Instruction Manual

Please read before using the instrument.
Safety Precautions

Before using the software, please read this manual as well as the instruction manuals of your instrument and computer carefully to ensure safe and correct use.

Official names for applications and the like used in this manual
(Wording used in text) (Official name)
Windows 7 Microsoft® Windows® 7 Professional Operation System
Windows 8.1 Microsoft® Windows® 8.1 Pro Operating System
Windows 10 Microsoft® Windows® 10 Pro Operating System
Bluetooth Bluetooth®

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Notes on this Manual
• Copying or reproduction of all or part of the contents of this manual without the permission of KONICA MINOLTA is strictly prohibited.
• The contents of this manual are subject to change without prior notice.
• Every effort has been made in the preparation of this manual to ensure the accuracy of its contents. However, should you have any questions, or find an error or missing section, please contact your local sales office.
• KONICA MINOLTA will not accept any responsibility for the consequences arising from the use of the software without following the instructions in this manual.
• The screenshots included in this manual show the CM-CT1 software connected to a CM-26dG series device. The display differs when the tool is connected to a CM-25d or a CM-26d.

Introduction

This software (hereafter referred to as "the CM-CT1 software"), is used by connecting a CM-26dG, CM-26d, or CM-25d spectrophotometer (hereafter referred to as "the CM-26dG series") to a computer. The CM-CT1 software can be used for the following purposes.
1. Instrument Settings (*Excluding some settings, depending on the connected device)
2. Export Data
3. Calibration Data Settings
4. Remote Control

Software License Agreement

The terms of the license agreement of the CM-CT1 software are provided in the [Software License Agreement] dialog box displayed on-screen during the installation process. The CM-CT1 software can be installed only if you agree to all the terms of the agreement.

Notes on Use
• The CM-CT1 software is application software for use with Windows 7, Windows 8.1, or Windows 10. Note that no operating system is included with the CM-CT1 software.
• One of the above OS must be installed on the computer in order to install the CM-CT1 software.

System Environment

Operating requirements
OS: Windows 7 32 bit or 64 bit
Windows 8.1 32 bit or 64 bit
Windows 10 32 bit or 64 bit
CPU: 2.0 GHz or more
RAM: 2 GB or more
Hard disk: At least 10 GB of free space on the system drive
Display: Resolution of 1024 × 720 or higher, 16-bit color or higher
Other: USB port (required to connect the instrument)

Controllable Instruments
CM-26dG, CM-26d, CM-25d

Display Languages
Japanese, English
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Calibration Data Settings
Whenever purchasing a new white calibration plate or gloss calibration plate, the calibration plate data must be saved in the instrument before measurement can be performed.

Instrument Settings
The CM-CT1 software allows environment setting items such as measurement conditions and instrument display contents configurable on the CM-26dG series using MENU key operation, in addition to measuring instrument user-based operation restriction settings, 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 CM-26dG series devices using the same computer or another computer.

Export Data
Data saved to a CM-26dG series device (spectral reflectance and gloss data) can be saved to a CSV file.

Remote Control
While displaying the LCD screen of the CM-26dG series device on a computer in real time, the CM-CT1 software enables control equivalent to key operations on the actual device. (Except for turning ON and OFF.)
In addition, by accessing (via remote desktop, etc. over a network) a computer connected to the CM-26dG series, control of the CM-26dG series is possible even from remote locations.

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Quick Start

Starting and Exiting CM-CT1

Starting the Software and Establishing Communication

1 Double-click the shortcut icon on the desktop, or access the program menu and select “KONICA MINOLTA” - “Spectrophotometer Configuration Tool CM-CT1”.

Connect the CM-26dG series to the computer, start the software, and click the “Connect” button.

Memo
Following installation, the initial display language after starting the CM-CT1 software is English. To change the display language to Japanese, follow the procedure under Changing the Display Language (P.7).

2 Select the instrument to be connected from the pulldown list, and click the “Connect” button.

Memo
If the instrument to be connected is not displayed, check the following.
• The CM-26dG series is powered on.
• The CM-26dG series and the computer are connected correctly.

Control Panel

If communication with the instrument is established normally, the settings currently configured on the instrument are displayed on the CM-CT1 software.

1 Displays the serial number and the version of the CM-26dG series device.
2 Displays the calibration information of the CM-26dG series device.
   If a CM-26dG series device is connected to the CM-CT1 software with no calibration performed after purchasing, only the zero calibration date will be displayed.
3 Displays tabs featuring the four capabilities of the CM-CT1 software.
   The screen will change whenever a new tab is selected. The text of the currently selected tab will be displayed in blue.
4 Displays tabs featuring the five instrument menu items for the settings found under “Instrument Settings.”
   The screen will change whenever a new tab is selected. The text of the currently selected tab will be displayed in blue.

The screenshot above shows the “Instrument Settings” tab selected with the “System” screen displayed.

Memo
When the CM-CT1 software is connected to a CM-26dG series device, “Remote” will be displayed on the CM-26dG series screen, and instrument-based operations will not be possible.
Quick Start (Continued)

- Disconnecting and Exiting the Software

Clicking the "Disconnect" button will end communication with the CM-26dG series device, and the screen will return to the dialog for connecting to a device.

Clicking "×" in the top right corner will disconnect the CM-26dG series device and exit the software.
Quick Start (Continued)

Changing the Display Language
Following installation, the initial display language after starting the CM-CT1 software is English. It is possible to change the display language to Japanese.

1. Click in the upper-right corner of the screen to display the Application Information dialog.

2. Select “日本語” from the pull-down menu.

3. Click the “OK” button.

Exit and restart the CM-CT1 software. Use the same procedure to change the language from Japanese to English.
Quick Start (Continued)

Configuring Instrument Settings

◆ Procedure

1 Select the “Instrument Settings” tab.

2 Select the tab featuring for the settings to be changed.

The relationships between the tabs and the settings that can be configured by pressing the “MENU” button on the CM-26dG series device are shown below.

For details on the individual settings, refer to the instruction manual for the CM-26dG series device.

<table>
<thead>
<tr>
<th>Names of “Instrument Settings” Tabs on the CM-CT1</th>
<th>CM-26dG series MENU</th>
</tr>
</thead>
<tbody>
<tr>
<td>System</td>
<td>“Instrument setup”, “Calibration setup”, and “Communication setup” under “Setting” (Only some “Communication setup” settings are available)</td>
</tr>
<tr>
<td>Display</td>
<td>“Display cond.” under “Measurement cond.”</td>
</tr>
<tr>
<td>Default Tolerance</td>
<td>“Default tolerance”, “Warning level”, and “Parametric coeff.” under “Default data setup” in the “Setting” menu</td>
</tr>
<tr>
<td>Group</td>
<td>“Set group” (group name only) under “Default data setup” in the “Setting” menu</td>
</tr>
</tbody>
</table>

3 Change the settings as desired, and then click the “Set to Instrument” button.

Memo

To save instrument settings to a file, check “Save settings file after setting to the instrument.”, and click the “Set to Instrument” button.

The “Save instrument settings file” dialog box will be displayed after the settings are applied to the instrument. Select the save destination, and save the file under any name.

Memo

• Enter an 8-digit number under “Administrator Password”. Click [ ] to show the entered values.

• “Display Orientation” is set to “Default” when shipped.
Quick Start (Continued)

◆ Restricting Worker Operations (ON OFF Display)

Click ON / OFF to enable or disable worker restrictions. If “Worker” is selected as the “User Type”, it is configured whether changed contents are permitted or not using only the instrument. If “Worker” is selected as the “User Type”, items marked “OFF” cannot be configured using only the instrument.

By default, all settings other than “User Type” in the “System” tab are set to OFF.

Memo | The screenshots here show the CM-CT1 software connected to a CM-26dG series device. The display differs when the tool is connected to the CM-25d or the CM-26d.
Quick Start (Continued)

Remote Control
Remote control allows operations equivalent to key operations on the CM-26dG series device to be performed while checking the LCD screen on the CM-CT1 software.

1 Select the “Remote Control” tab.

2 Click the “START” button.

A dialog requesting verification for applying the settings in the “Instrument Settings” tab to the instrument is displayed.

3 Click “Yes” to apply the settings, or click “No” to cancel.

Memo This dialog is displayed even if the settings in the “Instrument Settings” tab are not changed.

Memo For details of LCD contents and key operations, refer to the instruction manual for the CM-26dG series device.

4 To end remote control, click the “STOP” button.

Memo “Remote” will be displayed on the LCD screen of the CM-26dG series device, and instrument-based operations will not be possible.
Advanced Use

Setting the Same Measurement Conditions to Multiple Instruments

The CM-CT1 software can be used to export settings configured using the software to a file, which can then be used to set the same measurement conditions to multiple instruments.

1. Follow the procedure under the “Configuring Instrument Settings” section (P.8) of “Quick Start” for the first instrument.

2. Check “Save settings file after setting to the instrument”, and click the “Set to Instrument” button.

3. The “Save instrument settings file” dialog box will be displayed after the settings are applied to the instrument. Select the save destination, and save the file under any name.

4. Disconnect from the first instrument.

5. Connect to the second instrument.

6. Click the “Import File” button.

7. The “Select instrument settings file” dialog box will be displayed. Select the file saved in step 3.

8. Click the “Set to Instrument” button.

9. Disconnect from the second instrument.

To import the same measurement conditions to other instruments, repeat steps 5 through 9.

Memo
Instruments must be the same type.
This function cannot be used to apply measurement conditions used in a CM-26dG device to a CM-26d or CM-25d device, or vice versa.
Remote Control Capabilities
Using a separate computer to connect the computer running the CM-CT1 software over a network enables control of the CM-26dG series device equivalent to using key operations on the actual device even from a remote location.

1. Set the CM-CT1 software to "Remote Control" connection.
2. Start Remote Desktop Connection on a separate computer.
   The computer with the CM-CT1 software installed must have remote connections enabled beforehand.
3. Operate the CM-CT1 software.
   The CM-CT1 software screen on the remote computer will be displayed. To operate the CM-CT1 software, use the mouse as usual. Operations will be performed on the remote CM-26dG series device in real time just as if the device operation keys were being used.

Memo
OS that can be used via Remote Desktop Connection is limited. Visit the Microsoft website for information on supported OS.
Also visit the Microsoft website for detailed information on how to use the remote desktop feature.
**Export Data Capabilities**

Data saved to a CM-26dG series device, including measurement spectral reflectance and gloss data (CM-26dG only), can be saved to a CSV file.

1. **Select the “Export Data” tab.**

2. **Select either “All Samples” or “All Targets”.**

3. **Click the “Save as CSV file” button.**

4. The “Export as CSV file” dialog box will be displayed. Select the save destination, and enter a name to save the file.

**Format of output data**

![Data Table]

**Memo** To export L*a*b* values or other color values to the computer, purchase the optional SpectraMagic NX software (available with CM-26dG series products).
After Purchasing a New White Calibration Plate or Gloss Calibration Plate

Be sure to perform this procedure before measuring after purchasing a new white calibration plate or gloss calibration plate.

1. Select the “Calibration Data Settings” tab.

2. Insert the CD-R with the new calibration plate data into the computer.

3. Click the “Browse” button to display the “Calibration plate data file” dialog, and select the cwm file (white calibration plate data file) from the CD-R inserted in step 2.

4. Click the “Browse” button again, and select the gum file (gloss calibration plate data file) from the CD-R inserted in step 2 (CM-26dG only).

5. Click the “Set to Instrument” button.

Memo: After the settings have been applied to the instrument, the contents of the “Calibration Plate Data in Instrument” displayed on the left are updated to the newest data.
# Errors and Corrective Actions

<table>
<thead>
<tr>
<th>Error No.</th>
<th>Error</th>
<th>Check Point</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Failed to get instrument settings.</td>
<td>A) Is the CM-26dG series device turned OFF?</td>
<td>A) Turn ON the CM-26dG series device.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B) USB communication: Is the USB cable connected properly?</td>
<td>B) Connect the CM-26dG series device to the computer correctly.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C) USB communication: Is the USB cable broken?</td>
<td>C) Replace the USB cable.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D) Bluetooth communication: Has the Bluetooth connection been lost?</td>
<td>D) Connect via Bluetooth.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>E) Is another application connected to the CM-26dG series device?</td>
<td>E) Disconnect any other application communicating with the CM-26dG series device.</td>
</tr>
<tr>
<td>2</td>
<td>Failed to apply instrument settings.</td>
<td></td>
<td>Start the CM-CT1 software and reconnect.</td>
</tr>
<tr>
<td>3</td>
<td>Failed to get the data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Failed to remote control.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Failed to connect to instrument.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Failed to export data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Failed to write the calibration plate data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Failed to read calibration plate file. Please check that cwm file and cws file, or the gum file and gus file are in the same folder.</td>
<td>Are the cwm file and cws file in the same folder? Are the gum file and gus file in the same folder?</td>
<td>To change white calibration plate data, place the cwm file and cws file in the same folder.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>To change gloss calibration plate data, place the gum file and gus file in the same folder.</td>
</tr>
<tr>
<td>9</td>
<td>Failed to read calibration plate file. Please check that cwm file and cws file are in the same folder.</td>
<td>Are the cwm file and cws file in the same folder?</td>
<td>Place the cwm file and cws file in the same folder.</td>
</tr>
<tr>
<td>10</td>
<td>Failed to read calibration plate data file. File format has error.</td>
<td></td>
<td>The calibration data file may be corrupted. Take note of the calibration plate serial number, and contact the nearest KONICA MILOTA indicated on the Authorized Service Facility list included with the CM-26dG series device.</td>
</tr>
<tr>
<td>11</td>
<td>The selected file is incorrect. Please select the file dedicated to your instrument.</td>
<td>Is the selected calibration data correct for the calibration plate?</td>
<td>Verify that the serial number included in the selected file name matches the serial number on the applicable calibration plate.</td>
</tr>
<tr>
<td>12</td>
<td>Failed to read settings file. This file is broken. File format has error.</td>
<td>Was the setting file created with a newer application?</td>
<td>Use the newer application.</td>
</tr>
<tr>
<td>13</td>
<td>No data in the instrument.</td>
<td>Have the settings in the setting file changed?</td>
<td>File format may be corrupted. Export a new setting file.</td>
</tr>
<tr>
<td>14</td>
<td>Failed to save a file. Please check the storage location.</td>
<td></td>
<td>Verify that data has been saved on the CM-26dG series device.</td>
</tr>
<tr>
<td>15</td>
<td>Some items loaded from the instrument are not supported on the current version of the software. The following items are set to the initial value. • Item a (a: unsupported item)</td>
<td>Is the CM-CT1 software the latest version?</td>
<td>Download the latest edition from the KONICA MINOLTA website (<a href="https://www.konicaminolta.com/instruments/download/software/color/cmct/index.html">https://www.konicaminolta.com/instruments/download/software/color/cmct/index.html</a>).</td>
</tr>
</tbody>
</table>

Errors and Corrective Actions

Chapter 5