

BabelColor Color Translator and Analyzer (CT&A)
Version 6.1.0 - Freeware (for Windows)

Thank-you for your interest in this BabelColor product!

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1- UNINSTALL ANY PREVIOUS VERSION

For proper operation of CT&A, you should first remove any previously installed version.

NOTE: Before uninstalling a version which required a Product Key, you should first open CT&A, deactivate the license, and then close the program.

Please consult the Activation/Deactivation section of the old version manual for help on performing this operation. If you are unable to deactivate, just close CT&A.

IMPORTANT: Before uninstalling the program, you should disable any anti-virus software that may be running in the background.

To remove CT&A, use the standard Windows uninstall program.

(Uninstaller name: "CT&A V-x.x.x-xx bxxx" where x.x.x-xx is the version and bit depth (32 bit or 64 bit), and bxxx is the build number)

When uninstalling, a Windows "User Account Control" dialog may open, indicating that the program "Publisher" is "Unknown". This is correct, and you should click on the "Yes" button to proceed.

You may also get a message asking if you want CT&A to take ownership of the i1 peripherals; this message is generated by a very old version of the "X-Rite Device Services" program which is installed in conjunction with other X-Rite software, such as i1Profiler. It does not seem to matter if you answer "Yes" or "No" to this question when uninstalling CT&A (You should answer "Yes" when USING CT&A however).

Please see Section-7 below for more information on the "X-Rite Device Services" program.

2- PROGRAM INSTALL, ACTIVATION, AND DEACTIVATION

IMPORTANT: You should not install two versions of CT&A at the same time on a given computer. Please consult Section-1 to uninstall.

IMPORTANT: Before installing the program, you should disable any anti-virus software that may be running in the background. You can re-enable the anti-virus software once CT&A installation is completed.

To install the 32 bit version, double-click on the "CTA_Win_Vxxx-32_RTI.exe" setup file, where xxx is the version number.

To install the 64 bit version, double-click on the "CTA_Win_Vxxx-64_RTI.exe" setup file.

A Windows "User Account Control" dialog may open, indicating that the Program "Publisher" is "Unknown". This is correct, and you should click on the "Yes" button to proceed.

In CT&A free version there is no need for the user to activate or deactivate the software since all features are enabled by default.

3- INSTALLED FILES

By default, the program files are located in one of these folders:

"C:\Program Files\BabelColor\CT&A_V6\"
or
"C:\Program Files (x86)\BabelColor\CT&A_V6\"

However, during install, you may have selected to install the program files elsewhere.

The folders and files in the \..\BabelColor\CT&A_V6\ folder are:

FOLDERS:

CTA Libs	: A folder which contains the software libraries used by CT&A. This folder and the files it contains should not be moved or modified.
CTA Resources	: A folder which contains image files required by CT&A. This folder and the files it contains should not be moved or modified.
drivers	: A folder with the USB drivers for the various Eye-One models
i1d3 Support Files	: A folder which contains the calibration matrix files for the i1Display Pro. This folder and the files it contains should not be moved or modified.
Illuminants	: A folder with files containing the spectrum of standard illuminants in 5 nm and 10 nm bandwidths
UV-filters	: A folder with files containing the transmission spectrum of UV filters used with the Whiteness tools (Spectral Tools)

FILES (partial list):

32 bit OS	64 bit OS	DESCRIPTION
ColorDecks_R2.bbd	ColorDecks_R2.bbd	: The color chips database
CT&A_Help.pdf	CT&A_Help.pdf	: The help file in Adobe PDF format
CT&A_Readme.txt	CT&A_Readme.txt	: This file
CTA.exe	CTA.exe	: The main program
dccmtr.dll	N.A.	: The Spyder5 library
dcxmtr.dll	dcxmtr.dll	: The SpyderX library
EyeOne.dll	EyeOne64.dll	: The Eye-One Display and i1Pro library
i1d3SDK.dll	i1d3SDK64.dll	: The i1Display Pro library
i1Pro.dll	i1Pro64.dll	: The i1Pro 2 library
i1Pro3.dll	i1Pro364.dll	: The i1Pro 3 library
unins000.dat	unins000.dat	: Uninstall data
unins000.exe	unins000.exe	: CT&A uninstall program

USER FILES:

The following folder will be created the first time the program is used, and re-created if missing on subsequent uses:

"C:\Documents and Settings\user-name\My Documents\BabelColor"

where "user-name" is your account name. This folder contains:

ColorDecks_R2.bbd : This is the WORKING COPY of the color chips database. The original is always kept in the main CT&A application folder.

PROGRAM SHORTCUTS:

If not already present, a "BabelColor CT&A 6" program group will appear in your Start/Program menu. The shortcuts it contains are:

CT&A	: To start the main program
CT&A Help	: To open the help file
CT&A Readme	: To open this file
Illuminants files	: To open the "Illuminants" folder
UV-filters files	: To open the "UV-filters" folder
Uninstall CT&A V6	: To uninstall the program (see NOTE)

Also, during the install process, you will be asked if you want an additional shortcut to the main program on the desktop.

NOTE: An "Uninstall..." shortcut may not be present in the BabelColor program group for the more recent Windows versions.

4- INSTALLING THE USB DRIVERS

All instruments are purchased separately.

A driver is required for proper operation of these instruments within CT&A. A driver may already be present on your computer if you have previously installed another program which connects to the instrument, such as "i1Profiler", from X-Rite, or any of the following packages from Datacolor: "Spyder5ELITE", "Spyder5PRO", "Spyder5EXPRESS", "SpyderX Pro", or "SpyderX Elite."

IMPORTANT: The drivers included with CT&A are NOT installed automatically by the CT&A setup program. USB drivers are provided for the following instruments:

- Eye-One Display and Display2;
- Eye-One Monitor, i1Pro, i1Pro 2, and i1Pro 3;
- Spyder5, and SpyderX (see NOTE 4-2).

NOTE 4-1 (i1Display Pro): No specific driver is provided for this instrument in the CT&A package. The i1Display Pro uses the generic HID USB driver which is already part of the operating system software.

NOTE 4-2 (SpyderX): This instrument uses Microsoft Universal USB driver which is provided with the OS and no instrument specific driver is required. However, for Windows 7, the Universal driver may not have been properly installed by Windows Update. Please read Section-5b for additional information.

INSTALL PROCEDURE:

- a- Close all programs which can use the instrument. Connect your instrument. If no driver was previously installed, you may or may not be prompted by the "New Hardware detected" Wizard the first time you connect the instrument. If the Wizard starts, select a manual install.
 - Windows 7: The Wizard will start looking for a driver via Windows Update. The Wizard window may reduce to an icon in the task bar while it is checking on Windows Update; click on the icon to re-open this window. The Wizard may or may not find a compatible driver; in any case, close the Wizard if not already done, and open the "Device manager". To get to the device manager, select "My Computer" in the Start menu, and click on the "System Properties" command in the top bar; in the "System Properties" window, select the "Device Manager" task on the left pane.
An alternate method to open the "Device manager" is from the "Control panel". One of the peripherals in the device manager window should have a yellow exclamation point; check that this peripheral corresponds to the instrument you just connected.
 - Windows 8.x: The Wizard will start looking for a driver. The Wizard window may reduce to an icon in the task bar while it is checking; click on the icon to re-open this window. The Wizard may or may not find a compatible driver; in any case, close the Wizard if not already done, and open the "Device manager".
To get to the device manager, swipe from the right edge of the screen, and tap "Settings" in the Charms bar (or if you are using a mouse, pointing to the upper-right corner of the screen, moving the mouse pointer down, and then click on "Settings"). In the Settings window, click on "Control Panel". In the Control panel window, click on "Device manager".
An alternate method to open the "Device manager" is by pressing

the Windows key and the X key together; the menu which opens has a shortcut to the "Device manager".

One of the peripherals in the device manager window should have a yellow exclamation point; check that this peripheral corresponds to the instrument you just connected.

- Windows 10: There is no Wizard; there are two methods to install drivers. The first method is to install them via "Windows Update". The second method, described here, is to use the "Device manager". In the Start menu, click on "Settings". In the SETTINGS window, click on "Devices". In the DEVICES window, click on "Connected devices" on the left side of the window; on the right side you should see, under "Other devices" the instrument you just connected and a mention that the "Driver is unavailable". Go further down in the same window and click on "Device manager". The "Device manager" dialog will open. You should see the connected instrument under "Other devices" and there should be an exclamation (!) point in a yellow triangle on the instrument icon.
NOTE: It is possible to disable automatic driver installation. Go in the System control panel; this panel can be reached from the menu which opens with a right-click on the Windows Start Button. Select the "Advanced system settings". In the "System Properties" window, select the "Hardware" tab and click on the "Device Installation Settings". Click on the "No..." radio button when asked if you want Windows to download driver software.

b- Install the driver provided by CT&A.

- In Windows 7 and Windows 8.x: Do a right-click on the item corresponding to your instrument and select to update the driver in the pop-up menu. Select to manually locate the driver on your computer and navigate to the CT&A driver folder
(default location: C:\Program Files\BabelColor\CT&A\drivers\ or C:\Program Files (x86)\BabelColor\CT&A\drivers\).
- Windows 10: Do a right-click on the item corresponding to your instrument and select "Update driver software" in the pop-up menu. Select to "Browse my computer for driver software", then click on the "Browse" button (do NOT click on "Let me pick from a list of device drivers on my computer"). Navigate to the CT&A driver folder
(default location: C:\Program Files\BabelColor\CT&A\drivers\ or C:\Program Files (x86)\BabelColor\CT&A\drivers\), and click the "OK" button to confirm the folder location, then click on the "Next" button to complete installation. If a Windows security window opens, click on the "Install" button.

If the update fails, it may be required to step back and specifically

- select the "i1_pro.inf" file for the i1Pro and i1Pro 2 models;
- select the "i1_monitor.inf" file for the Eye-One Monitor model;
- select the "i1_display.inf" file for all Eye-One Display models;
- select the "i1Pro3.inf" file for the i1Pro 3 and i1Pro 3 Plus models;
- select the "Spyder5.inf" file for the Spyder5.
(NOTE: You may have a message to the effect that a driver has not been validated for Windows; you should select to "Continue").
(NOTE: Depending on the OS version, it may not be possible to specifically select a file.)

c- The Wizard or driver install program will show the name of the installed peripheral (examples: "i1 Pro", "i1 Display", "Datacolor Spyder5").

Close the Wizard or driver install program window.

You can verify proper installation by checking the status of the device in the Device Manager window (NOTE: the instrument MUST be connected to the computer):

- Windows 7: Select "My Computer" in the Start menu, and click on the "System Properties" command in the top bar; in the "System Properties" window, select the "Device Manager" task on the left pane. (An alternate method to open the "System Properties" window from the "My Computer" window is to right-click on the large computer icon in the bottom-left of the window and select "Properties" in the pop-up menu.)
- Windows 8.x: Swipe from the right edge of the screen, and tap "Settings" in the Charms bar (or if you are using a mouse, pointing to the upper-right corner of the screen, moving the mouse pointer down, and then click on "Settings"). In the Settings window, click on "Control Panel". In the Control panel window, click on "Device manager". An alternate method to open the "Device manager" is by pressing the Windows key and the X key together; the menu which opens has a shortcut to the "Device manager".
- Windows 10: In the Start menu, click on "Settings". In the SETTINGS window, click on "Devices". In the DEVICES window, click on "Connected devices" on the left side of the window; on the right side go down until you see "Related Settings" and click on "Device manager".

For the Eye-One family, look for a "X-Rite Devices" item. Expand the item and double-click on the device name (such as "i1 Pro" which is shown for both the i1Pro and i1Pro 2).

For the Spyder5, expand the "Universal Serial Bus controllers" item and double-click on the "Datacolor Spyder5" device name.

For the SpyderX, expand the "Universal Serial Bus devices" item and double-click on the "WinUsb device" item.

5a- UPDATING YOUR INSTALLED Eye-One USB DRIVERS

It is recommended you install the latest Eye-One USB drivers, especially when using the instrument on a Windows 64-bit PC. The updated drivers can of course be installed on all supported Windows platforms.

The following procedure only applies if the Eye-One was previously installed and used with a program. It should be done from an account with administrator privileges.

a- Close all programs which can use the Eye-One. Connect your Eye-One.

b- Go to the Device Manager:

- Windows 7: Open "My Computer" in the Start menu, and click on the "System Properties" command in the top bar; alternately, you can right-click on your computer icon in the window bottom-left and select the "Properties" menu. In the System window, select the "Device Manager" task on the left pane.
 - Windows 8.x: Swipe from the right edge of the screen, and tap "Settings" in the Charms bar (or if you are using a mouse, pointing to the upper-right corner of the screen, moving the mouse pointer down, and then click on "Settings"). In the Settings window, click on "Control Panel". In the Control panel window, click on "Device manager". An alternate method to open the "Device manager" is by pressing the Windows key and the X key together; the menu which opens has a shortcut to the "Device manager".
 - Windows 10: In the Start menu, click on "Settings". In the SETTINGS window, click on "Devices". In the DEVICES window, click on "Connected devices" on the left side of the window; on the right side go down until you see "Related Settings" and click on "Device manager".
- c- In the peripheral list, look for a "GretagMacbeth Device" or "X-Rite Devices" item. The "GretagMacbeth" nomenclature is a sign of an older driver, which needs to be updated. Expand the item and double-click on the device name (such as "il Display", "eye-one" or "il Pro").
- d- In the properties window which opens, select the "Driver" tab. Check the driver date and version. The date and versions of the drivers provided with CT&A are:
- il Pro: 2009/04/21; V-2.40.0.1315
 - il Display: 2009/04/21; V-2.0.0.0
 - il Monitor: 2009/04/21; V-2.40.0.1315

If the DATE of the driver in your computer is the same, or more recent, you do not need to update your driver (do not compare using the version number only since some old drivers show a higher version number than the more recent ones, for example 5.00.2195.3). To stop the update procedure, click on "Cancel" to close the properties window, then close the Device Manager; you can then skip Steps "e-" and "f-".

If the date of the driver in your computer is older, we suggest you replace it by the one we provide.

- In Windows 7, Windows 8.x, and Windows 10: To remove the current driver, click on the "Uninstall" button. Select the checkbox to delete the driver for this peripheral, and then click "OK"; now go to Step "e-".

If a Wizard opens and indicates that it has found another driver for the device, it should also display an option to show the list; check this selection. Click on "Next". If you have a choice between GretagMacbeth and X-Rite drivers, select the X-Rite one. Skip Steps "e-" and "f-".

e- Disconnect your Eye-One.

f- Do the procedure described in Section-4 "INSTALLING THE USB DRIVERS"

Updating the "EyeOne.dll" file

We also suggest you search for all copies of the "EyeOne.dll" file in your hard disk, and replace them by the latest version. This specific Dynamic Link Library (DLL) provides a communication link between programs, such as CT&A, and the Eye-One, through the Eye-One USB driver. All programs that can connect to an Eye-One are likely to install one or more copies of this file on your hard disk, and you may find that they have varying version numbers.

You will find version 3.4.3.135 (2009/06/16) of "EyeOne.dll" within the "CT&A" application folder
(default folder location: "C:\Program Files\BabelColor\CT&A\").

To see a DLL version and release date, do a right-click on the file icon and select "Properties" in the popup which appears.

IMPORTANT: Keep backups of the replaced DLL files in case something goes wrong afterwards. If you are uneasy about this substitution, we suggest that you first replace the DLLs located in system folders, and that you replace the ones in the application folders afterwards, testing each application for proper behaviour (such an update should NOT create a problem since the newest DLLs are compatible with the previous ones).

5b- INSTALLING THE UNIVERSAL USB DRIVER FOR SpyderX UNDER WINDOWS 7

The SpyderX uses Microsoft Universal USB driver which is provided with the OS and no instrument specific driver is required. However, for Windows 7, the Universal driver may not have been properly installed by Windows Update.

IMPORTANT: The following procedure should be used only if the proper driver is not installed automatically when you connect your instrument.

INSTALL PROCEDURE (Windows 7 only):

a- Close all programs which can use the SpyderX. Connect your SpyderX.

b- Go to the Device Manager:

- Open "My Computer" in the Start menu, and click on the "System Properties" command in the top bar, then select the "Device Manager" task on the left pane.

or

- Open the "Control panel" from the Start menu and then open the "Device Manager".

c- One of the peripherals in the device manager window should have a yellow exclamation point; check that this peripheral corresponds to the instrument you just connected.

Do a right-click on the item corresponding to your instrument and select to update the driver in the pop-up menu. Select to manually locate the driver on your computer and navigate to the "Win7-USB" folder within the PatchTool driver folder (default location):

C:\Program Files (x86)\BabelColor\CT&A\drivers\Win7-USB\

ADDITIONAL HELP: Here are links which describe similar procedures to be used if you have installed the "SpyderX Pro" or "SpyderX Elite" software:

<https://support.datacolor.com/index.php?/Knowledgebase/Article/View/1846/0/spyderx-driver-on-windows-7-may-not-be-installed-properly>

<https://support.datacolor.com/index.php?/Knowledgebase/Article/View/619/0/windows7-does-not-install-spyder-driver>

6- OPENING THE HELP FILE

The Help file can be opened from the main CT&A application via the "Help" menu. It can also be opened by selecting the CT&A Help" shortcut in the BabelColor program group.

The file is written in "PDF" format. For the file to open, you need a PDF file type reader. The free "Acrobat Reader" application, from Adobe, is available at the following Web site:

<https://www.adobe.com/acrobat/pdf-reader.html>

7- COMPATIBILITY WITH X-Rite i1Profiler and other X-Rite software

If you installed software from X-Rite, such as i1Profiler, which comprises the "X-Rite Device Services" program, you may receive a message to the effect that the i1Pro or i1Pro 2 is not connected when you click on the "Info" button located beside the "Instrument" selection menu in the toolbar window. Assuming that your instrument is indeed connected, first check if the i1Profiler program from X-Rite is opened, and, if opened, close it, since CT&A cannot be used at the same time.

Early versions of i1Profiler provide a control panel named "X-Rite Device Services", which is used to assign/unassign instruments to X-Rite software. The latest versions of i1Profiler still include "X-Rite Device Services" but do not include a control panel, and instrument assignment is performed dynamically when opening an X-Rite program.

If using an early version of i1Profiler, you should DESELECT the i1 (Eye-One) in the "X-Rite Device Services" control panel; this will make the instrument available for CT&A. Please note that changes in the X-Rite control panel can be done while CT&A is opened. You should then be able to connect the instrument by selecting "Try to connect again..." in the "Instrument" menu. The early versions of i1Profiler may also open one or more dialogs asking if you want CT&A to take ownership of the i1 peripherals; please answer "Yes" to the question(s).

"X-Rite Device Services" is dedicated to X-Rite programs and is not under CT&A's control; any problem related to its use should be directed to X-Rite.

If the above fails, disconnect and reconnect the instrument, then select "Try to connect again..." in the "Instrument" menu. Please read Sections 8 and 9 for additional information on instrument usage.

8- COMPATIBILITY WITH SOFTWARE WHICH CONNECT TO THE SAME INSTRUMENT

It is not recommended to run, at the same time, two programs which connect to the same instrument! For example, this means that you should not make i1Pro measurements with CT&A while using X-Rite's i1Profiler with the same instrument, or vice-versa.

9- COMPATIBILITY WITH MULTIPLE INSTRUMENTS CONNECTED AT THE SAME TIME

CT&A should be used with only one Eye-One/i1Pro/i1Pro 2 connected at a time and only one i1Pro 3 at a time. You can however connect one Eye-One/i1Pro/i1Pro 2 in addition to one i1Pro 3 and one i1Display Pro since these instruments use different drivers.

10- TRADEMARKS

BabelColor is a registered trademark, and CT&A and PatchTool are trademarks of Danny Pascale and The BabelColor Company.

Eye-One (i1) is a brand of colorimeters (Eye-One Display, Display 2, i1Display Pro) and spectrophotometers (i1Pro, i1Pro 2, i1Pro 3, i1Pro 3 Plus, Eye-One Monitor) sold by X-Rite.

Eye-One is a trademark of the GretagMacbeth Company (owned by X-Rite).

Spyder5 and SpyderX are brands of colorimeters sold by Datacolor. Datacolor and Spyder are registered trademarks of Datacolor Holding AG.

X-Rite is a registered trademark of X-Rite Incorporated.
