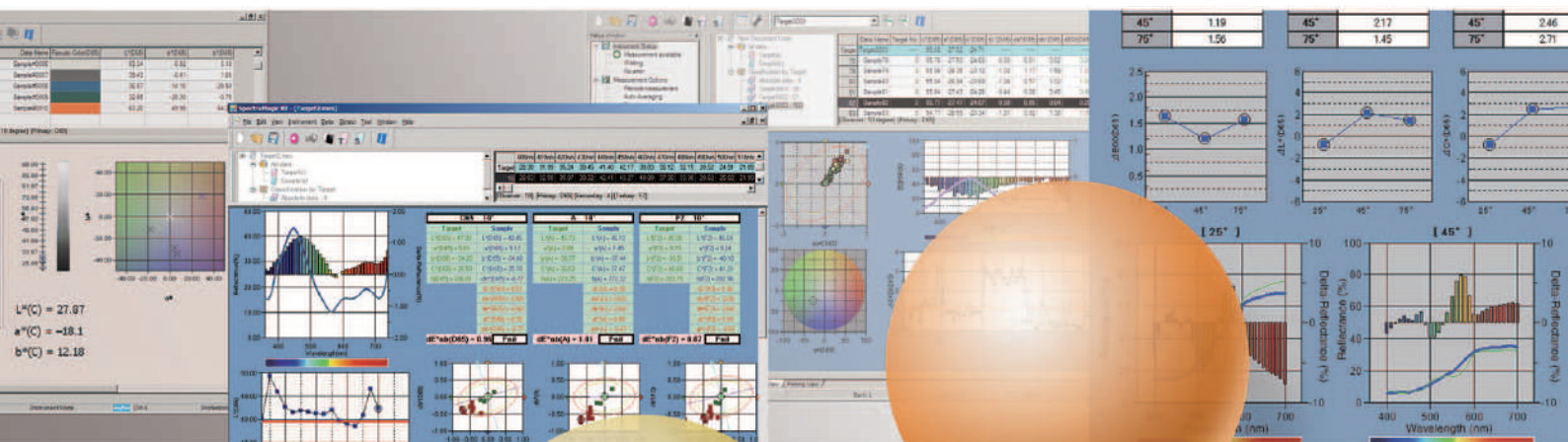




KONICA MINOLTA

# Color Data Software CM-S100w SpectraMagic™ **NX**

Professional Edition  
Lite Edition

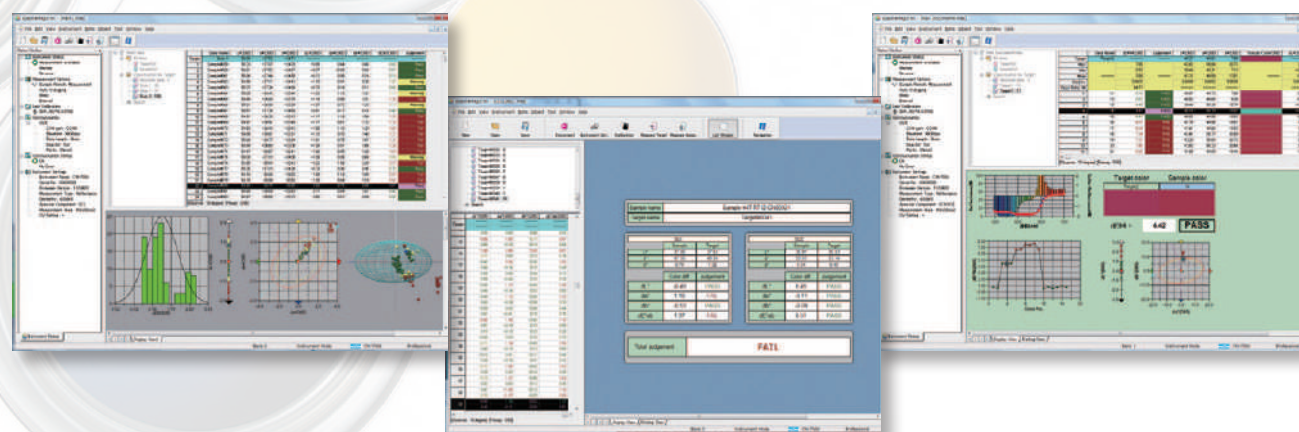


## Color quality control like never before:

- Unprecedented ease of use
- Pre-defined and user-definable templates
- Step-by-step navigation help
- Customized screens and reports including digital images
- Includes “Precise Color Communication” tutorial
- Available in 8 languages

## Total flexibility for designing screen and print layouts that meet your QC needs

Professional  
Lite



Layouts for screen displays and printed reports vary by application, from simple pass/fail assessment or statistical process control for production lines to detailed analysis for R & D work. SpectraMagic™ **NX** comes with several pre-defined templates to let you get started immediately, but you can also create your own screen and print layouts according to your needs and application with total freedom and flexibility and save them as templates for later use. Objects such as graphs (color, spectral, 2D/3D color-difference, or trend), data list, pass/fail indication, color patches, images, etc. can be positioned where desired and scaled as needed.

Design your own screens to show the data you need during measurements, and then design print layouts to prepare easy-to-read reports, shipment slip formats, etc. Multiple pieces of data can even be printed on a single sheet.



Example of printed shipping slip

## Available in 8 languages

Professional  
Lite

To allow global companies to use SpectraMagic™ **NX** in their branches throughout the world, SpectraMagic™ **NX** is available in 8 languages: English, Japanese, German, French, Spanish, Italian, Chinese (Simplified and Traditional), and Portuguese. Program menus, messages, etc. as well as the Navigation and Precise Color Communication tutorial will all be shown in the installed language.

## $\Delta E_{00}$ (CIE DE2000) display

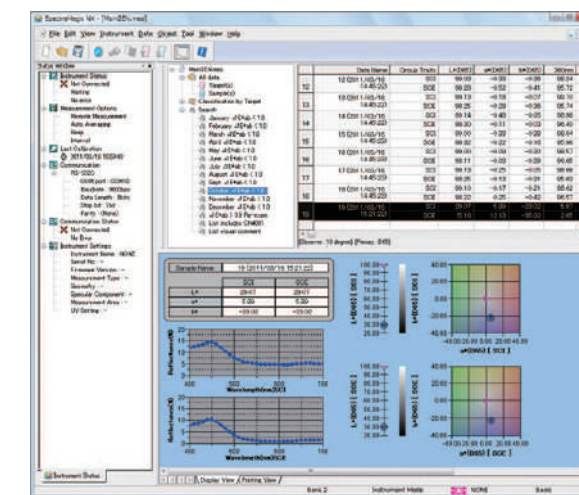
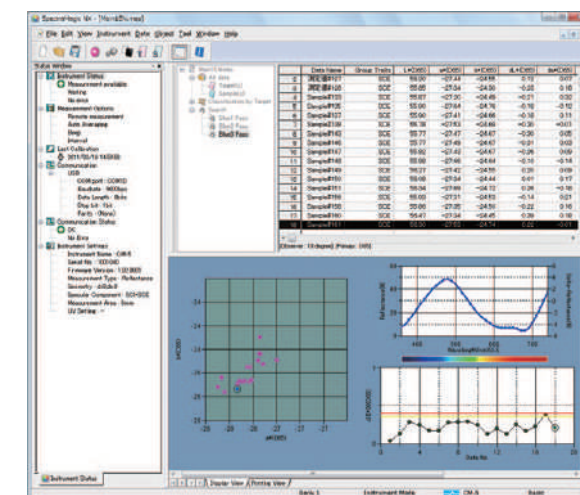
Professional  
Lite

Color differences can be displayed using the  $\Delta E_{00}$  (CIE DE2000) color-difference formula, an improved color-difference formula based on the  $L^*a^*b^*$  color space which provides better correlation between the calculated color-difference value and visual color-difference evaluation for subtle color differences.

## New search function

Professional only

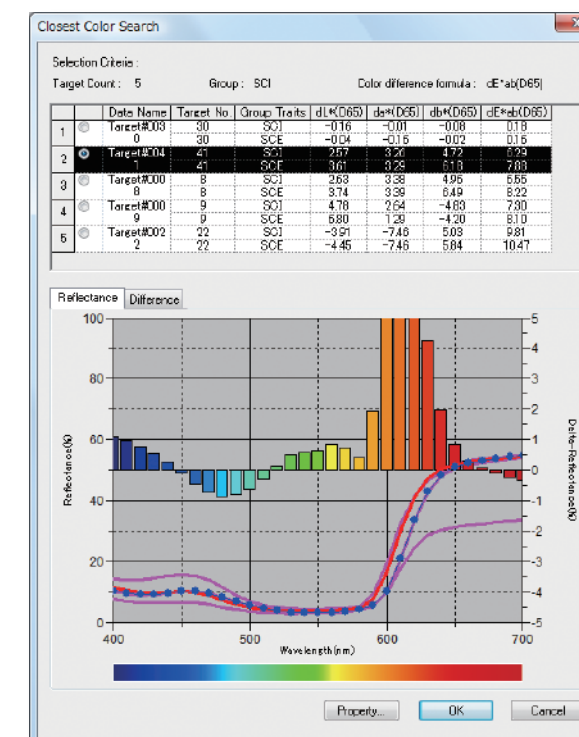
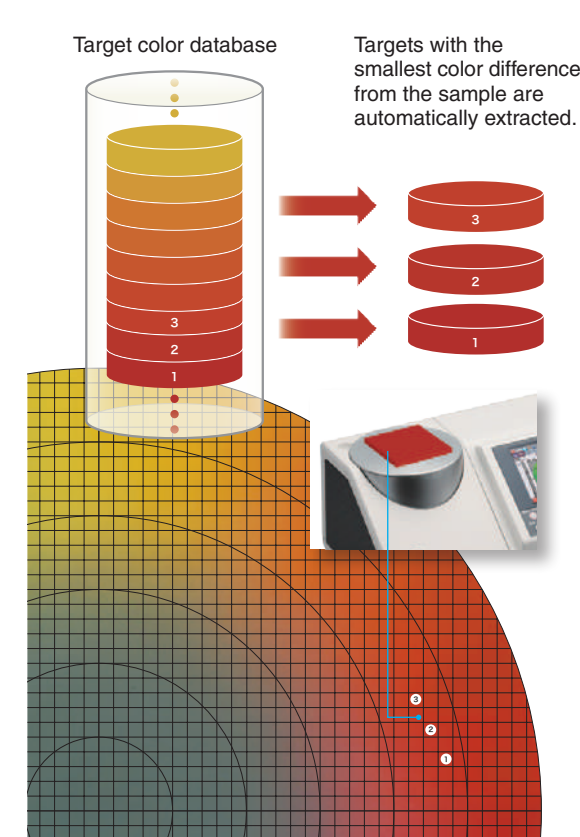
By using the search function, data meeting the search conditions can be quickly and easily extracted from large volumes of data. Plus, for dual-bank data sets from simultaneous measurement of SCI and SCE, data lists of SCI only and SCE only data can be created and displayed.



## CCS (Closest Color Search) function

Professional only

With the new CCS (Closest Color Search) function, the specified number of stored target colors closest to the measured sample and within the specified color-difference limit can be automatically extracted from the target color database. The extracted target colors can then be not only listed, but also shown on spectral graphs or  $\Delta L^* \Delta a^* \Delta b^*$  color plots, and the desired target color can be selected from the list.



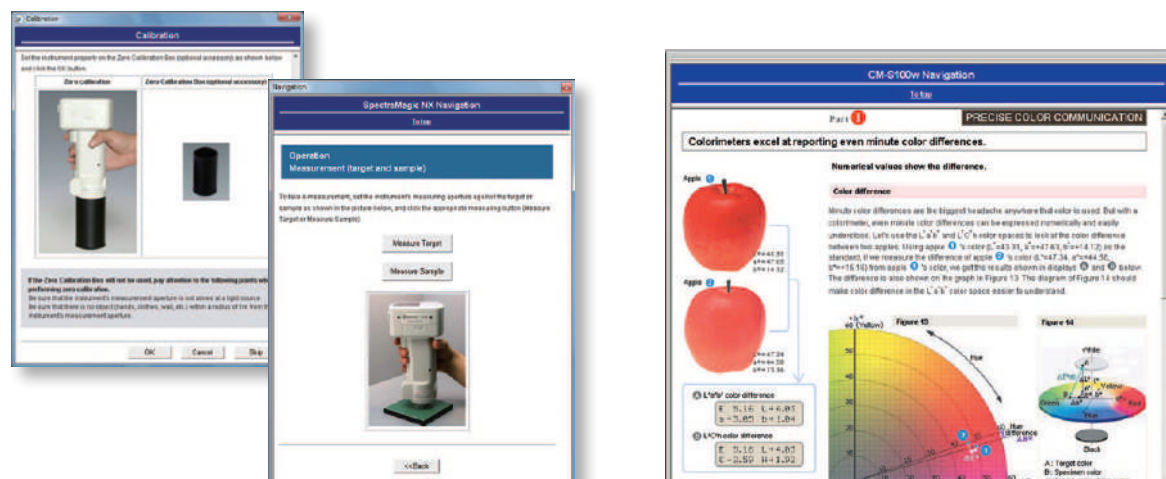
## Navigation function for total workflow control plus color measurement tutorial

Professional

Lite

With the exclusive Navigation function, you have total control of the flow of operations with online step-by-step instructions including picture illustrations. You can even customize this unique feature to match your individual measurement processes.

The Navigation window also includes a link to the HTML version of "Precise Color Communication", a color-measurement tutorial with numerous illustrations and explanations that contribute to a clearer understanding of the basics and technical terms related to color and color-measurement technology.



Navigation window

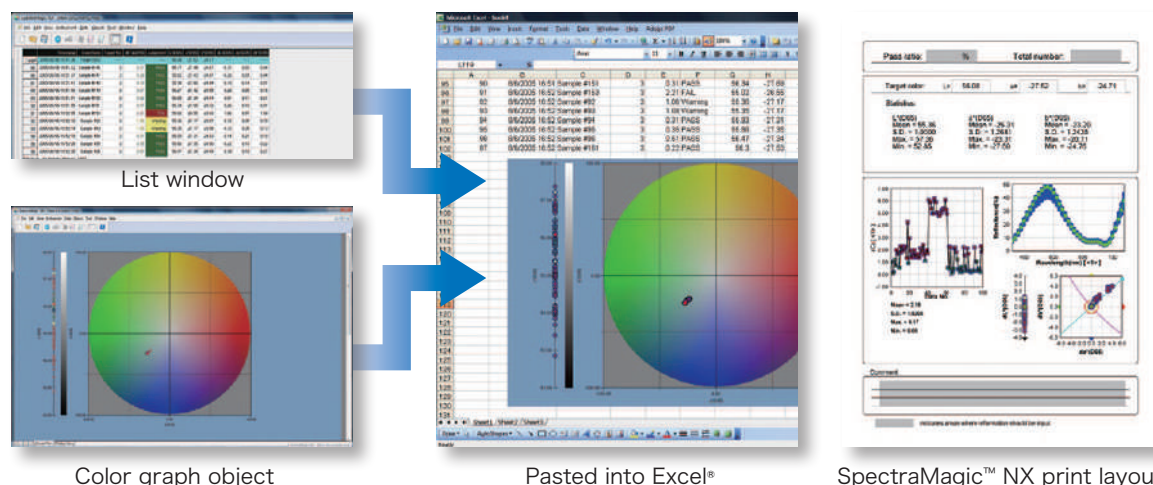
Precise Color Communication

## Comprehensive ease of use from various color-difference assessments to report creation

Professional

Lite

SpectraMagic™ **NX** makes color quality control easy and comprehensive at the same time. You can choose from several types of graphs to display your measurement data and also select from among the latest color-difference formulas such as CIE 1994 or CIE DE2000 for pass/fail assessments or various industry-related indices. SpectraMagic™ **NX** even lets you input the formulas for up to 8 user indices for your special evaluation needs. And in addition to the user-definable printing layout, objects such as graphs, data lists, etc. on the display screen can be copied directly into Excel® to provide even more flexibility.



List window

Color graph object

Pasted into Excel®

SpectraMagic™ NX print layout

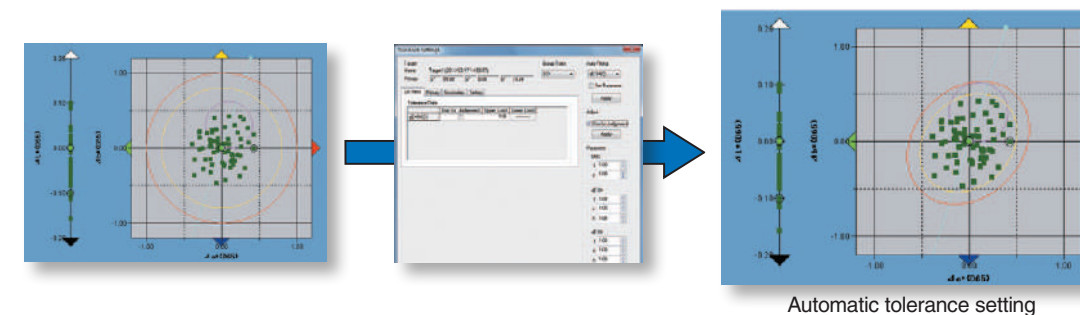
## Sophisticated QC applications

Professional only

The target data of one master target (primary target) can be associated with two or more working targets (secondary targets). This allows for sophisticated QC application such as checking for color differences of the measured sample from the working targets and the master target simultaneously. It also enables managing the color differences of an entire product in sections by comparing the differences from the target color of each section.

Automatic tolerance setting in which the minimum tolerance setting which would enclose several samples is calculated automatically and set as the tolerance can be performed using three different color-difference formulas: CMC(l:c),  $\Delta E_{94}$ , and  $\Delta E_{00}$ , which are considered to provide results similar to visual evaluation and which are being increasingly adopted by companies and other organizations.

In addition, the tolerances set with this function on the Professional version can be transferred to the Lite version and used for pass/fail judgments there.

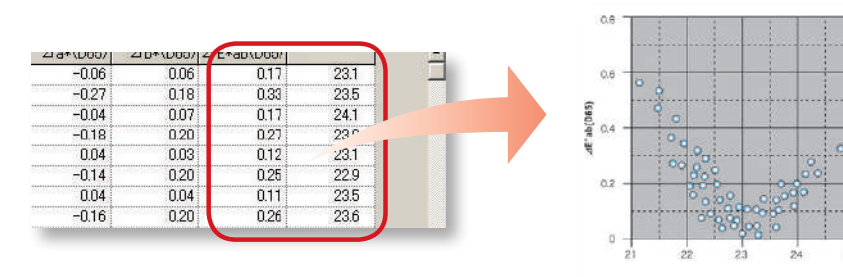


Automatic tolerance setting

## Input of additional information for measurements

Professional only

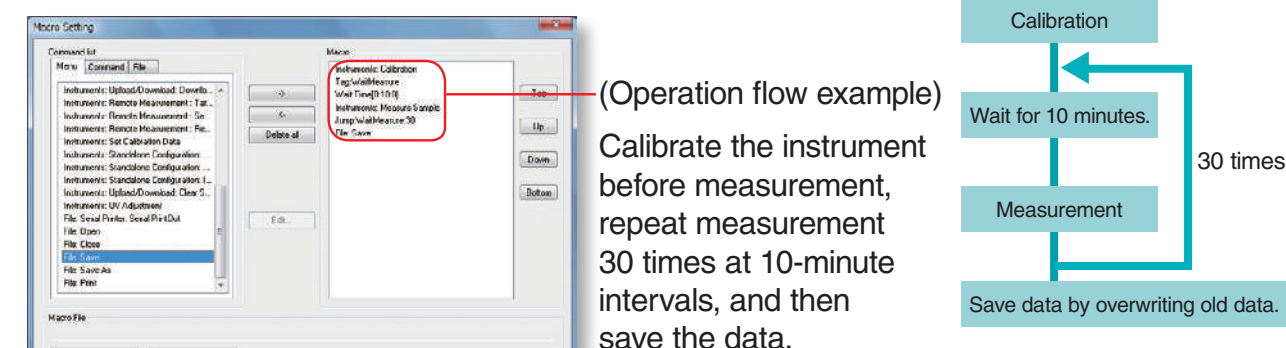
Additional information can be set up for input and attached to measurement data. The additional information can be freely defined and could be information such as model name, item name, product number, code number, order number, color number, lot number, customer name, visual judgment result (pass/fail input), temperature, humidity, etc. The added items can then be used when organizing, sorting, or searching for data, and if the additional data is numerical, can also be displayed on a graph.



## Macro function to automate work

Professional only

Routine operation flows can be set up as macros using the menu screen and then run later to automate the work process. This reduces work time as well as prevents operation mistakes.



| Specifications:                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Minimum Computing Requirements                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| OS                                                                                                                                                          | Windows® 10 Pro 32 bit, 64 bit; Windows® 11 Pro (English, Japanese, German, French, Spanish, Italian, Traditional Chinese, Simplified Chinese, Portuguese, and Hangul versions)<br>• The hardware of the computer system to be used must meet or exceed the greater of the recommended system requirements for the compatible OS being used or the following specifications.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| CPU                                                                                                                                                         | Pentium® III 600 MHz or higher (recommended)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Memory                                                                                                                                                      | 128 MB (256 MB recommended)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Hard disk                                                                                                                                                   | 450 MB of available disk space (At least 400 MB of available space is required in the system drive.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Display                                                                                                                                                     | Display unit capable of showing at least 1,024 x 768 dots/16-bit colors                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Other                                                                                                                                                       | DVD-ROM drive (required for installation); one free USB port for protection key; one free port (serial port or additional USB port) for connection to instrument when connecting via cable (or USB port for USB Bluetooth® adapter when using a USB Bluetooth® adapter for performing communication with CM-700d or CM-600d via Bluetooth®); Internet Explorer Ver. 5.01 or later                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Compatible Instruments                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| CM-36dG/36dGV/36d; CM-3700A; CM-3600A; CM-3610A; CM-5; CM-3630; CM-700d/600d; CM-25cG; CM-26dG/26d/25d; CM-2600d/2500d/2500c; CM-512m3A; CR-400/410; FD-7/5 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Features                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Color space                                                                                                                                                 | L*a*b*, L*C*h, Lab99, LCh99, XYZ, Hunter Lab, Yxy, L*u*v*, L*u*v* and their color differences; Munsell (C, D65)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Index                                                                                                                                                       | MI, GU (CM-36dG/36dGV, CM-25cG, CM-26dG only), WI (CIE 1982, ASTM E313-73, ASTM E313-98, HUNTER, BERGER, TAUBE, STENSBY, Ganz), Tint (CIE 1982, ASTM E313-98, Ganz), YI (ASTM D1925-70, ASTM E313-73, ASTM E313-98, DIN6167), WB (ASTM E313-73), Standard Depth (ISO 105.A06), Brightness (TAPPI T452, ISO2470), Opacity (ISO 2471, TAPPI T425 89% White Plate), Haze (ASTM D1003-97) *, Density (Status A, Status T), Dominant Wavelength, Excitation Purity, RXRYRZ, 8 degree gloss value (CM-36dG/36dGV/36d, CM-3600A, CM-3610A, CM-5, CM-700d/600d, CM-26dG/26d/25d, CM-2600d/2500d only), user equation, each difference, 555, Strength, Pseudo Strength, Staining degree (ISO 105.A04E), Staining degree rating (ISO 105.A04E), Grey scale (ISO 105.A05), Grey Scale Rating (ISO 105.A05), K/S strength (Apparent (ΔE*ab, ΔL*, ΔC*, ΔH*, Δa*, Δb*), maximum absorption, total wavelength, user wavelength), NC#, NC# Grade, Ns, Ns Grade, Signal color index<br>Only when measurement are taken with CM-5 connected: Gardner, Iodine Color Number, Hazen/ APHA, European Pharmacopoeia, US Pharmacopoeia<br>* With some instrument types, the illuminating/light-receiving optical system may not satisfy the definition of haze (ASTM D1003-97).<br>However, this presents no problem as long as the value is used as a relative value. |
| Color difference formula                                                                                                                                    | ΔE*ab (CIE 1976), ΔE00 (CIE DE2000) and each component of lightness, saturation and hue, ΔE99 (DIN99), ΔE*g4 (CIE 1994) and each component of lightness, saturation and hue, ΔE (Hunter), CMC (l:c) and each component of lightness, saturation and hue, FMC-2, NBS 100, NBS 200, ΔE <sub>c</sub> (degree) (DIN 6175-2), ΔE <sub>p</sub> (degree) (DIN 6175-2)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Observer                                                                                                                                                    | 2° or 10° Standard Observer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Illuminant                                                                                                                                                  | A, C, D50, D55, D65, D75, F2, F6, F7, F8, F10, F11, F12, U50, ID50, ID65, User illuminant 1 to 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Graph display                                                                                                                                               | Spectral reflectance (transmittance) and its difference, K/S and its difference, Absorbance and its difference, L*a*b* absolute value, ΔL*a*b* (2D/3D color difference distribution, MI), Hunter Lab absolute value, Hunter ΔLab (color difference distribution), xy chromaticity diagram, Trend chart and histogram of each color space and color difference formula, Pseudo color display                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Image display                                                                                                                                               | Link between measured value and image data (JPEG or BMP format), Insertion of custom images                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Instrument control                                                                                                                                          | Measurement/calibration<br>Automatic average measurement: 2 to 999 measurements<br>Manual average measurement: Any number of measurements (Standard deviation and average value are displayed in the color space selected during measurement.)<br>Remote measurement (Excluding the CM-3000 Series)<br>Instrument setting<br>Upload of data stored in the instrument (Excluding the CM-3000 Series and CM-36dG/CM-36dGV/CM-36d)<br>List view of data stored in the instrument (Excluding the CM-3000 Series and CM-36dG/CM-36dGV/CM-36d)<br>Job function settings on instrument (CM-26dG/26d/25d, CM-25cG (firmware version 1.2 or later) only)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Target data                                                                                                                                                 | Registration of several target colors (Automatic target color selection), Manual input and registration of colorimetric data by specifying color space, Target data download to the instrument (Excluding the CM-3000 Series and CM-36dG/CM-36dGV/CM-36d)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Data list                                                                                                                                                   | List view and editing of target/measured data (delete, sort, averaging, copy & paste, search, file merge)<br>Link between JPEG images, Display of statistic value and pass/fail ratio<br>Visual judgement result input function, Additional data information inputting/listing function                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| External I/O                                                                                                                                                | Loading/saving data files in original format (Extension: mes) (Several files can be loaded.)<br>Loading/saving template files in original format (Extension: mtp) (Several files can be loaded.)<br>Saving of data in text format (CSV, TXT), saving of data in XML format, Copy of listed data to the clipboard                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Display languages                                                                                                                                           | English, German, French, Spanish, Italian, Japanese, Chinese (Simplified and Traditional), Portuguese                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Help function                                                                                                                                               | Navigation display, "Precise Color Communication" Tutorial, Manual                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Other                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Screen display                                                                                                                                              | Number of files that can be opened simultaneously: 20<br>Number of data that can be stored in a file: Target data: 5,000, Measurement data: 5,000<br>Instrument status details window display                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Operation                                                                                                                                                   | Operation is easy thanks to an operation screen with large buttons, use of function-assigned keys instead of a mouse, the Navigation function, and the Macro function.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

: Available on Professional Edition only

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- Pentium® is a trademark of Intel Corporation in the USA and other countries.
- Bluetooth® is a registered trademark of Bluetooth SIG, Inc. and is used under license agreement.

- The specifications given here are subject to change without prior notice.
- Displays shown are for illustration purposes only.
- KONICA MINOLTA, the Konica Minolta logo and symbol mark, "Giving Shape to Ideas" and SpectraMagic™ are registered trademarks or trademarks of KONICA MINOLTA, INC.



### SAFETY PRECAUTIONS

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

ISO Certifications of KONICA MINOLTA, Inc., Sakai Site



JQA-QMA15888  
Design, development, manufacture/  
manufacturing management, calibration, and  
service of measuring instruments



JQA-E-80027  
Design, development,  
manufacture, service and sales  
of measuring instruments

|                                                   |                                                                                                                                                           |                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                             |  |
|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>KONICA MINOLTA, INC.</b>                       | Osaka, Japan                                                                                                                                              |                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                             |  |
| <b>Konica Minolta Sensing Americas, Inc.</b>      | New Jersey, U.S.A.                                                                                                                                        | PHONE: (888)473-2656 (in USA), +1(201)236-4300 (outside USA)                                                                                                                                                                 | FAX: +1(201)785-2480                                                                                                                                                                                                                                        | E-Mail: service.us@konicaminolta.com                                                                                                                                                                                                                                                                                                                                                                        |  |
| <b>Konica Minolta Sensing Europe B.V.</b>         | European HQ/ BENELUX<br>German Office<br>French Office<br>UK Office<br>Italian Office<br>Swiss Office<br>Nordic Office<br>Polish Office<br>Turkish Office | Nieuwegein, Netherlands<br>München, Germany<br>Roissy CDG Cedex, France<br>Warrington, United Kingdom<br>Cinisello Balsamo, Italy<br>Dietikon, Switzerland<br>VÄSTRA FRÖLUNDA, Sweden<br>Wrocław, Poland<br>Istanbul, Turkey | PHONE: +31(0)30 248-1193<br>PHONE: +49(0)89 4357 156 0<br>PHONE: +33(0)1 80 11 10 70<br>PHONE: +44(0)1925 467300<br>PHONE: +39 02849488.00<br>PHONE: +41(0)43 322-9800<br>PHONE: +46(0)31 7099464<br>PHONE: +48(0)71 73452-11<br>PHONE: +90(0)216-528 56 56 | E-Mail: info.benelux@seu.konicaminolta.eu<br>E-Mail: info.germany@seu.konicaminolta.eu<br>E-Mail: info.france@seu.konicaminolta.eu<br>E-Mail: info.uk@seu.konicaminolta.eu<br>E-Mail: info.italy@seu.konicaminolta.eu<br>E-Mail: info.switzerland@seu.konicaminolta.eu<br>E-Mail: info.nordic@seu.konicaminolta.eu<br>E-Mail: info.poland@seu.konicaminolta.eu<br>E-Mail: info.sensing@konicaminolta.com.tr |  |
| <b>Konica Minolta (CHINA) Investment Ltd.</b>     | SE Sales Division<br>Beijing Office<br>Guangzhou Office<br>Chongqing Office<br>Qingdao Office<br>Wuhan Office<br>Shenzhen Office                          | Shanghai, China<br>Beijing, China<br>Guangzhou, China<br>Chongqing, China<br>Shandong, China<br>Hubei, China<br>Shenzhen, China                                                                                              | PHONE: +86-(0)21-6057-1089<br>PHONE: +86-(0)10-8522 1551<br>PHONE: +86-(0)20-3826 4220<br>PHONE: +86-(0)23-6773 4988<br>PHONE: +86-(0)532-8079 1871<br>PHONE: +86-(0)27-8544 9942<br>PHONE: +86-(0)755-2868 7535                                            | E-Mail: hcn_sensing@gcp.konicaminolta.com<br>E-Mail: hcn_sensing@gcp.konicaminolta.com<br>E-Mail: hcn_sensing@gcp.konicaminolta.com<br>E-Mail: hcn_sensing@gcp.konicaminolta.com<br>E-Mail: hcn_sensing@gcp.konicaminolta.com<br>E-Mail: hcn_sensing@gcp.konicaminolta.com<br>E-Mail: hcn_sensing@gcp.konicaminolta.com                                                                                     |  |
| <b>Konica Minolta Sensing Singapore Pte. Ltd.</b> | Singapore                                                                                                                                                 |                                                                                                                                                                                                                              | PHONE: +65 6563-5533                                                                                                                                                                                                                                        | E-Mail: se-service.sg@konicaminolta.com                                                                                                                                                                                                                                                                                                                                                                     |  |
| <b>Konica Minolta Sensing Korea Co., Ltd.</b>     | Korean HQ / Kintex<br>Cheonan Office                                                                                                                      | Goyang-si, Korea<br>Cheonan-si, Korea                                                                                                                                                                                        | PHONE: +82(0)2-523-9726<br>PHONE: +82(0)41-556-9726                                                                                                                                                                                                         | FAX: +82(0)31-995-6511                                                                                                                                                                                                                                                                                                                                                                                      |  |

Addresses and telephone/fax numbers and e-mail address are subject to change without notice.  
For the latest contact information, please refer to KONICA MINOLTA Worldwide Offices web page:

<https://konicaminolta.com/instruments/network>