

BabelColor PatchTool
Version 7.1.2 (for macOS)

Thank-you for your interest in this BabelColor product!

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1- UNINSTALL ANY PREVIOUS VERSION

IMPORTANT: We DO NOT recommend keeping different versions of the program on the same computer. Older versions should be uninstalled before running more recent versions.

To uninstall an old version, drag the "BabelColor PatchTool" application folder to the "Trash" can. This folder should be located in the Mac "Applications" folder, located at the root level of your System hard disk.

A shortcut to the "Applications" folder can normally be found in any folder "Sidebar" (unless the user has removed it) or in the "Dock". If required, you can enable the folder sidebar by selecting the Finder's "View/Show Toolbar" and "View/Show Sidebar" menus.

NOTE: The exact "BabelColor PatchTool" application folder name depends on the version installed: "BabelColor PatchTool", "BabelColor PatchTool (Intel)", "BabelColor PatchTool (Universal)", "BabelColor PatchTool 32 bit", or "BabelColor PatchTool 64 bit".

2- PROGRAM INSTALL

ESSENTIAL: For proper operation make sure that "Allow apps downloaded from: App Store and identified developer" in the Security & Privacy control panel is selected BEFORE you download the install file.

IMPORTANT: The program is packaged in a "disk image", a file with a *.dmg extension. The program and disk image are digitally signed by an "identified developer" (i.e. BabelColor). The disk image name is "PatchTool_Mac_Vxxx-64" where "Vxxx" is the program version and "-64" identifies it as a 64 bit version. The downloaded file can usually be found in the Mac "Downloads" folder unless you specifically saved it elsewhere.

Open the disk image with a double-click. All program files are contained in a single folder named "BabelColor PatchTool".

Drag the "BabelColor PatchTool" folder from the disk image to the Mac "Applications" folder, located at the root level of your System hard disk.

IMPORTANT: DO NOT PLACE THE "BabelColor PatchTool" FOLDER OUTSIDE OF THE MAC "APPLICATIONS" FOLDER! If you place the folder elsewhere, this will be detected by the Mac Gatekeeper and the program may not work properly.

You can now close/eject the disk image. We strongly recommend keeping the disk image in order to reinstall the program at a later time. You should also do an external backup of the disk image in case of a computer failure.

Note: A shortcut to the "Applications" folder can normally be found in any folder "Sidebar" (unless the user has removed it) or in the "Dock". If required, you can enable the folder sidebar by selecting the Finder's "View/Show Toolbar" and "View/Show Sidebar" menus.

To start the program, double-click on the PatchTool application icon. For faster access, you can drag the PatchTool icon to the "Dock"; this will create an alias which will provide a one-click access to the PatchTool application.

You can add an alias of the PatchTool application to the folder sidebar by dragging the application icon to it. You can also select (one-click) the application icon and select the "File/Add to Sidebar" menu in the Finder.

The folders and files in the "BabelColor PatchTool" application folder are:

FOLDERS:

- characterization-data: A folder with reference and characterization data files for many print standards (Idealliance, CGATS21, ISO 12647, ISO 15339, FOGRA, and others).
- correction-matrices : A folder with Color Correction matrices for various display + instrument combinations.
- ild3 Support Files : A folder which contains the calibration matrix files for the ilDisplay Pro. This folder and the files it contains should not be moved or modified.
- Illuminants : A folder with files of standard PatchTool Illuminants and Standard CIE Illuminants with 5 nm and 10 nm bandwidth spectral data.
- Profiles : A folder which contains ICC profiles used by PatchTool. The profiles can also be used in other programs; however, this folder and the files it contains should not be moved or modified.
- sample_files : A folder which contains color list files used in the Help manual, in some Application Notes, and files with fixed RGB and L*a*b* steps.

FILES:

- PatchTool : The main program
- PatchTool_Help.pdf : The help file in PDF format
- PatchTool_Readme.txt : This file

3- PROGRAM ACTIVATION AND DEACTIVATION

PatchTool version 7.x has a different license management system than the ones used in versions 1.x to 6.x. The "Key" of these older versions will not work in this version. Please consult the BabelColor Web site (address shown below) for upgrade information.

The license management system is based on a single "Product Key" which is used to ACTIVATE the program on a specific computer. This key is valid for either the Mac or the Windows versions of the program.

IMPORTANT: Program ACTIVATION and DEACTIVATION require a live Internet connection. In the activation process, the program generates a "fingerprint" to uniquely and anonymously identify your computer. The "Product Key" and the "fingerprint" are sent to an activation server, which sends back an activation certificate. An Internet connection is not required for program operation afterwards. A dialog will ask you to agree with this process each time you activate.

You can activate and deactivate using an Internet connection as often as you wish; this is a fast and free process. This is useful if you want to use the program on more than one computer (one computer at a time!).

IMPORTANT: If an Internet connection is not available, because of your Company internal regulations for example, it is possible to perform an OFFLINE activation. However, please note that a service fee, paid in advance, is required to complete each OFFLINE activation. The service fee can be paid online from the BabelColor Web site. You should allow a few working days to complete the offline activation process since a few e-mails will need to be exchanged between you and BabelColor.

To transfer an activated "Product Key" to another computer, the key must first be deactivated; only then can you activate a second computer using the SAME "Product Key". When deactivating, you can decide to erase or not the key. If the key is not erased, you do not need to re-enter it the next time you reactivate this computer. Of course, if you installed the program on a customer computer, you should also erase the key when you deactivate it. Please note that it is not possible to deactivate a computer remotely, so plan the transfer carefully.

Once a program is activated, it is not possible to see the "Product Key" completely, in the "About PatchTool" dialog for instance, or in the activation dialog when reactivating, because the last characters are hidden to prevent theft. It is thus important to keep a record of the whole "Product Key" in a secure place; for this reason, we strongly recommend saving a copy of the e-mail received when you purchased the program. Also, do not share your key as it will not be replaced if someone else uses it without your consent.

When you start a non-activated copy of the program, an ACTIVATION dialog is shown. You need to click on one of the four buttons:

- a- "Activate": If you purchased the program, you should have received a "Product Key" by e-mail. To activate the program, you must enter the key in the dialog and then click on this button. If the program was previously activated and deactivated, a partial view of the "Product Key" may be seen in the data field. You can decide to try activation with this key or use another key.
- b- "Buy": Clicking on this button will direct you to the purchase page of the BabelColor Web site.
- c- "Trial mode": Clicking on this button will start the program in a mode where you can open and view all compatible files. You can also use these free tools: "Custom Illuminants", "Extract Data from Profile", and "BabelColor CT&A Export". All other tools are disabled.
- d- "Cancel": Clicking on this button will close the dialog without starting the program.

When the program is running, and depending on if the program is activated or not, you can open the ACTIVATION or DEACTIVATION dialog with the "Activate" or "Deactivate" menu item located in the "Help" menu.

Please contact BabelColor if you have not received your registration key by e-mail within one day of your purchase.

Contact information:

Web site : www.babelcolor.com
Support : info@babelcolor.com

4- OPENING THE PDF HELP FILE

The Help file can be opened from the PatchTool application via the "Help" Menu. It can also be opened by double-clicking on the "PatchTool_Help.pdf" file located in the "BabelColor PatchTool" folder.

The Help can be opened with "Preview", "Acrobat Reader", and any application which can read pdf documents.

Preview is installed with macOS.

The free Acrobat Reader application, from Adobe, is available at the following Web site:

<http://www.adobe.com/products/reader/>

NOTE: Acrobat Reader is now available in two distribution modes, called "tracks": "Continuous track" and "Classic track". The Continuous track, offered by default, is a "cloud" version which gets updated as required, without user control. The Classic track is similar to the older program version which gets updated at fixed intervals. If you prefer the older version, you can locate the download file by searching for "Adobe Reader Mac download" with your favorite search engine. This link contains more information:

<https://www.adobe.com/devnet-docs/acrobatetk/tools/AdminGuide/whatsnewdc.html>

5- BABELCOLOR CT&A COLOR DECKS DATABASE FORMATS

PatchTool can be used to add or remove color chips collections, also called Color Decks, from the BabelColor Color Translator and Analyzer (CT&A) application database (the ColorDecks_R2.bbd file). This is done via PatchTool's "BabelColor CT&A Export" tool. Please consult the PatchTool Help manual for more information on how to perform this task.

NOTE: Up to Version 3.0.0 of BabelColor CT&A, the file name for the Color Decks database was "ColorDecks.bbd". Starting with BabelColor CT&A Version 3.1.0, the database name is "ColorDecks_R2.bbd".

WARNING: DO NOT CHANGE THE OLD CT&A DATABASE FILE NAME TO THE NEW NAME! If you do so, the Munsell Deck, as well as conversions to the Munsell space, will be less precise in BabelColor CT&A.

NOTE: The file format for the Color Decks database has been changed in Version 2.7.0 of BabelColor CT&A. The new format is not compatible with the format used in previous versions of BabelColor CT&A. The first PatchTool version which supports the new database format is 1.1.1.

6- COMPATIBILITY WITH X-Rite ilProfiler AND OTHER X-Rite SOFTWARE

If you installed software from X-Rite, such as il Profiler, which comprises the "X-Rite Device Services" program, you may receive a message to the effect that the ilPro (any model) is not connected when you click on the "Info" button of the Display-Check, Display-Reader, and Patch-Reader windows. Assuming that your instrument is indeed connected, first check if the ilProfiler program from X-Rite is opened, and, if opened, close it, since PatchTool cannot be used at the same time.

Early versions of ilProfiler provide a control panel named "X-Rite Device Services", which is used to assign/unassign instruments to X-Rite software. The latest versions of ilProfiler 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 ilProfiler, open the "X-Rite Device Services" control panel, located in the System Preferences, and DESELECT the il (Eye-One) in the panel; this will make the instrument available for PatchTool. Please note that changes in the X-Rite control panel can be done while PatchTool 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 ilProfiler may also open one or more dialogs asking if you want PatchTool to take ownership of the il peripherals; please answer "Yes" to the question(s).

"X-Rite Device Services" is dedicated to X-Rite programs and is not under PatchTool'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.

Note: PatchTool should be used with only one Eye-One/ilPro/ilPro 2 connected at a time and only one ilPro 3 at a time. You can however connect one Eye-One/ilPro/ilPro 2 in addition to one ilPro 3 and one ilDisplay Pro since these instruments use different drivers.

7- Mac OS COMPATIBILITY - PERMISSION TO OPEN PatchTool (Obsolete)

Note: This section is applicable to older versions of PatchTool (V5.0 or OLDER). If you are using macOS Sierra (10.12), please also read this section:

9- macOS Sierra SECURITY AND PRIVACY CONTROL PANEL SETTINGS

You may receive this message the first time you launch PatchTool after downloading it:

"PatchTool" can't be opened because it is
from an unidentified developer.

Such a message appears for programs not downloaded from the Apple App Store, or for programs created by developers which did not pay to be "identified" by Apple (which was the case for PatchTool V5.0 and OLDER).

Here are two methods to open the program; Method-1 will grant permission to a single application while Method-2 will grant permission to ALL applications (until reversed). Both methods are described below and illustrated on this Web page:

http://www.babelcolor.com/os_x_compatibility.htm

Method-1 (Single application permission):

a- Press the "ctrl" key and click on the PatchTool icon
OR
do a right-click on the PatchTool icon.

b- Select "Open" in the popup menu. You will get a message asking if you are sure you want to open the application. Check that the file was downloaded from "www.babelcolor.com" and click on the "Open" button.

Afterwards, when you open PatchTool, you will not be asked for another authorization until you download and reinstall the program.

Method-2 (Change of System Preferences):

a- Go in the "Security & Privacy" settings of your "System Preferences".

b- Select the radio button corresponding to
"Allow applications downloaded from: Anywhere."
You may need to first unlock the dialog by entering your account password. You should leave this dialog open for the next step.

c- Start PatchTool. You will get a message asking if you are sure you want to open the application. Click on the "Open" button.

d- Once the program is launched, you can change the security setting back to where it was and close the security dialog. You will not be asked for another authorization until you download and reinstall the program.

8- Mac OS COMPATIBILITY - NEED FOR Java SE 6 RUNTIME

After updating your Mac OS, you may receive a generic message (i.e. not specific to one application in particular) that you need to install the "legacy Java SE 6 runtime".

You may also receive this message, with "PatchTool" specifically mentioned as the application, when you start PatchTool's Display-Check or Display-Reader, or when you select the DTP94 instrument in these tools.

(OS X message version)

To open "PatchTool," you need a Java SE 6 runtime. Would you like to install one now?

(macOS Sierra message version)

To open "PatchTool," you need to install the legacy Java SE 6 runtime. Click "More Info..." to visit the legacy Java SE 6 download website.

Screenshots of the above messages are shown on this Web page:
http://www.babelcolor.com/os_x_compatibility.htm

IMPORTANT: On macOS Sierra (10.12) PatchTool will quit when the message is shown. If you intend to use the DTP94, you should install the Java SE 6 runtime before restarting PatchTool. If you want to use another instrument in Display-Check or Display-Reader without installing the Java SE runtime, you should first open and close the Patch-Reader tool; this will change the preference to an ilPro the next time you open Display-Check or Display-Reader.

Note: PatchTool is not programmed using Java code. However, it looks like the DTP94 library requires it.

You can download Java for OS X 2015-001 (or a more recent version) from:
<http://support.apple.com/kb/DL1572>

Additional information: You can get more information on your Java setup in the "Java Control Panel." Depending on your OS version, this panel is opened from the System Preferences or from the "Java Preferences" program located in the Mac Applications/Utilities folder. If the install from these control panels fails, download and install Java from the link above.

9- macOS Sierra SECURITY AND PRIVACY CONTROL PANEL SETTINGS (Obsolete)

Note: This section is applicable to older versions of PatchTool (V5.0 or OLDER).

If you are using macOS Sierra (10.12), the Gatekeeper settings (Security & Privacy control panel) may need to be changed with the "Terminal" BEFORE download!

Before Sierra (macOS 10.12), it was possible to allow applications downloaded from "unidentified developers" simply by selecting the "Anywhere" radio button in the Security & Privacy control panel. This button no longer appears by default when Sierra is installed but it is possible to make it visible again with a "Terminal" command. A solution is shown below but lets first see why this is a problem.

The problem:

In Sierra, even if you allow an application from an unidentified developer to be opened (as presented in METHOD-1 of section 7 above), Sierra will still not trust the application and will separate the main app from the other files in the application folder, placing it at a random location.

For the user, the main app still appears to be located in the application folder, but if that app is programmed to use files located in the application folder, it will not find them. The consequences will vary depending on each software; errors or crash will result in many cases.

- For PatchTool, the program will start. However, it will not find its Help manual, the sample files in the "File/Open Sample Files" menu, the default CMYK profiles, and the display calibration files for the `ilDisplay Pro`.
- For CT&A, you will see a fatal error on program launch:
"(EM-19) CT&A cannot open the ColorDecks database..."

Note: This problem will not happen if the program was downloaded before upgrading to Sierra. You can also copy the program from another local computer (i.e. not via Internet) on which the application is working.

The solution:

1. Make the "Anywhere" button appear by disabling Gatekeeper.
 - Open the "Terminal" (located in the "Utilities" folder of the Mac "Application" folder).
 - In the Terminal, type:
`sudo spctl --master-disable`
followed by the Enter key. You will then need to enter your account password to complete the command.
 - You can check that the "Anywhere" button appears and is selected in the Security & Privacy control panel.

2. Download PatchTool and install it by placing the "BabelColor PatchTool" folder at its desired location (usually in the Mac Applications folder).
IMPORTANT: Download should always be done AFTER disabling Gatekeeper. Open PatchTool with a double-click and check if the program starts correctly.
3. Change the the Security & Privacy setting OR "re-enable" Gatekeeper.
 - You can decide to keep the "Anywhere" button visible and still select a more secure setting. You will need to enter your account password in order to change the control panel setting.
 - You can also return to the default Gatekeeper appearance, with the "Anywhere" button invisible and not selected, by going again in the "Terminal" and typing:
sudo spctl --master-enable
followed by the Enter key. You can check that the "Anywhere" button is no longer visible in the Security & Privacy control panel (you may need to first close the System Preferences and re-open them to see the change).

If the solution fails:

We have seen cases where the above procedure did not fix the problem, with PatchTool remaining unable to find its support files. In other words, the app still ends up in quarantine even if the user authorizes it.

Here is a workaround:

- a. After doing Step-2 above, where you place the "BabelColor PatchTool" folder at its desired location:
 - Get the downloaded ZIP archive out of the Trash and place it on your Desktop.
 - Re-expand the archive on your Desktop.
 - From the PatchTool folder on your Desktop, COPY ONLY the PatchTool app and PASTE it to the previously installed PatchTool application folder (usually in the Mac Applications folder).
 - Open PatchTool from where you just pasted it with a double-click.
- b. You can trash the expanded PatchTool folder on your Desktop but we strongly recommend keeping the ZIP archive in order to reinstall the program at a later time. You should also do an external backup of the archive in case of a computer failure.

Note: If you decide to keep the "Anywhere" button visible, you should be aware that macOS Sierra will nonetheless automatically change the setting to "App Store and identified developer" after 30 days.

Here are links to Web pages which discuss this issue as well as other Sierra related changes:

<https://www.tekrevue.com/tip/gatekeeper-macos-sierra/>

<http://arstechnica.com/apple/2016/09/macOS-10-12-sierra-the-ars-technica-review/6/#h1>

10- 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 ilPro measurements with PatchTool while running X-Rite's ilProfiler, or vice-versa.

11- TRADEMARKS

BabelColor is a registered trademark, and PatchTool is a trademark of Danny Pascale and the BabelColor Company.

DTP94 (MonacoOPTIX) is a brand of colorimeters sold by X-Rite Incorporated. MonacoOPTIX is a trademark of X-Rite.

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

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

Spyder2, Spyder3, Spyder4, 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.
