

TK Magic Mixer Instructions Manual



NOTE: Button and element names are underlined in the sections that follow.

LEGAL NOTICE

The TK Magic Mixer plugin is copyrighted material (©Tony Kuyper). You may use the plugin for your personal work and enjoyment but transfer or sale is prohibited. If someone is interested in using the plugin, please have them visit [my website](#) to obtain it.

Thank you for respecting the time and effort it takes to develop these techniques and for showing the appropriate consideration for the intellectual property of others. As always, please feel free to [contact me](#) if you have questions, comments, or suggestions.

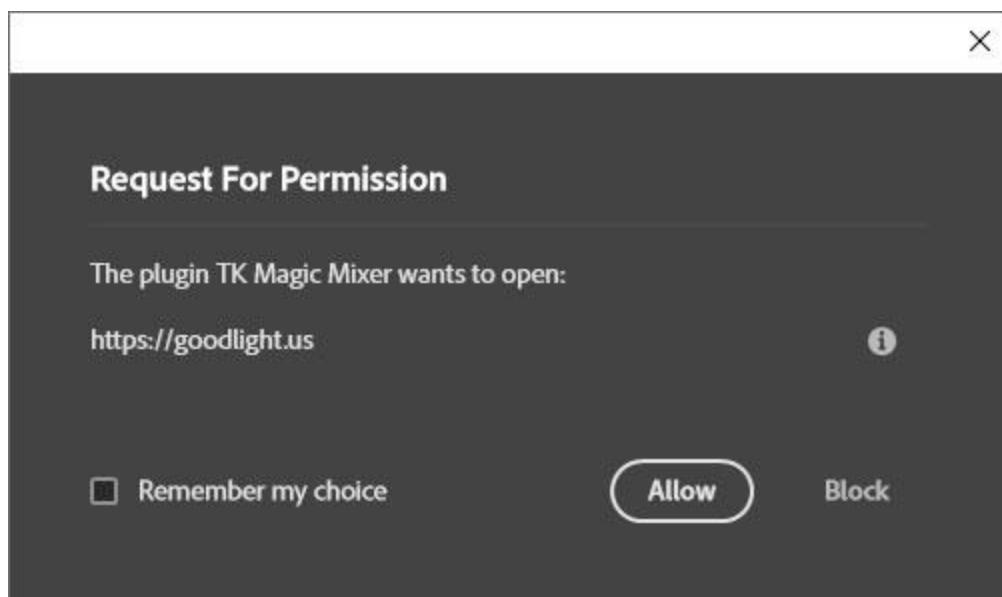
ACKNOWLEDGEMENTS

The TK Magic Mixer plugin owes much to [Dave Kelly](#), who provided inspiration for several features. [David Tillett](#) beta-tested the plugin and helped find several bugs. Some of the icons used in the TK Magic Mixer plugin come from the [FontAwesome.com](#) website and were not changed ([license](#)).

IMPORTANT INFORMATION

- 1. The TK Magic Mixer plugin only works starting in Photoshop 2022 version 23.3.0.** Adobe says they should continue working in future versions of Photoshop as well. TK Magic Mixer will NOT work in older versions of Photoshop.
- 2. The plugin is meant to be used with images in RGB Color mode.** No testing has been done on images in Lab, Grayscale, and CMYK modes. Most plugin functions work on 8-bit, 16-bit, and 32-bit images.
- 3. Nothing is perfect.** It's always possible some bug made it through development and testing. In addition, periodic Adobe updates to Photoshop can sometimes cause unexpected problems for all plugins. If you have issues with this plugin, [contact me](#) and I can look into it. If I can replicate the problem, I can usually find a way to fix it.
- 4. Permission required to open external websites.** There are links to external websites in the fly-out menu for this plugin. Clicking one of these will initially open a window where the user needs to grant permission to open that website.

TK Magic Mixer plugin



INSTALLATION

The TK Magic Mixer plugin is installed using the .ccx file in the download folder. There is a separate PDF that details the installation process, which is not difficult.

OVERVIEW

The TK Magic Mixer is a multi-functional plugin that allows interaction with Photoshop's Channel Mixer adjustment layer in new, unique, and useful ways. It works through the Channel Mixer's "Monochrome" option to achieve its results. Some of the features include:

- One-click creation of a Channel Mixer adjustment layer with neutral settings that serve as a starting point for creative exploration.
- Easily create Red, Green, Blue, Cyan, Magenta, and Yellow channels for seeing how the image looks filtered through specific channels.
- A Randomize button to quickly generate image variations based on different channel combinations, brightness, and contrast.
- Smart sliders that automatically adjust to keep image brightness constant.
- An independent Brightness slider, which allows brightness and color to be adjusted independently and simultaneously.
- Default user interface uses colored sliders to help predict the effect on the image (pulling a slider towards a specific color makes that color lighter in the image).
- An optional interface that matches the sliders on the Channel Mixer's Properties panel.
- A unique contrast adjustment that increases contrast in the image by enhancing contrast between the different channels (Red, Green, and Blue).
- Options to save, load, and delete presets in order to allow reuse of particularly useful Channel Mixer settings.
- Effective and unique possibilities for converting color images to black and white using the randomize option or by manually adjusting the sliders.
- The option to use Luminosity blend mode to adjust color brightness based on color channels instead of converting the image to black and white.
- An optional Color Luminosity adjustment for fine-tuning the plugin's effect.
- Optional toning via an added Hue/Saturation adjustment layer.
- 8-bit, 16-bit, and 32-bit images are supported for most functions.
- Easily toggle through different history states using the Step Backward and Step Forward buttons.
- Several button clicks can be recorded into Photoshop actions and played back by playing the action.
- The ability to back up and restore user data so that presets and preferred settings are not lost in case of a computer crash.
- Tooltips are available on all elements as a quick reminder of what each button, slider, or checkbox does.

THE FLY-OUT MENU

Clicking the menu icon in the upper right corner opens the plugin's preferences and provides access to other features.

Version—This is the current version of the plugin

English—This section lists the available languages for this plugin. English is currently the only available option.

Use Channel Mixer

sliders— Clicking this option toggles a checkmark ON and OFF. When checked, this option displays the three Color Channel sliders as Red, Green, and Blue sliders that match the sliders in the

Photoshop Properties panel for a Channel Mixer adjustment. When unchecked, this option displays the sliders as Cyan - Red, Magenta - Green, and Yellow - Blue sliders, which better indicates which color will be affected when a particular slider is moved. The sliders do the same thing regardless of which display option is chosen, but using the Cyan-Red, Magenta - Green, and Yellow - Blue alternative generally improves adjustment decisions.

How to access tooltips—This option opens a Photoshop alert describing how to access tooltips for this plugin, which is to hold the "ALT" (Windows) or "option" (Mac) and move the mouse over a button.

Instructions PDF (English)—This option opens a web-based PDF with the plugin's instructions manual

Video tutorial from Dave Kelly—This option opens a video on Dave Kelly's YouTube channel that provides an overview of this plugin.

Copyright info—This option opens a message window in Photoshop that reviews copyright and end-user license agreement information.

Visit Tony Kuyper's website—This option opens the front page of Tony Kuyper's website in the computer's default internet browser.



Backup user data—This option guides the user through the process of backing up user-specific data for this plugin (like presets) so it can be restored if need be at some time in the future. More information later in this manual.

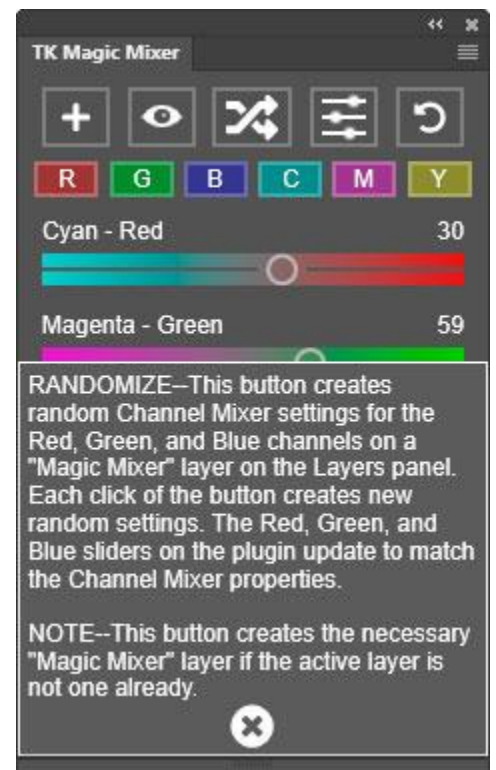
Restore user data—This option guides the user through the process of restoring user-specific data for this plugin that has previously been saved using the Backup user data option. More information later in this manual.

Reload plugin—This option reloads the plugin. This is rarely necessary but can be used to reset the plugin if it appears to not be working properly.

TOOLTIPS

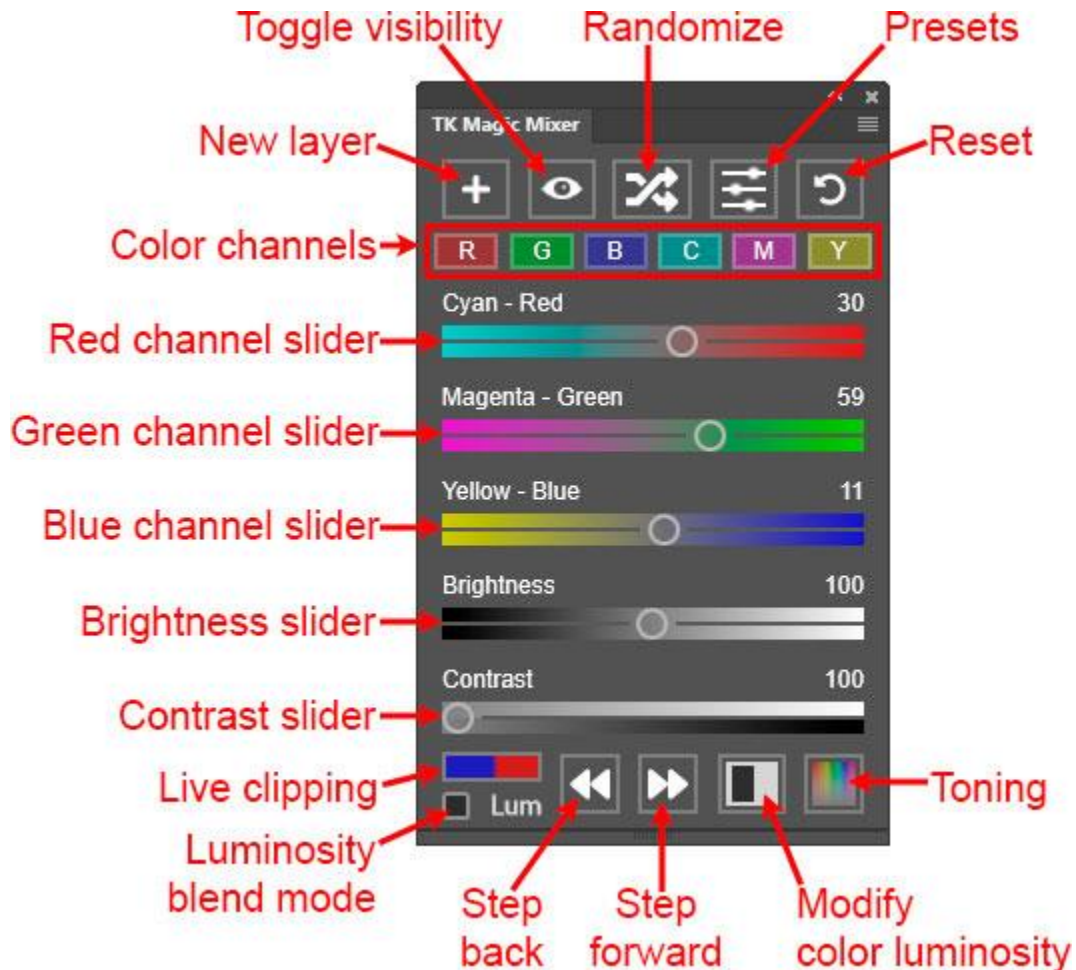
Tooltips are accessed by holding down "ALT" (Windows) or "option" (Mac) and moving the mouse over various buttons or other elements, like the sliders. Doing so opens a window at the top or the bottom of the plugin that describes what that element does. The tooltip window stays open until it is manually closed using the X button. As long as the tooltip window is open and the ALT/option key is pressed, users can move to different features (buttons, sliders, etc.) and the tooltip changes to match that feature when the mouse moves over it. These tips are especially useful when first starting to use the plugin in order to learn the functions of the icon buttons.

NOTE: It is necessary to actually move the mouse over the button or slider to display its tooltip. Simply pressing the "ALT" or "option" key doesn't activate the tooltip. Moving the mouse is the event that triggers the tooltip to appear when "ALT" or "option" key is being pressed.



THE MAIN INTERFACE

The image below shows the function of all buttons on the plugin and there is a discussion of each following.



New layer—This button creates a new Channel Mixer adjustment layer called "Magic Mixer" at the top of the layer stack. The Channel Mixer adjustment has "Monochrome" checked by default, so the output is always a monochrome version of the image. However, checking the "Lum" checkbox at the bottom sets the adjustment layer's blend mode to Luminosity, in which case the hue and saturation of the underlying layers comes through. Just color brightness is adjusted.

NOTE: Holding down "CTRL" (Windows) or "command" (Mac) when clicking this button deletes the active layer if it is a "Channel Mixer" layer.

Toggle visibility— This button toggles the visibility of the active layer off and on in order to see the original image without the Magic Mixer adjustment. To toggle the visibility of multiple layers, select additional layers on the Layers panel. All selected layers will be toggled the same.

Randomize— This button creates random Channel Mixer settings for the Red, Green, and Blue channels on a "Magic Mixer" layer on the Layers panel. Each click of the button creates new random settings. The Red, Green, and Blue sliders on the plugin update to match the Channel Mixer properties

NOTE--This button creates the necessary "Magic Mixer" layer if the active layer is not one already.

Presets— This button opens a new interface for saving, loading, and deleting presets of Magic Mixer adjustments. If you find a particularly useful combination of sliders on the plugin, be sure to save it as a preset.

NOTE #1: In addition to saving slider settings, presets also save the layer Blend Mode, Opacity and Fill Opacity settings for the "Magic Mixer" layer, which are then reloaded when the preset is chosen from the list in the future.

NOTE #2: Saved presets only include the settings for the "Magic Mixer" layer. The settings for other layers, like those to adjust color luminosity or toning, are not saved in the preset.

Reset— This button resets the Magic Mixer plugin to create a Channel Mixer adjustment that emulates image luminosity: Red--30, Green--59, Blue--11 and Brightness--100.

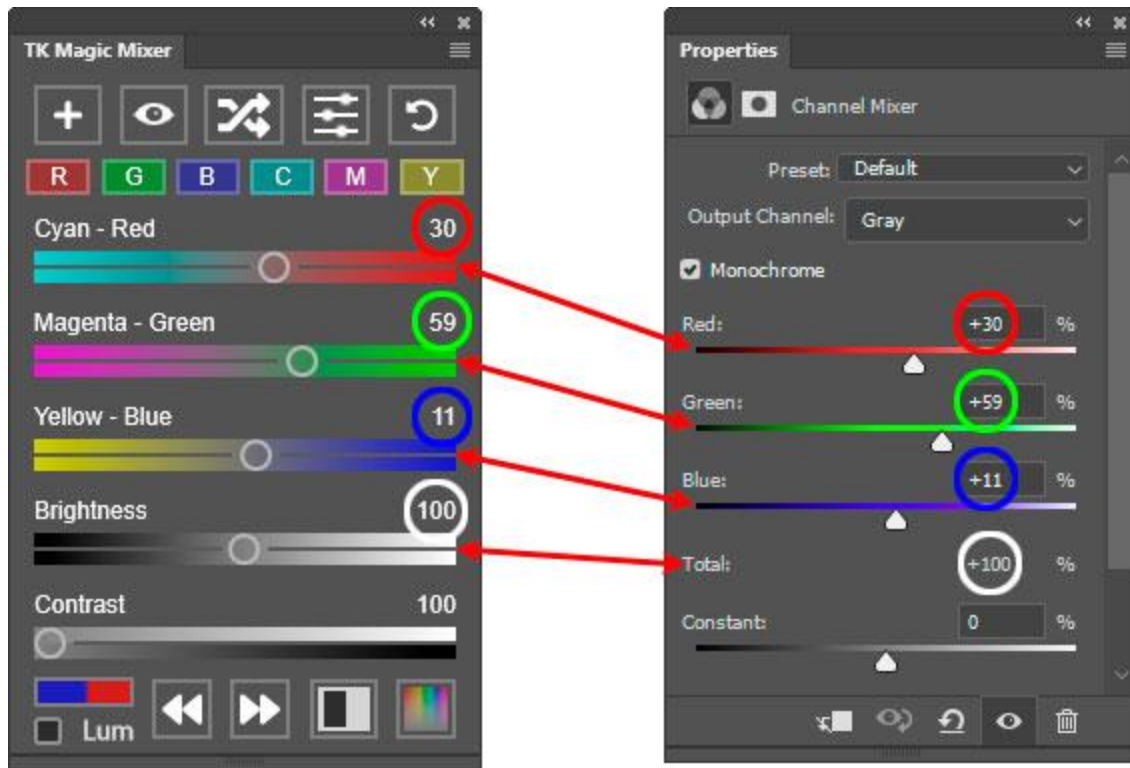
Color channels—These six buttons can be used to create Channel Mixer settings that match or emulate the channel of the matching color (Red, Green, Blue, Cyan, Magenta, or Yellow). These channels can sometimes be useful starting points before fine-tuning an adjustment using the sliders.

NOTE--These buttons create the necessary "Magic Mixer" layer if the active layer is not one already.

The Color Channel and Brightness sliders

The Color channel sliders (Red, Green, and Blue) and the Brightness slider on the Magic Mixer plugin are closely aligned with the Channel Mixer Properties as shown in the image below. These sliders are at the heart of how the Magic Mixer works. The Magic Mixer ultimately sets the Channel Mixer channel percentages to achieve its effect. The Red channel slider sets that Red channel percentage, the Green channel slider sets the Green channel percentage, and the Blue channel slider sets the Blue channel percentage.





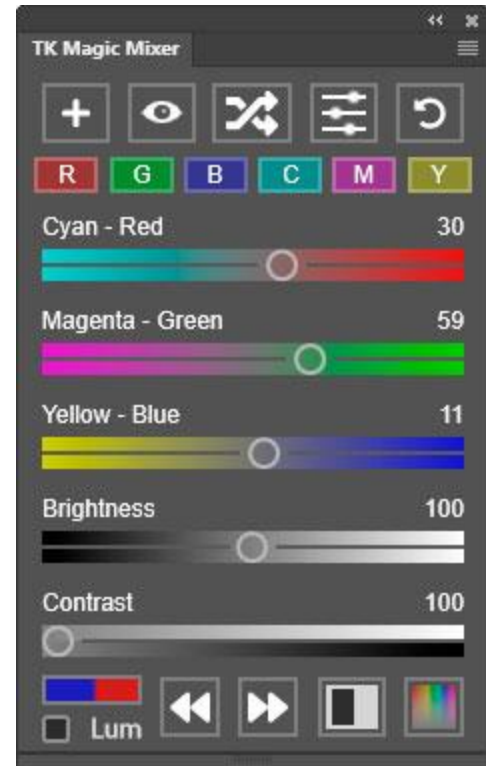
However, the Magic Mixer's sliders work differently than those on the Channel Mixer. As users move one of the Red channel, Green channel, or Blue channel sliders on the Magic Mixer plugin, the other two color channel sliders automatically adjust to keep the Brightness slider on the Magic Mixer plugin, and hence the Brightness value on the Channel Mixer adjustment, unchanged. Brightness remains constant. This is in contrast with what happens when moving these sliders using the Channel Mixer Properties panel, where image brightness is constantly changing as any of the color channel sliders are moved. Using the Magic Mixer to control the Channel Mixer allows image brightness to remain unchanged. This makes "channel mixing" with the Magic Mixer more user-friendly and quickly produces results that would be difficult to achieve with the regular Channel Mixer sliders.

The Magic Mixer still allows for intentionally changing overall brightness using the Brightness slider. When doing so, the color sliders automatically adjust to again ensure that the sum of their values adds up to the new Brightness value. The value of the Brightness slider is also honored when using the Randomize button. The new values for the Red channel, Green channel, and Blue channel sliders still add up to the chosen Brightness value.

NOTE#1: Right-click on the Brightness slider resets it to 100.

NOTE #2: While sliders on the plugin update in real-time, it is only after releasing a Magic Mixer slider handle that the Channel Mixer Properties panel's sliders and the image update.

Even though the Magic Mixer's color sliders correspond to the Red, Green and Blue sliders on the Channel Mixer Properties panel, the actual default colors of Magic Mixer sliders on the user interface are complementary colors: Cyan - Red, Magenta - Green, and Yellow - Blue. This is in order to provide a visual cue to users as to which colors are affected when a slider is moved. The rule of thumb is that the color a slider moves towards will get lighter in the image as a result. For example, to make the blues in an image lighter in an adjustment facilitated by the Magic Mixer, move the Yellow-Blue slider towards Blue (to the right). However, also keep in mind that the other two sliders also adjust in order to keep Brightness constant. So, in the above example, as blue in the image gets lighter (Yellow-Blue slider pulled right), the Cyan-Red slider will shift left (cyan gets lighter and red gets darker) and the Magenta-Green slider will also shift left (magenta gets lighter, green gets darker). Yellows in the image will also get darker as a result of making the blues lighter. So, with each color slider movement, colors throughout the image are affected. However, having the complementary colors associated with the sliders can help understand this interplay. Whichever color a slider moves towards gets lighter, and whichever color a slider moves away from gets darker.



NOTE: The slider colors can be set to match those in the Properties panel for a Channel Mixer adjustment by toggling "On" the "Use Channel Mixer sliders" preferences found in the plugin's fly-out menu accessed in the upper right corner.

At some level, this shift of color might seem confusing or indicate a lack of control, but as you work with the plugin, you'll come to understand how this interaction of channels provides variations that would be hard to achieve by other methods. The benefit of using the Magic Mixer is that it is able to keep image brightness constant. This greatly improves the ability to evaluate the effect of color changes without the added confusion of simultaneous shifts in brightness.

Contrast slider—The first thing to point out is that the Magic Mixer's Contrast slider (unlike the Color channel and Brightness sliders) is NOT linked to anything on the Channel Mixer Properties, including the Channel Mixer's "Constant" slider. The Contrast slider is unique to the plugin. Sliding the Contrast slider right increases contrast between the three color channels (Red, Green, and Blue) by initially checking the values of each of the Color channel sliders. It then keeps the middle value constant and decreases the value of the slider with the low number and increases the value of the slider with the high number. The Color channel sliders automatically adjust to the new settings as the Contrast slider is moved. However, Brightness does NOT change; the sum of the Red channel, Green channel, and Blue

channel values continuously equals Brightness. The plugin is doing the necessary calculations in the background as the Contrast slider moves. The end result of sliding the Contrast slider to the right is increased contrast between all channels while simultaneously keeping image brightness constant. When the Contrast slider is moved left, the opposite happens. Contrast between channels is decreased, but image brightness is, once again, unchanged.

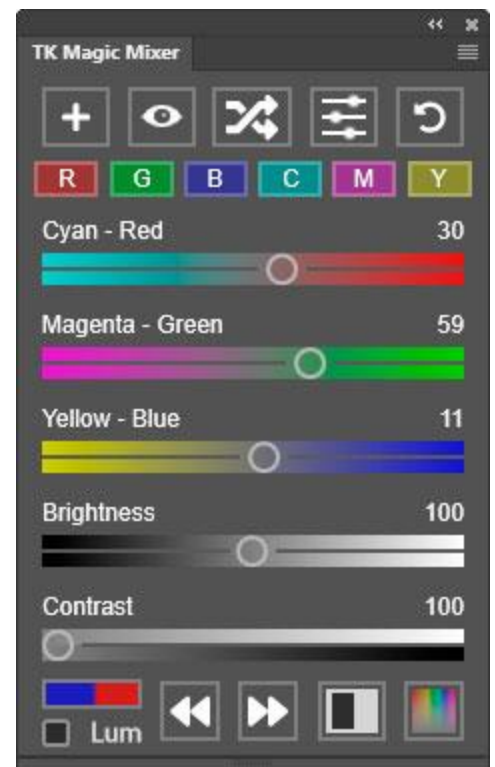
So, the Contrast slider is a unique way to experiment with contrast by adjusting the percentage of each channel's contribution to the image. The Brightness slider and Color channel sliders can still be adjusted independently to fine-tune the results.

The Contrast slider has one more function, and that is to determine the range of numbers considered when clicking the Randomize button. The lowest Contrast setting is 100, which means numbers from 0 to 100 are used when creating the randomized settings for the Red channel, Green channel, and Blue channel. As the Contrast is increased, the pool of numbers available for creating random numbers also increases. This usually results in larger variation between the values generated for the Red channel, Green channel, and Blue channel sliders during the randomization process. This in turn creates bigger swings in how the image looks with each click of the Randomize button. So, if the image variations generated by clicking the Randomize button don't seem all that different, try increasing the Contrast slider setting. This results in larger variations between the different channels and more a pronounced effect on the image.

NOTE: Right-click on the Contrast slider resets it to 100.

Live clipping—Clicking this button creates a layer at the top of the layer stack that shows clipped highlights in red and clipped shadows in blue. As long as the layer is in place, the clipping warnings update in real-time as adjustments are made to the image in the layers below. This is useful for deciding how to use the Color channel sliders or a "_Color_Lum" layer (described below) to mitigate primarily highlight clipping in the image if it should occur. Clicking this button a second time removes the "Live Clipping" layer and the clipping preview.

Lum checkbox—Checking this box changes the blend mode of the "Magic Mixer" adjustment layer to Luminosity. By doing this, the Channel Mixer adjustment only affects color brightness, which provides unique adjustment possibilities for color images. When this checkbox is checked, the Randomize button produces variations in color brightness instead of variations of a monochrome image based.



Unchecking this box changes the blend mode of the layer back to Normal to produce a monochrome image. This setting is sticky between Photoshop sessions.

Step back— This button steps back one history state for each click. If the new history state changes the settings of a "Magic Mixer" layer AND a "Magic Mixer" layer is the active layer, the plugin's sliders automatically update to match the new history state.

Step forward— This button steps forward one history for each click. If the new history state changes the settings of a "Magic Mixer" layer AND a "Magic Mixer" layer is the active layer, the plugin's sliders automatically update to match the new history state.

Modify color luminosity— This button creates a Black and White adjustment layer set to Luminosity blend mode below the "Magic Mixer" layer. The new layer is named "_Color_Lum" and provides a way to fine-tune the Channel Mixer adjustment by changing the brightness of individual colors. To reset the "_Color_Lum" layer's adjustment sliders to their original "neutral" positions, hold down "CTRL" (Windows) or "command" (Mac) when clicking this button.

NOTE: This color luminosity adjustment layer option is NOT available for 32-bit images. It only works for 8-bit and 16-bit images.

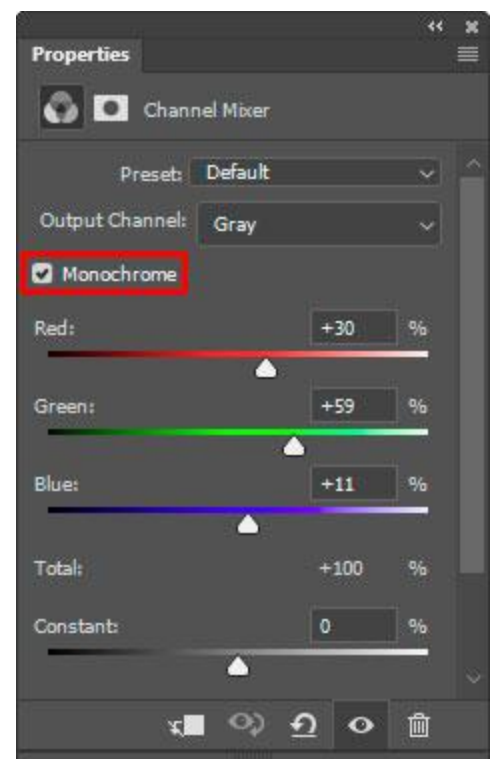
Toning— This button creates a sepia tone for the image using a Hue/Saturation adjustment layer and the Colorize option. Use the Hue/Saturation Properties to change the tone and adjust its saturation.

WORKFLOW

To start using the Magic Mixer, click one of the following buttons. They all generate the necessary Channel Mixer adjustment layer and set the adjustment appropriately.

- New layer (+) button
- Randomize button
- Any of the Color Channel buttons

By default, the Magic Mixer plugin sets the Channel Mixer adjustment to have its "Monochrome" checkbox checked. This results in a black and white image where the brightness of the image's colors is affected by the settings on the Red channel, Green channel, and Blue channel sliders. If the goal is to continue to work in color, check the Lum checkbox at the bottom of the Magic Mixer plugin. When this is checked, the



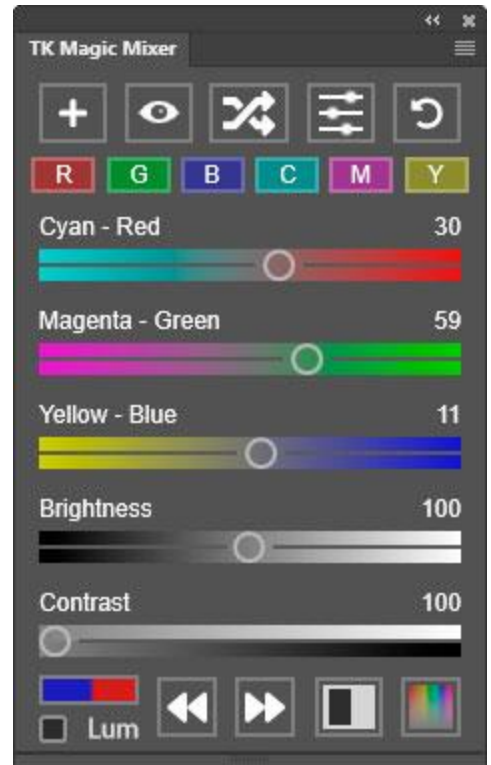
layer's blend mode is set to Luminosity. With this blend mode, the images colors are unchanged. Just the brightness of the images colors are affected by the plugin's sliders.

Once the needed "Magic Mixer" layer is in place, use the various controls on the plugin to generate alternate adjustments.

- Use the Color Channel or Randomize buttons to quickly generate alternate adjustments.
- Use the sliders to better target specific colors or to affect brightness and contrast.
- Use the Modify color luminosity and Toning buttons to further fine-tune the adjustment.
-

Two particularly useful things to do with the Magic Mixer plugin are:

- Converting color images to black and white.
- Adjusting color brightness without changing image brightness.



For experimenting with different conversion options, the Color Channel buttons (R, G, B, C, M, and Y) are a good starting point. They generally provide six decidedly different variations. Adjusting the sliders can then fine-tune the chosen variation.

The Randomize button can also be quite useful. It quickly provides alternatives that might not have occurred to the user but that offer unique, interesting, and aesthetically pleasing results that, once again, can be fine-tuned with the sliders.

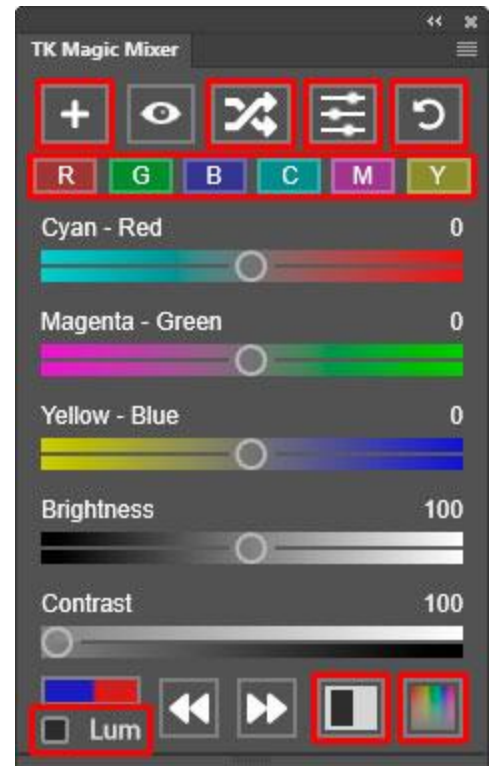
Additionally, the plugin allows image brightness to be adjusted independently of the adjustment happening to colors. This is especially useful when there is a combination of neutral tones (black/gray/white) and colors in the image. The Color sliders can be used to adjust the colors and the Brightness slider can adjust the brightness.

RECORDING ACTIONS

Some button and checkbox clicks on the TK Magic Mixer plugin can be recorded into Photoshop actions when recording an action using the Photoshop Actions panel. The following elements are recordable:

- New Layer
- Randomize
- Presets (loading saved presets only)
- Reset
- Red channel
- Green channel
- Blue channel
- Cyan channel
- Magenta channel
- Yellow channel
- Luminosity blend mode checkbox
- Modify color luminosity
- Toning

Slider movements and clicking the other buttons cannot be recorded into Photoshop actions. While loading saved presets is recordable, actually saving presets is not recordable.



BACK UP AND RESTORE

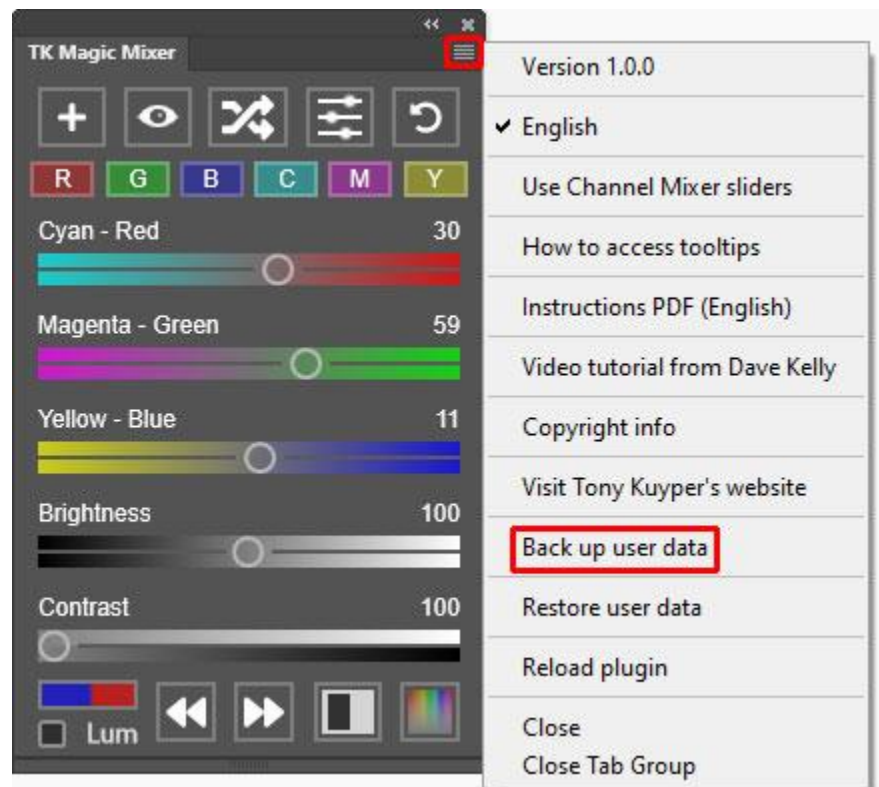
Magic Mixer presets and preference choices are examples of data that are stored in the background when using the plugin. Computer crashes can sometimes result in the loss of this data. Back up can be used to save this information in a separate folder, and Restore allows it to be restored to its original location or even to be transferred to another computer.

NOTE: Back up and Restore are manual processes. The plugin cannot automatically create a backup or restore it. The user needs to intentionally do these things using the directions below. Additionally, only data stored by the Magic Mixer plugin is backed up. Other Photoshop settings are not included.

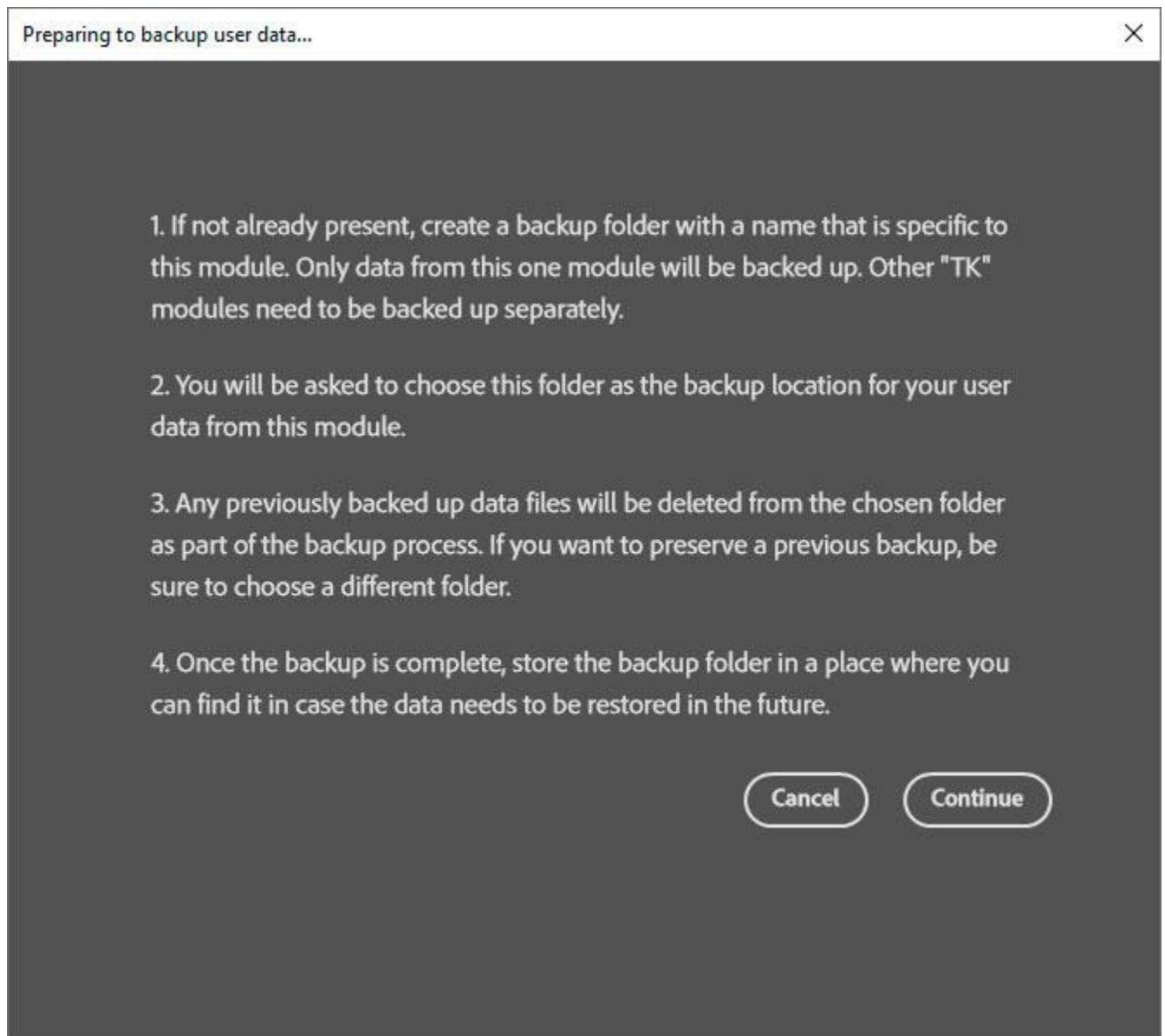
Back up

1. Create a folder to store the plugin's data. Give it a name and place it in a location that will help find it if it's ever needed in the future.

2. To start the backup process, click the "Back up user data" option in the plugin's fly-out menu.



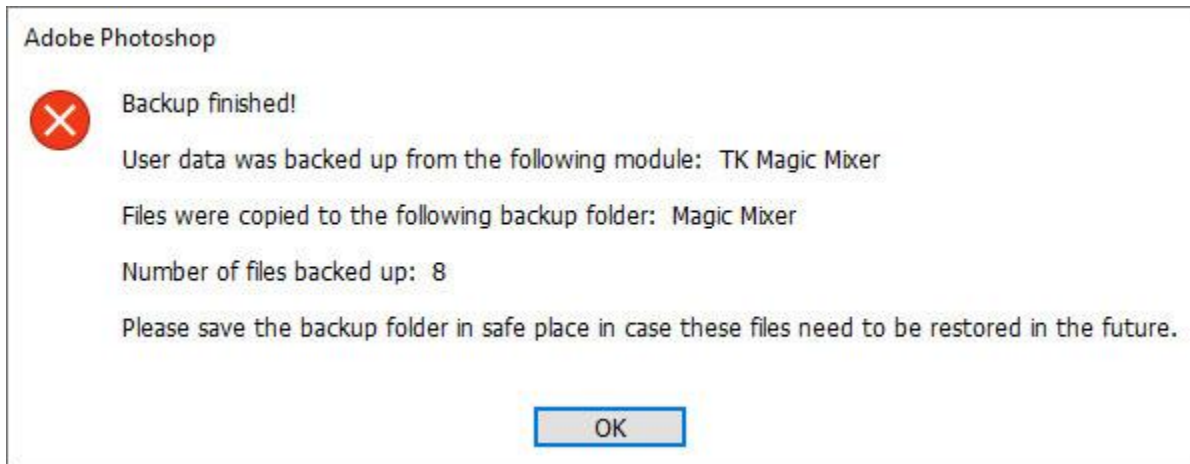
3. A message window will appear that describes the process. Review the steps and then click Continue.



4. Clicking Continue opens a file-picker window at which point you will choose (or create) the specific folder in which to back up this plugin's data. Selecting the folder initiates the backup process.

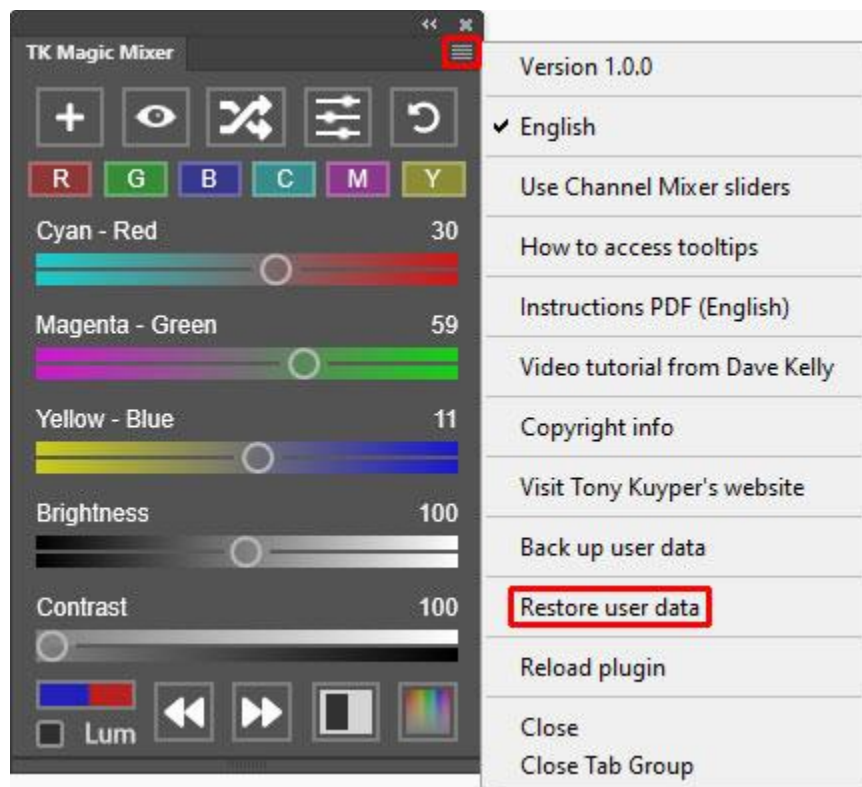
NOTE: All files in the selected folder will be deleted, and the files that make up the current user data for the plugin will be written into the folder.

5. The backup process is very fast. When it is finished, a message will appear on the computer monitor stating the process is complete.

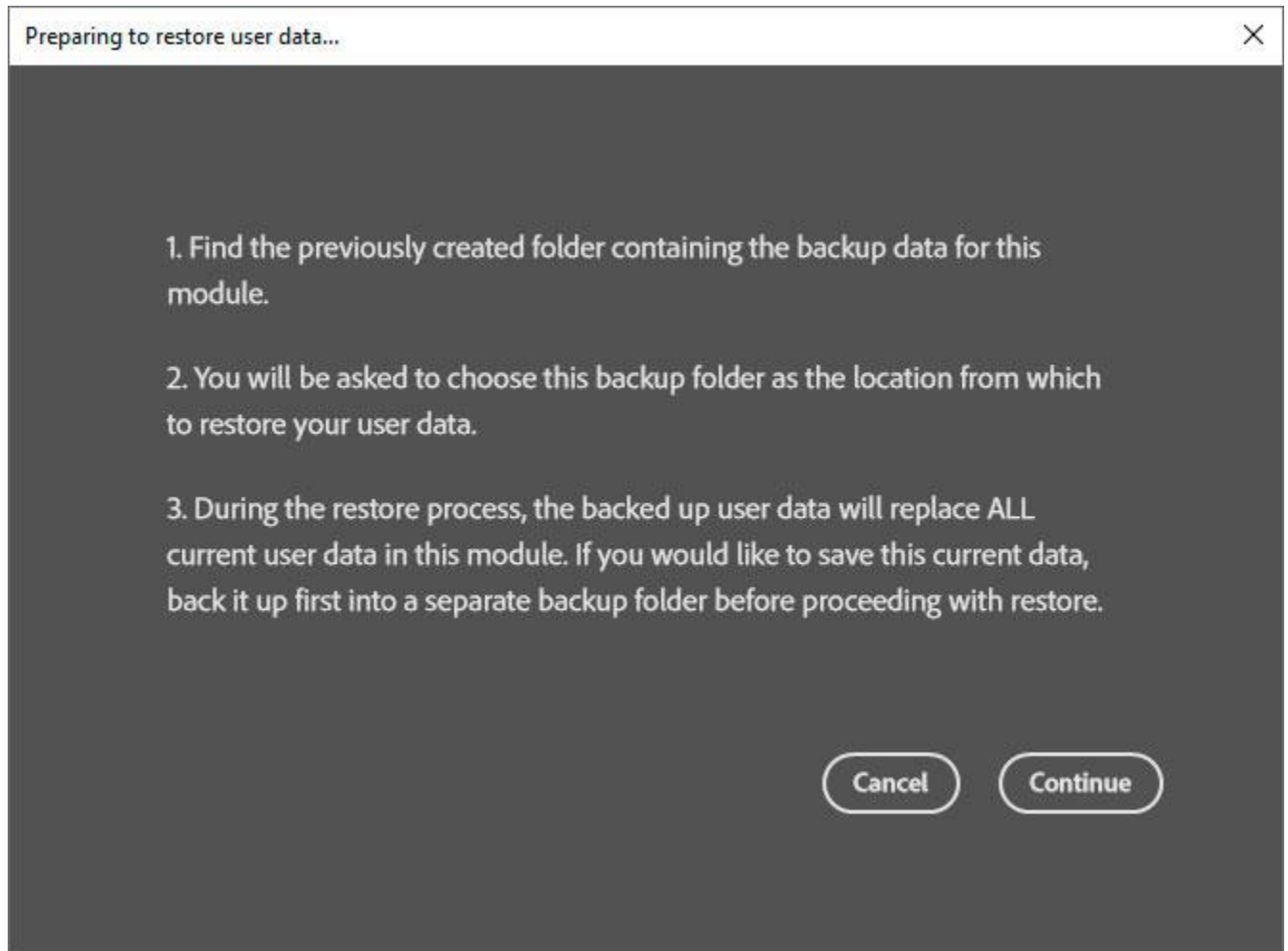


Restore

1. To restore the plugin's user data, go to that fly-out menu and click Restore user data.



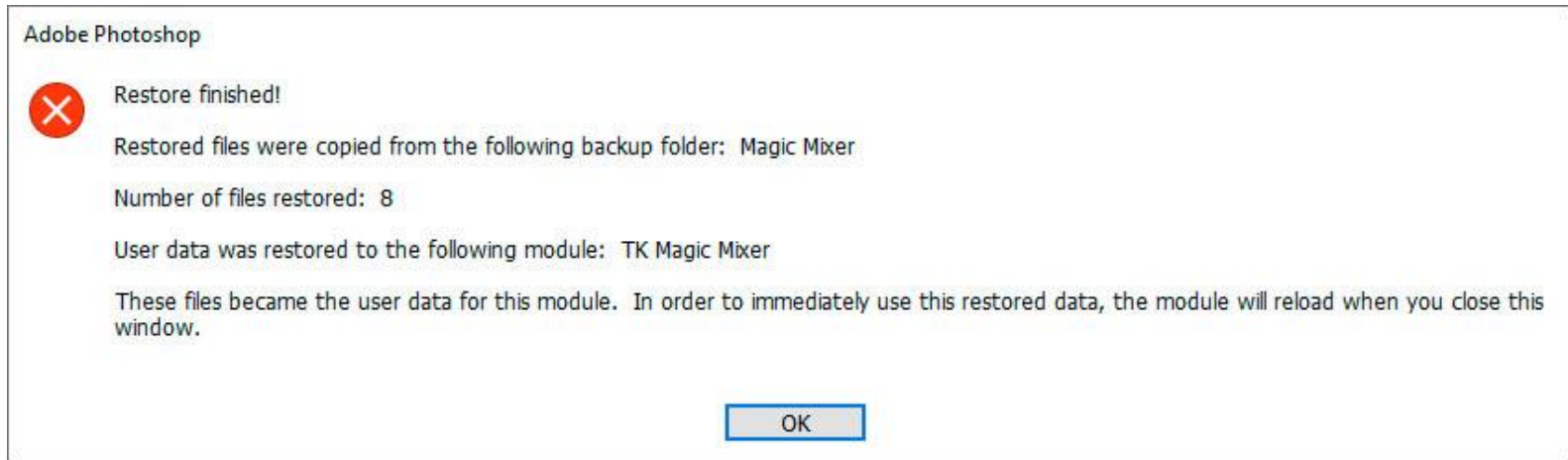
2. A message appears that describes the restore process. Click Continue when ready to proceed.



3. After clicking Continue, a file picker window opens to allow choosing the folder where the backed up user data is stored. Navigate to and choose that folder. Selecting the folder initiates the restore process.

NOTE: All current user data for the plugin will be deleted and the data from the backup folder will replace it.

4. The restore process happens very fast also. When finished, a message appears on the monitor stating that the restore was successful. Clicking "OK" in the message reloads the plugin, which makes the restored user data available to the plugin.



I hope the TK Magic Mixer plugin is useful to you and that it helps you achieve your artistic and creative goals in Photoshop. Please feel free to [contact me](#) if you have any questions, problems, or suggestions.