

TK9 Instructions Manual

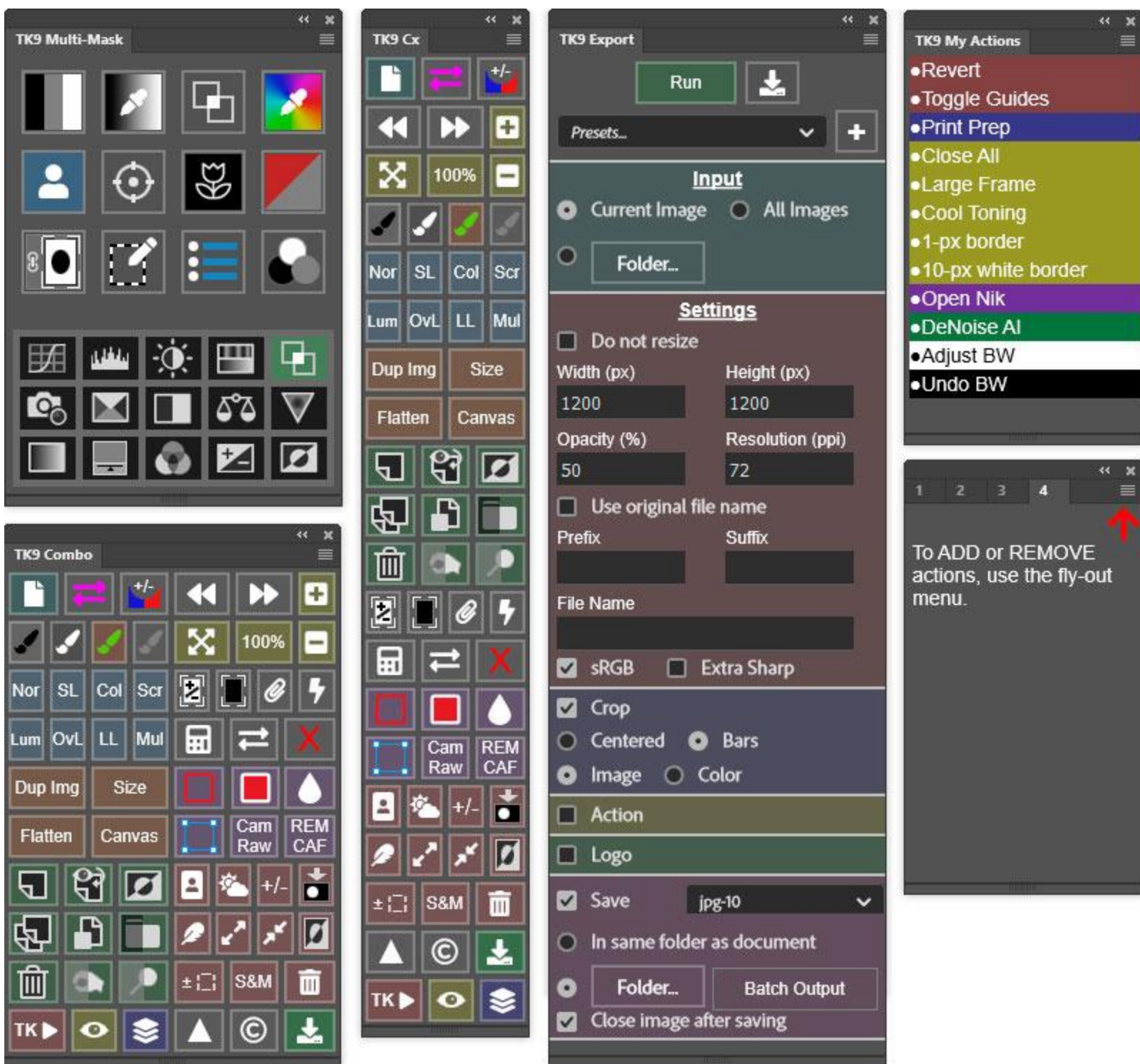


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NOTE: Button names are underlined in the sections that follow.

LEGAL NOTICE

The TK9 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 www.Goodlight.us to obtain it.

The terms TKActions, TK9, Multi-Mask, and My Actions were coined by Tony Kuyper and are trademarks of his products— TKActions™, TK9™, Multi-Mask™, and My Actions™.

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 TK9 plugin owes much to the many photographers who have contributed suggestions and feedback. Affiliates [Sean Bagshaw](#) and [Rafael Coutinho](#) were alpha-testers for the many iterations. [Chris Wesselman](#), [Nico Ruffato](#), and [David Tillett](#) beta-tested the plugin, suggested many good ideas, and helped find issues related to Mac computers. [Dave Kelly's YouTube channel](#) provided inspiration for many new features. The plugin has also drawn on the work of [Alex Nail](#) (web-sharpening) and Chris Tarantino (saturation masks). In addition, numerous websites, videos, and customer recommendations have influenced and inspired my workflow and plugin-coding. I have included their names in the pertinent sections when I've kept track of them. Many of the icons used in the TK9 plugin come from the FontAwesome.com website and were not changed ([license](#)).

OVERVIEW

Since the publication of the [original tutorial](#) in 2006, luminosity masks have become widespread and widely-accepted in the digital photographic community. From initially intersecting selections, to 16-bit calculations, to the Zone-Picker, the Rapid Mask engine, and to Infinity Color masks, TK panels and plugins have been the leading innovator in integrating luminosity masks into the Photoshop workflow. The plugin continues to grow and evolve, and while luminosity masks are the primary masks used by most photographers, the spectrums of masks created by the plugin are no longer limited to just luminosity. Component channels, color, saturation, vibrance, Blend If, focus, and edge masks can now be accessed in a similar

manner. And unlike masks with hard or mathematically feathered edges, pixel-based masks generated by the TK9 plugin are always self-feathering because they are generated from data encoded into image's pixels. There is wide agreement that pixel-value masks provide some of the most natural selections for blending and adjusting images.

TK9 uses Adobe's UXP architecture for coding Photoshop plugins. This plugin's primary function is to generate pixel-value masks, like luminosity masks, using the Multi-Mask module. Normally these masks take many steps to create, but the Multi-Mask module does all the work so that masks are generated in real-time with the click of a button or the movement of a slider handle. In addition to making the masks, the Multi-Mask module also provides ways to modify them and then offers multiple output options to accomplish a variety of image processing goals. The module's internal coding ensures that 16-bit masks are available throughout all steps of the process.

NOTE: The terms "pixel-value masks" and "pixel-based masks" refer to masks based on specific data sets common to all pixels. Luminance, luminosity, hue, and saturation are the primary types of data that serve as the source for pixel-value masks. Pixel-value masks are able to take this data and generate a variety of different masks from it. Luminosity masks, for example, use pixel luminance as the data source to make Lights masks, Darks masks, Midtones masks, and Zone masks. Masks generated using pixel data accurately and continuously adjust to perfectly match every pixel in the image. As such, they are completely self-feathering and this ensures seamless blending when they are used to adjust an image.

Making pixel-value masks, while extremely useful, is only part of what the TK9 plugin can do. There are also the Combo and Cx modules that provide even more functionality. Both these modules do the same thing, they just have different layouts to accommodate different workspaces. The main interface of the Combo and Cx modules provide one-click access to many Photoshop functions without having to memorize the Photoshop menus or keyboard shortcuts. So it's easy to run Photoshop directly from one of these modules. There are also many useful actions programmed into the module's TK Actions menu, and users can even program their own actions into some of the buttons on the main interface.

TK9 also offers the new My Actions modules where users can create custom lists of Photoshop actions that match their workflow priorities. There is also a new Export module that allows users create an unlimited number of image output presets for resizing and sharpening their finished images for display on the web.

Workflow efficiency continues to be an important factor in TK9. The compact, modular design of previous versions is maintained. TK9 keeps its familiar, small footprint and fits conveniently in any workspace. There's no need to open multiple modules or to be constantly shifting to a different interface or tab. Smart menus provide quick access to extra features and these menus know when to close once they've served their purpose.

For those already using the TK8 panel, TK9 will be a smooth transition given that the user interface has barely changed. For those new to these advanced masks, the plugin's layout will help guide them through the process of building and deploying masks in order to quickly start using them with their images. TK9 is designed to make luminosity masks easy for everyone, and to make sure there is plenty of room to keep growing once you see what these masks can do.

VERY IMPORTANT INFORMATION

1. The TK9 modules only work starting in Photoshop 2022 version 23.3.0 and color grading in the TK9 Multi-Mask panel requires an even newer version: Photoshop 2023 version 24.6.0. Adobe says they should keep working in future versions of Photoshop as well. TK9 will NOT work in older versions of Photoshop.

2. Properly set up the working color space. There is a PDF called "*Setting Up the Color Working Space*" in the download folder. It explains how to properly set the color and gray working spaces in Photoshop. Be sure to read it and implement its recommendations to get the best results when using luminosity masks.

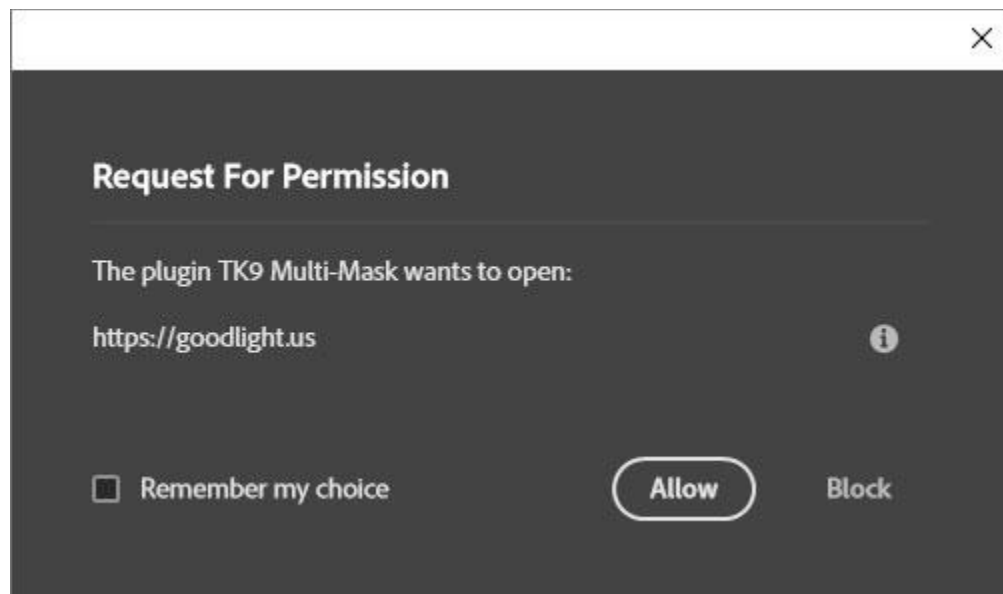
3. The plugin is meant to be used with images in RGB Color mode. While some actions might work in Lab, Grayscale, and CMYK, the buttons have only been tested in RGB Color mode. Many Photoshop features required for making, modifying, and deploying masks are only available to images in RGB Color mode.

4. Speed will vary. The TK9 plugin significantly speeds up the process of generating pixel-value masks and carrying out complex actions, but speeds will vary depending on factors such as computer speed, image size, and available memory. A "wait" cursor or progress bar are indications that Photoshop is taking a few seconds to complete a particular task.

5. Nothing is perfect. While I try to get everything right when coding the plugin, it's complex and there can occasionally be some bugs. In addition, periodic Adobe updates to Photoshop frequently cause unexpected problems for all plugins. If you have issues with the TK9, [contact me](#) and I can look into it. If I can reproduce the problem, I can usually find a way to fix it.

6. Permission required to open external websites. There are links to external websites in the fly-out menus for the various TK9 modules and in some of the user interfaces. Clicking one of these will initially open a window where the user needs to grant permission to open that website.

TK9 plugin



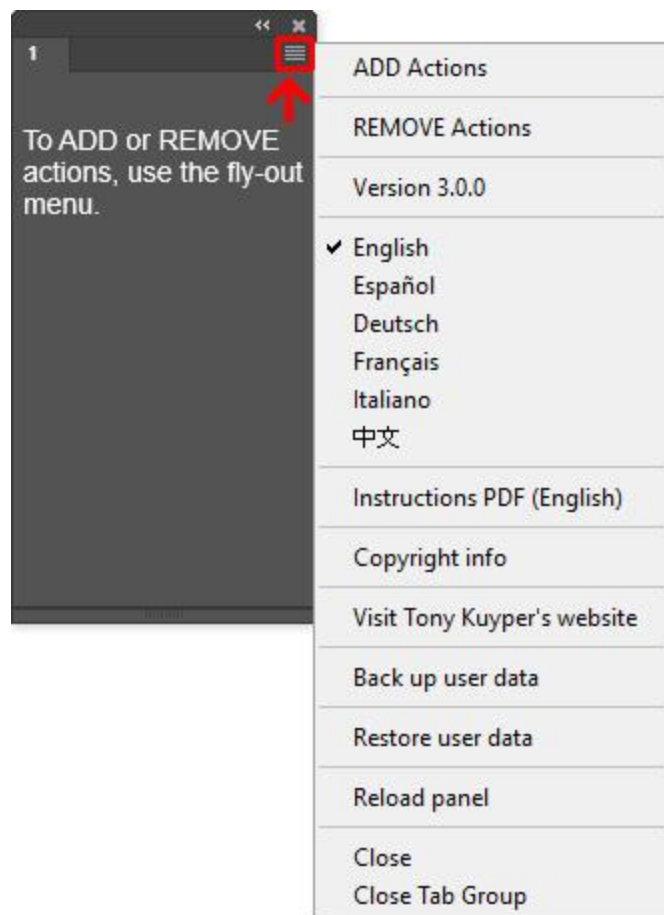
INSTALLATION

There is an installation guide in the download folder that explains how to install the TK9 plugin.

FEATURES COMMON TO ALL MODULES

1. The fly-out menu. The upper right corner of each module has a four-line icon indicating a hidden menu. This is the module's fly-out menu and is now used on all TK9 modules for setting preferences, such as the language choice. Be sure to check out the fly-out menu on each module to see the options available.

2. Backup and restore. All TK9 modules allow a high degree of user customization. Needing to reinstall the modules in case of a computer crash or to implement the same settings on a second computer used to require manually recreating all the custom settings. TK9 makes restoring and transferring custom settings much easier via the Backup and Restore options accessed in the module's fly-out menu. Detailed information on Backup and Restore is found later in this manual.



3. Tooltips are accessed by holding down the "ALT" key (Windows) or "option" (Mac) and moving the mouse over buttons and sliders. Unlike past versions of the TK panel, there are no automatic tooltips. With TK9, the ALT/option key is required to activate them, and 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 will change to match the new feature when the mouse moves over it. These tips are especially useful when first starting to use this module in order to learn the functions of the icon buttons.

NOTE: My Actions modules do NOT have tooltips since their interfaces have information that guides users on what to do.

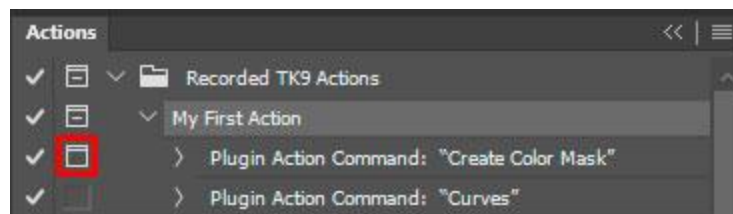


RECORDING BUTTON CLICKS AS ACTIONS

New in TK9 version 3.0.0 is the ability to record button clicks from several TK9 modules (Multi-Mask, Combo, Cx, and Export) as action steps when recording an action using the Photoshop Actions panel. Button clicks from multiple UXP modules can be recorded into the same action along with other Photoshop commands and menu items. When playing back actions that have button clicks from TK9 modules recorded as action steps, the corresponding module needs to be installed, though it does not need to be open in the workspace. Unfortunately, actions that contain button click steps canNOT be played from the My Actions module. They must be played from the Photoshop actions panel. (This is a problem Adobe is aware of and will hopefully remedy in the future.) There is additional information on recording button clicks into Photoshop actions for the different modules in the module-specific sections of this manual.

NOTE #1: Photoshop 2024 (version 25.0.0) is the minimum version necessary to use this feature.

NOTE#2: Several buttons on TK9 open the Adobe Color Picker to allow the user to choose a color or tone. Choosing a color from a button click while an action is being recorded includes that color in the recorded action. Normally, when the action is played back, that same color then gets selected. However, to choose a different color while the action is played back, after finishing the recording of the action toggle ON the action's interactive setting for that action step (the square box just to the right of the checkbox for it in the Photoshop Actions panel). Then, when the action is played, the Color Picker will reopen set to the color originally selected when the action was recorded. At this point, you'll be able to select a different color and when you click "OK" on the Color Picker, the action will continue to play using the newly selected color.



COMBO/Cx MODULES

1. Overview

The Combo/Cx modules have buttons for menu commands and keyboard shortcuts frequently used with Photoshop. In addition to running many common Photoshop functions, the modules have menus for creative actions, user actions, and web-sharpening. The purpose of the Combo/Cx modules is to provide quick-click access to these different functions.

The Combo and Cx modules perform identical functions. They just have different layouts so the user can dock the modules in a workspace configuration that works best for them.

The Combo module is the same width as the Multi-Mask module. This makes for aligned stacking in a dedicated panel dock in Photoshop

The Cx module is tall and skinny and is meant to be used in a different fashion. This toolbar-style layout is similar to the Photoshop Tools panel. As such, the Cx module can be conveniently tucked to the side of the workspace so that its functions are always available but with a minimal horizontal footprint to allow maximum space for working on the image. While it's still best to put the Cx module in a dedicated dock to ensure proper interaction with the image workspace, it's just half the width of the stacked Combo/Multi-Mask module. When using the Cx module, stacking it in

the same dock as the Multi-Mask module is not recommended. They are different widths and will not align properly resulting in wasted space. Instead, when using the Cx module, it's usually best to dock the Multi-Mask module ABOVE Photoshop's Layers panel. Since it's not needed all the time, Multi-Mask can be minimized to just its tab by double-clicking on the tab. Whenever Multi-Mask is needed, single-clicking its tab will instantly maximize it. This makes Cx available all the time while still having Multi-Mask quickly available when it's needed. [This video](#) by Sean Bagshaw provides an excellent overview on how to create a custom workspace with different modules.

Action Recording information: Most button clicks from the Cx/Combo modules can be recorded in Photoshop actions. This includes CTRL/command+click and SHIFT+click options where they exist. Calculations with the Layer Mask Calculator are also recordable; however, playback of a calculation action requires the necessary channels be present on the Channels panel. The buttons on the main interface that run web-sharpening and apply watermarks are recordable, but they



will work based on what's currently in these interfaces or has been saved in panel storage based on a previous run. Some things are NOT recordable such as: 1) changing text field values, checkmarks, and sliders in web-sharpening and watermark interfaces, and 2) clicks on buttons where user has reprogrammed the standard action to one of their own.

2. Combo/Cx fly-out menu (preferences)

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

Version—This is the TK9 version number.

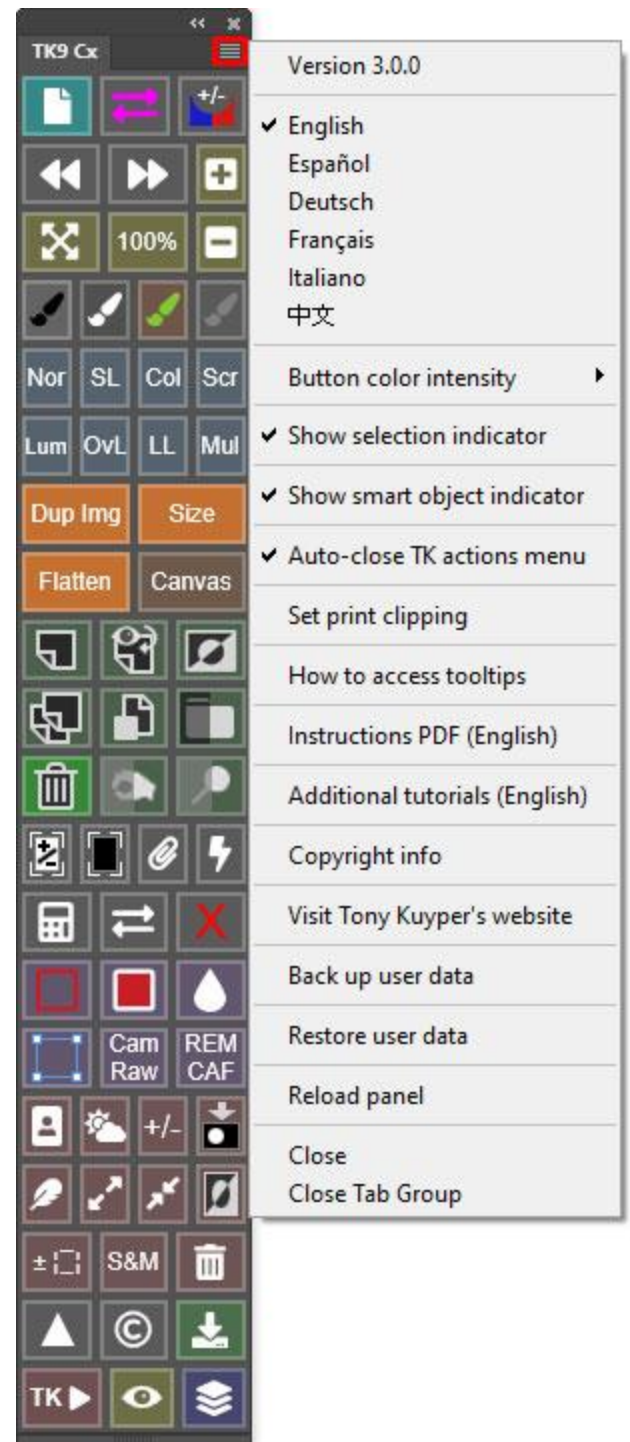
Language—While English is the default, users can choose to change to a different language. For languages other than English, button names, tooltips, names of certain channels created by TK9 (e.g. Sky), and error messages change to the chosen language. A few things, like layer names for special layers generated by the module, remain in English.

NOTE: There are a few bugs in Photoshop that do not allow for properly changing the language on some items. This might be corrected in future versions of Photoshop.

Button color intensity—This option opens a list of different numbers to vary the intensity of the color associated with the buttons on the module. The "1" option is the lowest saturation level for the buttons and "7" is the highest.

Show selection indicator—When checked, the active selection indicator displays around the module's perimeter whenever there is an active selection even if the selection is not sufficient to trigger the presence of selection edges (marching ants) or if the selection edges have been intentionally hidden.

Smart object indicator—When checked, the smart object indicator displays as a colored border around the Smart Object button to help indicate the type of smart object. See "Combo/Cx indicators" section below for more information.



Auto-close TK actions menu—When checked, the **TK▶** menu automatically closes when the selected action finishes running. This is usually desirable in order to return to the module's main interface. However, if you use these TK actions frequently, un-checking this checkbox keeps this menu open until it is manually closed using the **X** button at the bottom of the menu. Also, by unchecking this button on either the Combo or Cx module, that module can serve as an "actions-only" panel in the workspace where the TK Actions menu remains continuously open. The other module (Combo or Cx) would display the main interface where all the Photoshop control buttons are located. This arrangement of using Combo and Cx to display different interfaces allows continuous access to both the main interface and the TK Actions interface. Starting in TK9 version 3.0.0, toggling this setting ON automatically opens the TK Actions interface when the module opens.

Set print clipping—This option opens a dialog window to set the highlight and shadow values at which the print clipping warning will be displayed. Print clipping is accessed by holding down "CTRL" (Windows) or "command" (Mac) and clipping the **Live Clipping** button discussed below.

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

Instructions PDF (English)—This option opens a URL to download the TK9 instructions manual.

Additional tutorials (English)—This option opens a website in the computer's default browser where a collection of free PDF tutorials can be downloaded.

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.

Backup user data—This option guides the user through the process of backing up user-specific data for this module (like button color saturation, button actions, web-sharpening preferences, etc) 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 module that has previously been saved using the "Backup user data" option. More information later in this manual.

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

3. Combo/Cx indicators

Selection indicator—Whenever there is an active selection, a multi-colored border will appear at the edge of the Combo and Cx module. This is particularly useful for signaling that a selection is active even when the selection edges are not visible, like when they are purposely hidden or because no pixels are more than 50% selected.

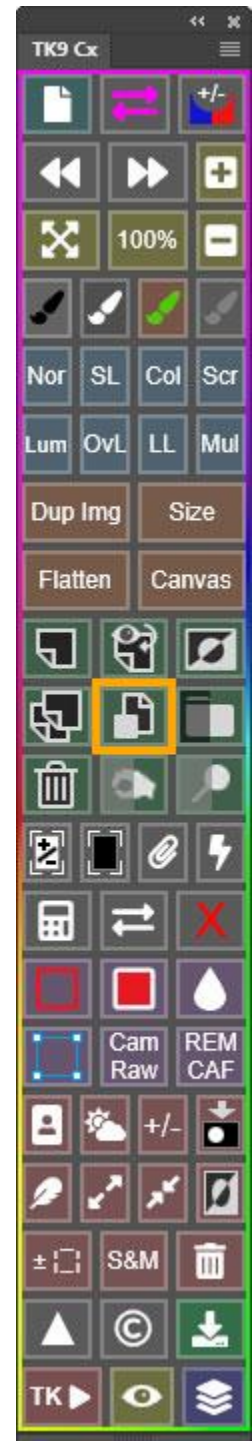
Smart object indicator—This shows as a blue, orange, or red outline around the module's Smart Object button when the active layer is a smart object. The color of the outline tells the type of smart object.

Blue = A smart object contains a RAW file NOT linked to another smart object with the same embedded RAW file in the layer stack. Double-clicking the smart object thumbnail opens Adobe Camera Raw for adjusting the RAW image embedded in this smart object.

Orange = A RAW file smart object that IS linked with another RAW file smart object on the Layers panel. Double-clicking the smart object thumbnail opens Adobe Camera Raw for adjusting the RAW image embedded in this smart object, and, because this RAW file IS linked, another smart object in the layer stack will receive the same adjustment.

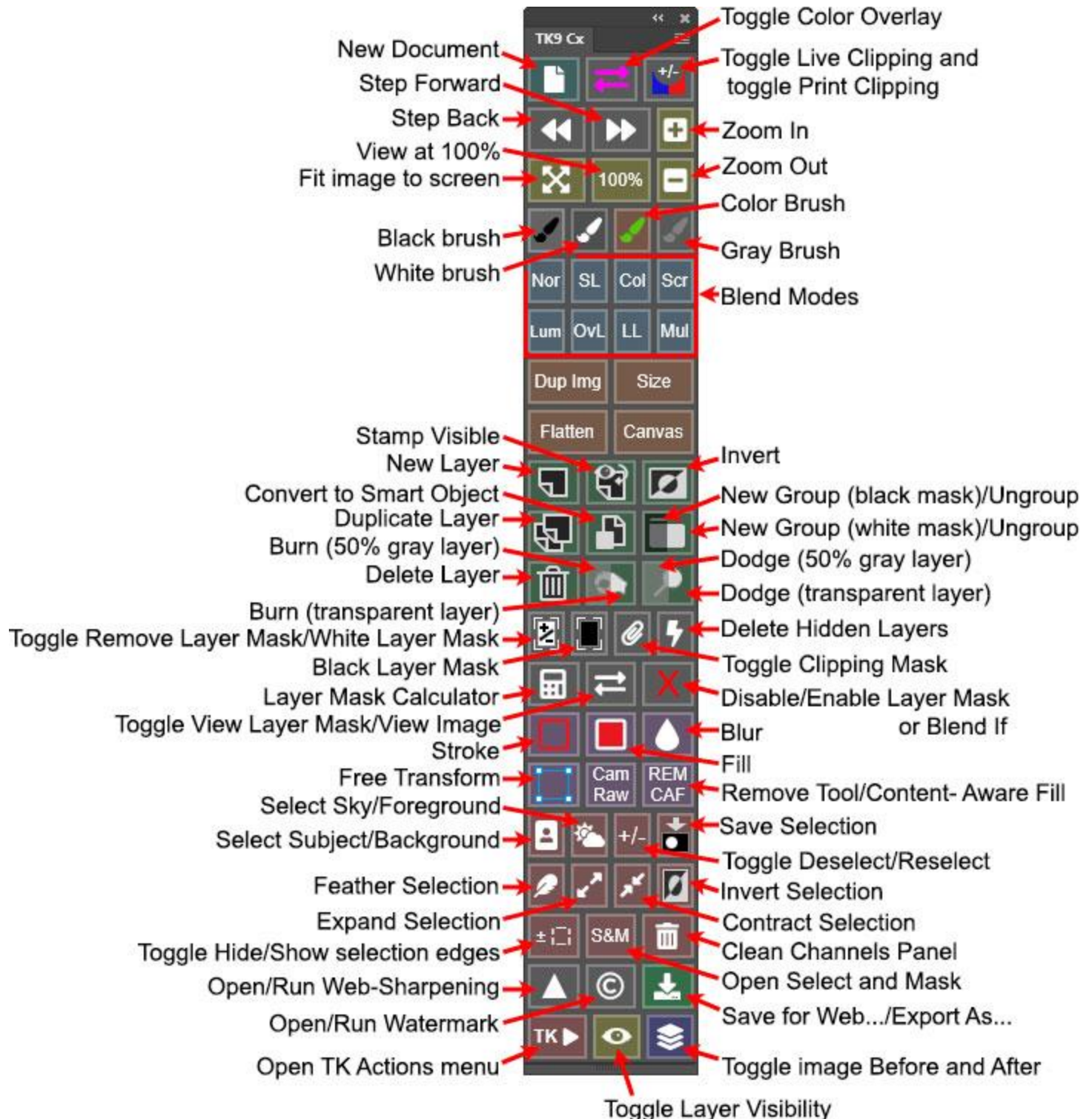
Red = A smart object that does not contain an embedded RAW file. It is a smart object composed of one or more Photoshop layers. Double-clicking the smart object thumbnail opens a new document in Photoshop containing the contents of the smart object.

NOTE: The selection indicator and orange smart object indicator are showing in the image at the right.



4. Meanings of the button icons

The Combo/Cx modules use a variety of icon buttons for different commands. The image below provides details for what each icon and abbreviated button means.



The color of each button helps group buttons with similar function together. The saturation of the color can be changed using via a preference setting in the module's fly-out menu. Also, right-clicking on most buttons makes their color extra-saturated. This provides a method of highlighting the buttons you use most to make them easier to find.

There is information on each button below (the color refers to the button's color). Images of the Cx module are shown here, but there are corresponding buttons and menus on the Combo module.

The module also has one **Cyan button**.

New Document—This button opens Photoshop's "New Document" window. To open the older, smaller, more-compact, legacy "New" window for creating a new document, hold down "CTRL" (Windows) or "command" (Mac) when clicking this button.

Gray buttons (while these button appear colorless, right-clicking them will add additional gray to the button's color).

Color Overlay button (colored double arrow button)—This button adds a color overlay to the current active layer and shows what is being revealed from this layer. A layer mask or Blend If settings will influence what parts of a layer are revealed, and the color overlay provides a quick visual of this. If there is no layer mask (or if there is only a solid white, reveal-all layer mask) and there are no Blend If settings, then the entire layer is revealed and the color overlay, when active, will cover the entire image area. A layer mask that is not pure white or Blend If settings can change what is revealed by the layer and gets reflected in the color overlay. The Color Overlay button is a toggle. Clicking it once turns on the color overlay "on" and clicking it a second time turns it "off."

NOTE #1: Magenta is the default overlay color, but to change it, hold down "CTRL" (Windows) or "command" (Mac) when clicking the Color Overlay button to choose a different color from the Color Picker. A 100% saturated color usually works best to provide maximum contrast to other colors in the image.

NOTE #2: The color overlay usually does NOT work on group layers. This is a Photoshop thing and not a bug in the TK9 panel.

Live Clipping—This button toggles ON the creation of a new "_Live_Clipping" layer that provides a clipping preview for the current document. Clipped highlights turn red and clipped shadows turn blue. Hold down "CTRL" (Windows) or "command" (Mac) when clicking to activate a print-clipping preview where magenta shows a broader range of light tones and cyan shows a broader range of dark tones. Magenta highlight areas might exhibit gloss differential on glossy or luster papers where the paper receives



no or very little ink during the printing process. Cyan shadow areas show the darkest shadow tones where shadow detail seen on the monitor might be lost in the print. Clicking the button a second time toggles live-clipping OFF. When Live Clipping is turned ON, hold down "SHIFT" and click the button again to create an "Adjust Clipping" Curves adjustment layer locked at (0,0), (64,64), (128,128), (192,192), and (255,255). This adjustment layer is created at the top of the layer stack and can be used to adjust the image's highlight and shadow to mitigate or eliminate the clipping displayed.

NOTE #1: Live Clipping must be turned ON in order for the "Adjust Clipping" layer to be generated

NOTE #2: The highlight and shadow values at which print clipping will be displayed can be adjusted using the "Set print clipping" option in the module's preferences (fly-out menu in the upper right corner).

NOTE #3: The active layer does NOT change when Live Clipping is toggled ON and OFF.

Undo—Steps back sequentially through the Photoshop history.

Redo—Steps forward through the Photoshop history.

Yellow buttons determine how the image is displayed by Photoshop.

Fit—Fits the image within the existing image window space.

100%—Displays the image so one pixel in the image is displayed as one pixel on the monitor. This is useful for examining the image close up.

Plus (+)—Zooms-in

Minus (-)— Zooms out

BRUSH ICON buttons select different color brushes.

Black Brush/White Brush —These buttons select the Brush tool, set the Brush's blend mode to "Normal," and set the foreground to that button's color—black or white. The background color is set to the opposite color. There is a lot of mask-painting that happens with either black or white paint when developing an image in Photoshop. These buttons provide a quick way to choose the desired paint color without clicking back and forth using the "D" and "X" keyboard shortcuts.

NOTE: To set the Brush's blend mode to "Overlay" instead of "Normal," hold down "CTRL" (Windows) or "command" (Mac) when clicking these buttons.

Color Brush—This button selects the Brush tool and opens the Color



Canvas—Opens the Canvas Size dialog window.

Green buttons are generally associated with operations performed on layers in the Layers panel. These are all icons, so it may take a bit to learn all their functions. The tooltips can help.

New Layer—Creates a new, empty pixel layer. The default insertion point for the new layer is directly above the current active layer. To insert the new layer at the top of the layer stack, hold down "CTRL" (Windows) or "command" (Mac) when clicking this button.

Stamp Visible—Merges the content of the current visible layers into a new pixel layer. Holding down "CTRL" (Windows) or "command" (Mac) moves the new layer to the top of the layer stack.

Invert—Inverts the contents of the layer. On adjustment layers and group layers, the contents of the layer mask are inverted. On pixel layers without a layer mask, the pixels are inverted. On pixel layers with a layer mask, the element contained within the layer's framing brackets is inverted.

Duplicate Layer—Duplicates the active layer. If the active layer is a smart object, the duplication process runs the "New Smart Object via Copy" so that the embedded object in the new duplicate smart object layer is independent of the original smart object.

Smart Object—Creates a smart object of the current active layer(s). Holding down "CTRL" (Windows) or "command" (Mac) creates a new layer at the top of the layer stack, merges the contents of the active layers into this new layer (merge visible), and then turns the layer into a smart object. Holding down SHIFT rasterizes a smart object layer but does not remove the layer mask.

Group—Puts the selected layer or layers into a group. More than one layer can be selected to be included in the group. If there is an active selection, clicking on either side of the button turns the selection into a layer mask for the group. If there is no active selection, clicking on the right (lighter side) of the button gives the group a white (reveal-all) layer mask, and clicking on the left (darker side) gives the group a black (hide-all) layer mask. The Group button is particularly useful for the [masking-the-mask technique](#) described in Sean Bagshaw's videos.

Un-Group— This option is accessed by holding down "CTRL" (Windows) or "command" (Mac) and clicking on either of the Group icons that create a group. Before ungrouping, the layer mask for the group and any layer masks for the layers in the group are merged to make new layer masks for the layers such that the layers still have the same effect on the image. Any Blend If settings applied to



layers in the group remain unchanged. So, ungrouping a group does NOT change the image.

NOTE: Ungrouping only works if a Group layer is the active layer when the button is clicked and if the group is NOT nested inside another group.

Delete Layer—Deletes the active layer. This is a particularly useful button for experimentation. If an experiment doesn't work, click the Delete Layer button and try something else. If multiple layers are selected they are all deleted.

Burn—Creates a "Burn" pixel layer set to Soft Light blending mode for painting black to darken image contents below the layer. Once the layer is created this action also selects the Brush tool and changes the foreground color to black in preparation for burning. A transparent pixel layer is created by the right half of the button. A transparent burn layer makes it easy to Ctrl+click (Mac: command+click) on the layer thumbnail to create a selection of its contents, which can be useful for additional adjustments and masks. The left half of this button has a gray overlay. Clicking the gray half of the button fills the layer created with 50% gray. This can be useful when turning off the visibility of other layers to see what has been painted on the Burn layer. While the user can choose between a transparent and 50% gray Burn layer, the actual results of painting on either layer will be the same.

Dodge—Creates a "Dodge" pixel layer set to Overlay blending mode for painting white to lighten the contents below the layer. Once the layer is created this action also selects the Brush tool and changes the foreground color to white in anticipation of dodging. The button can create two different types of layers: transparent and gray-filled. A transparent pixel layer is created by the right side of the button. Transparency makes it easy to Ctrl+click (Mac: command+click) on the layer thumbnail to create a selection of its contents, which can be useful for additional adjustments and masks. The left half of this button has a gray overlay. Clicking the gray half of the button fills the layer created with 50% gray. This can be useful for turning off the visibility of other layers to see what has been painted on the Dodge layer. While the user can choose between a transparent and 50% gray Dodge layer, the actual results of painting on either layer will be the same.

NOTE: With all the Burn and Dodge buttons, holding down "CTRL" (Windows) or "command" (Mac) makes sure the new layer is moved to the top of the layer stack.

More **gray buttons** (while these button appear colorless, right-clicking them will add additional gray to the button's color).



White Layer Mask—This is also a toggle button. If a layer mask is present on the current active layer, this button removes it. If no layer mask is present, a white (reveal-all) layer mask is added to the active layer. If there IS an active selection, the selection is incorporated into the layer mask.

NOTE: To add an active selection as a layer mask to a layer which already has a layer mask, click this button twice.

Black Layer Mask—Adds a black (hide-all) layer mask to the active layer.

Toggle Clipping (paper clip icon)—Turns the previous layer into a clipping mask for the active layer. Clicking the button a second time releases the clip.

Delete Hidden Layers (lightning bolt)—Removes all layers from the Layers panel whose visibility (the eyeball) has been turned off.



Layer Mask Calculator—This button opens a list of user-created channel masks. The list also includes "Active Selection" if there is an active selection at the time the button is clicked. The user selects an item from the list and a green border appears around it. The user can then use the six buttons at the top of the new interface to do one of the following: 1) ADD the selected item to the layer mask on the active layer, 2) SUBTRACT the selected item from the layer mask on the active layer, 3) INTERSECT the selected item with the layer mask on the active layer, 4) APPLY the selected item to become the layer mask on the active layer, 5) LOAD the selected item as an active selection, or 6) DELETE the selected item, i.e. delete the channel from the Channels panel or deselect the selection. Normally the interface with list of channels and calculation options closes once a calculation is complete.

To make use of multiple masks or multiple functions in the Layer Mask Calculator without having to reopen the calculation interface, hold down "CTRL" (Windows) or "command" (Mac) when clicking the calculator button. This keeps the calculator interface open until the user manually closes it with the X button at the bottom.

Holding down "SHIFT" when clicking this button opens Photoshop's "Load Selection..." dialog for choosing what to load as a selection.

Image/Mask toggle (double arrows)—This button toggles between viewing the composite image and viewing the layer mask of the active layer. This button makes it so you don't have to ALT/option+click on the layer mask to view it.

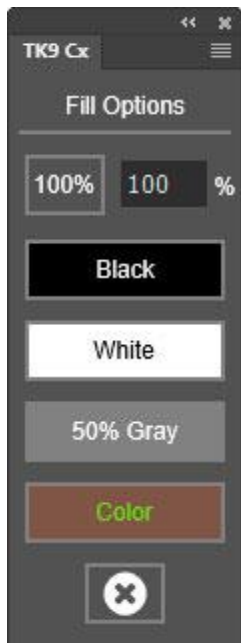
Red X—This button toggles disable/enable for the layer mask on the active layer. This makes it possible to quickly see how the mask is controlling the adjustment compared to the same adjustment without the mask. Holding down "CTRL"



(Windows) or "command" (Mac) when clicking this button toggles disable/enable for Blend If layer style if they are present instead of toggling disable/enable of the layer mask.

Purple buttons are some miscellaneous functions. These actions need to be allowed by Photoshop in order for the buttons to work. If nothing happens when a button is clicked it means that Photoshop cannot perform the action. Example: A Gaussian Blur is not possible on an adjustment layer without a layer mask.

Stroke—Opens the Stroke dialog window. There are lots of rules in Photoshop as to when it's possible to use the stroke function. If this function doesn't work or you get an error message, it's possible that you've violated one of Photoshop's rules which make the stroke function unavailable. One of the safest things to do before using the stroke function is to make an active selection of the edge that you want to stroke.



Fill—Opens a new interface for quickly handling the most common Fill options. Users enter a percentage (or click the 100% button to select 100%), and then click a button to fill the selected area with that color at the chosen percentage. Holding down "CTRL" (Windows) or "command" (Mac) when clicking this button opens the Photoshop Fill dialog window, which offer additional Fill options.

Blur—Opens the Gaussian blur dialog window.

Free Transform/Perspective Warp/Liquify—This button has three functions: 1) Clicking this button initiates Free Transform mode for the active layer. 2) Hold down "CTRL" (Windows) or "command" (Mac) when clicking this button to make a stamp-visible layer of the image, create a smart object of it, and initiate Perspective Warp. 3) Hold down the "SHIFT" key when clicking this button to make a stamp-visible layer of the image, create a smart object of it, and open the "Liquify" dialog window.

Cam Raw—Performs four steps: 1) Creates a new stamp visible layer at the top of the layer stack, 2) converts the layer to a smart object, 3) adds a Camera Raw Filter smart filter to the smart object, and 4) opens the dialog for the Camera Raw Filter so the user can choose their settings. If the active layer is a pixel layer or a smart object layer, holding down "SHIFT" when clicking this button adds the Camera Raw Filter to the current active layer instead of creating a new layer.

REM / CAF—Clicking this button creates a new blank pixel layer at the top of the layer stack and activates the Remove tool. This combination of steps makes it easy to use the tool to remove items from the image. Users still need to make sure "Sample all layers" is checked on the Options bar and choose their brush size. Hold down "CTRL" (Windows) or "command" (Mac) and click to open the "Content-



Aware Fill" dialog instead. This option requires an active selection of the area to be filled. So, first use a selection tool, like the Lasso, Marquee, or Object Selection, to create a selection around the area to be "fixed."

NOTE: Retouching of this nature requires pixels, and adding pixel layers can prevent readjusting adjustment layers underneath. As such, it's best to use REM / CAF at the start of the workflow directly above the Background layer.

Red buttons are associated with selections, masks, and the Channels panel.

Select Subject/Background—This button activates Photoshop's Select > Subject command. It works in some situations where the Photoshop command does not work, like when a Type layer is the active layer. This button tries to use all layers when selecting the subject. However, there are still some cases where even the module's button doesn't work, like when a group layer is the active layer. The panel also offers some additional variations.

- To select the background instead of the subject, double-click this button instead of single-clicking it.
- To automatically save the resulting selection, either the subject or the background, hold down "CTRL" (Windows) or "command" (Mac) when single-clicking or double-clicking the button.
- To save both the subject and the background as channels, hold down "SHIFT" when single-clicking the button.

NOTE: The panel honors the "Select Subject Processing" choice (Cloud or Device) found in Preferences > Image Processing when making subject and background selections.

Select Sky/Foreground— This button activates Photoshop's Select > Sky command. It works in some situations where the Photoshop command does not work, like when a Type layer is the active layer. This button tries to use all layers when selecting the subject. However, there are still some cases where even the module's button doesn't work, like when a group layer is the active layer. The panel also offers some additional variations.

- To select the foreground instead of the sky, double-click this button instead of single-clicking it.
- To automatically save the resulting selection, either the sky or the foreground, hold down "CTRL" (Windows) or "command" (Mac) when single-clicking or double-clicking the button.
- To save both the sky and the foreground as channels, hold down "SHIFT" when single-clicking the button.

+/- (Deselect/Reselect)—This button toggles between Photoshop's Deselect and Reselect commands.



Save Selection—Opens a dialog window to give the channel mask a name and then saves the selection under that name on the Channels panel.

Feather Selection—Opens the Feather Selection dialog window in order to feather the active selection.

Expand Selection—Opens the Expand Selection dialog window in order to expand the active selection.

Contract Selection—Opens the Contract Selection dialog window in order to contract the active selection

Inverse—Inverts the current selection.

+/- Selection Edges—A toggle button to turn the selection borders (marching ants) off and on.

NOTE: Turning off the selection edges does NOT deselect the selection. It just hides the marching ants so they don't visually interfere when making adjustments to the image when a selection is active. As such, the TK9 selection indicators remain visible to remind users that a selection is active.

S&M (Select & Mask)—This button opens Photoshop's "Select and Mask" dialog.

Clear channels (trashcan icon)—Removes non-color channel masks (alpha channels) from the Channels panel. This provides an easy way to clean the Channels panel before saving a document in order to decrease file size.

Web-Sharpen buttons

The Web-Sharpen section of the Combo/Cx modules is a way to prepare any full-size image for presentation in a web browser. It uses an algorithm that has its origin in a post by [Alex Nail](#) that has unfortunately been deleted. The module includes modifications that appear to be beneficial for most images and that allow the user to further customize how their images are sharpened for the web.

On the main interface there are three buttons to access the module's web-sharpen features (red outline, image at right):

Web-Sharpening (triangle)—This button opens a new WEB-SHARPEN interface where several web-sharpening parameters can be entered. Once the web-sharpening parameters are established, hold down "CTRL" (Windows) or "command" (Mac) and click this button to run web-sharpening based on the chosen



parameters WITHOUT having to open the web-sharpening dialog again. See "The WEB-SHARPEN interface" section below for additional information.

Watermark (©)— This button opens a WATERMARK interface to choose a logo watermark document to apply to an image along with several parameters for how it gets applied. Once the watermark parameters are established, hold down "CTRL" (Windows) or "command" (Mac) and click this button to apply the watermark to the current active document based on the chosen parameters WITHOUT having to open the WATERMARK dialog again. See the "The WATERMARK interface" section below for more information.

Save-- Once satisfied with the web-sharpened image, clicking this icon button opens Photoshop's (now legacy) Save for Web dialog window in order to save the image on the computer's hard drive. Hold down "CTRL" (Windows) or "command" (Mac) and click this button to open Photoshop's Export As... dialog.

NOTE: I personally prefer the Save for Web (Legacy) dialog window when saving web-sharpened images, but it is a "legacy" function within Photoshop, which means it may eventually be removed once Adobe feels the Export As dialog window is adequate for most users.

TK▶ button—This button opens a menu of TK Actions, which are described further down in this document.

Layer Visibility (eyeball) button—This button toggles layer visibility "off" and "on." The advantage of using this button over clicking the eyeball on the active layer is that no history state is recorded in the History panel. Additionally, multiple layers can be selected and their visibility toggled "off" and "on" at the same time. Hold down "CTRL" (Windows) or "command" (Mac) and click this button to mimic ALT/option+click on the layer's eyeball. Doing this toggles all layers EXCEPT the active layer off and on. This is a method to look at one specific layer in the layer stack. This does create a "Layer Visibility" history state.

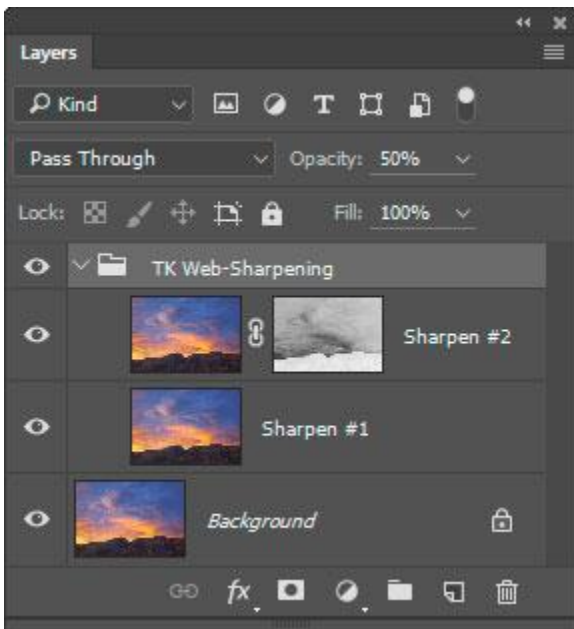
Before-and-After button (stack icon)—This button is a toggle that simulates an ALT/option+click on the eyeball of the bottom layer of the layer stack. One click allows seeing where the image started (just the bottom layer is visible) and clicking again shows where it ended up after Photoshop development (all layers turned back on). This is useful to see the overall changed in the image from when it was originally brought into Photoshop. This button DOES generate a "Layer Visibility" history state on the History panel each time it is clicked. This button does not change which layer is selected.



5. Web-Sharpening

Clicking the Web-Sharpening button on the main interface opens a new interface for setting the web-sharpening parameters that the module uses for sharpening. Once these choices are made, clicking the Vertical, Horizontal, or Fit buttons at the bottom of the interface web-sharpens the image(s) according to these settings. The module remembers what the user enters for these web-sharpening values and they become the default. Then, the next time you want to run web-sharpening, you can simply hold down "CTRL" (Windows) or "command" (Mac) and click on the Web-Sharpening button on the main interface. Even when Photoshop is closed and reopened, the saved web-sharpening values will still be used when CTRL/command+clicking on the Web-Sharpening button on the main interface.

NOTE #1: When performing web-sharpening, the module duplicates the current image first so that the original document is always unchanged.



NOTE #2: While there are lots of options, the only ones that actually need to be filled in are Height, Width, and Opacity.

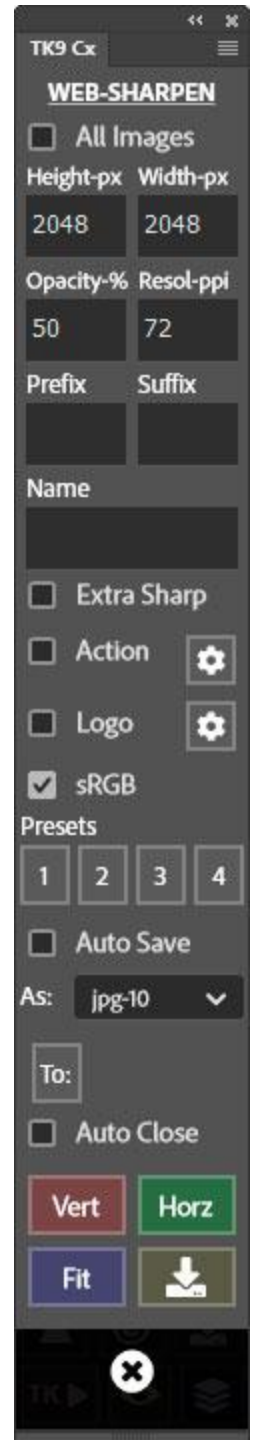
NOTE #3: The TK9 Export module offers additional export options.

All Images—When this checkbox is checked, the web-sharpening action will be run on all open images in Photoshop.

Height—This input value, in pixels, is the final height of the web-sharpened image when the Vertical button is clicked or is the maximum height of the web-sharpened image when the Fit button is clicked.

Width—This input value, in pixels, is the final width of the web-sharpened image when the Horizontal button is clicked or is the maximum width of the web-sharpened image when the Fit button is clicked.

The **Opacity** parameter is the opacity, in percent (1 to 100), of the "TK Web-Sharpening" group that actually sharpens the image. A higher value causes the final web-sharpened image to be sharper. This value can vary depending on the image. An Opacity setting of 50% is a good starting point. Images with lots of detail or large output size can often handle a higher Opacity setting. Images that are grainy or with soft, smooth features might benefit from a lower value. The user's workflow can also affect the Opacity setting. If significant



sharpening has already been added during RAW file conversion, for example, then a lower Opacity setting might work better.

Resol.—This input value is the resolution desired for the web-sharpened image expressed in "pixels per inch."

Name—This input value allows giving the web-sharpened image a name. If the All Images checkbox is checked, each image will also receive a sequential number as part of the name in order to distinguish the different images beyond just the name.

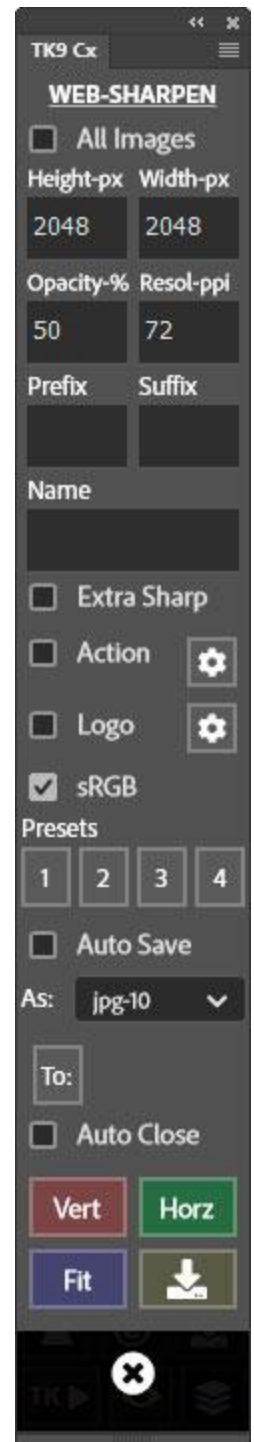
Prefix—This input value allows adding a prefix to the name of the web-sharpened image. Users can enter a symbol after the prefix name, like a hyphen or underscore, to separate the prefix from the file name. Some symbols, \V:*?"<>|#, are not allowed as they can be interpreted as code. These symbols will be replaced by a hyphen in the file name if they are entered in the prefix or suffix fields.

Suffix—This input value allows adding a suffix to the name of the web-sharpened image. Users can enter a symbol before the suffix name, like a hyphen or underscore, to separate the suffix from the file name. Some symbols, \V:*?"<>|#, are not allowed as they can be interpreted as code. These symbols will be replaced by a hyphen in the file name if they are entered in the prefix or suffix fields.

Extra Sharp—This checkbox, when checked, disables the layer mask on the Sharpen #2 layer. This mask has the effect of confining sharpening to darker values in the image in order to prevent light halos from appearing in the sharpened image. For highly detailed images, though, these halos might not be a problem, and disabling the mask by checking Extra Sharp might look OK. However, disabling this mask can cause the web-sharpened image to look a bit crispy sometimes. The mask can be re-enabled with a Shift+click on this layer mask (or by using the red X button on the Combo or Cx modules) in the sharpened version.

Action—This checkbox, when checked, makes it possible to automatically play an action from Photoshop's Actions panel after the image has been sharpened and resized. An example would be adding a frame to the sharpened image. The Gear button to the right of the Action checkbox opens an interface for selecting the action set and action to run. Once selected, the name of the action will appear below the Action checkbox.

sRGB—This checkbox, when checked, converts the web-sharpened image to the sRGB color profile at the end of the sharpening/resizing process. The sRGB profile is often preferred for images posted on the internet.



Logo—This checkbox, when checked, applies your chosen watermark logo to the web-sharpened image. Use the Gear button to the right to set the parameters for the document that will be used as the watermark.

Presets—All web-sharpening settings, including watermark and file-saving options, can be saved as a preset using one of the Presets buttons. There are four buttons available for this, and each can save a separate group of parameters. To save a group of parameters as a preset, first set all the web-sharpening and watermark parameters the way you want. Then hold down "CTRL" (Windows) or "command" (Mac) and click on one of the Presets buttons. A dialog opens confirming the current settings are saved as a preset. The dialog window also offers the opportunity to give the preset a name, which will then appear on the button. However, due to limited space, the name can only contain two characters in order to fit on the button. When you want to use the preset parameters again for web-sharpening, click the preset button to load them into the appropriate fields.

NOTE: To remove a preset entirely, right-click on the button of the preset you want to remove.

Auto Save—When this checkbox is checked, the sharpened image is automatically saved using the parameters directly below that describe the file type and saving location.

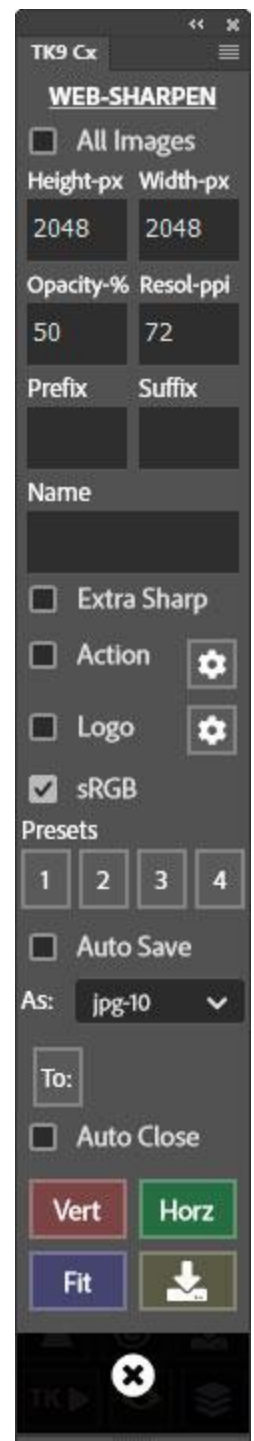
As:—This drop-down menu provides a list of file types for saving. Choose whichever you prefer. The .jpg format with a quality of "10" is the default.

To:—This button opens a window for selecting a folder where the web-sharpened image is to be saved. The name of the folder will appear to the right of the To: button once it's selected.

Auto Close—When this checkbox is checked, the web-sharpened image is automatically closed once it has been saved.

Vert—This button runs web-sharpening using the values of the various parameters in this WEB-SHARPEN dialog window. The value in the Height input field becomes the final vertical dimension of the web-sharpened image.

Horz— This button runs web-sharpening using the values of the various parameters in this WEB-SHARPEN dialog window. The value in the Width input field becomes the final horizontal dimension of the web-sharpened image.



Fit—This button downsizes and sharpens the full-size image according to the parameters in the WEB-SHARPEN dialog window so that it fits within a box created by the Height and Width input fields.

NOTE: The orientation (portrait or landscape) and aspect ratio of the image is NOT changed during the downsizing and sharpening process. Even with the Fit button, the ratio of the sides of the sharpened image is the same as original image.

Save Settings—This button saves the current settings for future sessions of Photoshop without having to run the web-sharpening action using the Vert, Horz, or Fit buttons .

After the web-sharpening action completes (and the Auto Save and Auto Close checkboxes have not been checked), the user can visit the Layers panel to further adjust the downsized and sharpened image. For example, it's possible to adjust layer opacity or add a layer mask to restrict the sharpening to specific areas of the image if desired. The Multi-Mask module can also be used to add adjustment layers if there is need to adjust things like brightness, contrast, color, or saturation.

The WEB-SHARPEN interface closes once the process is complete. However, all the parameters, including the choice of Vertical, Horizontal, or Fit, have been saved and can be called by holding down "CTRL" (Windows) or "command" (Mac) and clicking on the Web-Sharpening (triangle) button on the main interface. There is no need to return to the Web-Sharpening Options interface unless the web-sharpening parameters need to be changed.

Once satisfied with the web-sharpened image, clicking the Save button on the main interface opens Photoshop's "Save for Web (Legacy)" dialog window in order to save the image on the computer's hard drive. The Save button also has a CTRL/command+click option that opens the "Export As" window instead.

NOTE: Web-sharpening is not intended for print output. Web-sharpening and print-sharpening are two very different processes. Web-sharpening, because it involves significant down-sizing of most images and display on a single medium (computer monitor), can be programmed as a series of steps that work for all images. Print-sharpening, on the other hand, may involve enlarging or down-sizing the image with output on a variety of different media each requiring a different sharpening algorithm and frequently color profile conversions as well. While everyone seems to have their own preferred print-sharpening method, my personal recommendation is Nik Sharpener Pro. It provides a nice variety of sharpening options, and, once the user finds what works for them on their preferred paper, the same settings can be used repeatedly with good results. Nik Sharpener Pro was free for a period of time, but is now available from DxO: <https://nikcollection.dxo.com>. I've also started to use [Topaz Labs Gigapixel AI software](#) for upsizing and sharpening images and find it does a good job too.

6. The WATERMARK interface

Clicking the Watermark (©) button on the main interface or the "Logo" Gear button on the WEB-SHARPEN interface opens the WATERMARK interface. This interface allows for choosing a document that will serve as the watermark logo and for determining how the watermark is applied to the open document. There is an Apply button for testing the watermark's application in this interface to make adjustments while the WATERMARK dialog is open. However, once the parameters are established, the watermark can be applied directly from the main interface by holding down "CTRL" (Windows) or "command" (Mac) and clicking on the Watermark (©) button. It can also be applied automatically as part of the web-sharpening process by checking the Logo checkbox in the WEB-SHARPEN interface. The watermark parameters are saved by the plugin, so they do NOT need to be reset with each new Photoshop session.

Choose—This button opens a window to choose an image file to serve as a the watermark logo. File types supported by Photoshop should be usable (.psd, .tif, .jpg, .png, etc.). Once selected, the file name appears in the box below the Choose button.

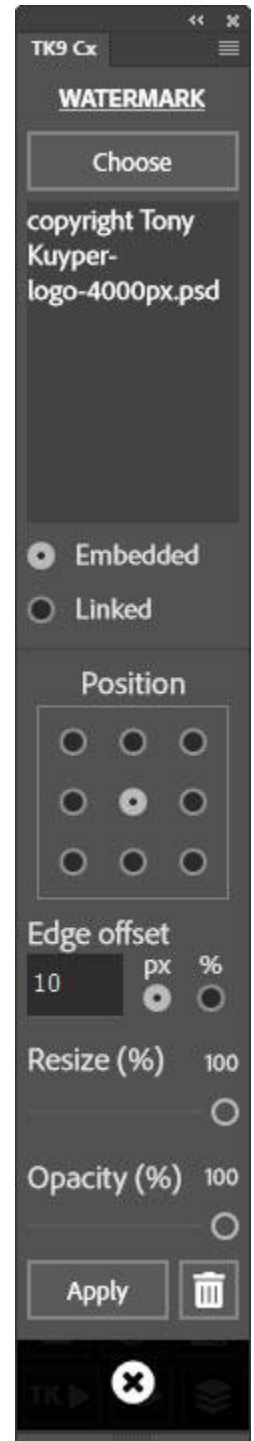
NOTE: The path to the chosen file and the file name itself should contain no special characters (+ / \ & ^ % \$ # @ !). Only letters and numbers can be used, though hyphen appears to be acceptable.*

Embedded / Linked—The chosen logo image is applied as a smart object. These radio buttons allow choosing whether the smart object is embedded or linked. Linked smart objects directly reference the original logo file. Updating this original file will cause the watermark to be changed on all images where it has been linked. Embedded smart objects simply embed a copy of the logo file in the smart object. Changing the original file will NOT update an embedded smart object.

Position—The radio buttons here determine where the logo image gets applied on the active document.

Edge offset—This value, in percent (%) or pixels (px), determines the distance between the watermark logo and the edge of the image. The Position choice above places the edge of the watermark on the chosen edge(s) of the image. It's usually visually more appealing, however, to have the logo moved away from the edge a bit, and the Edge offset allows this to occur. For the three "top" and three "bottom" positions, the offset amount is calculated as a percentage of the image's vertical dimension. For the "center-left" and "center-right" positions, the offset amount is calculated as a percentage of the image's horizontal dimension.

Resize—This slider allows downsizing the logo image to better fit on the image to which it's applied. Ideally, when the slider is set to 100%, the smart object, which



contains the logo image, will be as wide as the image itself when it's placed in the document. To ensure that this happens, create a logo image that is at least as wide as the widest image to which it will be applied. If the image is smaller than the logo image, the placed smart object containing the logo image will be automatically downsized proportionally to fit within the image's dimensions. It's also important to create the logo image with a resolution that matches the image to which it will be applied. So, for example, if images are normally sharpened to a resolution of 72 ppi, the watermark should be created with a 72 ppi resolution also.

Opacity—This slider sets the opacity of the smart object layer containing the logo image. It's often best to set it at less than 100% to make it appear as a watermark where some of the original image color and texture still show through.

Apply—This button applies the chosen watermark logo image to the active document. It is especially useful for helping to initially set the Position, Resize, and Opacity settings for placing the watermark on the image.

Delete (trashcan icon)—This button deletes the applied watermark, which makes it easy to fine-tune the placement settings before using the [Apply](#) button to check that it appears properly on the image.

7. The TK► button menus

The [TK► button](#) opens a menu of actions useful in working with or enhancing images. It usually will not need to be accessed as frequently as some of the other buttons on the Combo/Cx modules, but in the right situation, the actions accessed here can create some nice effects in the image or can speed up processing. It is divided into three submenus—Actions, Color, and Blend. The individual menu items are discussed below.

This is a smart menu. It closes automatically after running the action that was clicked. However, if you prefer to manually close it in order to keep using the different actions in the menu, uncheck the [Auto-close TK actions menu](#) checkbox in the module's fly-out menu.

Color-tagging is an option for all items listed. To access it, right-click on a menu item and then choose a color from the pop-up list of choices. The background color for the menu item turns that color. Color-tagging lets you organize this list by color-coding actions that you use most frequently.



8. The TK► button–ACTIONS menu

Vignette–This action creates an oval/circular dark vignette for the image. The action stops to allow the user to choose the blur radius for the vignette to facilitate the best blending of the vignette into the image. The module makes a best guess as to a blur radius that might work for the image as a starting point, but you're free to increase or decrease it. The layer opacity for the vignette defaults to 30%, but this can be increased or decreased as desired. It's also possible to paint black or white on the layer mask or apply Blend If settings to further control how the vignette is revealed in the image.

Hold down "CTRL" (Windows) or "command" (Mac) when clicking this item to create a light vignette instead of a dark vignette.

Hold down "SHIFT" when clicking this item to create a color vignette. The Photoshop Color Picker opens to allow color selection.

Freehand Vignette– In order to use this action, first make a freehand selection with the Lasso tool around those parts of the image where the vignette is desired. Clicking this menu item then creates a vignette using the selection as a guide. The action stops at Gaussian Blur so the blur radius of the vignette can be adjusted to what works best for the image. The module makes a guess at an appropriate amount of blur for the vignette based on the size of the image, but this can be adjusted in the final step. After the action is finished, use the layer's opacity setting to strengthen or dial back the effect. It's also possible to apply Blend If settings to further control how the vignette is revealed in the image.

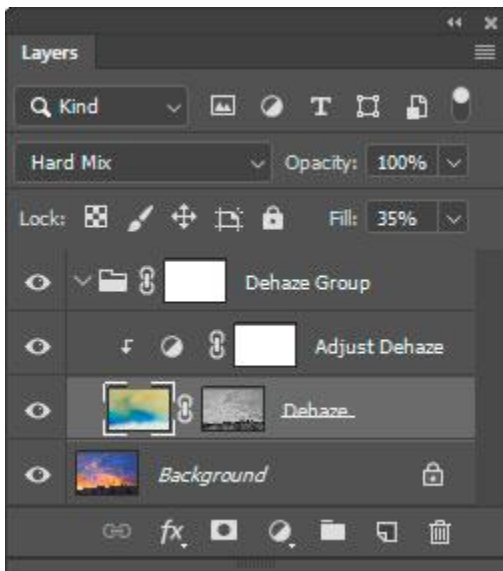
Hold down "CTRL" (Windows) or "command" (Mac) when clicking this item to create a light vignette instead of a dark vignette.

Hold down "SHIFT" when clicking this item to create a color vignette. The Photoshop Color Picker opens to allow color selection.

Spotlight (Dimmer)–The Spotlight action is a way to add a lightening effect to parts of the image, usually to help move the viewer's eye to that location. It works by the user again using the Lasso tool to create a selection that will be spotlighted. Then, clicking the Spotlight menu item runs an action to subtly lighten that part of the image. The action stops at the Gaussian Blur so the spotlight can be adjusted to best blend into the image. (The starting blur value is the module's best guess at what might work.) Once the action finishes, use the layer's opacity setting to adjust the brightness of the spotlight. The Dimmer option is accessed by holding down "CTRL" (Windows) or "command" (Mac) when clicking the Spotlight menu item. It works the same as the Spotlight action except that it darkens the selected and blurred area instead of lightening it.



Dehaze—I was introduced to this action by [Sean Bagshaw](#). It creates an effect similar to the "Dehaze" slider in Lightroom/Adobe Camera Raw when it's pulled to the right. Clarity and contrast are added to a wide range of midtone values so that it effectively removes the sense of atmospheric haze in nature photographs. However, compared to the "Dehaze" slider in Lightroom/Adobe Camera Raw, this Dehaze action causes less of a color shift to warmer colors. It's also worth trying this action on non-nature images since the effect is quite pleasing sometimes. After the action finishes running, there is a new "Dehaze Group" group on the Layers panel that contains the results. There are several ways the effect can be modulated:



1) The "Fill" slider for the "Dehaze" layer in the group can be used to increase or decrease the effect.

2) There is an "Adjust Dehaze" layer that is a clipped Brightness/Contrast layer with a preset adjustment added as part of the action. The Properties panel for this layer can be used to adjust the brightness of the effect. (The Contrast slider has little effect).

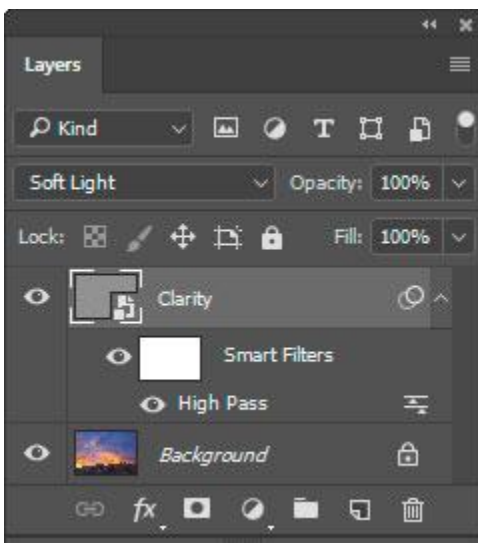
3) The layer mask on the "Dehaze Group" layer can also be painted with a black brush to mask the effect out of various parts of the image if that's needed.

4) The layer mask created for the "Dehaze" layer as part of the action is somewhat important to getting the best results. You can try replacing it if you'd like, however, it's hard

to return to the original mask if you do, and you might just want to delete the entire group and start over if alternate masks aren't working.

The dehaze effect is modulated by the action to look good on any size image. Usually you can just click the Dehaze menu item and then adjust the results with the "Fill" slider on the "Dehaze" layer as needed.

Clarity—This option uses Photoshop's High Pass filter and a smart object to increase edge contrast in the image. However, it does so in a way that does not change color saturation. The Clarity action stops to allow the user to select a radius value. Choose a lower radius value (5 to 15 pixels) if the effect is going to target lighter tones in the image or to enhance fine detail. Choose a higher radius value (30 to 60 pixels) if the effect is going to be constrained to darker tones or for a more artistic effect. As always, some experimentation is useful in deciding how much clarity to add. It is often helpful to constrain clarity to specific tonal ranges in the image—Lights,



TK9 plugin

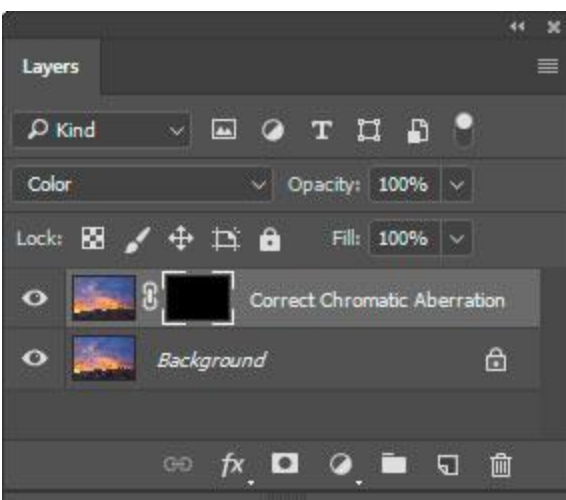
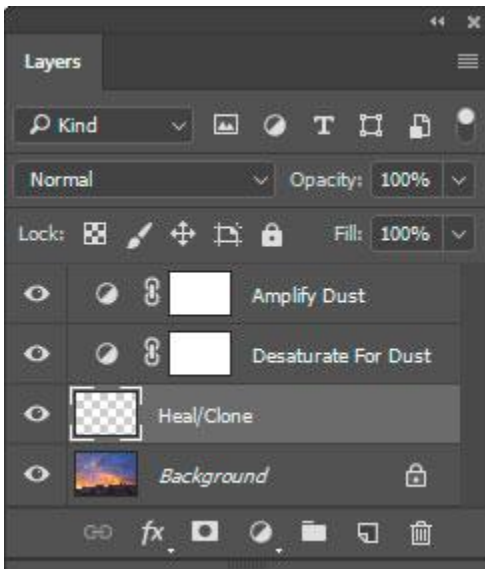


Midtones, or Darks. The Layer Mask Mode of the Multi-Mask module makes it easy to experiment with different masks as layer masks on the Clarity layer. Edit Blend If is another option that can be used to confine the effect to specific tonal ranges in the image. In addition, since added clarity was accomplished using a smart object, it's possible to adjust the final result by double-clicking "High Pass" under the "Smart Filters." This will reopen the "High Pass" dialog where a new radius can be chosen.

NOTE: To run the Clarity action without using a smart object, hold down "CTRL" (Windows) or "command" (Mac) when clicking the Clarity menu item.

Clean Dust—This menu item helps find sensor dust. It is actually a toggle that does two different things. Clicking the menu item the first time creates several layers at the top of the Layers panel. The image is changed to black and white via the "Desaturate For Dust" layer. This monochrome view has its contrast enhanced via the "Amplify Dust" Levels adjustment layer above it to better show dust spots. Below these two layers is a blank pixel layer called "Heal/Clone" where the actual dust removal occurs. The image is zoomed to 100% magnification to better see the dust spots and the Spot Healing Brush is activated. It's only necessary to click on the sensor dust spots on the image to remove them.

(NOTE: Make sure that "Sample All Layers" is checked in the Spot Healing Brush's options.) Each image is different and it may be necessary to adjust the sliders in the Properties panel of the "Amplify Dust" layer to better see sensor dust. Once the dust has been removed, click the Clean Dust menu option again to remove the "Amplify Dust" and "Desaturate For Dust" layers since they are no longer needed. The image will return to a size where it fits on the screen. This will also close the TK▶ button menu. The "Heal/Clone" layer can also be used for cloning instead of healing. To do this, just change the tool to the Clone Stamp and make sure the tool's "Samples:" option is set to "Current & Below."



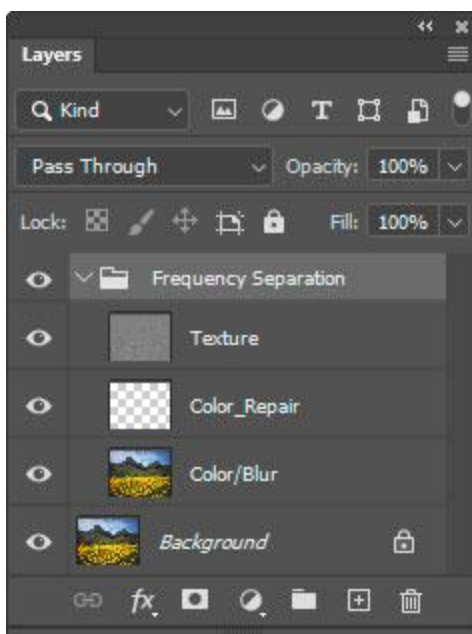
Correct CA—Chromatic aberration (CA) is most often seen along high contrast edges in the image and is usually best removed by the RAW convertor initially. Lightroom and Adobe Camera RAW generally do a good job of eliminating it. The Correct CA option could be useful in situations where obvious chromatic aberration remains despite attempts to optimize its removal during conversion of the RAW file. The Correct CA option works simply by



creating a Gaussian Blur that blurs away the unwanted colored edges. The action creates a new layer in Color blend mode and stops so the user can zoom in and choose the optimum pixel radius to create a CA-removing blur. The blur necessary to remove chromatic aberration almost always produces undesirable color changes in the rest of the image. So the action finishes by creating a black (hide-all) mask on the new layer and selecting the Brush tool set to white. When the action is finished, the user zooms in to the areas with chromatic aberration and paints white on the mask to selectively reveal the blurred layer without the chromatic aberration.

RGB ⇄ Lab—This is another action suggested by [Sean Bagshaw](#). It allows edits in Lab Color mode to be incorporated into an image being processed in RGB Color mode. Clicking this menu item creates a smart object of the current state of the RGB image, opens the smart object as a new document in Photoshop, and converts the document to Lab Color mode. From here, the user can make edits in Lab Color Mode. Some photographers prefer using Lab Color mode for certain color adjustments or print sharpening. Once these edits are complete, click the **RGB ⇄ Lab** button again to save the image back to the original document and close the smart object image. If it's necessary to revisit the Lab edits, simply double-click the smart object's thumbnail image to reopen the Lab document. It will again open as a second document with any of the adjustment layers previously added still intact.

Frequency Separation—This is an interesting option most often associated with portrait photography to even out skin tone and texture. But it can also produce useful and artistic effects with landscape and other types of photography. This video shows how it's created and used with portraits: <https://phlearn.com/tutorial/30-days-photoshop-frequency-separation/>



The **Frequency Separation** menu item in the Combo/Cx modules creates a "Frequency Separation" group on the Layers panel containing three layers. The bottom layer, called "Color/Blur," contains a Gaussian blurred version of the image. The action stops to allow the user to enter a blur radius when this layer is created. Choose a radius that blurs away some distracting tonal difference in the image, such as a too-bright highlight, color transition, or even a distracting element. After clicking **OK** in the Gaussian Blur dialog, the action continues. A blank "Color_Repair" layer is added, and the "Texture" is updated layer so that it perfectly counteracts the blur, resulting in no noticeable change to the image when the action finishes. But this is where the fun begins. Frequency



separation effectively separates color (low-frequency) and texture (high-frequency) so they can be managed independently. Gaussian Blur and the Clone Stamp tool are the most common methods for doing this.

NOTE: To use the Median filter instead of Gaussian Blur for Frequency Separation, hold down "CTRL" (Windows) or "command" (Mac) when clicking the Frequency Separation menu item.

Below are a few suggestions, but there are no doubt many more practical and artistic applications for Frequency Separation.

1) To create more even color transitions, make the "Color/Blur" layer active and using the Lasso tool with a generous feathering radius to select areas with uneven color. Then Gaussian Blur these areas to create the degree of color evenness desired. The "Texture" layer above maintains texture in these areas; only the image's color changes.

2) Use the same technique, but use the Lasso to draw around areas of the image where a bit of Orton-like glow would look good. Again, Gaussian Blur the selected area, being sure to select the same blur radius that was used when the Frequency Separation group was created. This creates a subtle color-glow in the selected area with the original texture being maintained.

3) To make a more dramatic color change, use the Clone Stamp tool. On the "Color/Blur" layer, ALT+click (Mac: option+click) on the area whose color is to be sampled. Then use the Clone Stamp tool to paint this color on the area where the color change is desired. The color changes to the sampled color (and can be aligned to the sampled area via the options bar), but the texture remains the same because it's controlled by the "Texture" layer. Using the Clone Stamp tool at lower opacity allows the color change to be built up gradually using multiple mouse clicks (or click-and-drags). This technique can be used to help manage lens flare.

4) The "Color_Repair" layer can be used to change image color, but, because it is below "Texture" layer, the image's texture does not change. An advantage of using the "Color_Repair" layer (instead of the "Color/Blur" layer) to manage color changes is that it's possible to go back and change or undo color changes without affecting the original image.

5) To change the texture of an area, use the Clone Stamp tool on the "Texture" layer with the "Sample:" option set to "Current Layer." This is a particularly effective technique if the blur radius selected when creating the Frequency Separation group is sufficiently large to blur away a particularly distracting element in the image. Then, cloning in new texture similar to the texture surrounding that item on the "Texture" layer effectively eliminates the element from the image. The



blurred color from the "Color/Blur" layer comes through, and the texture, if sampled correctly from an adjacent area, matches that of the surrounding texture.

NOTE: The TK9 Multi-Mask module contains a "guided" Frequency Separation option in the Workflow Extras section. It's helpful in choosing the correct layers and Photoshop tools to touch up photos using frequency separation.

Fill Transparent—This is a one-click action that uses content-aware fill to fill transparent parts of the image that can sometimes result when focus blending or using warp transform. A new pixel layer is created to contain the "filled" content.

Lights TP/Darks TP—The Triple Play (TP) is a technique that uses luminosity masks on adjustment layers to simultaneously affect brightness, contrast, and detail in an image. It uses multiple layers, and the user controls the effect by choosing which layers to make visible. The Triple Play was originally released in 2011 in Version 1 of the TKActions panel. It survived in the panel through Version 3 as a series of 36 buttons so that the different variables (Lights/Darks, Curves/Levels, and pixel blur) could be controlled by the user. The Version 4 panel did not include the Triple Play technique. I was personally using it less as I learned new ways to use luminosity masks. Additionally, coding those 36 buttons into the V4 panel would have been a Herculean task. However, the absence of the TP in the V4 panel prompted emails of dismay from several users who had developed their own way of using this technique in their workflow. I said I would try to bring it back and am glad to say it's present again starting in the V6 panel. It's been reduced to just two menu options, Lights TP and Darks TP. The user is prompted for their preferred blur radius at the start, and then the masked layers are generated as Curves adjustment layers. There is a 39-page PDF that fully explains how to use the Triple Play. To access this tutorial, click the Additional tutorials (English) item in the fly-out menu for this module. This opens a browser window where you can download this PDF tutorial plus several others.

9. The TK► button—COLOR menu

The options in this sub-menu are a collection of actions that can alter, enhance, and correct image color.

Add Color—This action is a technique I learned from a [Ryan Dyar](#) video. Ryan's method was essentially to burn and dodge with color instead of just using black and white paint. The TK9 panel improves on this by using a Solid Color adjustment layer instead. The way it works is to first click the Add Color menu item. It creates the Solid Color adjustment layer and sets the blend mode to Soft Light. When the Color Picker opens, choose a color that you want to add to the image, maybe only in certain parts. The preview will show the color across the



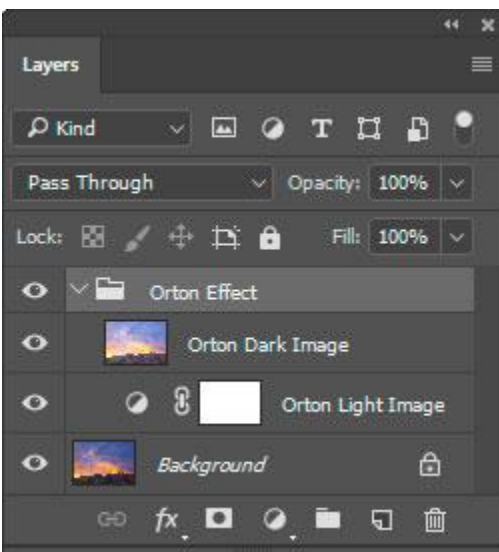
entire image at full strength, but you'll be able to actually paint it in as you like later. The preview just lets you pick a good starting color. After the color is chosen, the adjustment layer's layer mask is inverted so that it becomes a hide-all layer mask. The action finishes by choosing a white brush at 20% opacity. At this point, simply adjust brush size and start painting on the image. White paint will be slowly applied to the layer mask revealing the adjustment layer's underlying color in just those parts of the image where you paint. Use multiple brush strokes to gradually build up the effect in a realistic manner. After the color starts to show in the image, it's also possible to fine-tune it by double-clicking the layer icon and choosing a different color when the Color Picker opens. It's also possible to clip additional adjustment layers to this layer to further refine the painted area, like making it darker or lighter with a Curves or Levels adjustment.

Paint Contrast—This is a technique I learned from Bruce Bartholomew. The action creates a layer where you can paint in contrast and color at the same time. Paint with 50% gray to add contrast to all tones. Paint with black to primarily darken shadows. Paint with white to primarily brighten highlights. Or paint with varying shades of gray to affect varying zones of the image. Adding color to the paint adds that color to the image in addition to the contrast changes. The intensity of the painting's effect can be enhanced by increasing the Fill amount on the Layers panel. It defaults to 15% when the action runs, but can be increased slowly to enhance the effect. Fill amounts of up to 30% can still look OK depending on the image and the amount of paint that has been applied to the layer. Likewise, lowering the Fill amount can be used to decrease the effect.

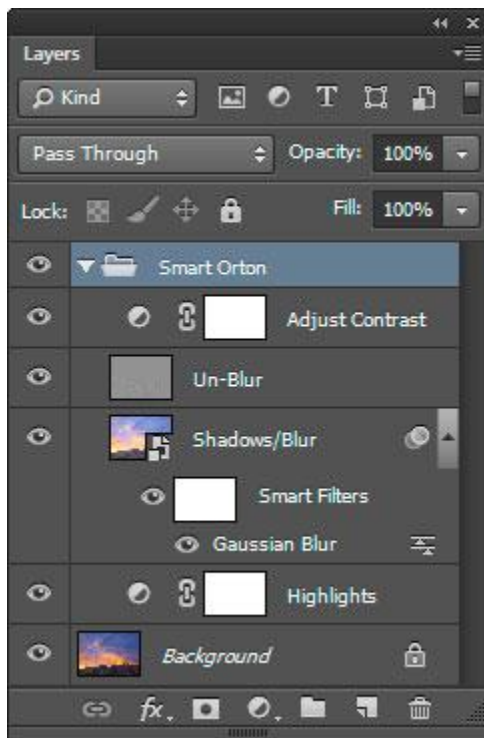
Soft Pop—This is another technique originally created by Bruce Bartholomew. It's a one-click method to subtly boost contrast, saturation, and sharpness throughout the image. It works fine on many images but the Opacity of the final layer can be lowered if it's too strong. Additionally, the Fill amount on the Layers panel can be increased or decreased to modify the effect.

NOTE: Layer Mask mode, found in the Multi-Mask module, can also be used to see the result of using different luminosity layer masks to guide the effect to different tonal ranges in the image.

Orton Effect—The Orton Effect was originally an in-camera technique developed by Michael Orton using transparency film to make photographs look more like paintings. You can read more about it on [Michael Orton's website](#). Photoshop makes it easy to create a similar effect during post-processing, and the Orton Effect option offers a starting point. It creates a degree of blur and color intensification for the image that provides a nice glow in many situations. The action stops at the blur step so the user can enter a



Gaussian Blur radius that best suits their image. Photoshop-produced Orton Effects are generally too strong unless starting with a dull image. So, lowering the Orton Effect group opacity can help moderate the effect produced by the action. However, a better alternative is to add a Lights or Midtones luminosity mask to the Orton Effect group layer. The Orton Effect can over-saturate dark colors sometimes, so targeting the effect to lighter tones or midtones is often beneficial. Layer Mask Mode and/or Edit Blend If in the Multi-Mask module makes it easy to try different luminosity masks on this final group layer to see what works best. By using these options, layer opacity needs to be adjusted less, and the tone-targeted effect will have greater impact.



Smart Orton—This action attempts to give photographers more control over the different aspects of the Orton Effect. It's loosely based on a soft glow technique that [Sean Bagshaw](#) shared with me. Shadow darkening, highlight lightening, blur radius, un-blurring, and contrast can all be addressed in the layers created in the Smart Orton group that this action creates.

Shadows and Highlights can be adjusted by changing the opacity of the correspondingly named layers. Gaussian Blur can be changed by double-clicking "Gaussian Blur" in the "Smart Filters" of the "Shadows/Blur" layer. The "Un-Blur" layer offers a unique method to moderate or completely remove the spatial pixel blur introduced as part of creating the Orton Effect while leaving the color blur intact. The image's original sharpness and contrast are maintained even as the Orton Effect's color-

enhancement-via-blur is added. Setting this layer's opacity to 0% provides the standard Orton Effect. As the layer's opacity is increased, the blurriness of the Orton Effect is decreased but the color blur is still visible. Opacity of 40% is the default setting for this layer. At this setting the image generally still has some Orton Effect spatial blur and plenty of color blur. But every image is different, so it's worth experimenting with the "Un-Blur" layer's opacity to see what works best. The "Adjust Contrast" layer is simply a Curves adjustment layer to allow a contrast adjustment as part of this action.

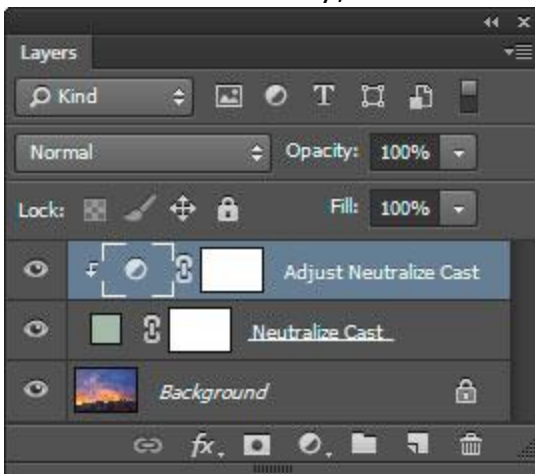
As with many of the actions in these menus, adding a luminosity mask to the "Smart Orton" group layer is a good way to confine the effect to specific tones, and Layer Mask mode in the Multi-Mask module is an easy way to quickly try different masks to see what works. The Edit Blend If option in the TK9 Multi-Mask module is another method for localizing the effect to specific tonal ranges or colors.



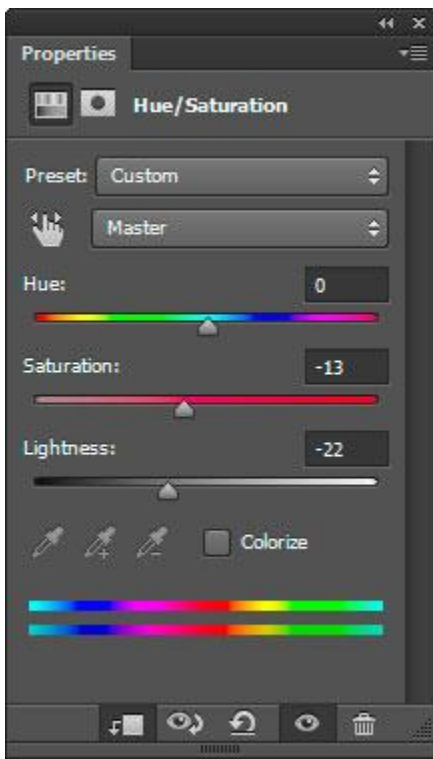
Color Lum—This is an action for adjusting brightness of different colors and is based on a tip in this YouTube video by Jesús Ramirez:

<https://www.youtube.com/watch?v=PyPMM3HFSzg>. Clicking this option creates a Black and White adjustment layer set to Luminosity blend mode. The image is NOT converted to black and white; the Luminosity blend mode makes it so that only color luminosity is affected. When the action completes, the Properties panel opens so the user can move the sliders to adjust the brightness of the various color ranges. The color sliders in the layer's Properties initially have a neutral setting so that there is no change to the image. Also, try using the adjustment's targeted-adjustment tool. It can be used to click and drag on the image itself to change the brightness of the chosen colors.

Hold down "CTRL" (Windows) or "command" (Mac) and click to reset the Black and White adjustment to its original neutral setting. However, doing this on a layer that is NOT created using the Color Lum action will cause the panel to look for and select a layer named "Color Luminosity" and reset the sliders in that adjustment layer. So, if there are multiple layers called "Color Luminosity," be sure to select the correct one before activating this option.



Neutralize Cast 1—This menu option uses the "Neutralize" option in Photoshop's Image > Adjustments > Match Color menu command to create a best guess at the correct color balance for the image. Since this is a one-click action, the results won't automatically be good or even expected. Often, however, there is something useful in the outcome, so lowering layer opacity or applying a luminosity mask using Layer Mask Mode in the Multi-Mask module can provide a degree of control as to how this action ultimately affects the image.

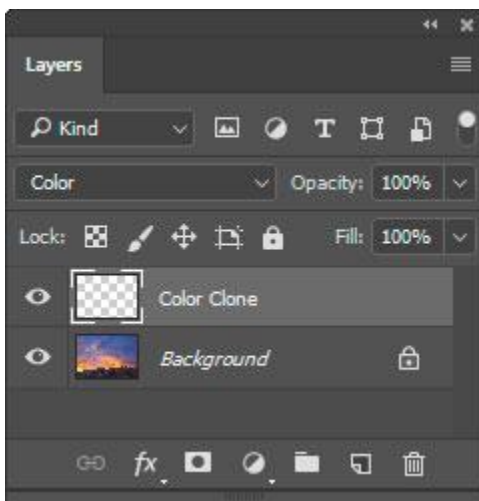


Neutralize Cast 2—This action provides another method to counterbalance a color cast in the image with more control than the previous option. It's a variation on a technique described by [Blake Rudis](#). **Neutralize Cast 2** creates a Solid Color adjustment layer whose color is a negative of the Blur Average for all pixels in the image. It is set to Soft Light blend mode and provides a neutralization effect of the image's "average" color. Beyond that, though, a Hue/Saturation adjustment layer is clipped to the Solid Color layer. This allows additional control over the neutralizing color. The Saturation and Lightness sliders are particularly useful. The Saturation slider increases or decreases the strength of the neutralizing color depending on the direction it is moved. The Lightness slider increases or decreases the



brightness of the neutralizing color. These two adjustments allow such fine control of the image's color cast that it's worth experimenting with this action at least once on most images since it can help impart a very natural look when done right. In addition, a luminosity mask can be added to the Solid Color adjustment layer, or the layer mask can be painted appropriately, to confine the effect to specific parts of the image.

Make-It-Glow—This action imparts a glowing quality to the image. It is like a mild Orton Effect except that only the color is blurred; the underlying texture is not. It is described in the Make-It-Glow tutorial included in the tutorials that can be downloaded by clicking the [Additional tutorials \(English\)](#) item in the module's fly-out menu. The action stops to allow the user to input a pixel radius for the Gaussian Blur step. A good starting point is the megapixel count of the image's original capture, i.e. a 24-pixel radius Gaussian Blur for an image from a camera with a 24-megapixel sensor. The module attempts to calculate this blur radius based on the image's dimensions.



Color Clone—This action creates a pixel layer set to "Color" blend mode. It is used for changing color in the image while maintaining the underlying texture. This is described in detail in the [Cloning Color, Retaining Texture tutorial](#). The basic technique is to first make the necessary layer by clicking the [Color Clone](#) menu item. Then select an appropriately sized and feathered brush to match the area to be painted. Next, Alt+click (Mac: option+click) on a color to paint with from another part of the image. This selects the desired color that will be cloned into the mis-colored area. Painting the new color on the "Color Clone" layer

changes the area's color, but not the underlying texture. It's usually best to start with a low-opacity brush and slowly build up the effect using multiple brush strokes and multiple color samples.

NOTE: Painting on the Color Clone layer only affects hue and saturation. Sometimes it's necessary to also adjust the brightness of the area that was painted. To do this, hold down "CTRL" (Windows) or "command" (Mac) and click on the actual Color Clone pixel layer. This loads the painted areas as an active selection. Now simply add a Brightness/Contrast adjustment layer, which turns the selection into a mask for that layer. The mask allows making a brightness adjustment that perfectly targets the areas that were painted on the Color Clone layer.



10. The TK► button—BLEND menu

Stack—This action stacks all images open in Photoshop into one document with each image becoming a layer in the document. The layers are given names that match the name of the original image. The original images are closed as part of the stacking process. The Stack action is useful for images that will be composited from multiple exposures. Exposure-blending and focus-blending are examples of situations where the Stack action might be useful if there are separate images open in Photoshop that need to be stacked into one document.

Align—This action executes Photoshop's Edit > Auto-Align Layers... menu command. It is intended to be used after the Stack action to ensure that the image layers stacked in the Layers panel are properly aligned with each other in case the camera shifted between exposures or if resizing occurred as a result of focus shift.

NOTE: This action does NOT work on smart object layers since Photoshop's Auto-Align Layers... command only aligns non-smart object layers.

Focus Blend—This action executes Photoshop's Edit > Auto-Blend Layers... menu command with the "Stack Images" and "Seamless Tones and Colors" options turned on. This action is the final step in what is frequently referred to as "focus stacking." It should be use AFTER the Stack and Align actions.

NOTE: Again, this action does NOT work on smart object layers since Photoshop's Auto-Blend Layers... command only works on non-smart object layers.

Align + Focus—Since they're frequently done one after the other, this action combines the Align and Focus Blend actions into one action. So if you plan to do both, this would be the best choice as it will complete all steps in one click.

NOTE: Focus Blend and Align + Focus both create a composite of the focus-blended image at the top of the layer stack when the focus blend action finishes running. In addition, the layer masks Photoshop produced to create the focus-blended image on the layers below the composite are removed. So if the there are areas of the blended image that need to be touched up, 1) choose the appropriate layer, 2) drag it above the composite layer, 3) give it a black mask, and then 4) paint white on the mask to reveal the parts of that layer needed to touch up the blended image.

Fill Edges—When this checkbox is checked, Photoshop uses content-aware fill to attempt to fill the transparent edges that frequently occur when focus-blending an image.



11. User-programmable buttons

Fourteen (14) buttons on the Combo and Cx modules can be reprogrammed by the user to play actions from Photoshop's regular Actions panel. Most of the buttons that have regular type on them (instead of an icon or symbol) are the ones that can be reprogrammed (red outlines, image at right).

To reprogram one of these buttons, hold down "CTRL" (Windows) or "command" (Mac) and click on it. This opens a menu to choose an action set from Photoshop's regular Actions panel. Choosing an action set then opens a list of actions in that action set. Choosing one of these actions then associates that action with that button AND gives the button the same name as the action. Clicking the button then plays that action.

To return to the default function for that button, hold down "CTRL" (Windows) or "command" (Mac) and click on it and then click the "RESET" button in the menu that opens.

NOTE #1: It's best to give the actions that will be associated with the module's buttons short names in Photoshop's regular Actions panel BEFORE associating them with a module button. For some of the smaller buttons, two or three characters are all that will fit on the button. Another option for the small buttons is to give the action a two-word name where both words do not exceed three letters, "My act" for example. On the smaller buttons, this name will be split into two lines, breaking at the space between the words.

NOTE #2: Only letters and numbers should be used for naming actions that are associated with the module's buttons. Special characters, like &, >, and <, are not accepted and will cause an error when trying to play the action from the plugin.

NOTE #3: If you change the name of an action on Photoshop's Actions panel after assigning it to one of the module's buttons, you will have to hold down "CTRL" (Windows) or "command" (Mac) and click on it and complete the process of associating the new action name with that button.

NOTE #4: Actions containing steps that capture TK9 button clicks should NOT be added to the user-programmable buttons as they will not run properly.

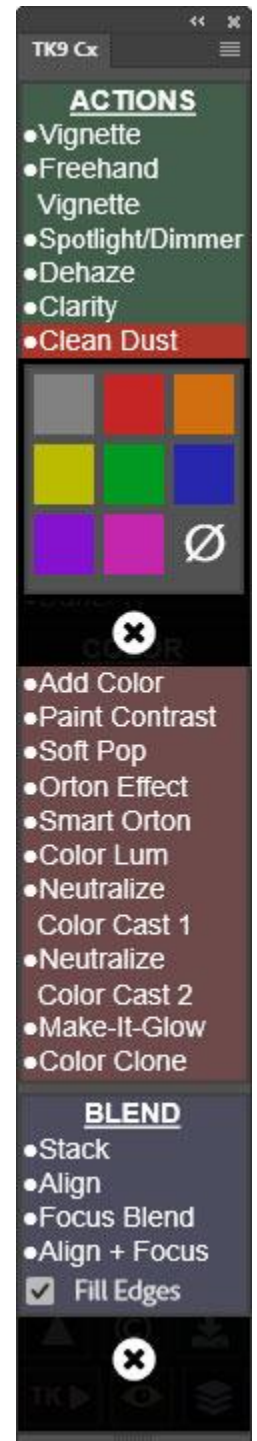


12. Right-click color-tagging



All buttons on the Combo and Cx modules can be made more prominent by right-clicking on them. Doing so adds more saturation to the buttons color, like with some of the buttons in the image at the left. Color-tagging can be useful for highlighting buttons that are frequently used or those that have been reprogrammed with the user's personal actions. To undo color tagging for a button, right-click the button again.

Color-tagging is also an option in the TK▶ button menus. Simply right-click any menu item and choose a new background color for that item. Color-tagging can make it easier to find your favorite actions when you open these menus. The image at the right shows the color-tagging option being used to give the Clean Dust action a red highlight.



MULTI-MASK MODULE

Starting with TK9 version 3.0.0, the Multi-Mask module can now make masks for 32-bit images, which are considered **H**igh **D**ynamic **R**ange since they encompass more than the 256 grayscale tones normally available for post-processing. Previous versions only worked on 8-bit and 16-bit images, but starting with version 3.0.0, 32-bit images can be handled as well. All mask types, except Edge masks, can be generated. However, Photoshop itself only has limited support for 32-bit images, and, as a result, many Photoshop menu items are grayed-out when working on 32-bit images. Plugins, like TK9, cannot force Photoshop to perform functions on 32-bit images that Photoshop does not natively support. For example, many adjustment layers, like Black and White, Vibrance, and Gradient Map, are NOT possible with 32-bit images. Also, many blend modes, like Screen, Soft Light, Overlay and Linear Light, do NOT work. Following Photoshop's convention, the Multi-Mask module grays-out buttons for 32-bit images where the button's function is NOT supported by Photoshop in 32-bit mode. This includes several adjustment layer options, the Paint Color mask-output option (which requires Linear Light blend mode), and the gradient and red overlays when making masks. Burning and Dodging through masks also requires a different method since Soft Light and Overlay blend modes don't work for 32-bit images. The Multi-Mask module should usually detect the bit-depth of the active document and display buttons appropriately, i.e., grayed-out for 32-bit images and not grayed-out for 8-bit and 16-bit images. If there appears to be a disconnect, go to the preferences and click the Reload panel option to correct this.



NOTE: Combo/Cx modules have NOT been updated to gray-out features not available in 32-bit mode since many of the actions in those modules are only available for 8-bit and 16-bit images with no 32-bit alternatives. If an action fails on a 32-bit image in Combo/Cx, it's safe to assume that it likely contains a step that Photoshop does not support for 32-bit images.

RECORDING ACTIONS

Most button clicks in the Multi-Mask module (including CTRL/command and SHIFT options) can be recorded as actions using the Photoshop Actions panel. Making complex masks, including calculated masks, can be recorded. Edit Blend if button clicks can be recorded. My Channels masks can be recorded as long as the item chosen in the My Channels dialog is available. The following actions do NOT record as actions:

- Mask modifications using the various modification options in the MODIFY section.
- Slider movements and checkbox changes (Edit Blend If).
- Movement of the color grading pucks (though you can record creating new color grading layers).
- Button clicks in the Edit Selection and Layer Mask Mode interfaces.
- Saving and loading user-created presets (Color Grading and Edit Blend If).

1. Multi-Mask fly-out menu (preferences)

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

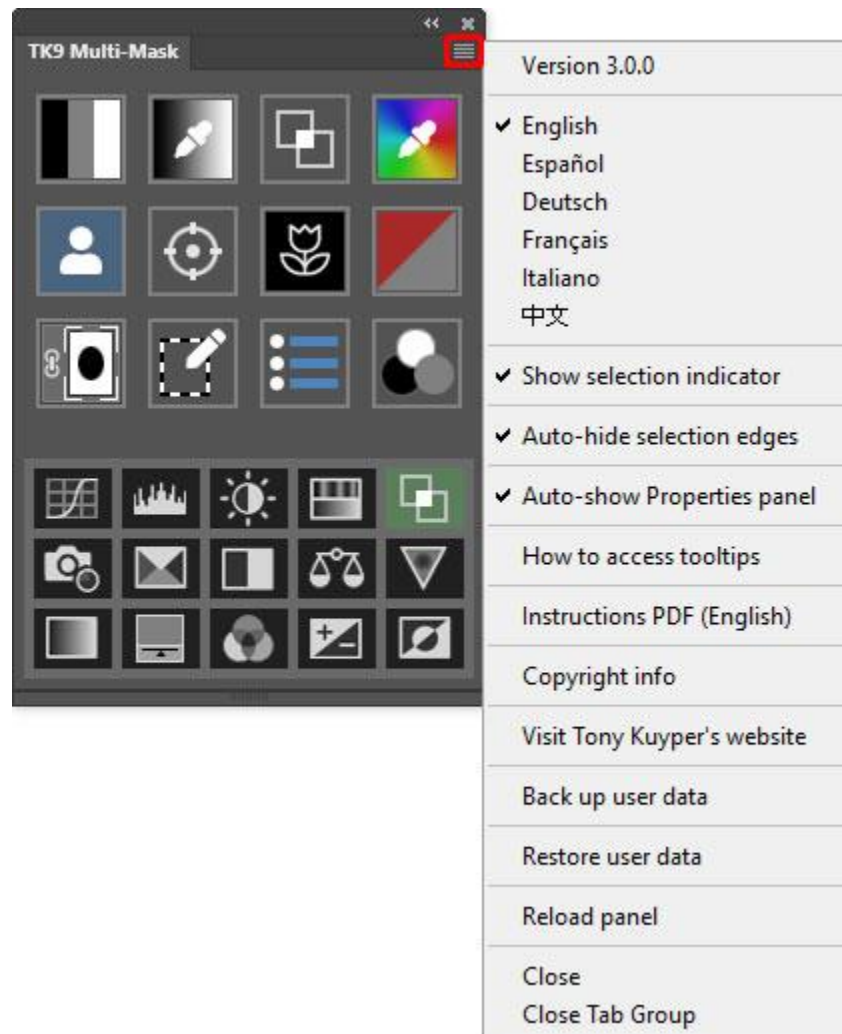
Version—This is the TK9 version number.

Language— While English is the default, users can choose to change to a different language. For languages other than English, button names, tooltips, names of certain channels created by TK9 (e.g. Sky), and error messages change to the chosen language. A few things, like layer names for special layers generated by the module, remain in English.

NOTE: There are a few bugs in Photoshop that do not allow for properly changing the language on some items. This might be corrected in future versions of Photoshop.

Show selection indicator—When checked, the active selection indicator displays around the module's perimeter whenever there is an active selection even if the selection is not sufficient to trigger the presence of selection edges (marching ants) or if the selection edges have been intentionally hidden.

Auto-hide selection edges—When checked, selection edges (marching ants) are automatically hidden when the module generates a new selection. If you prefer to always see selection edges and to hide them manually, uncheck this option.



Auto-show Properties panel—When checked, the module opens the Photoshop Properties panel automatically when it creates a new adjustment layer where layer properties can be adjusted, e.g. Curves and Levels. If you have the Properties panel open all the time in your workspace or prefer to open the Properties panel manually, uncheck this option.

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

Instructions PDF (English)—This option opens a URL to download the TK9 instructions manual.

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.

Backup user data—This option guides the user through the process of backing up user-specific data for this module (like language choice and 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 options guides the user through the process of restoring user-specific data for this module that has previously been saved using the "Backup user data" option. More information later in this manual.

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

2. Selection indicator

Whenever there is an active selection, a moving black and white band appears around the perimeter of the module. This signals that a selection is active even when the selection edges are not visible, like when they are purposely hidden or because no pixels are more than 50% selected. This selection indicator can be turned off in the module's preferences, which are found in the fly-out menu.



3. Overview

[The 2006 Luminosity Masks tutorial](#) was a first indication of how powerful masks generated from pixel-level data could be. Such masks are completely self-feathering since they match the image's tones pixel-for-pixel. There are no obvious edges, and adjustments through these masks blend perfectly into the image. Being able to quickly make masks based on specific values in the image's pixels opens up some amazing possibilities. These "pixel-value" masks are a logical extension of digital image-processing, which encodes data into the pixels that make up the image, but extracting the data needed to create these masks from Photoshop is often a time-consuming, multi-step process. The Multi-Mask module eliminates the laborious methods for making pixel-value masks and allows many different types of masks to be generated from different datasets (like luminosity, hue, and saturation) with just a few mouse clicks. In addition, the Multi-Mask module allows an almost infinite number of ways to modify the masks as they're being created in order to better suit the image and then offers a large variety of output options to actually use a mask. In this way, the Multi-Mask module not only opens the door to making pixel-value masks, it actually tears down the walls that have limited their use in the past. Every workflow can now easily access these masks, and the universe of possibilities is so vast that your creativity will never run out of new ways to use them.

Generating and using pixel-value masks has four main steps:

1. Choose a data **SOURCE** for making the mask, like pixel-level hue, saturation, or brightness.
2. Choose a **MASK** based on that data source. In other words, narrow the focus of which pixels get selected to better match what needs to be selected from the image.
3. **MODIFY** the mask to customize it specifically for the image being worked on.
4. **OUTPUT** the mask so it can be used to alter or adjust the image.

These four steps (SOURCE, MASK, MODIFY, and OUTPUT) all have specific sections in the Multi-Mask module. While it takes a little practice to get used to using these masks initially, the module provides visual clues to guide you through the process. The user interface updates to constantly show you what options are available. Just keep in mind that the workflow for making and using the module's masks generally matches the steps listed above. Working methodically through these steps, especially at first, will help you to quickly get comfortable with how to use pixel-value masks and how the Multi-Mask module can help you quickly generate them.

NOTE #1: The Multi-Mask module only works for images in RGB Color mode.

NOTE #2: The layers and channels created by the Multi-Mask module should only be modified via the Multi-Mask interface.

4. SOURCE (main interface)

The illustration below lists the function of the buttons on the main interface that open new interfaces for specialized tasks. A brief description of these buttons is below.



This main interface is the entry point for making the different types of pixel-value masks. The Multi-Mask module makes eight different types of masks.

- **Lights, Midtones and Darks masks.** These masks use pixel luminance to generate preset Lights, Midtones, and Darks masks. Different color channels, like Red, Green, and Blue, can also be used as the data source for these masks.
- **Zone masks.** Pixel luminance is again the data source for these masks, which can be built around any tonal value in the image.
- **Blend If masks.** These masks are created using pixel-level luminosity, so they are the true "luminosity masks" in the TK9 plugin. Photoshop's Blend If functionality (found in the Layer Style dialog window) is at the heart of creating these masks.
- **Color masks.** Hue is the data source for Color masks. Color masks can be built around any hue in the image.
- **Saturation and Vibrance masks.** These masks use pixel saturation values to generate masks.
- **My Channels masks.** These masks utilize user data in the form of selections, channel masks, and layer masks as the starting point for making masks.

- **Focus masks.** Photoshop's Select > Focus Area... command is used to create these masks. TK9 cannot evaluate pixel-level focus, but it can use this Photoshop utility to bring Focus masks into the masking workflow.
- **Depth Map channels.** While these cannot be added as masks for adjustments directly, depth maps can be created using a Photoshop neural filter and saved as channels. They can then be used to create masks via My Channels in the Multi-Mask module or Layer Mask Calculator in the Combo/Cx modules..
- **Edge masks.** This type of mask relies on pixel contrast found at the edges of different elements in the image as the starting point for making a mask.
- **Half-Edge masks.** These masks are able to select either the light side or dark side of edges in the image where the edge has a tonal difference.
- **Calculated masks.** While there is no button for it on the main interface, the module contains a mask calculator, and the output of these calculations provides another SOURCE for creating unique and useful masks.

In addition to initiating the mask-making process, the main interface of the Multi-Mask module provides access to some additional features.

- **Color grading.** This button opens the module's Color Grading interface.
- **Layer Mask mode.** The layer mask on the active layer is the starting point for adjusting and making masks with this button. Layer Mask mode allows for determining the optimal mask by observing the actual image as the layer mask is adjusted.
- **Edit selection.** When there is an active selection, this button allows for editing the selection using the same adjustment options as with Layer Mask mode.
- **Workflow Extras.** This button opens a list of additional actions that can provide special effects or can be helpful to creatively process images.
- **Edit Blend If.** This feature allows access to the Gray, Red, Blue, and Green channels of Blend If in a unified user interface that avoids having to navigate the different channels and settings in the "Layer Style" dialog where Blend If is located in Photoshop.

- Zone 2 – Centered on a brightness value of 64 and tapers off to both 0 and 128. Dark midtones are affected.
- Zone 3 – Centered on a brightness value of 128 and tapers off to both 64 and 192. Midtones are affected.
- Zone 4 – Centered on a brightness value of 192 and tapers off to both 129 and 255. Light midtones are affected.
- Zone 5 – Centered on a brightness value of 255 and tapers off to a brightness of 192. Lightest tones are affected.

These Blend If zones can be used to progressively adjust the different tonal ranges of the image to create better tonal balance between zones and across the image. To visualize the parts of the image selected by each tonal range, use the colored double-arrow at the top of the Combo or Cx modules to show, in color, what is being revealed on that layer. Layer masks can be used to further restrict what is revealed by each layer.

5. MASK

The mask-making interface for the module changes depending on the SOURCE chosen for generating a mask. This section will review the different interfaces and what the buttons in each does.

NOTE: The Multi-Mask module creates a "_TK_Mask" group (or layer) and a "_TK_Modify" group on the Layers panel whenever it is generating masks. The "_TK_Mask" group contains layers that are adjusted as you click buttons or move sliders in the mask-making interfaces of the module. It's the adjustment of these layers that create the different masks. The "_TK_Modify" group contains layers that are adjusted when you modify the mask using the MODIFY section of the module. The module keeps track of the different layers in these groups and makes sure the correct one is active for a particular setting or adjustment. It is strongly recommended to NOT manually make adjustments to these layers unless the module gives you the option to do so, like with the Curves and Layers buttons in the MODIFY section. Also, do not manually remove these layers or groups. Doing so causes the mask being created to be lost. To exit making a mask, use the X button in the upper right corner of the mask-making interface. It will clean the Layers and Channels panels of any masks the Multi-Mask module has created and return you to the module's main interface.

Lights, Darks, and Midtones masks



The buttons in this interface are used to generate standard Lights, Darks, and Midtones luminosity masks, which are based on pixel luminance. There are also seven buttons near the top that provide different channels that can be used to generate masks:

RGB button—This channel option is the default for this section and makes traditional "luminosity" masks like those described in the [original tutorial](#). The masks generated correspond to the Lights, Darks, and Midtones masks that use luminance of the Composite RGB image as the data source.

Red (R), Green (G), Blue (B), Cyan (C), Magenta (M), and Yellow (Y) channel buttons—The Red, Green, and Blue buttons produce masks corresponding to the Red, Green and, Blue channels that make up the composite image. The Cyan, Magenta, and Yellow buttons make masks based on corresponding (but fictitious) channels via a method similar for creating the Red, Green, and Blue channels masks. So, while there is no matching Cyan, Magenta, and Yellow channel for these colors in RGB Color mode, the Multi-Mask module can simulate them.

NOTE #1: The module allows you to flip between the seven different channels at any time when generating and modifying a mask. This ability flip-on-the-fly provides a quick and efficient way to determine if a different color channel might yield a more useful mask.

NOTE #2: The buttons leading to the chosen mask will be outlined in green. For example, in the image shown there is a green outline RGB button and the Lights-1 button. This indicates that a Lights-1 traditional mask made from the composite RGB image is currently being displayed on screen. These green outlines help keep track of the mask's origins and makes it easier to try different alternatives.

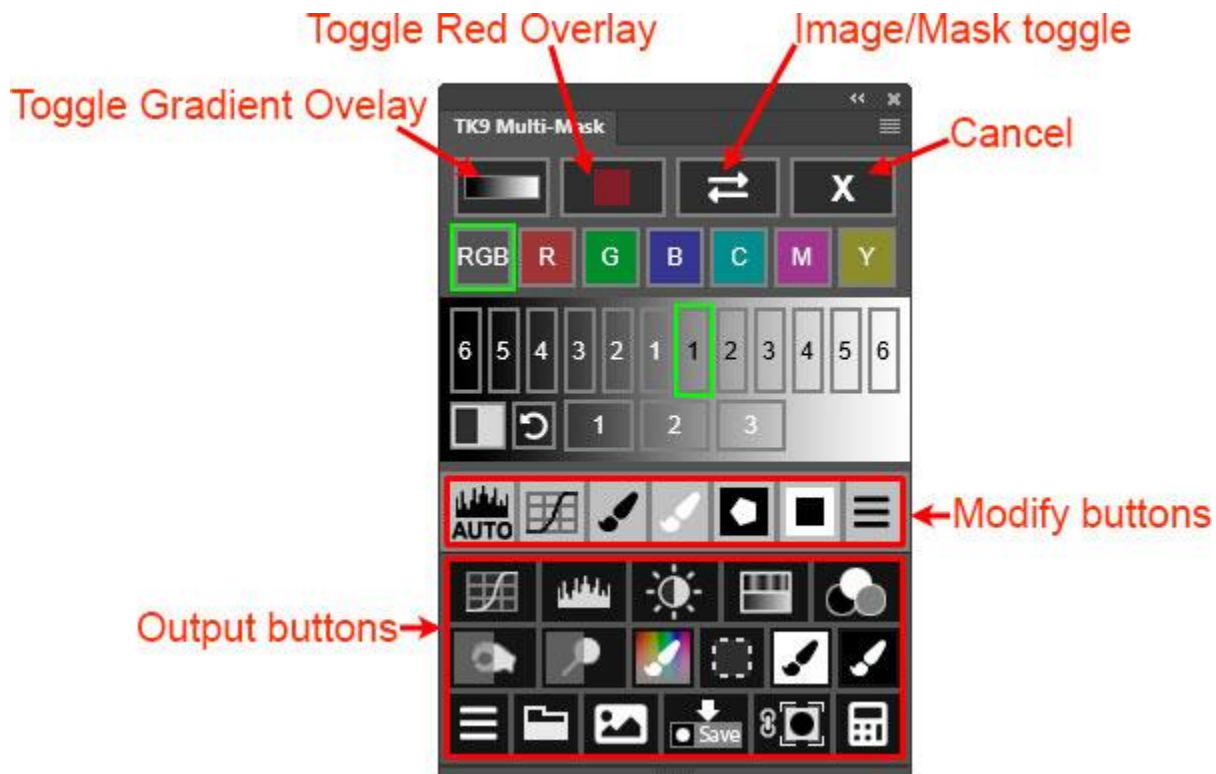
Adjust with Color button—This button opens a open a Black and White adjustment layer Properties dialog to allow using image color to modify the mask being created. The individual colors in the image (red, yellow, green, cyan, blue, and magenta) can be made lighter or darker in the mask via the sliders on the Properties panel.

NOTE: It's best to use this feature when working with a Lights-1 mask since the effect is less predictable with Darks and Midtones masks.

Color Adjust reset button—Immediately to the right of the Color Adjust button is an "undo" button to reset color modifications to what the mask would look like if it were created based on the RGB channel.

Buttons common to multiple mask-making interfaces

The Red Overlay, Image/Mask toggle, and Cancel (X) buttons are present in all interfaces that provide different MASK options. In addition, the Gradient Overlay button is available in all interfaces where masks based image tones are being created (Lights/Darks/Midtones, Zone, and Blend If masks).



Red Overlay button—This button changes the revealed areas in the mask to colors that range from bright red to faint pink depending on the degree to which the pixels are selected. Pixels that are 100% selected will show as a saturated red color when the overlay is active. As the degree of selection falls, so does the intensity of the color. Once pixels turn a textureless gray color with the overlay turned on, pixels are 0% selected. This color overlay helps to better see weakly selected pixels that would otherwise be nearly black in the on-screen mask. If you like this red overlay, you can leave it turned on as you try out different masks.

Image/Mask toggle—This button toggles between viewing the mask and viewing the actual image on which the mask is based. Toggling back and forth can help determine if the mask being created is targeting the correct parts of the image.

Cancel button—This button exits the process of generating a mask. The MASK interface is closed and the main interface is displayed. Layers on the Layers panel being used to create the mask are also deleted and the main image is once again displayed in the workspace.

Gradient Overlay button—This button adds a black-to-white gradient at the bottom of the on-screen mask to show the tonal range being selected by the mask. It is a toggle button for both generating and removing the black-to-white gradient. Click once to see the gradient and click again to remove it.

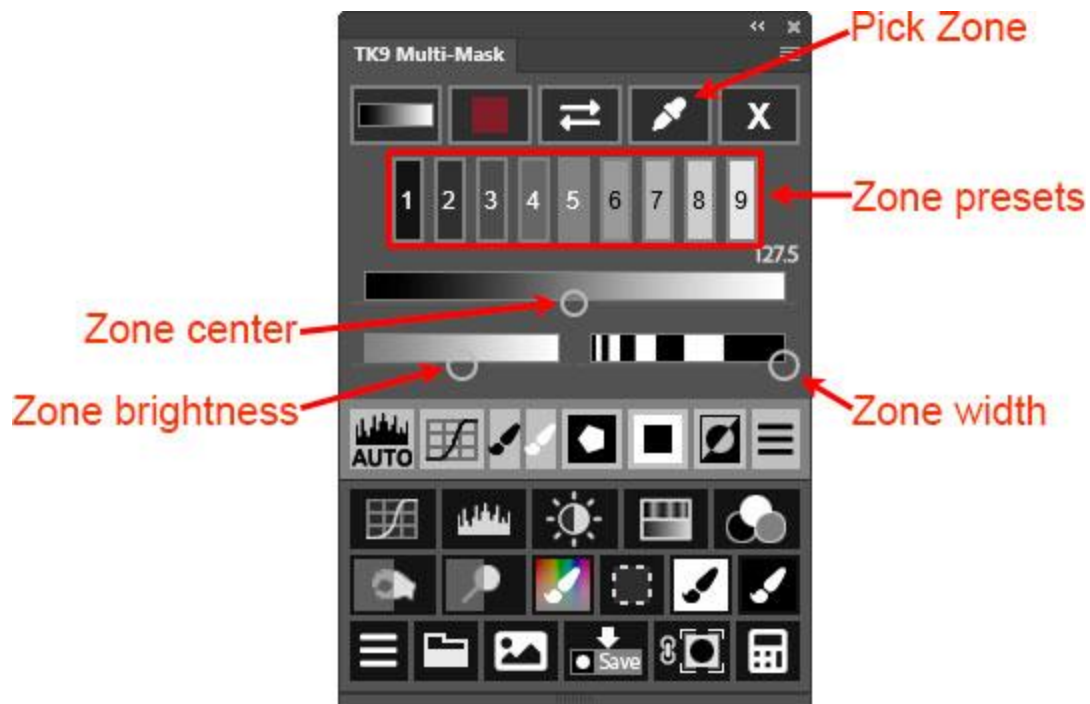
NOTE: As mentioned above, the Gradient Overlay button is only available when creating Lights/Darks/Midtones, Zone and Blend If masks as these are the only tone-based masks where a black-to-white gradient can depict what is being selected.

Modify and Output buttons—These buttons are used to modify and deploy (output) the mask that is created using the interface's mask-making buttons. They are discussed in detail further down in the instructions.

Zone masks

The Zone masks in the Multi-Mask module generate masks based on pixel luminance specifically centered on a selected tone from the image. The selected tone appears lightest in the mask. Similar tones, both lighter and darker than the selected tone, will appear light gray in the mask. As tones differ more from the selected tone in brightness, they get darker in the mask.

To make a Zone mask, click the Zone mask button on the main interface. The Color Picker opens to select a tone from the image. Clicking OK in the Color Picker causes the module to build a mask centered on that tone. A new interface opens for adjusting this mask. The image below reviews the options.



Zone center slider—This slider's position shows the tone that will be brightest in the mask. In the above image, the slider handle is centered on middle gray and so would be generating a Zone 5 mask on-screen.

NOTE: If you have your Eye Dropper tool set to "3 by 3 Average" or "5 by 5 Average" when selecting a tone using the Color Picker, the Zone center calculated by the module should already be very accurate for making your selected tone the lightest tone in the mask.

Zone brightness slider—This slider determines how bright the lightest gray value will be in the mask.

NOTE: My personal experience is that Zone masks generally work better when there is no pure white in the mask. This produces a mask with less contrast that makes for better blending.

Zone width slider—This slider adjusts the Zone mask's tonal width. By default the Zone width slider is set at its widest setting. As the slider handle is moved to the left, the selected zone becomes narrower while remaining centered at the position of the Zone center slider handle. Extremely narrow Zone masks, especially for midtones, can sometimes lack sufficient pixels for smooth blending, so be a little cautious in adjusting the Zone width in order to make sure the mask has feathered edges.

Pick button—This button for Zone masks allows you to change your selected tone at any time. Simply click it to open the Color Picker to choose a new tone from the image as a starting point for making a Zone mask.

Zone presets (1 through 9)—These buttons make preset Zone masks based on specific tones. Clicking one of the Zone preset buttons positions the Zone center slider handle under that button and resets the Brightness and Feathering sliders to their default positions. The Brightness and Feathering sliders can, of course, still be used to further fine-tune a preset Zone mask.

NOTE #1: Zone masks can be generated for any tone, however, for a Zone 0 mask (100% black tones in the image), consider using a Darks luminosity mask, like Darks-5 or Darks-6. To create a Zone 10 mask (100% white tones in the image), consider using a Lights luminosity mask like Lights-5 or Lights-6. Lights and Darks masks already emphasize the pure white and pure black tones at the two ends of the tonal spectrum, and there are more options available for making these masks (like color channels) in the Lights, Darks, and Midtones masks interface.

NOTE#2: The on-screen Zone mask sometimes has significant banding, especially for narrow zones. These are compression artifacts caused by Photoshop when it shrinks images with multiple adjustment layers to fit on the monitor. The banding completely disappears when the image is viewed at 100%, and the final mask output from the Multi-Mask module will be just as smooth. So, if you see banding when making Zone masks, don't be too concerned. It's not actually present in the mask and likely will not be there when the mask is output unless the bands are already present in the image itself.

Blend If masks

To make Blend If masks, click the big Blend If button in the top row of the main interface. This opens the Blend If mask-making interface and displays a Lights-1 mask.

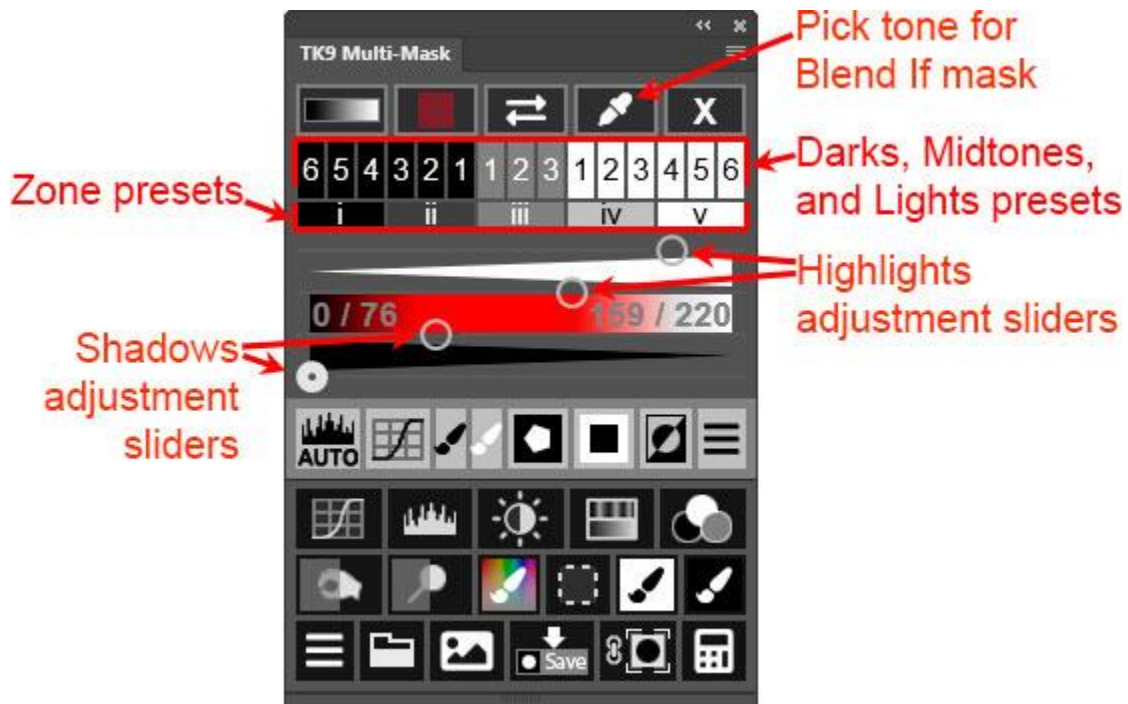
Blend If masks are based on pixel-level luminance and are generated using Blend If settings in Photoshop's "Layer Style" dialog window, like those shown in the image below.



Normally, when using Blend If in Photoshop, it is not possible to preview what is being selected by the Blend If settings. TK9 changes that. The Multi-Mask module replicates the Blend If sliders for the "Gray" channel AND displays an on-screen mask of the tones that are being selected by these sliders. So, it's now possible to preview Blend If settings as a mask before applying them to the image.

Additionally, since Blend If masks are contained within a panel that also provides mask modification and output (in addition to mask creation), there are more options for using Blend If masks. For example, the Multi-Mask module makes it possible to generate a selection of a Blend If mask. It's not possible to make a selection of Blend If settings from Photoshop's "Layer Style" dialog window. Localizing an effect by painting through a selection can sometimes be advantageous compared to painting it in where only Blend If settings control what gets painted.

The image below details the parts of the customization features interface for making Blend If masks.



Shadows and Highlights sliders—Blend If has two sliders for shadows and two sliders for highlights. The bottom two sliders in the Blend If interface are for shadows and the top two sliders are for highlights. Between the two sets of sliders is a black-to-white gradient. A red overlay on this gradient shows the tones that are being selected in the image, and this red overlay matches the white portion of the Gradient Overlay, if it is toggled on.

NOTE #1: Clicking down on the handle of any slider will display the Blend If values for all the sliders on the interface's black-to-white gradient. These values also change in real-time as the sliders are moved.

NOTE #2: Right-click on either of the Shadows sliders to set both to 0 (zero). Right-click on either of the Highlights sliders to set both to 255.

NOTE #3: Hold down "CTRL" (Windows) or "command" (Mac) when clicking either of the Shadows sliders to move both Shadows sliders at the same time while maintaining the current separation between them. Hold down "CTRL" (Windows) or

"command" (Mac) when clicking either of the Highlights sliders to move both Highlights sliders at the same time while maintaining the current separation between them.

Darks, Midtones, and Lights presets—Above the sliders are buttons for Darks, Midtones, and Lights presets to make pre-defined Blend If masks. There are also five zone mask presets for "tone zones" ranging from the darkest shadows to the brightest highlights with feathering into surrounding tones to avoid obvious edges. When one of these buttons is clicked, a red outline appears around it and the shadows and highlights sliders set themselves to correspond to that preset mask. The sliders, of course, are still completely adjustable after clicking a preset. Moving the sliders can change which tones get selected by the mask how the selected tones feather into surrounding tones.

Pick button—This button allows you to select a tone from the image using the Color Picker and then a Blend If mask is built around this tone. The selected tone is the most-selected tone in the mask and the Blend If sliders feather the selected areas into the surrounding tones. Use the sliders to adjust the selected tone or the feathering as necessary.

NOTE: Blend If masks are different than the Lights, Darks, and Midtones masks and Zone masks generated using different interfaces in the Multi-Mask module. For example, Blend If masks are built using pixel luminosity data instead of pixel luminance data, so this alone will make them look slightly different. However, the main visual difference will be that Blend If masks generally have greater contrast than the other tone-based masks. There is almost always pure white and pure black in the mask with a feathering of gray tones in between. Depending on how the sliders are set, there may also be less feathering between tones that are fully revealed in the mask and those that are fully concealed by the mask. This is not to say that Blend If masks are less useful than other tone-based masks. They're just different, and users will have to experiment to find out which mask works best for their image.

Special considerations for outputting Blend If masks—Blend If masks are unique in that even though they are able to be viewed as masks on-screen, actual Blend If settings in Photoshop's "Layer Style" dialog are used to construct them. This means that when the intention is to mask a layer with the on-screen mask, the Blend If mask can be output as Blend If settings instead. To take advantage of this option, hold down the "SHIFT" key when using one of the OUTPUT buttons at the bottom of the mask-making interface. This will output the on-screen mask as Blend If settings instead of as a layer mask when a layer mask would otherwise be the normal output method. Additionally, holding down "CTRL" (Windows) or "command" (Mac) when outputting Blend If masks creates the new output layer at the top of the layer stack.

NOTE: Output as Blend If settings instead of as a layer mask only works if NO modifications have been made to the Blend If mask using the light gray modification buttons. Only Blend If presets, picks, and slider values can be

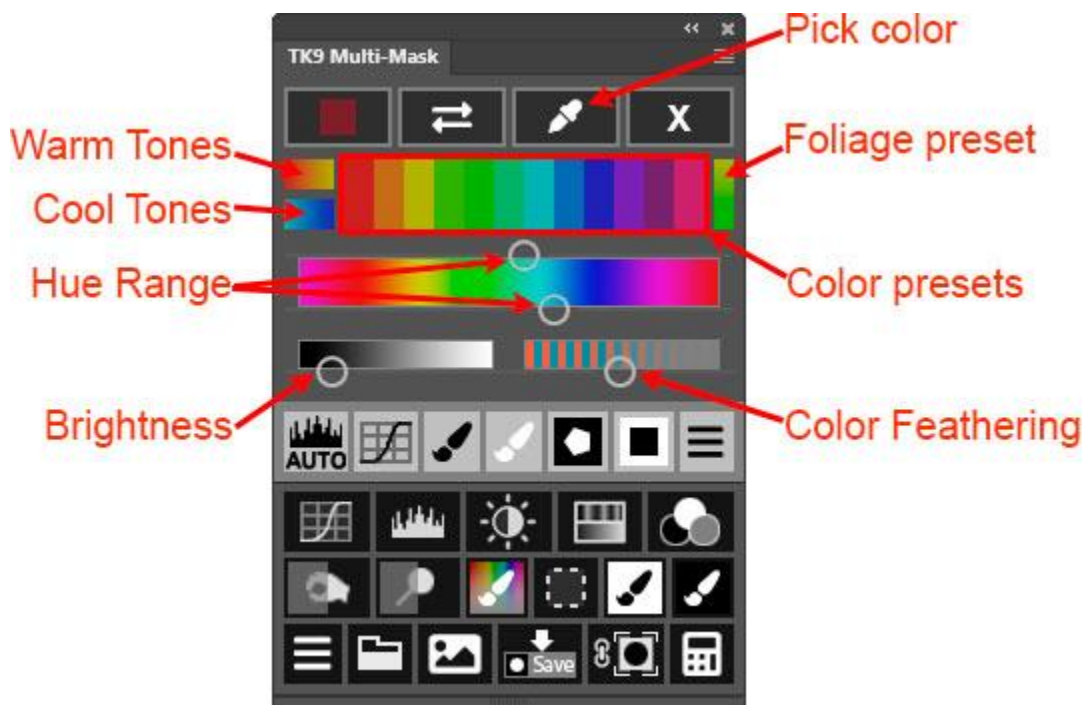
incorporated into layer Blend If settings. No modifications, like Curves or Levels, or painting with Black and White on the mask can be incorporated when outputting as Blend If settings.

Color masks

To create a Color mask, click on the Color mask button in module's main interface. The Photoshop Color Picker opens. Use its eyedropper to select a color from the image around which the mask will be built. Clicking OK on the Color Picker opens the Color mask interface as a new Color mask is generated on-screen. You can then use sliders and buttons in the figure below to further adjust the mask.

Note #1: Hold down "CTRL" (Windows) or "command" (Mac) when clicking this button to create a color mask that reveals the complementary color to the one picked using the Color Picker.

Note #2: Sean Bagshaw has [an excellent video](#) on Color masks that shows some of the many ways they can be used. The video uses a different panel, but the layout and interface is similar to that in the Multi-Mask module.



Hue Range slider—The top and bottom sliders of this color gradient select the range of hues around which the Color mask is built. The top slider selects the lower bound for the hue range and the bottom slider selects the upper bound. The hue

range can be contracted or expanded depending on what needs to be selected in the image.

Brightness slider—This slider adjusts the brightness of the Color mask. Masks that target weak colors (those with low levels of color saturation) can benefit from an increase in brightness.

Color Feathering slider—This slider adjusts the color feathering into surrounding colors. This is feathering based on color hue, not on brightness and not on the physical proximity to the selected color in the image. Pull the slider left to create sharper boundaries between similar colors and move the slider right for a more gradual transition into similar colors. This color feathering allows excellent blending of adjustments through color masks into the rest of the image.

Color presets—These buttons make preset Color masks based on the color of the button clicked. New in TK9 version 3.0.0 are presets to select warm colors, cool colors, and foliage colors.

Pick button—The Pick button allows for selecting a new color from the image around which a new Color mask is built. Clicking it opens the Color Picker in order to select a new color from the image as a starting point for making a Color mask.

Note #1: Hold down "CTRL" (Windows) or "command" (Mac) when clicking this button to create a color mask that reveals the complementary color to the one picked using the Color Picker.

My Channels masks

My Channels masks are a way to bring existing selections and masks into the mask-making workflow. Click the My Channels button on the main interface to open a menu of available choices. Depending on the current state of the image, the following items will appear on the list:

- The current active selection (if one exists)
- The current layer mask of the active layer (if one exists)
- User-saved alpha channels on the Channels panel (if they exist)

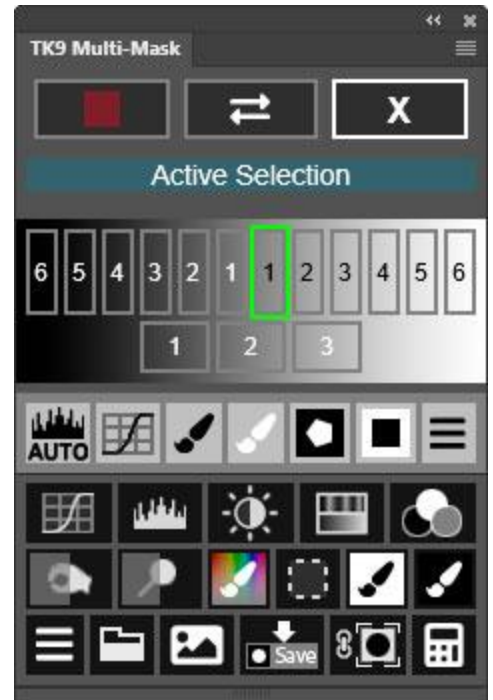
The Multi-Mask module looks for all these options and what it finds gets displayed as a list in a new window that opens on the module. Clicking one of the items in the list loads that option as a new mask and displays the My Channels interface, where different variations of the mask can be tried. The mask can also be modified and deployed using the new interface. The teal-colored title bar in the



My Channels interface displays the data source (Active Selection, Layer Mask, or Channel name) that was used to generate the mask.

My Channels masks are particularly useful for calculations using the mask calculator in the OUTPUT section. Highly specific masks can be created by combining pixel-value masks generated by the Multi-Mask module with an active selection or with masks previously saved by the user that target specific elements in the image.

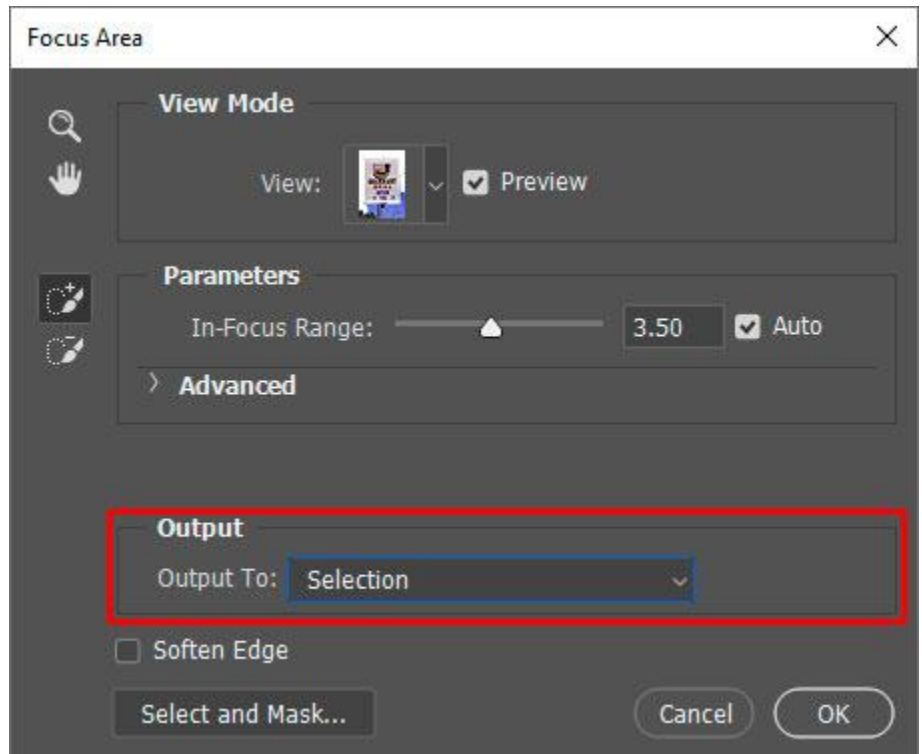
[This video](#) by Sean Bagshaw shows several ways to use My Channels masks. It uses a different panel, but the same concepts apply with the Multi-Mask module.



Focus mask

The Focus mask is accessed using the "focus" icon button on the second row of big buttons on the main Multi-Mask interface. Clicking it opens Photoshop's Select > Focus Area... dialog window. This interface can be used to generate the desired Focus mask.

NOTE: The output option from the "Focus Area" dialog window MUST be set to "Selection."



Once satisfied with the mask, click "OK" in the dialog window. The Focus mask interface opens with the Focus mask displayed on-screen. Unlike many of the other pixel-value masks, the TK9 Multi-Mask module is not interacting with Photoshop at this point to generate the Focus mask. As such, there are no fine-tuning options specifically for the Focus mask in the new interface. However, the normal MODIFY options are still available and then the mask can be output using any of the options in the OUTPUT section of the module.



Edge mask

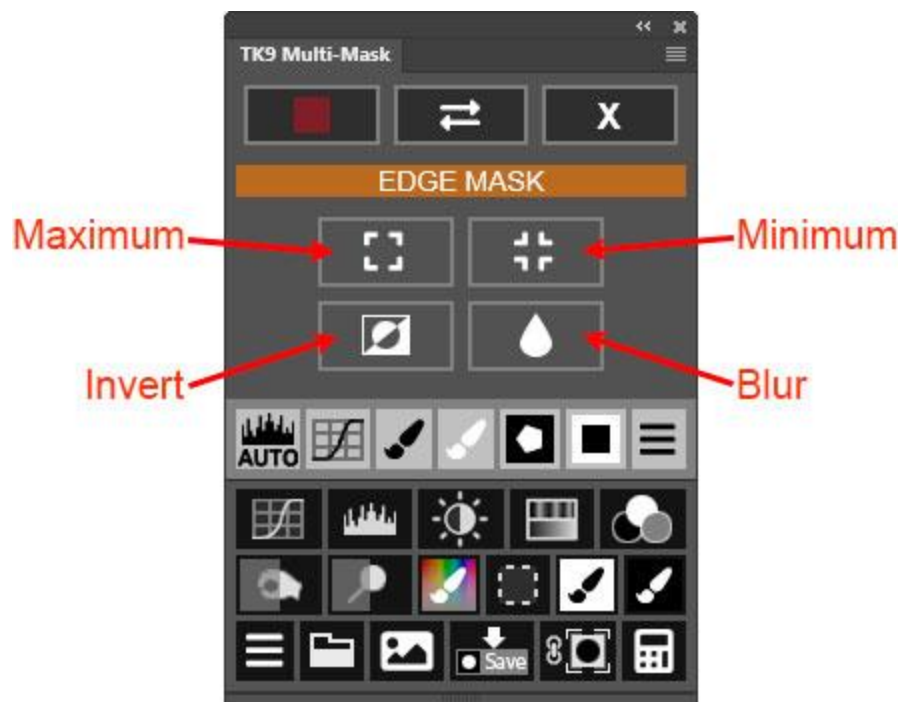
The Edge mask is accessed with the button on the main interface that is the outline of a flower. An Edge mask looks at pixel contrast. Light areas of the mask indicate high contrast between adjacent pixels. As with the other masks, Edge masks have their own interface for adjusting the mask to better fit the image as described below.

Maximum—Opens the Maximum dialog window for expanding the selected areas of the mask.

Minimum—Opens the Minimum dialog window for contracting the selected areas of the mask.

Invert—Inverts the mask.

Blur—Opens the Gaussian Blur dialog window for blurring the selected areas of the mask.



Half-Edge mask

Half-Edge masks are accessed by holding down "CTRL" (Windows) or "command" (Mac) and clicking the Edge Mask button. These masks are able to select either the light side or dark side of edges in the image where the edge has a tonal difference. The masks are also effective at isolating narrow elements that have brightness differences related to their edges but that might be hard to otherwise select with Luminosity, Zone, or even Color masks. An example is a light halo along a darker object. A Half-Edge mask can quickly select it, allowing it to be darkened or changed to better blend into the image

The user interface allows users to choose either the Light or Dark side of the edges. The Gaussian Blur dialog window opens when clicking one of these buttons. It suggests a blur radius that usually works well for selecting the chosen half-edge. Increasing the radius expands the selection into more tones with similar brightness to the half-edge that has been selected, i.e., more light tones if a Light Half-Edge mask has been chosen or more dark tones if a Dark Half-Edge mask has been chosen.



The Adjust Blur Radius button appears only after the initial choice for a Light or Dark Half-Edge mask has been made. Clicking it allows editing of the blur radius, thereby changing the width of the chosen edge (Light or Dark) that will be selected.

Half-Edge masks that select the light side of an edge can be used to add glowing edges to light objects by outputting the mask to a Curves adjustment layer and setting the blend mode to Screen.

Half-Edge masks that target the dark side of the edge can be used to add image sharpness WITHOUT creating light halos. In this case, output the Dark Half-Edge mask to a Curves adjustment layer and change the blend mode to Multiply. This creates increased edge contrast (which is the principle behind image sharpening), but only on the dark side of the edge. Light edge halos are avoided by sharpening in this manner.

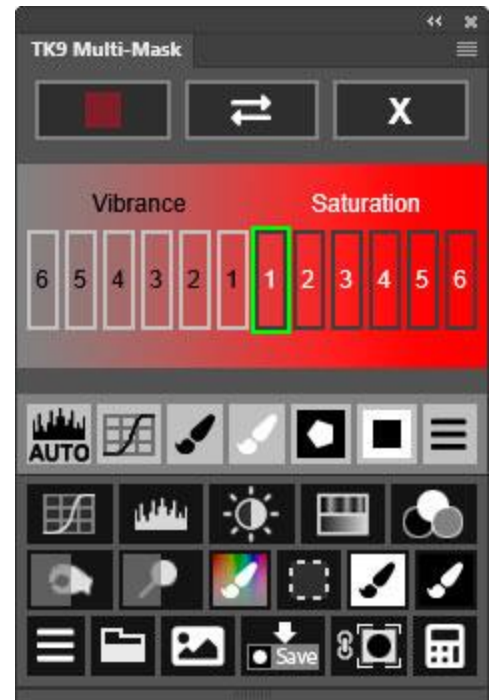
NOTE: The edges present in image's NOISE are also selected by these masks, which might enhance noise in the image depending on how the mask is deployed.

Saturation/Vibrance masks

Saturation and Vibrance masks are accessed using the gray and red button on the main interface. Again, when this button is clicked, a new interface opens and a new mask appears on-screen.

Saturation and Vibrance masks use pixel saturation as their data set for creating masks. Saturation masks show pixels with high color saturation as being brightest in the mask, and Vibrance masks show pixels with low color saturation as being brightest in the mask. [This tutorial](#) has additional information about these masks and how to use them. Global and local adjustments with these masks open a new world of precision saturation control that isn't normally part of the workflow, but can make a noticeable difference once it's applied.

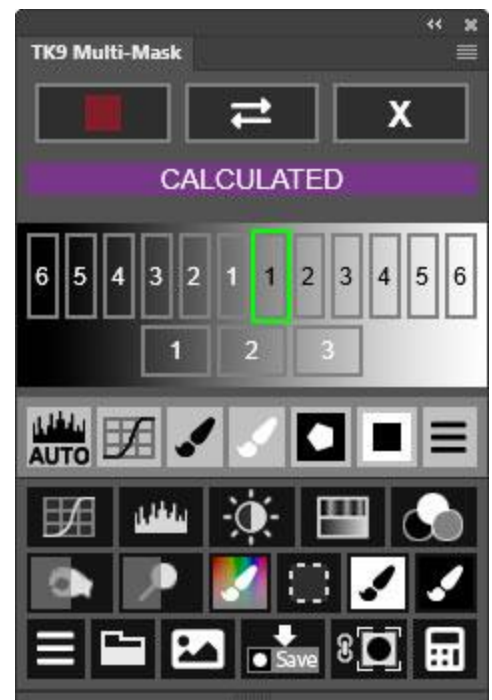
NOTE: The colors in most photographs are nowhere near the maximum saturation level allowed by Photoshop. Consequently, Saturation masks tend to be dark since there are no 100% saturated pixels in the image. The MODIFY section of the Multi-Mask module can be used to lighten Saturation masks if needed. Vibrance masks, on the other hand, tend to be quite light since there are normally lots of low-saturation pixels in an image. A more restrictive Vibrance mask (Vibrance-3, -4, or -5) can be used to generate a more Vibrance-focused mask.



Calculated masks

The Calculated mask interface only appears after completing a calculation using the mask calculator found in the OUTPUT section of the module. There is no button for the Calculated masks on the main interface. It is only activated after clicking the Equal (=) button to finish a mask calculation. The Calculated mask interface is very similar to the Lights, Darks and Midtones interface except it lacks the different channel options (RGB, Red, Green, Blue, Cyan, Magenta, and Yellow), which aren't applicable since this interface is for making different masks from a calculated mask source and NOT directly from the image. Calculated masks can themselves be used for additional calculations with the mask calculator.

The mask calculator is explained in greater detail in the OUTPUT section below.



6. MODIFY

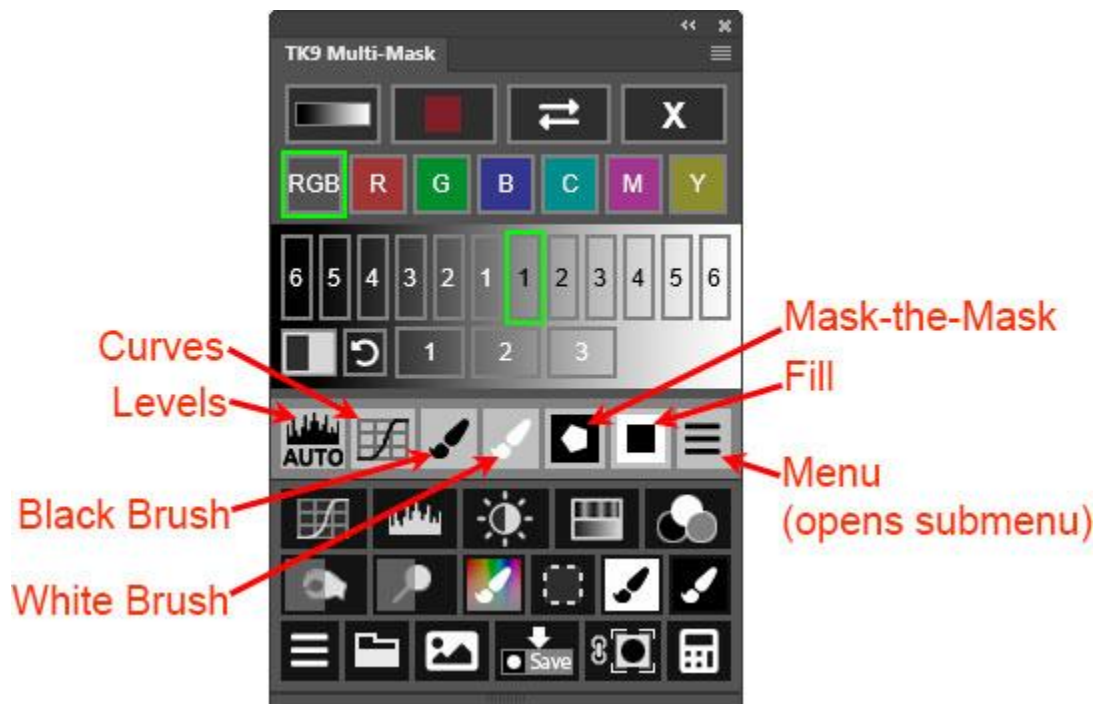
Below the interface for creating a specific mask using the buttons and sliders available for that mask, there is a row of light gray buttons that can be used to further modify the mask to better target it to specific parts of the image. There are actually two levels to this MODIFY section. The most commonly used modification options are located at the top level and are displayed each time the mask-making interface is freshly opened. Clicking the Menu button at the right end of this main menu opens the MODIFY submenu with additional modification options that are used less often. The buttons in this section allow modification to be accomplished quickly and accurately.

NOTE: The "_TK_Modify" group on the Layers panel is where the module performs the various modification operations. Generally, this group is closed, but it will open to provide the user access to the various layers in the group for specific modification functions like Curves and Levels adjustments, and when brushing black or white paint onto the mask. It's recommended to NOT manually access or adjust the layers in this group. Let the Multi-Mask module provide the access by clicking the buttons in the MODIFY section.

Top level MODIFY buttons

Levels and **Curves**

buttons. These buttons select a corresponding adjustment layer in the "_TK_Modify" group as the active layer and open the Properties panel for that layer. Use the Properties panel to make an adjustment to the mask. For example, moving the Levels highlights slider left turns light gray tones white and moving the Levels shadows slider right turns dark gray tones black. This is a quick way to add contrast to a mask. The Levels midtones (gamma) slider can also be used to darken (pull the slider right) or lighten (pull the slider left) midtone gray values in the mask, which again affects overall contrast in the mask. Many masks can benefit from a bit of fine-tuning with a Curves or Levels adjustment. New in TK9 version 3.0.0, double-clicking the



Levels button invokes an auto-Levels adjustment on the mask to provide a range of tones **in the mask** that extend from black to white. This can be helpful for quickly generating a mask with a full range of tones when the initial mask is quite dark overall.

Black Brush and White Brush buttons—These two buttons activate the corresponding brush color (black or white) so that you can paint that color directly on the on-screen mask. Black paint conceals what is selected by the mask and white paint reveals what is selected by the mask. Brush opacity is automatically set to 100%. Select brush size and hardness as required to achieve the desired modification of the mask.

Mask-the-Mask button—Sometimes you might want the selected part of a mask to be confined to certain parts of the image, like the clouds in a landscape photograph or the face in a portrait. Areas outside the designated element, however, may have similar pixel-value characteristics and be included as selected in the initial version of the mask. To quickly remove them, create a selection of just those elements to be included in the mask. This can be done with a selection tool, like the Lasso or Marquee. A saved selection can also be loaded to define the desired area where the luminosity mask should be revealed. Then click the Mask-the-Mask button to turn the areas outside the selection edges black. This effectively conceals these areas when the mask is deployed as a layer mask or active selection.

Fill button—This button is new in TK9 and allows filling large parts of the mask with either black or white paint to conceal or reveal specific parts of the image in the mask. This can be useful when combining exposures using luminosity masks to manage the transition zone, though there are other times that quickly filling parts of the mask with black or white can speed the mask-making process. To use the Fill modification option, first make a selection of the area that needs to be filled with the Lasso or Marquee tool. Then click the Fill button. This will open Photoshop's "Fill" dialog window where the fill for this selection (usually black or white) can be defined. Clicking "OK" in the "Fill" dialog adds the designated fill to the mask.

NOTE #1: For both the Mask-the-Mask and Fill options, the "Gaussian Blur" dialog window will open as a final step. This allows the opportunity to feather the edge of areas where paint was added to the mask by adding blur to the layer. While pixel-value masks created by the Multi-Mask module are naturally self-feathering, combining them with a hard-edged selection (like Lasso or Marquee) can still produce a hard-edged mask. Blurring the edges can help ensure smooth blending for selections created using Photoshop's standard selection tools. Depending on how Mask-the-Mask and Fill are utilized, blurring the edges may or may not be necessary. It all depends on the image and the mask. It's always possible to click "Cancel" in the "Gaussian Blur" dialog to add no blur at all. Finally, it's worth noting that blurring the painted added with Mask-the-Mask and Fill will NOT blur the rest of the mask. It only blurs the layer used for Mask-the-Mask or Fill.

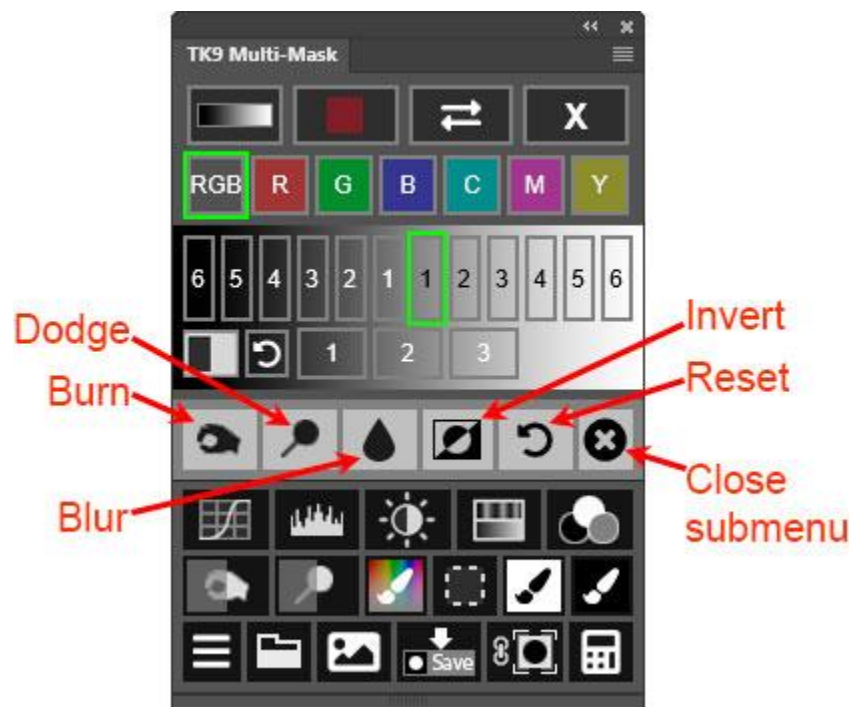
NOTE #2: The Layer Mask Calculator in the Combo or Cx module can be used to quickly load previous selections that have been saved as masks. These selections can then be used with the Mask-the-Mask and Fill modification options.

Submenu MODIFY buttons

The MODIFY submenu has modification options that should generally be used near the end of the mask modification process. The Burn, Dodge, and Blur buttons create a new pixel layer that potentially blocks seeing additional modifications like Curves and Levels if these have already been initiated. Inverting the mask with the Invert button might also lead to confusing results if previous modifications like Curves, Levels, Black Brush, or White Brush are revisited. As such, use of the submenu modifications is best reserved until just before the mask is output for its intended use.

Burn and Dodge buttons—These button select (or create) an on-demand pixel layer that replicates the on-screen mask which can then be used for burning and dodging with Photoshop's Burn and Dodge tools. Burning shadows and dodging highlights increases mask contrast and creates sharper edges. The Burn and Dodge buttons generate (or select) the necessary pixel layer, choose the corresponding tool, and also select the appropriate range (Shadows for burning and Highlights for dodging). Just paint on the image to burn and dodge. Multiple strokes are sometimes necessary to achieve the desired results.

Blur button— This button selects (or creates) an on-demand pixel layer that replicates the on-screen mask and then opens the "Gaussian Blur" dialog window so that the mask can be blurred.



NOTE: Burn, Dodge, and Blur buttons generate (or select) a new PIXEL layer. Once generated, this pixel layer obscures layers below it and makes some modifications, like updating the mask using the sliders on the Multi-Mask module, impossible to see. As such, it's best to reserve the burn, dodge, and blur modifications until near the end of the mask-creation process once a satisfactory initial mask has been generated and modified. Clicking the Reset modify button can be used to remove burn, dodge, and blur modifications. Also, clicking one of the preset mask buttons in the interface generates a new mask and removes all modifications, including burn, dodge, and blur.

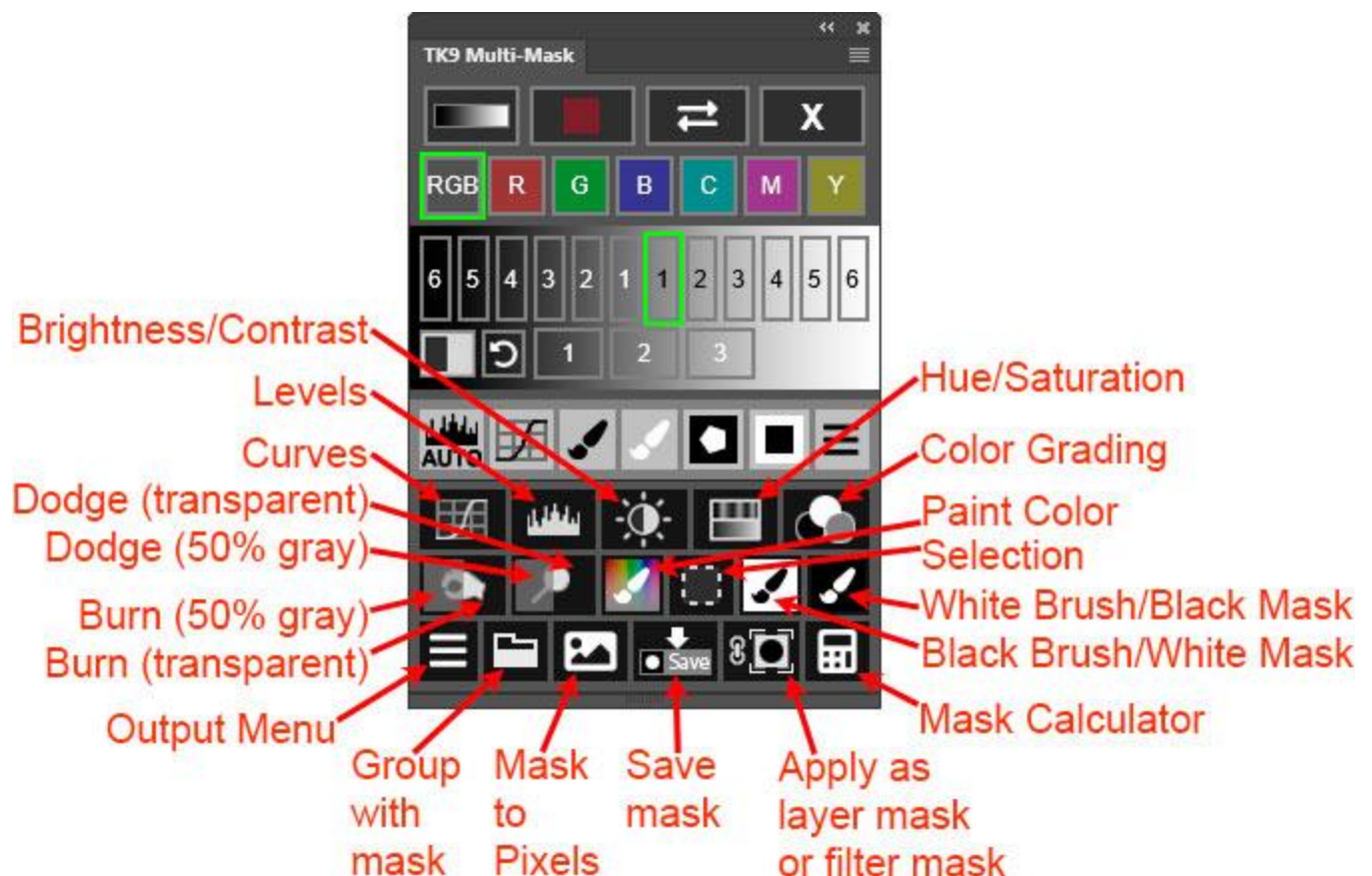
Invert button—This button inverts the mask. This is useful for making a mask that conceals parts of the image that were originally selected. Inverting the mask with the Invert button might lead to confusing results if previous modifications like Curves, Levels, Black Brush, or White Brush are revisited.

Reset button—This button resets all modifications so that the mask returns to what it was before any modification occurred.

X button—This button closes the submenu and displays the main MODIFY menu.

7. OUTPUT

The OUTPUT section of the Multi-Mask module is where the mask that is being generated, viewed, and modified on-screen is actually turned into a mask or selection and put to use to alter the image. The figure below identifies each button, and the paragraphs that follow describe the operation of the buttons and provide additional information regarding their use.



NOTE #1: With the exception of the Save Mask button and the Mask Calculator button, the groups and layers creating the on-screen mask preview are removed from the Layers panel when output occurs. So, it's not possible to reuse mask previews because generally the Layers panel will be needed to further adjust the

image once the mask is deployed. If there is a mask that you think you'll want to reuse at some point, first save it using the Save Mask button so it is available on the Photoshop Channels panel for future use.

NOTE #2: Don't forget that when making Blend If masks, the on-screen mask can be output as Blend If settings instead of as a layer mask by holding down the "SHIFT" key when clicking one of the OUTPUT buttons that normally provides a layer mask of the on-screen mask, e.g. making a Curve adjustment layer. Also, no mask modifications in the MODIFY section can be incorporated into Blend If settings. Only the Blend If sliders get used when outputting Blend If masks as Blend If settings.

NOTE#3: There is a preference in the module's fly-out menu called Auto-show Properties panel. It is toggled on by default and opens the Photoshop Properties panel each time the module creates an adjustment layer where a Properties adjustment might be a logical next step. If you have the Photoshop workspace configured so the Properties panel is always open or if you find it annoying to have the Properties panel open unexpectedly, this preference can be toggled off.

Curves, Levels, Brightness/Contrast, and Hue/Saturation buttons--These buttons create the corresponding type of adjustment layer with the on-screen mask as the layer mask on the layer. The layer mask filters the adjustment to the pixels selected by the mask.

Color Grading button—This button creates a Curves adjustment layer named "Color Grading (TK)" and applies the on-screen mask as a layer mask on this layer. The Multi-Mask module's Color Grading interface is then opened (instead of the Properties panel) to allow using it to make color grading adjustments to the image in areas revealed by the layer mask. See "Color Grading" section below for more details.

Burn/Dodge buttons—Both these buttons have two sides. A "gray" side on the left and a "transparent" side on the right. Clicking the "gray" side creates that type of layer (Burn or Dodge) with the layer filled with 50% gray at the top of the layer stack. The advantage of using a 50% gray layer for burning and dodging is that it's easier to see where you've burned and dodged on the image since the black and white paint is more obvious against the 50% gray background. The transparent sides of these buttons (the right side) create a Burn or Dodge layer at the top of the layer stack that is completely transparent. The advantage to using transparent layers for burning and dodging is that the paint applied to the layer can easily be loaded as a selection by holding down "CTRL" (Windows) or "command" (Mac) and clicking on the layer itself. This selection can then be used as a layer mask for additional adjustment layers that affect the painted pixels. In addition to making the chosen type of Burn/Dodge layer (50% gray or transparent), these buttons also load the current on-screen mask as a selection, activate the Brush tool, and choose the appropriate paint color (black for burning and white for dodging). After clicking the button, adjust brush size, hardness, opacity, and flow and start painting on the

image. The active selection of the mask controls which areas of the image receive paint and which don't.

NOTE #1: Holding down "CTRL" (Windows) or "command" (Mac) and clicking on these buttons creates a layer mask of the current on-screen mask instead of loading it as an active selection. In this scenario, the layer mask determines which areas get burned and dodged instead of the active selection.

NOTE #2: Holding down "SHIFT" and clicking on these buttons creates Blend If settings of the current on-screen mask (if it is a Blend If mask) instead of loading it as an active selection. In this scenario, the Blend If settings determine which areas get burned and dodged instead of the active selection.

Paint Color—This button creates a transparent pixel layer at the top of the layer stack set to Linear Light blend mode and a layer "Fill" opacity of 15%. This layer allows adding color to the parts of the image selected by the original on-screen mask. The mask is loaded as a selection and then the user is prompted to choose a color with the Color Picker. Generally a color will be selected from the image. The color should be one that will be helpful in providing color accents or a color wash in the areas selected by the mask. The Linear Light blend mode means that any selected pixels can change color when painted, even pure white and pure black pixels. This is different than with Soft Light and Overlay blend modes where pure white and pure black pixels cannot be changed. As such, Linear Light blend mode is useful in adding color to pixels that would normally be hard to add color to. In order to burn and dodge with color, change the layer's blend mode to Soft Light or Overlay using the Combo or Cx module.

NOTE #1: Holding down "CTRL" (Windows) or "command" (Mac) and clicking on this button creates a layer mask of the current on-screen mask instead of loading it as an active selection. In this scenario, the layer mask determines which areas get painted instead of the active selection.

NOTE #2: Holding down "SHIFT" and clicking on this buttons creates Blend If settings of the current on-screen mask (if it is a Blend If mask) instead of loading it as an active selection. In this scenario, the Blend If settings determine which areas get painted instead of the active selection.

Selection—This button loads the on-screen mask as an active selection. This is usually done in order to paint on a layer mask (mask painting) or for burning and dodging on Burn/Dodge layers.

NOTE: The module hides selections edges (marching ants) by default when it creates an active selection. It also displays an animated black and white selection indicator around the perimeter of the module whenever there is an active selection. So even though no selection edges are visible, the module continues to remind you when there is an active selection.

Black Brush/White Mask and White Brush/Black Mask buttons—These are Quick Paint buttons and intended to be used to quickly set up mask painting. These buttons do several things:

- 1) A layer mask is added to the current active layer that matches the background color of the button. A "hide-all" mask is black and a "reveal-all" mask is white.
- 2) The Brush tool is activated.
- 3) The foreground color is set to match the button's brush color (black or white), which is the opposite of the mask's color.
- 4) The visibility of the active layer is turned on if it's been turned off.
- 5) The layer mask is selected as the painting canvas.
- 6) The on-screen mask is loaded as a selection.
- 7) The on-screen mask is deleted after being turned into a selection.

Once the action finishes, adjust brush size, hardness, opacity, and flow and start painting on the image. The active selection now controls where paint gets deposited on the layer mask.

Group with mask—This button creates a new empty group on the Layers panel with the on-screen mask added as a layer mask. Additional layers or adjustment layers can be added to the group and the group's mask will control how they are revealed in the image.

NOTE: Since Blend If settings don't always work as expected on Group layers, the option to output a Blend If mask as Blend If settings by holding down the "SHIFT" key when clicking this button is disabled. This option always outputs a layer mask on a Group layer.

Mask to Pixels—While layer masks and selections are the common uses for the pixel-value masks generated by the Multi-Mask module, there are also uses for these masks as actual pixel layers. This button converts the on-screen mask to a pixel layer and places it at the top of the layer stack. This pixel layer offers one possibility for converting color images into monochrome (black and white) images. Other applications for these Mask-to-Pixel layers involve changing the layer's blend mode or opacity, or adding layer effects.

Apply as layer mask or filter mask—Clicking this button applies the on-screen mask as a layer mask to the active layer. To choose the layer that gets the mask, click on it to make it active BEFORE clicking the Apply button. Then when you click the Apply button, the on-screen mask gets added as a layer mask to that chosen layer. If you don't specifically choose a layer before clicking this button, the layer that was active before generating the mask receives a new layer mask matching the on-screen mask. Holding down "CTRL" (Windows) or "command" and clicking on this button applies the on-screen mask as a filter mask. Filter masks can only be applied to a smart object layer that has smart filters, so be sure a smart object layer with smart filters is the active layer before choosing the filter mask option.

Save mask—This button saves the on-screen mask as an alpha channel on the Channels panel. A dialog window opens to allow you to give the mask a new name.

Saving a mask as an alpha channel allows it to be reused at some point further along in the workflow. The Multi-Mask module's My Channels option and the Layer Mask Calculator in the Combo and Cx modules can be used to access masks saved on the Channels panel.

NOTE: Unlike the other output options, saving the on-screen mask as a channel does not delete it and does not close the current mask-making interface. The mask can still be deployed using other OUTPUT options after saving it as a channel mask.

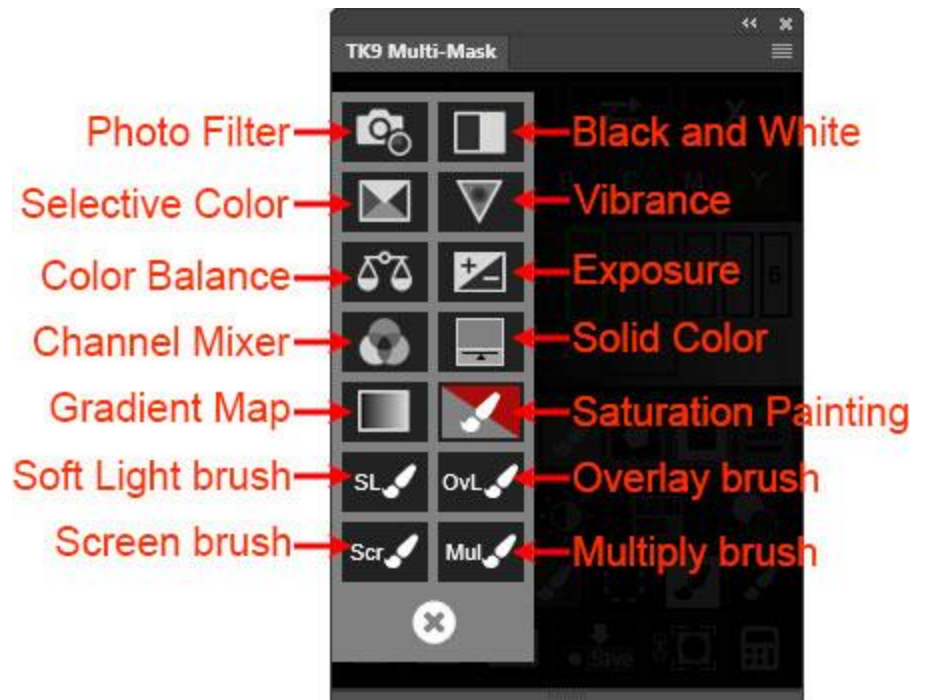
Output Menu button—This "hamburger menu" button opens a submenu with additional output options.

- 1) Photo Filter, Black and White, Selective Color, Vibrance, Color Balance, Exposure, Channel Mixer, Solid Color, and Gradient Map adjustment layers. These buttons create the corresponding type of adjustment layer with the on-screen mask as the layer mask on the layer. The layer mask filters the adjustment to the pixels selected by the mask. For the Solid Color option, the blend mode of the adjustment layer created is changed to Soft Light

- 2) Saturation Painting. This button sets up the necessary elements to begin saturation painting. a) It creates a blank pixel layer at the top of the layer stack set to Saturation blend mode. b) It sets foreground color to gray (saturation = 0%) and background color to red (saturation = 100%). c) It activates the Brush tool. d) The on-screen mask

(generally a Saturation or Vibrance mask for this process) is loaded as an active selection. When the action finishes, adjust brush size, hardness, opacity, and flow and pick either gray or red as the foreground color. Gray decreases saturation and red increases saturation. The selection limits where the effect is applied. A detailed description of saturation painting is found in [this tutorial](#) on my website.

- 3) Soft Light brush, Overlay brush, Screen brush, and Multiply brush. Each of these "blend mode" brushes do the following: 1) creates a Curves adjustment layer set to the corresponding blend mode, 2) adds a black, hide-all layer mask, 3) selects the brush tool, 4) sets the paint color to white, and 5) loads the current mask as the active selection. Painting on the image then deposits



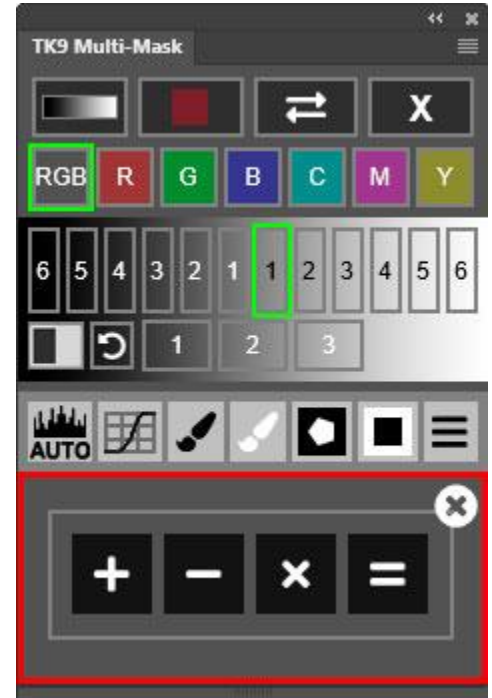
white on the layer mask (through a stencil of the mask) to reveal the layer's blend mode effect in the image. Users still have to choose brush Opacity and Flow.

NOTE: For blend mode brushes, if outputting a Blend If mask, hold down the "SHIFT" key to output the mask as Blend If settings on the new layer instead of outputting the mask as a selection.

Mask Calculator—The mask calculator works pretty much like a regular calculator except that it uses masks instead of numbers to do math. Start by creating an on-screen mask. Then click the Mask Calculator button to turn the calculator on. Turning it on saves the current on-screen mask as a channel on the Channels panel and opens the calculator keypad at the bottom of the module. There are three operations possible from this interface: Plus (+) for addition, Minus (-) for subtraction, and Multiply (x) for intersection. Choose one. Doing so creates a green outline around that operator to indicate the calculation being performed.

NOTE #1: Choosing a calculator operation normally closes the current mask-making interface and returns the user to the main interface where they can start making a second mask to use in the calculation. To keep using the same mask-making interface, i.e. not closing the current interface, hold down "CTRL" (Windows) or "command" (Mac) when clicking on one of the calculator operation buttons.

NOTE #2: The calculator interface remains open until either the Equals (=) button is clicked to complete the calculation or the Close (circle "x") button is clicked to turn the Mask Calculator off.



Then make another mask to be used in the calculation.

Once satisfied with the second mask, click the Equals (=) button to perform the chosen operation on the two masks. Completing the calculation creates a new on-screen mask representing the result of that calculation and a new "CALCULATED" interface with buttons to choose different variations of this mask. Here are some examples of useful calculations:

1) Mask subtraction. One example is to subtract a more restrictive mask from a less restrictive mask. Lights-1 minus Lights-3, for example, creates a calculated mask that removes the much lighter selected tones of Lights-3 from those selected by Lights-1. Another example is to subtract a Color mask targeting blue from a Lights-1 luminosity mask. Such a mask makes it possible to remove pixels based on color from those originally selected based on luminance.

2) *Mask addition.* This combines two masks into a new calculated mask. A My Channels mask targeting one element in the image could be added to another My Channels mask targeting another element to create a single mask that targets both elements.

3) *Intersected masks.* These are useful when combining a selection saved as a mask on the Channels panel, like that of the land or sky, with a pixel-value mask. First create a pixel-value mask (a luminosity mask, for example) using one of the module's mask-making interfaces, which would target tones throughout the image. Then intersect it with the saved selection using the My Channels option to retrieve the saved mask. In this way, a pixel-value mask can be confined very accurately to selected areas defined by a previously saved mask for the image.

NOTE #1: The mask calculation is performed using the last calculation button clicked. If the incorrect calculation button is accidentally chosen simply click the correct button instead. When you click the Equal (=) button, the calculation using the operator highlighted with the green outline color is carried out.

NOTE #2: To use the active selection or a previous selection saved as a mask on the Channels panel in mask calculations, use My Channels to load it as a mask first.

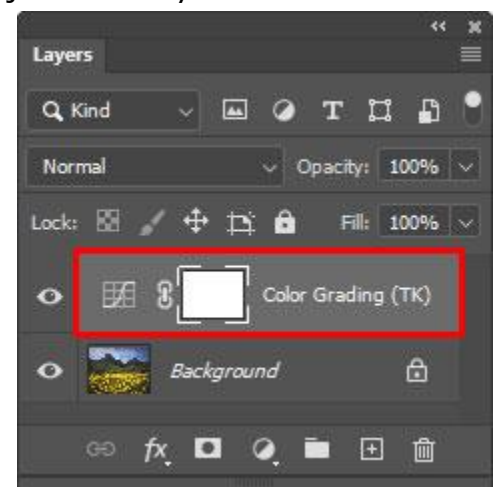
8. Color Grading

Clicking the Color Grading button on the main interface opens the Multi-Mask module's color grading interface. This interface allows for color grading shadows, midtones, and highlights by clicking the interface's color wheel to place shadows, midtones, and highlights pucks (color grading circles) at various positions on the color wheel. Color grading occurs when the plugin interacts with a special "Color Grading (TK)" Curves adjustment layer on the Layers panel. Moving pucks changes the hue and saturation of the chosen tonal range via the adjustment layer.

If a "Color Grading (TK)" layer is currently the active layer on the Layers panel when the Color Grading button is clicked, the color grading interface will display the color grade present on this layer by placing the tonal range pucks where they were last positioned on the color wheel for this layer's color grade.

If the current active layer is NOT a "Color Grading (TK)" layer when the Color Grading button is clicked, the necessary Curves adjustment layer is created and named "Color Grading (TK)."

NOTE #1: In order to ALWAYS create a new "Color Grading (TK)" layer even if the current active layer IS a color grading layer, hold down "SHIFT" when clicking the Color Grading button on the main interface.



NOTE #2: To make sure the new color grading layer is created at the top of the layer stack, hold down "CTRL" (Windows) or "command" (Mac) when clicking the Color Grading button. Otherwise, the new color grading layer is created directly above the currently active layer in the Layers panel.

NOTE: TK9 requires the color grading layer name to contain the phrase "(TK)" or "(tk)" in order to interact properly with the Color Grading interface. Color grading layers created with the TK8 plugin (often simply named "Color Grading") need to have their names changed to include "(TK)" or "(tk)" in order to be recognized by the TK9 plugin IF additional color grading using that layer needs to be done with TK9. It's not necessary to rename TK8 color grading layers if their adjustment is not going to be updated. If an existing TK8 color grading layer is selected that has NOT been renamed when the TK9 Color Grading interface is opened, a new color grading layer will be created at the top of the stack, and that is what will be adjusted. Additional words can be added to the name of color grading layers as long as "(TK)" or "(tk)" is somewhere in the name, for example "Sky-(TK)" or "Foreground (tk)" would still work.

The illustration below labels the various parts of the color grading interface. A description of each starts below the image



Add "Color Grading (TK)" layer (+) button—This button can also be used to create the necessary "Color Grading (TK)" layer if one is NOT present. It's possible to have multiple "Color Grading (TK)" adjustment layers for an image and to

independently adjust the color grading on each using the plugin's color grading function.

NOTE #1: To make sure the new color grading layer is created at the top of the layer stack, hold down "CTRL" (Windows) or "command" (Mac) when clicking the Add Color Grading (TK) layer (+) button. Otherwise, the new color grading layer is added directly above the currently active layer in the Layers panel.

NOTE#2: The "Color Grading (TK)" Curves adjustment layers are designed to properly interact with the Multi-Mask color grading interface. Manually moving, adding, or removing points from this Curves adjustment layers will likely cause color grading to generate errors or to produce unexpected results. Therefore, do not manually adjust a "Color Grading (TK)" Curves adjustment layer unless you are certain you will no longer be using the Multi-Mask Color Grading interface to change the settings on this adjustment layer.

Shadows, Midtones, and Highlights buttons—These buttons at the top of the color grading interface allow for choosing the tonal range that will be affected when clicking on the color wheel. When a tonal range is selected, the corresponding button is given a green outline and the corresponding puck is given a gray outline.

To color grade the selected tonal range, simply click on the color wheel where you'd like to place the puck. For example, to get warmer colors in the highlights, first click the Highlights button (or right-click the Highlights puck) and then click on a warmer color (red, orange, or yellow) on the color wheel. Or, to get cooler midtones, click the Midtones button (or right-click the Midtones puck) and then click on a cooler color (blue or cyan) on the color wheel. Darks can be color graded in the same way. Click the Darks button (or right-click the Darks puck) and then click on a color on the color wheel to shift the dark tones to that color. The further the puck is placed from the center of the color wheel, the more intense the color shift. In this way, the placing of pucks on the color wheel can be use to set the hue and saturation of the color grade. Hue is determined by the color on which the puck is placed and saturation is determined by how far the puck is placed from the center of the color wheel. The further the puck is from the center, the more pronounced the color will be in the selected tones.

NOTE #1: It is NOT possible to drag-and-drop the color grading pucks. The only way to move them is to choose a tonal range to make that puck active and then click on the color wheel to move the puck to a chosen color. The puck snaps to that position and the Curves adjustment layer updates to reflect the color grading change. In order to move pucks only small distances, click slightly off-center in the direction you want the puck to move.



In addition to being able to color grade hue and saturation with the tonal range pucks, the Brightness slider below the color wheel allows the brightness of the chosen tonal range to be changed. Moving the slider left darkens the tonal range and moving it right lightens it. This brightness slider always matches the chosen tonal range (highlights, midtones, or shadows). When changing to a different tonal range, the slider automatically updates to where it was last set for that tonal range. So the brightness slider is always synced with the chosen tonal range. This happens automatically when clicking on a color grading button at the top of the Color Grading interface or when right-clicking on one of the tonal range pucks on the color wheel.

To reset the color grading for a particular tonal range, right-click that tonal range's button at the top of the color grading interface. The puck for that tonal range snaps to the center of the color wheel as hue and saturation adjustments are removed from the Curves adjustment for that tonal range. The Brightness slider also moves to its center, neutral position to indicate no brightness adjustment for that tonal range.

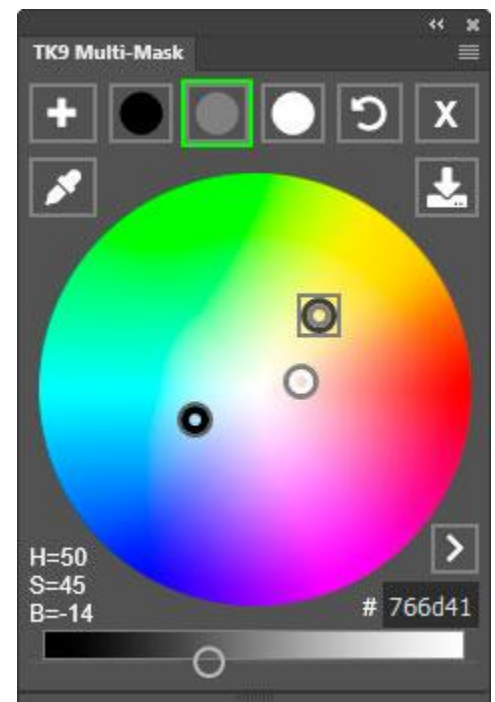
To reset color grading for all tonal ranges, click the Reset button at the top of the interface.

To reset just the hue and saturation for a particular tonal range, right-click on the puck for that tonal range. This snaps the puck to the center and resets the hue and saturation of the color grade for that tonal range but does NOT reset the brightness, which is controlled by the Brightness slider.

To reset just the brightness for a chosen tonal range, right-click on the Brightness slider.

Sample-to-Set (eyedropper) button—This button offers color grading via a sampled color. To use this option, first choose a tonal range for color grading by clicking a button at the top or by right-clicking a puck. Then click the Sample-to-Set button, which opens the Color Picker. Select a color from the image or choose a color from within the Color Picker. Clicking "OK" in the Color Picker color grades the chosen tonal range with a hue and saturation that matches the chosen color. Sample-to-Set does NOT affect tonal range brightness. It only sets the hue and saturation. Use the Brightness slider at the bottom of the interface to adjust brightness of the chosen tonal range.

NOTE #1: The visibility of the current color grading layer is temporarily turned off when choosing a color with the Color Picker in order to prevent any color grading due to this layer from interfering with color selection.



NOTE #2: To color grade a tonal range with the complementary color to the one that gets chosen with the Color Picker, hold down "CTRL" (Windows) or "command" (Mac) when clicking the Sample-to-Set button.

Using color hex codes—Similar to the Sample-to-Set function, color hex codes can also be used to set color grading for a selected tonal range. To use this method, first select a tonal range for color grading using the buttons at the top or by right-clicking a color grading puck. Then copy and paste a hex code into the hex code text field at the bottom right of the color wheel. Finally, click the ">" button. This color grades the selected tonal range to match the hue and saturation of the color hex code. As with Sample-to-Set, tonal range brightness is NOT affected when inputting a color hex code. Only hue and saturation are updated. To fine-tune brightness, use the Brightness slider at the bottom of the interface.

NOTE: To color grade a tonal range with the complementary color to the hex code that was entered, hold down "CTRL" (Windows) or "command" (Mac) when clicking the ">" button. In fact, holding down "CTRL" (Windows) or "command" (Mac) and repeatedly clicking the ">" button allows for toggling back and forth between the hex code's color's hue and saturation and that of the complementary color.

Additional color grading considerations

Here are some additional things to keep in mind when color grading using the color grading interface.

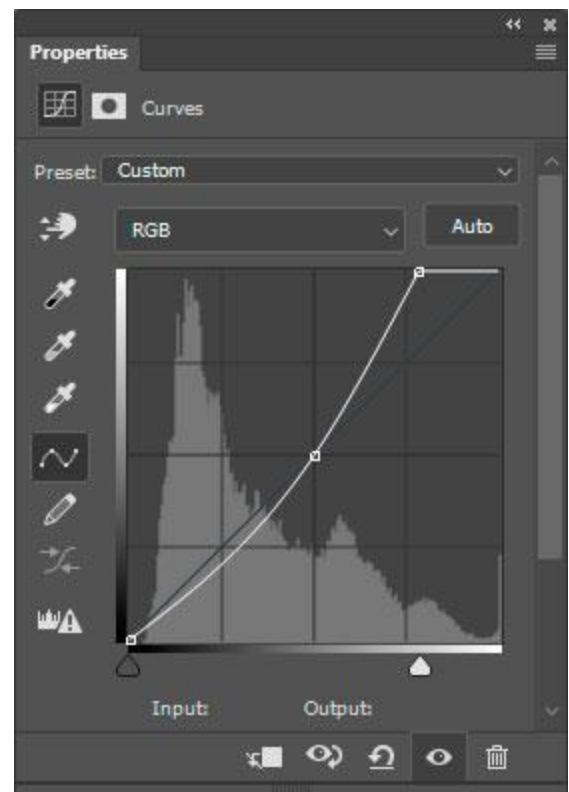
- a) Sometimes it is difficult to make only small changes in the image's color grade by clicking on the color wheel. If this is the case, try lowering the opacity of the "Color Grading (TK)" adjustment layer to 50%. This provides more space for making color grading changes since the pucks will need to be moved farther from the center to achieve the same effect. Small adjustments can therefore happen over a greater distance on the color wheel. Lowering layer opacity will also require more exaggerated movements of the Brightness slider to make brightness adjustments.

- b) Once color grading is finished, clicking the X button at the top of the interface returns to the main interface. To resume color grading at some later point in the workflow, simply select a "Color Grading (TK)" layer on the Layers panel and click the Color Grading button on the main interface. The Multi-Mask module will find the color grading on that layer and display it when the color grading interface opens. Even if the image is closed and reopened, the color grading feature will resume from the last adjustment as long as a "Color



Grading (TK)" Curves adjustment layer is the active layer.

- c) Sometimes color grading leads to unexpected brightness shifts in the image. If this happens, try switching to the Color blend mode for the "Color Grading (TK)" layer. Also, different blend modes can sometimes provide good results. I've had some luck using Soft Light for color grading.
- d) Hue (H), saturation (S), and brightness (B) values for the tonal range being color graded appear to the lower left of the color wheel. These numbers might change slightly when the Multi-Mask module reevaluates the color grading of a particular layer. There is some rounding necessary when the module transfers Curves adjustment layer values to puck placement on the color wheel. Any changes to Hue and Saturation values will be small and do not reflect an actual change in the color grade defined by the Curves adjustment layer.
- e) Each color grading change generates a color hex code that appears in the hex code text box on the lower right of the color wheel. This code can be copied to transfer the hue and saturation values for the currently selected tonal range to another application. The hex code also defines a color's brightness, but since brightness is a relative value (-64 to +64) in the module, and not an absolute value, it's not possible to faithfully transfer color brightness using the color modules hex codes.
- f) Color grading changes to the image are facilitated by a Curves adjustment layer where the midpoint of all channels is locked at (128,128). This means that changes to shadows and highlights can sometimes appear to have the opposite effect on the image if the curve's shape is altered sufficiently to cause the opposite displacement of the curve on the opposite side of the midpoint. For example, lightening the highlights aggressively with the Brightness slider can cause the shadows to be darkened leading to an overall darkening of the image if the image is composed predominantly of shadow tones, which is common. This is illustrated in the image at the right. If this effect is seen, check the Properties panel to help understand how the Curves adjustment might be causing the change. One way to mitigate this effect is to color grade the midtones brightness using the Brightness slider to compensate for the overall change in image brightness.



Color grading presets

The Color Grading Presets button allows for

- 1) saving the current color grade,
- 2) reloading previously saved color grades as the new color grade for the current "Color Grading (TK)" layer,
- 3) comparing different color grades, and
- 4) removing previous saved color grades.

Clicking the Color Grading presets button opens a new interface with a green outline around "Current Color Grade" indicating that the layer's current color grade is being viewed.

To save this color grade as a new preset, click the **Plus (+) button** and follow the prompts. Once saved, the color grade's name will appear at the bottom of the list of saved color grades.

To remove a color grade name from the list of presets, click on it and then click the **Minus (-) button**. Again, follow the prompts that appear to remove the selected color grade from the list.

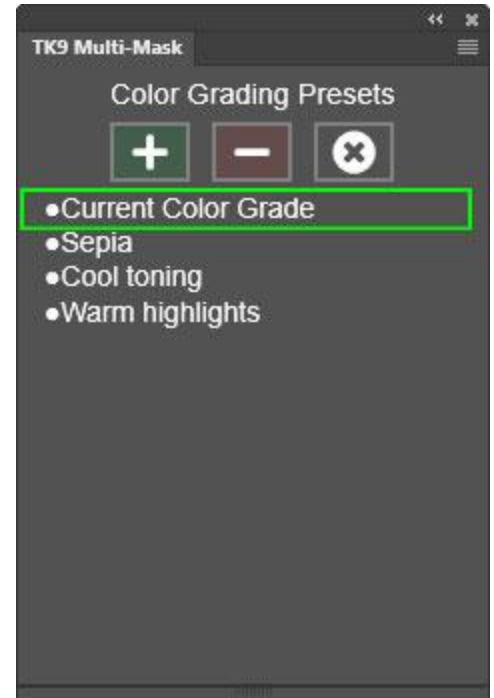
To test different color grades on the image, simply click on them. A green outline appears around the clicked preset and the "Color Grading (TK)" curves adjustment layer is updated to match this preset's settings.

To toggle back and forth between two different color grading presets, click on one preset and then click a second preset. Now, click repeatedly on the second preset. Doing so will toggle back and forth between the first color grading preset and the second color grading preset.

NOTE: In addition to saving the various curves points on the "Color Grading (TK)" Curves adjustment layer, color grading presets also save the layer's opacity, fill opacity, and blend mode. All these parameters are loaded when a color grading preset is clicked on the list of presets.

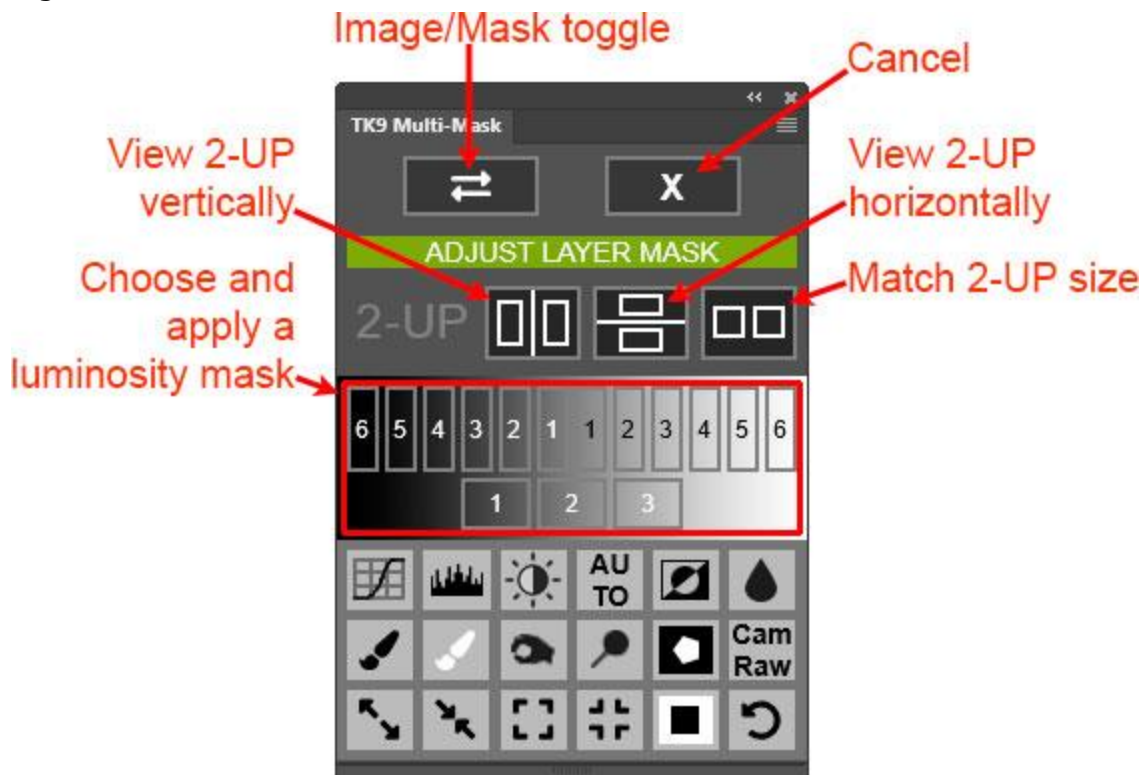
9. Layer Mask mode

Sometimes, after applying a mask to a layer as a layer mask and making adjustments through the mask, the result in the image isn't quite what was expected. The on-screen mask is always a best guess for what will work, but it's not always perfect once it's deployed. Layer Mask mode provides one way to continue to refine a layer mask to help it produce better results. It's also a way to quickly test different luminosity masks as layer masks on an image adjustment to see which works best.



To activate Layer Mask mode, make sure the layer with the layer mask you want to adjust is active, and then click the Layer Mask mode button main interface of the Multi-Mask module.

Clicking the Layer Mask mode button opens the Layer Mask mode interface, shown below. The buttons can be used to 1) to change out the current layer mask with a different luminosity mask, and/or 2) to modify the layer mask of the active layer using the available tools.



Initially in Layer Mask mode, the image appears on the screen, not the layer mask. This is so that as changes are made to the layer mask using the buttons in this interface, the image is visible for evaluating these changes and judging whether or not they achieve the desired result. To see the mask while adjusting it, click the Image/Mask toggle button to toggle between viewing the layer mask and viewing the image. Or, to see both the layer mask and the image simultaneously, choose a 2-UP option: Vertical or Horizontal.

NOTE #1: To exit 2-UP viewing, manually close one of the 2-UP windows.

NOTE#2: The Match Size button is for those situations where one of the 2-UP windows has been zoomed-in. Clicking the Match Size button synchronizes the two different views so they are both zoomed to the same part of the image.

Below these interface options are buttons for the standard Lights, Midtones, and Darks luminosity masks. Clicking one of these applies that luminosity mask as a layer mask on the active layer.

NOTE: The current state of the image when entering Layer Mask mode is used as the starting point for creating these luminosity masks.

At the bottom of the Layer Mask mode interface are a variety of different options for modifying the layer mask on the active layer. The figure below identifies what each button does.



Curves, Levels, Brightness/Contrast—Opens a window to perform the designated type of adjustment on the layer mask.

Auto—Executes an auto-Levels command on the layer mask so that the mask's tonal range extends from pure black to pure white (0 to 255).

Invert—Inverts the layer mask.

Blur—Opens the Gaussian Blur dialog in order to blur the layer mask as desired.

Black Brush / White Brush—Paint with black or white on the layer mask. Adjust the brush parameters (hardness and opacity) and, while painting on the mask, watch the result on the image.

Burn—Selects Photoshop's Burn tool. Sets the tool's "Range" to "Shadows" and the tool's opacity to 50%. This tool is useful for turning dark gray pixels in the layer mask black without affecting the white and light gray tones in the mask.

Dodge—Selects Photoshop's Dodge tool. Sets the tool's "Range" to "Highlights" and the tool's opacity to 50%. This tool is useful for turning light gray pixels in the layer mask white without affecting the black and dark gray tones in the mask.

Expand / Contract—Uses Photoshop calculations to either expand or contract the selected areas in the layer mask in small increments. Each of these buttons uses its own calculation method, so it's not possible to completely reverse what one button does by clicking the opposite button. To accurately undo what has happened, use the History panel to go back to a previous state.

Mask-the-Layer-Mask—Allows restricting what is revealed by the layer mask to the parts of the image defined by another selection. To use this feature, first make a selection using a selection tool, like Lasso or Marquee. Then click this button to turn the non-selected areas of the layer mask black. The action stops to allow feathering the selection. The module calculates a recommend Feather Radius based on the size of the image to produce smooth edges, but this can, of course, be adjusted. If no feathering is desired, click Cancel in the Feather Selection dialog window.

NOTE: One alternative to using this Mask-the-Layer-Mask feature is to place the layer in a group, and then paint black on the group's layer mask to conceal the parts of the layer that you don't want affected. This approach has the advantage of preserving the original layer mask.

ACR—Opens the Adobe Camera Raw filter so that the layer mask can be modified using the controls in this filter.

Maximum—Opens the Maximum dialog window. This option would be useful for expanding an Edge mask.

Minimum—Opens the Minimum dialog window. This option would be useful for contracting an Edge mask.

Fill— To use this feature, first make a selection using a selection tool, like Lasso or Marquee, for the parts of the mask you would like to fill with a specific color of paint. Then click this button. Initially the Photoshop "Feather" dialog window opens to provide the opportunity to feather the selection for better blending. The module calculates a recommend Feather Radius to produce smooth edges based on the size of the image, but this can, of course, be adjusted. If no feathering is desired, click Cancel in the Feather Selection dialog window. After feathering the selection, Photoshop's "Fill" dialog window opens. Use it to set the Fill parameters as desired (usually filling with either black or white). Click "OK" in the dialog to close it and update the mask by filling the selection with the designated paint color.

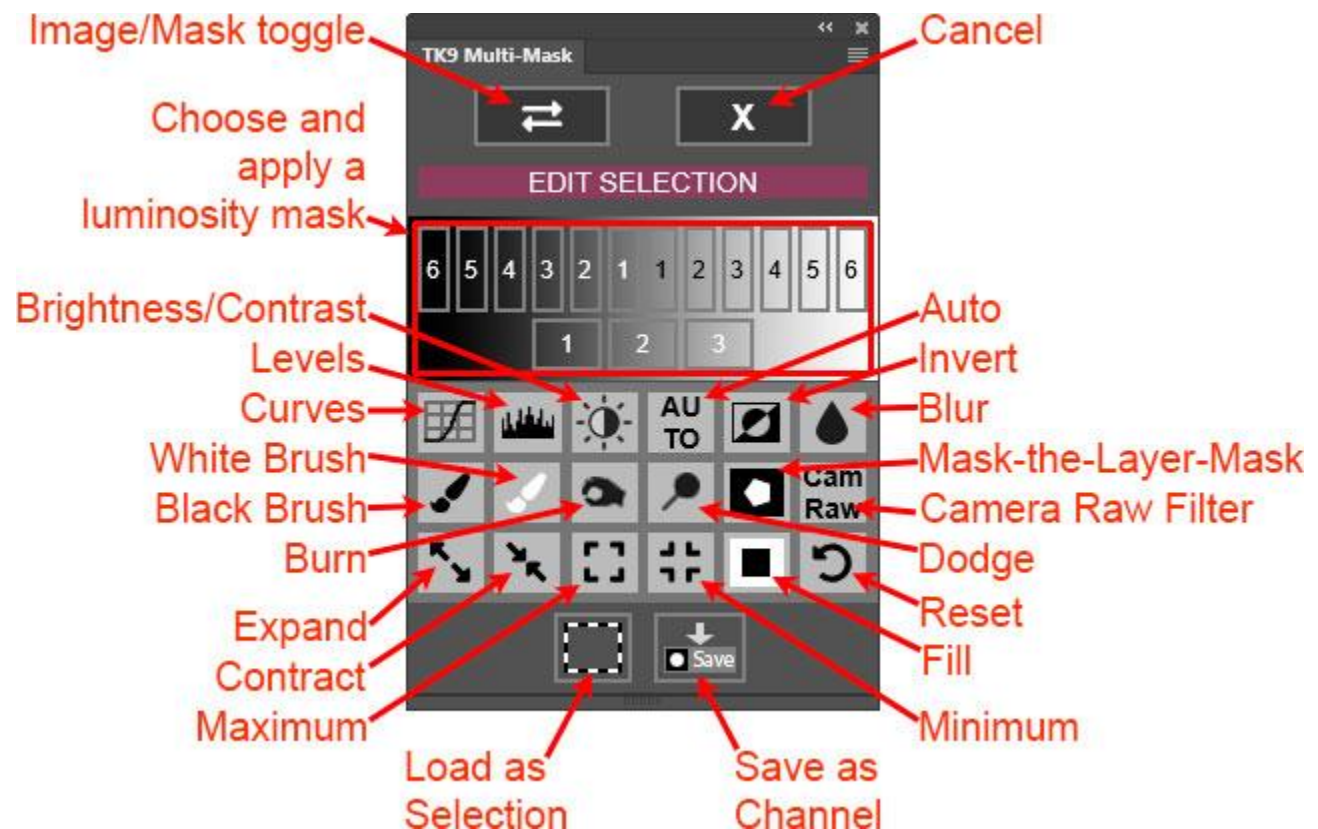
Reset—Resets all adjustments and returns the layer mask to the state it was in when entering Layer Mask mode.

When finished adjusting the layer mask, click the X button in the upper right corner of the module to return to viewing the Multi-Mask module's main interface.

10. Edit Selection

The Edit Selection button on the main interface of the Multi-Mask module opens the Edit Selection interface, which is sort of like Layer Mask mode for an active selection. Instead of adjusting the layer mask to change how the mask reveals that layer in the image, Edit Selection makes a temporary layer mask of the active selection, and then the Edit Selection interface allows for altering this mask. The modify options in the Edit Selection interface are the exact same ones that are available in the Layer Mask mode interface and described in greater detail in the previous section.

NOTE: The luminosity mask choices are based on the current state of the image.



Once the selection mask has been adjusted as desired, there are two output options at the bottom: Load as Selection and Save as Channel. Load as Selection will load the adjusted mask as a selection and close the Edit Selection interface. Save as Channel saves the modified mask as a channel on the Channels panel, but does NOT close the Edit Selection interface.

11. Workflow Extras

The buttons in this section provide creative methods for adjusting the image. Where appropriate, there are also links to online content that help explain the technique or to the photographer who introduced me to the technique.

Color Sketch—This action turns a photograph into a colored sketch. Sketch lines are added at obvious edges and colors are made more even, especially darker colors which end up lighter. The action stops so the user can enter a "Radius" value in a "Minimum" dialog window. This value determines how wide the edge lines will appear in the image. The default is 4-pixels. Larger values create wider edge lines. The action also creates a Levels adjustment layer above the "Color Sketch" group. After creating a color sketch, adjusting the Properties of this layer often helps to create a better brightness balance in the image's dark and light tones.

B&W Sketch—This button works the same as the [Color Sketch](#) except that the resulting sketch is monochrome instead of color.

Line Sketch—This button works like [Color Sketch](#) and [B&W Sketch](#), except it stops at the point that the edge lines are created. This generally works best with a smaller "Radius" value in the "Minimum" dialog, and the default is set at 2-pixels.

NOTE #1: Images and elements lacking distinct edges sometimes show little change after running the sketch action. Clouds, for example, may change very little because they generally lack distinct edges and are usually also already bright in the image.

NOTE #2: Lens Profile correction in Lightroom/Camera Raw can lead to a moiré-like pattern when the sketch actions are applied. It appears to be due to redistribution of noise in the image to match the lens profile correction. Some noise is compressed and some is expanded. The sketch actions accentuate these noise differences, which sometimes leads to an obvious pattern, especially with more extreme adjustments to the "Adjust Sketch" Levels adjustment in the "Sketch" group. If this is a problem, strategies for avoiding or mitigating it include: 1) don't apply Lens Profile correction in Lightroom/Camera Raw if it is not necessary, 2) if it is necessary, apply "Denoise..." BEFORE applying the Lens Profile correction, or 3) use only minimal adjustments to the "Adjust Sketch" Levels adjustment in Photoshop.



1-Color Gradient—This action creates a Gradient Fill adjustment layer where the gradient extends from one color (yellow is the default) to transparent. Using this gradient with the Radial or Diamond style adds a focused, colored highlight to an image that can simulate lens flare or that can add glow light to the image. The Gradient Fill dialog window provides many options for customizing the effect, like changing the color, style, and scale. While this dialog window is open, the Move tool is active and can be used to position the effect to wherever it's desired in the image.

2-Color Gradient—This action creates a Gradient Fill adjustment that uses two colors in combination with the Linear gradient style. The Gradient Fill dialog can be used to change the gradient's colors, scale, and angle. The move tool is active when the dialog window is open to allow positioning the gradient where it works best in the image.

NOTE #1: For both the 1-Color Gradient and 2-Color Gradient actions, clicking the [Blake Rudis](#) link in the interface opens a video where Blake Rudis and Sean Bagshaw demonstrate how to creatively apply these color gradients to images.

NOTE #2: The Gradient Tool is selected after the 1-Color Gradient and 2-Color Gradient actions finish. This allows modification using the live gradient option that became available in Photoshop 24.5.0.

5-Color Heat Map—This is a toggle button that toggles a 5-color heat map "on" and "off." Blake Rudis discusses it in [this video](#). It can be used to help "visualize tonal quality," which basically means being able to see the distribution of light tones (magenta and white), dark tones (black and cyan), and midtones (yellow) across the image. The video also demonstrates adjusting the image while the heat map is active, but I would strongly recommend against this. It's best to be looking at the actual image when making any adjustment to it. And since this is a toggle button, there's really no need to keep it on all the time to make adjustments. Turn it "on" to make an initial assessment of "tone quality" and then turn it "off" to make any adjustments. After adding an adjustment, simply flip the heat map back "on" by clicking it's button to see if "tone quality" has improved.

Cam-Raw Orton—This action uses Photoshop's Gaussian Blur and Camera Raw filters and a smart object to create the Orton effect. The Gaussian Blur pixel radius defaults to 80% of the megapixel size of the image. The Camera Raw filter default's are those recommended by [Nick Page](#).



Both of these values can be adjusted as the action runs. They can also be adjusted after the action finishes since they are smart filters within a smart object. The final layer opacity is set at 20% (again, Nick Page's default), so it's necessary to exaggerate the Gaussian Blur and ACR filter values a bit to ensure the effect will show through on the image.

NOTE: Hold down "CTRL" (Windows) or "command" (Mac) when clicking this button to run the action without it stopping for user input on the Gaussian blur radius or Camera Raw settings. The action's defaults will be used.

Shadow Lift / Haze—This is a useful and interesting action to add subtle light to shadowed areas. This can increase the sense of "haze" and "depth" in more distant objects in a scene, or help unblock and soften shadows in nearer objects. The action creates a new layer and adds a large Gaussian Blur. A black, hide-all layer mask is added to the layer and its opacity set at 20%. Finally a Darks-1 luminosity selection is created along with selecting a white paint brush for painting on the black layer mask. Painting on the image then preferentially reveals the blurred pixels in the images darker tones, thereby creating the effects described above. The large blur radius is the key for helping to make this work. This is what brings light and similar color into the shadows when painting white on the layer mask.

NOTE: If the color change in the shadows doesn't look right, change the layer's blend mode to Luminosity to just add light and no color. Also, layer opacity can be adjusted higher if a stronger effect is needed.

Highlight Contrast—This action creates a Levels adjustment layer and then auto-adjusts the image with it using the "Enhance Monochromatic Contrast" option. A black, hide-all mask is applied to the layer; a Lights-1 selection is created, and a white Paintbrush is selected. Painting white onto the black mask through the selection reveals added contrast in highlight areas.

NOTE: Brush opacity will need to vary depending on how much contrast got added with "Enhance Monochromatic Contrast."

PERSONAL NOTE: These "Nick Page" actions offer some nice finishing touches for nature photographs.

Guided Frequency Separation

The buttons in this section are the result of conversations with [Allyn Saroyan](#). Frequency separation separates an image into a high-frequency layer containing mostly textures in the image and a low-frequency layer containing color. By separating an image in this manner, color and texture issues can be addressed independently of each other. For example, skin texture can be smoothed out without changing skin color. Frequency separation is essentially a retouching process that has applications in



nearly all genres of photography. One of the challenges when using frequency separation is deciding which tool to use and on which layer to use it. Guided Frequency Separation can help to take the guesswork out of using this technique, especially for beginners.

Start FS—This button is used to begin the process. It creates the necessary layers for using the other buttons in this section. The action stops in order to input a Gaussian Blur radius. The default is 10-pixels. However, this should be adjusted

based on the image. The goal is to blur away some distracting element in the image. In the case of skin texture, that might be a small number. However, footprints in the snow might require a larger value. At the end of the process the layer structure of the "Frequency_Separation" looks like the image at the right.

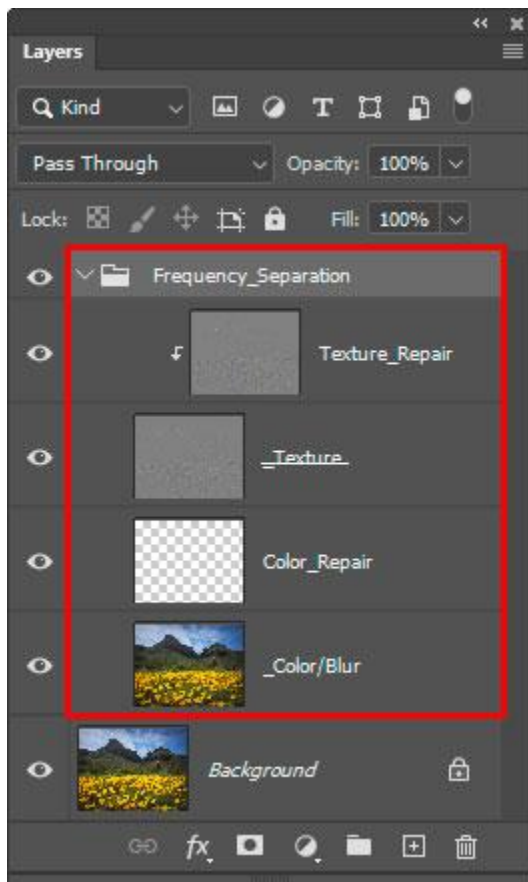
*NOTE: To use the Median filter instead of Gaussian blur to create the frequency separation layers, hold down "CTRL" (Windows) or "command" (Mac) when clicking the **Start FS** button.*

Once the frequency separation layers have been created, the yellow and blue buttons are used to retouch the image. Each button chooses the appropriate layer in the newly created group, selects the appropriate tool and sets some of the tool's options to accomplish what is written on the button. It might still be necessary to select an appropriate color or clone source and also adjust the tool's opacity setting, but the right tool and the right layer will already be chosen, and it's generally easy to start painting on the image to see what happens.

Clone Texture—The Clone Stamp tool is selected. Hold down "ALT" (Windows) or "option" (Mac) to select a texture clone source from the image. Then paint on the part of the image where the chosen texture needs to be transferred.

Remove Texture—The Brush tool is selected with gray paint as the color. Paint on the image to remove texture. Doing so essentially reveals the blur that was chosen when **Start FS** was used to initiate the frequency separation process. Using a lower brush opacity can be useful for incrementally removing texture in areas like faces on a portrait or in the clouds or water in a nature photographs.

Heal Texture—The Spot Healing Brush tool is selected and can be used to heal texture that looks "wrong" for a particular image. This might also reveal the blur that was



chosen when Start FS was used to initiate the frequency separation process.

Clone Color— The Clone Stamp tool is selected. Hold down "ALT" (Windows) or "option" (Mac) to select a color clone source from the image. Then paint on the part of the image where the chosen color needs to be transferred.

Add Color—This option is sort of like Clone Color except that the color choice for painting can be customized. The Color Picker opens when this button is clicked. A color can be chosen by clicking on the image, if that works, but any color can be chosen using the Color Picker. The Color Picker also allows making a color selected from the image brighter or darker, or with more or less saturated, if that's necessary. The Brush tool is activated and the chosen color is painted onto the image. User's can vary brush opacity to determine how much color gets applied. Unlike Color Clone, Add Color paints with the selected color continuously. Color is NOT being sampled from the image as the mouse moves, so there is no color variation. As such, it's sometimes useful to paint with a low opacity brush and use choose different colors to create a blending that looks more photographic.

Restore Texture and Restore Color buttons—One of the nice features of Guided Frequency Separation is that mistakes are easy to correct. All changes to the image are performed on separate "Color_Repair" and "Texture_Repair" layers within the "Frequency_Separation" group. This means that the original frequency separation layers remain unchanged as long as the Yellow and Blue buttons are used to control the process. It's therefore possible to easily paint away any mistakes in a controlled manner. The Restore Texture and Restore Color buttons are the way to do this. Simply click whichever one is needed and then paint away any retouching changes that didn't turn out right.

Finish FS—Once retouching is complete, clicking the Finish FS button closes the "Frequency Separation" group and resets the tools used during the retouching process to the user's previous settings.

NOTE: Allyn Saroyan provided the following additional information about using this technique.

1. Guided Frequency Separation modifies the frequency separation action found in the TK9 Combo or CX panels. It is not a new implementation of frequency separation but is an enhancement that makes frequency separation non-destructive and makes it easier to switch between texture and color changes.

2. After selecting one of the Clone Texture, Remove Texture, Heal texture, Clone Color, or Add Color buttons, you do not necessarily need to use the tool that those buttons select. Instead, you should use those buttons to switch between the Color Repair and Texture Repair layers. At that point, you may use ANY tool or method to work on those layers. For example, the Mixer Brush and Gaussian Blur are commonly used by portrait retouchers in place of the tools that the buttons select. The tools selected are well suited to the non-portrait work for which TK9 is often used. Even the Remove tool can useful for retouching using Frequency Separation.

Just make sure the "Sample all layers" checkbox is unchecked before using it on a particular layer.

3. After selecting the Add Color button, you may ALT/option + click the image to sample a new painting color. In this way, you can paint with multiple colors in different parts of the image by using the Add Color button only once. This is similar to using Clone Color and frequently changing the clone source.

4. If you make a color or texture change and immediately realize you do not like it, use Photoshop's Undo function instead of the Restore Texture or Restore Color buttons. This keeps your current tool active while undoing your last operation.

5. The purpose of the Restore buttons is to make frequency separation non-destructive. Texture and Color can be restored at any time, even after the image has been closed and reopened. To restore texture or color after an image is reopened, Instead of Start FS, select Restore Texture or Restore Color. The other buttons can be used to modify both texture and color after restoration. Use Finish FS to close the frequency separation group and reset the tools when your repairs are done.

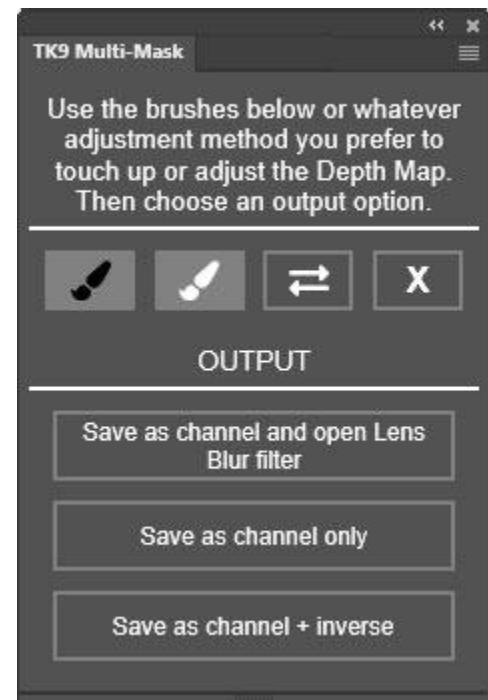
6. Frequency Separation should be done as early in the layer stack as possible since it overrides any layers below it. Thus after frequency separation is performed, any changes to the layers below it will be hidden and will not change the image.

12. Depth Map

A depth map can be useful for enhancing image bokeh in out-of-focus areas of the image. It can also be used to selectively apply adjustments to either near or far elements in an image. Photoshop's Depth Blur neural filter is able to create a depth map. This functionality can be accessed via the Multi-Mask module by holding down "CTRL" (Windows) or "command" (Mac) when clicking the Focus mask button on the module's main interface. Currently, there are no parameters the user can change when the depth map is generated, so it is simply output as a new layer on the Layers panel. However, once that happens, the module offers different options for modifying it and using.

Black Brush / White Brush—These two brushes can be used to modify the depth map by painting either black or white on it.

Double-Arrow button—This button once again toggles between viewing the image and the viewing the depth map.



Delete and cancel (X) button—This button removes the depth map that was created without saving it and returns the user to the main interface.

Save as channel and open Lens Blur filter—The Lens Blur filter is ideal for use with a depth map as it simulates the blur of a lens, which is exactly the purpose behind making a depth map in the first place. Using this option automatically loads the the depth map as the "Depth Map Source" in the "Lens Blur" dialog window.

Save as channel only—This output option saves the depth map on the Channels panel as an alpha channel so it can be accessed at a later time.

Save as channel + inverse—This output option saves both the depth map (which selects distant objects most) and the inverse of the depth map (which selects close objects most) as separate channel masks on the Channels panel. They can be accessed layer to target adjustments to distant elements or foreground elements in the scene.

Dave Kelly has an excellent [video on YouTube](#) on how to use a depth map in conjunction with Photoshop's Lens Blur filter. He also has [a video](#) on using a depth map to selectively develop different parts of a landscape photograph in order to create a sense of depth.

NOTE #1: The Depth Blur neural filter is listed as "Beta" in Photoshop, which means it will probably change in future releases of the app. When it gets updated, it will also likely break the Depth Map function in the Multi-Mask module. That's unfortunate, but I'll try to add new code to the Multi-Mask module when this occurs to keep the Depth Map feature working. Be sure to save your download link as you'll always be able to use it to get the latest version of the TK9 plugin. When Adobe updates the Depth Blur neural filter, you will likely also be prompted by Photoshop to download it again.

NOTE #2: I have a report of the TK9 Depth Map function not working in non-English versions of Photoshop. Unfortunately, if true, this is not something I can fix. The code for this function is entirely copied and pasted from another Photoshop plugin (Alchemist), and it's not editable given its complexity.

13. Edit Blend If

Edit Blend If is accessed using the green-shaded button with two intersecting squares on the lower part of the main interface. It opens a new Edit Blend If interface. Clicking it also causes the Multi-Mask module to evaluate the Blend If settings on the current active layer and, if possible, display them on the interface that opens.

Photoshop's own Blend If functionality is primarily used to determine how a hypothetical "Gray" channel controls the blending of the layer it's applied to into the image. Blending using the "Gray" channel is based on the image's pixel-level

luminosity values. So, to a large degree, adjusting the "Gray" channel is similar to creating a luminosity layer mask for the layer. Just as a luminosity mask can determine what gets revealed on a particular layer based on tonal values, a "Gray" channel Blend If adjustment also controls what gets revealed on the layer based on tones. However, Blend If "Gray" channel adjustments are NOT identical the standard Lights, Midtones, and Darks masks created by the Multi-Mask module. There are subtle differences and potential advantages and disadvantages to each.

Photoshop's Blend If also has color channels: Red, Green, and Blue. These channels can be used to target or exclude certain colors from being affected by a layer. The Multi-Mask Edit Blend If interface provides access to these color channels as well.

The sliders, presets, and checkboxes in the Multi-Mask Edit Blend If interface interact directly with Photoshop's Blend If functionality. So, whatever happens on the Edit Blend If interface is also happening in Photoshop, and the results are displayed in the on-screen image. The Edit Blend If interface just makes it easier to access Photoshop's Blend If feature compared to opening the Photoshop "Layers Style" dialog. For example, with Edit Blend If there's no need to "split" the sliders to feather the adjustment, no need to switch between different channels, and no need to try and figure out which combination of color channel sliders is needed to target a specific color. Edit Blend If takes care of all of this. Edit Blend If also has several presets that approximate standard luminosity masks. These presets automatically set the Blend If sliders with a single button click. Overall, with the Multi-Mask Edit Blend If interface, users will find greater control and efficiency for utilizing Photoshop's Blend If function to adjust how a layer interacts with the overall image.

The image below labels the various parts of the Edit Blend If interface with additional descriptions below the illustration.



Toggle Color Overlay—This button toggles a color overlay that shows what is visible on this layer taking into account what is revealed and concealed by any layer mask or Blend If settings that might be present. Clicking the button once turns the color overlay on and clicking it again turns it off. While it's not possible to display a Blend If mask when using the Edit Blend If interface, the color overlay provides a visual representation of what is being revealed on this layer. For best results the color overlay needs to be a color that is distinct from colors found in the image. Magenta is the default, but to change it, hold down "CTRL" (Windows) or "command" (Mac) when clicking this button to choose a different overlay color from the Adobe Color Picker. A 100% saturated color usually works best to provide maximum contrast to other colors in the image. Changing the overlay color also changes the following to a matching color: 1) the colors of the arrows on this button, 2) the outline color for preset buttons when they are clicked, and 3) color overlay on the black-to-white gradient the show the tonal values revealed by the Blend If settings. In other words, the Blend If interface is color-coordinated with overlay color.

NOTE: The color overlay does NOT properly work for Group layers. This is a Photoshop thing and not a bug in the Multi-Mask module.

Pick Tone—This button opens the Color Picker in order to pick a tone from the image. The Blend If settings are then set to reveal this tone most on this layer and feather it into the surrounding darker and lighter tones. In other words, this button generates the equivalent of a zone mask around the chosen tone using Blend If. The Highlight and Shadow sliders can also be used to adjust the tones that get

revealed and how they are feathered into the surrounding tones. The color overlay, accessed with the Toggle Color Overlay button, can help visualize what is being revealed on the layer.

NOTE: Picking a tone from the image only sets the "Gray" channel Blend If settings, i.e. those controlled by the Highlights and Shadows sliders. Blend If color channel settings are NOT included when using the Pick Tone button.

Exit Edit Blend If—This button closes the Edit Blend If interface and returns to the module's main menu. Any Blend If settings present on the layer when the Edit Blend If interface is closed will remain on the layer.

Blend If presets—These buttons set the Blend If "Gray" channel to simulate Darks, Midtones, and Lights luminosity masks. There are also five zone presets for "tone zones" ranging from the darkest shadows to the brightest highlights with feathering into surrounding tones to avoid obvious edges. The settings are transferred to the Highlights and Shadows sliders below the buttons, and a colored overlay on the black-to-white gradient shows the tones revealed by this preset. The sliders can be adjusted to fine-tune the revealed areas for what is need for this particular layer. The color overlay can again help to see what parts of the image are being revealed in this layer from the chosen preset.

Highlights and Shadows sliders—These four sliders set Photoshop's "Underlying Layer" Blend If sliders for the "Gray" channel. The top two sliders are for highlights and the bottom two are for shadows. Between the two sets of sliders is a black-to-white gradient. A colored overlay on this gradient shows the tones that are being revealed in the image by this layer including how they feather into adjacent tones. The sliders reset to match a preset when a preset button is clicked, but can also be adjusted manually to determine which tones are revealed in the image and how much the selected tones feather into similar tones. Turning on the color overlay using the Toggle Color Overlay button is useful for seeing which tones are being revealed in the on-screen image.

NOTE #1: Clicking down on the handle of any slider will display the Blend If values for all the sliders on the interface's black-to-white gradient. These values also change in real-time as the sliders are moved.

NOTE #2: Right-click on either of the Shadows sliders to set both to 0 (zero). Right-click on either of the Highlights sliders to set both to 255.

NOTE #3: Hold down "CTRL" (Windows) or "command" (Mac) when clicking either of the Shadows sliders to move both Shadows sliders at the same time while maintaining the current separation between them. Hold down "CTRL" (Windows) or "command" (Mac) when clicking either of the Highlights sliders to move both Highlights sliders at the same time while maintaining the current separation between them.

No Darks, No Lights/No Darks, and No Lights presets—These buttons set the Blend If "Gray" channel to EXCLUDE the tonal range specified by the button, e.g. the No Darks buttons exclude changes to dark tones from being revealed by this layer. There are two variations for each and the corresponding Blend If settings are transferred to the Highlights and Shadows sliders above the buttons. The "2" variation excludes more of the chosen tonal range from being affected by the layer than the "1" variation. The sliders can then be adjusted to fine-tune the settings as desired. The Toggle Color Overlay button can be used to turn on the color overlay to see which tones are being revealed in the on-screen image.

Gray checkbox—This checkbox toggles the "Gray" channel Blend If settings (those matching the Highlights and Shadows sliders) "off" and "on." This provides a quick method to see how these settings are impacting the image.

Target checkbox—This checkbox works with the color channel checkboxes directly below it to interact with Blend If's Red, Green, and Blue channels. Checking Target means that only adjustments to colors revealed by the chosen color checkboxes will be revealed on this layer. For example, if the Target checkbox is checked and the Red color checkbox is checked, only pixels present in the Red channel will be revealed in whatever adjustment this layer creates. While there are no Cyan, Magenta, and Yellow channels in Blend If, it's possible to use the Red, Green, and Blue channels to target "channels" representing these colors also. So, a total of six color channels are available for targeting when the Target checkbox is checked. However, because of the way Blend If works, only two adjacent colors on the color wheel can actually be successfully targeted when the Target checkbox is checked. The Edit Blend If interface guides users to ensure this happens by disabling checkboxes that don't match the "two adjacent colors" criteria.



Exclude checkbox—This checkbox also works with the color channel checkboxes, but this time the checked colors are excluded from receiving the adjustment revealed by this layer. For example, if Exclude is checked and the Green and Yellow checkboxes are checked, pixels in the Green and Yellow channels are excluded from the adjustment. Again, there are no actual Cyan, Magenta, and Yellow channels in Blend If, but the existing Red, Green, and Blue channels that are present make it possible to infer channels representing these complementary colors. Unlike when the Target checkbox is checked, there is no limit on the number of color channels that can be "excluded" when the Exclude checkbox is checked. However, the more color checkboxes that are checked, the less the layer's adjustment will be revealed in the image since more colors will be excluded from receiving the adjustment.

NOTE #1: Target and Exclude are mutually exclusive. Checking one unchecks the other. So, users need to decide which approach will work best for properly confining the layer's adjustment to certain colors in the image.

NOTE #2: The Target and Exclude checkboxes are also toggles, just like the Gray checkbox. Once Blend If color settings have been implemented through Target and Exclude, unchecking either the checkbox toggles that color adjustment off.

Color Expansion slider—The slider below the color checkboxes can be used to expand the color channels defined using Target and Exclude to include additional pixels in the image. The slider always starts at its left-most position when a Target or Exclude adjustment is initiated. Then, to reveal more pixels that are similar to what's defined by the color checkboxes, slide the slider to the right.



NOTE #1: Turning on the color overlay with the Toggle Color Overlay button can help visualize which colors are being revealed in the image when using Target and Exclude and the Color Expansion slider.

NOTE #2: Do NOT manually adjust the color channel sliders in Photoshop's Blend If. Let the Edit Blend If interface make these adjustments through the Target and Exclude options. Manually adjusting the Blend If's color channel sliders is complicated. The Edit Blend If interface is able to interact with the Blend If color channels in ways that would be hard to reproduce manually. Additionally, when Edit Blend If is opened, it reads the current Blend If settings on the layer and displays them on the Edit Blend If interface. This includes not only the "Gray" channel settings but also the Target and Exclude color channel settings. Manually adjusting the color channels in Photoshop's Blend If will likely make it so the Multi-Mask module cannot properly read Photoshop's Blend If color channels going forward for this layer.

NOTE #3: Revealing adjustments to specific colors on a layer via Blend If is NOT as precise as using an actual color mask created using the color mask functionality in the Multi-Mask module. Blend If channels have actually a "darks" and "lights" component such that darker or lighter colors are preferentially selected depending on the channel. This is not present in the color masks, which are based purely on hue and saturation. While Blend If color settings can be useful in many situations, if the color isn't being accurately targeted, switching to an color mask might yield better results.

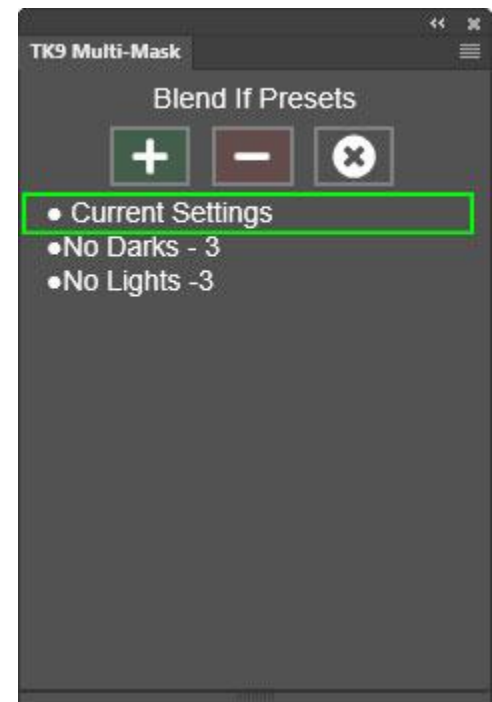
NOTE #4: Target and Exclude color adjustments can be combined with "Gray" channel adjustments. So, revealing a layer's contribution to the image through both tone and color can be controlled using Blend If. Additionally, a layer mask can also be added to the layer and used to paint-in or paint-out the layer's adjustment in combination with the Blend If settings. Combining Blend if adjustments with a layer mask is essentially the "mask-the-mask" technique on a single layer. The Blend If settings act as the controlling luminosity mask (which can also include color masking) and the layer mask acts as group mask revealing just certain parts of the layer whose adjustment is already defined by the Blend If settings. When the color overlay is turned on in this situation using the Toggle Color Overlay button, it shows what is revealed on this layer by the combination of Blend If settings and the layer mask.

Save/Load Blend If settings—This button opens a new interface (shown at the right) where the current Blend If settings can be saved so they can be reused later. This is sort of like saving a luminosity mask as an alpha channel on the Channels panel. This interface also allows previously saved Blend If setting to be loaded and applied to the current active layer.



Reset Blend If—This button resets the Blend If settings for the layer to what they were when the Edit Blend If interface was first opened. This is useful to allow experimenting with different Blend If settings but then returning to the layer's original Blend If settings if new settings don't work as well.

Delete Blend If—This button deletes the Blend If settings from the active layer.



Summary: Blend If in Photoshop has always been a bit of a mystery, especially the color channel sliders. Edit Blend If provides a new interface for accessing the Blend If feature without having to navigate the different possibilities within the "Layer Style" dialog. "Gray" channel and color channel Blend If can be quickly entered, viewed on the image, and updated whenever necessary.

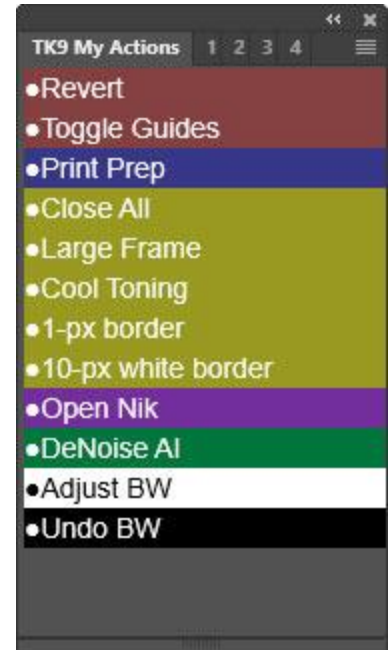
Edit Blend If is also completely non-destructive. As long as the Multi-Mask module is used to create a layer's Blend If settings, Edit Blend If can then find and display these settings when returning to the layer to make changes. So, it's possible to pick up where you left off in customizing Blend If settings for any particular layer.

MY ACTIONS MODULE AND THE 1, 2, 3, AND 4 MODULES

1. Overview

The TK9 My Actions and the 1, 2, 3, and 4 modules provide a convenient way to organize your favorite actions into more meaningful lists. Actions can be quickly added and removed from these modules, tagged with different color backgrounds, and moved higher or lower in the list. Instead of scrolling through different action sets in Photoshop's regular Actions panel, the My Actions and the 1, 2, 3, and 4 modules put your most important or specific actions into one list that can be easily updated whenever needed. An unlimited number of actions can be added to each module.

These "actions" modules are dynamic both in the way the user's actions can be organized and also in the way it can be docked in the workspace. Many TK9 users have some extra space below their docked Combo or Cx module. The My Actions module conveniently fits below both, and the interface adjusts to the different widths.



My Actions and the 1, 2, 3, and 4 modules all work the same. Many users might only need the My Actions module to properly organize all their actions. However, for users that have different actions for different workflows, the 1, 2, 3, and 4 modules can be used to group actions into sets for specific workflows. All the actions modules can be docked together in Photoshop, and the module with the necessary actions for a particular workflow can be displayed when needed. All the actions modules share the following features:

- Multiple actions can be added and removed at the same time.
- Actions can be moved higher or lower in the actions list for better organization.
- Action names wrap so that they do not get cut off at the end if the action name is longer than the width of the module.
- The action name appears as the history state on the History panel when an action is run from the My Actions module.
- Multiple colors are available for color-tagging individual actions with different background colors.
- Module preferences, like language choice, are now incorporated into the fly-out menu accessed in the upper right corner of the module.
- No rollover help. Each module is pretty much self-explanatory, so there are no tooltips.
- Users are alerted if they try to add duplicate action names and action names with special characters that could cause problems.
- The same actions can be added to more than one module.

2. My Actions and 1, 2, 3, and 4 fly-out menu (preferences)

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

NOTE: Each module has the its own fly-out-menu for preferences, though they are all identical in their layout and options.

ADD Actions—This menu item is used to initiate the process of adding actions to the module.

REMOVE Actions—This menu item is used to initiate the process of removing actions to the module.

Version—This is the TK9 version number.

Language—While English is the default, users can choose to change to a different language. For languages other than English, button names, tooltips, and error messages change to the chosen language. A few things, like layer names for special layers generated by the module, remain in English.

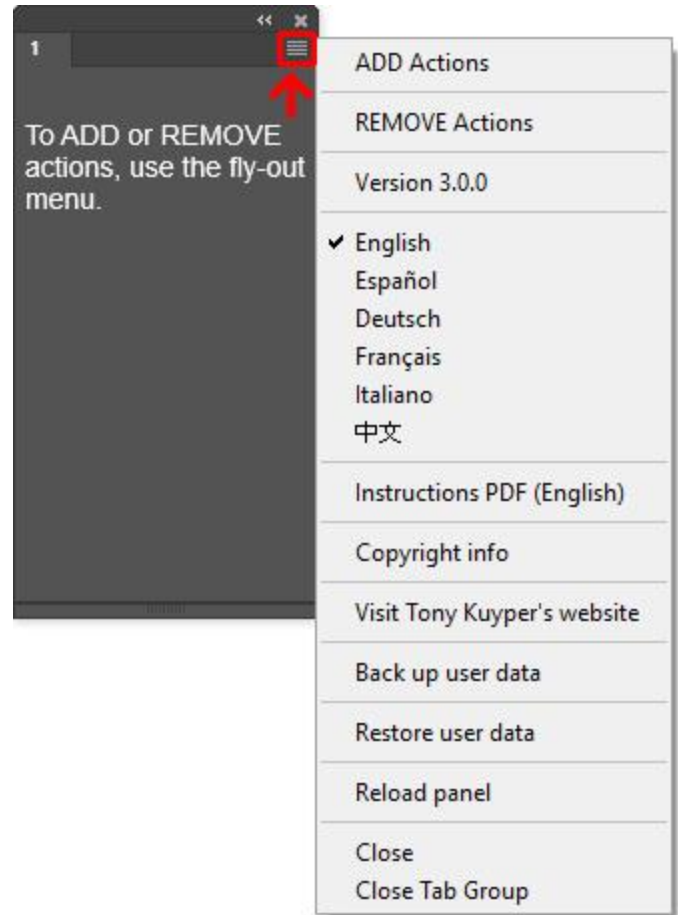
NOTE: There are a few bugs in Photoshop that do not allow for properly changing the language on some items. This might be corrected in future versions of Photoshop.

Instructions PDF (English)—This option opens a URL to download the TK9 instructions manual.

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.

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



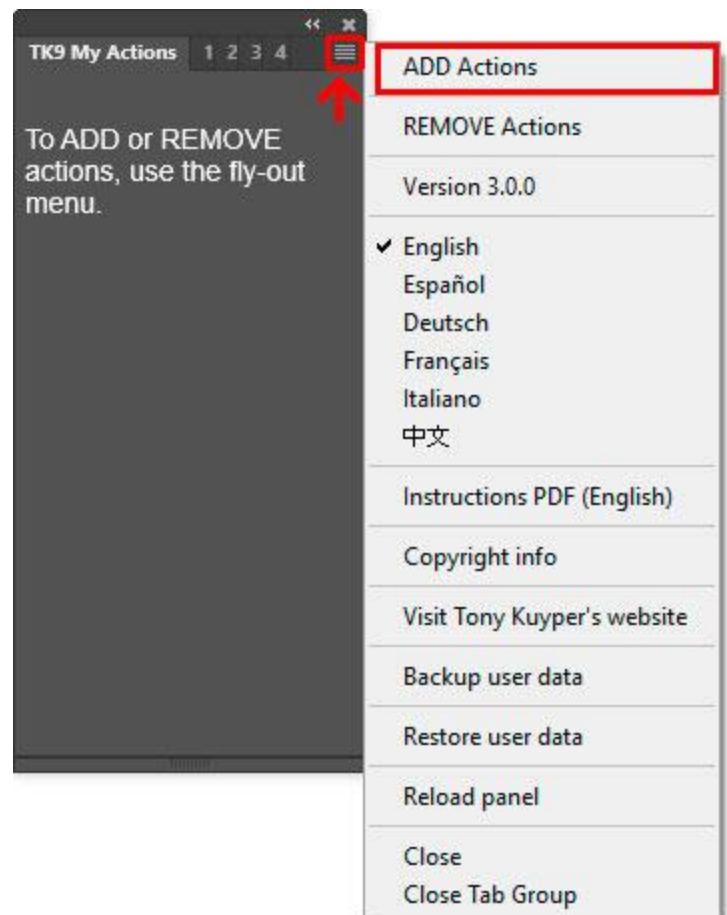
Restore user data—This options guides the user through the process of restoring user-specific data for this module that has previously been saved using the "Backup user data" option. More information later in this manual.

NOTE: Only the list of user actions that appears on the module are backed up. The actual Photoshop actions are NOT backed up with this module's Backup utility. As such, it's very important to back up Photoshop actions separately in case they need to be restored in the future. This can be done using the "Save Actions..." option in the Photoshop Actions fly-out menu. Likewise, the module's Restore utility only restores the list of actions. Photoshop actions need to be restored independently using the "Load Actions..." option in the Photoshop Actions fly-out menu.

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

3. Adding actions

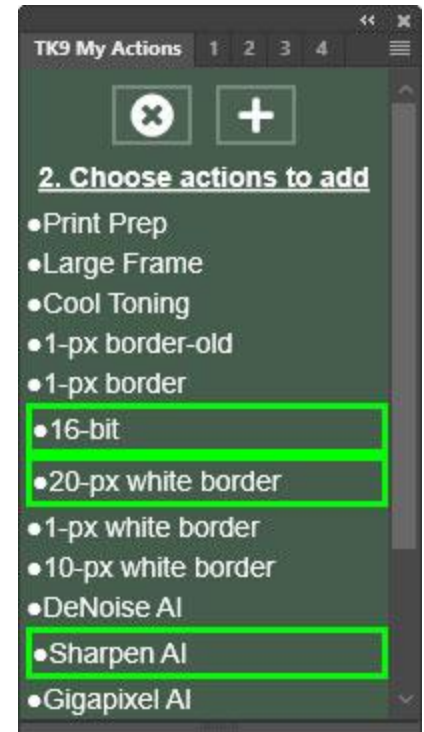
To add actions to the module, open the fly-out menu in the upper right corner and click the ADD Actions option. This opens a new interface with a green-shaded background displaying action sets from the Photoshop Actions panel.



Clicking an action set opens a list of actions in that action set. From this list of actions, the user chooses one or more actions they intend to add to the module's actions list. A green outline appears around each action that's selected.

NOTE: To un-choose an action, simply click it again to remove the green outline.

Once the action(s) have been chosen, click the "+" button at the top of the interface to add them to the module's actions list.

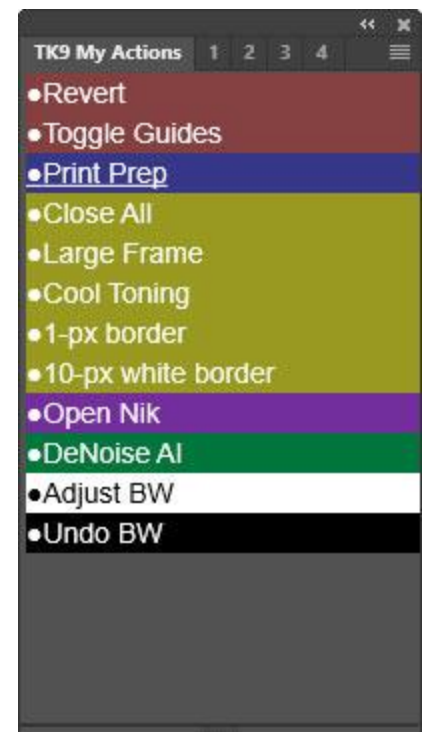


4. Playing an action

To play an action that's been added to the actions list, simply click its name in the list. The action plays and the action's name is added as a new history state on the History panel.

NOTE #1: Actions that contain ExtendScript code cannot be run directly from a module. To play an action that contains ExtendScript code it is necessary to first create a separate action on Photoshop's action's panel that plays the action with the ExtendScript code and then add this new action to a module's actions list. While this workaround currently works, it is rumored that Adobe may eventually eliminate it.

NOTE #2: Actions recorded from button clicks of other UXP plugins cannot be run from any module. This is one of the shortcomings and Adobe is aware of it. It might be remedied in the future, but there is no information from Adobe on this.



5. Organizing actions

Once actions have been added to the module's action list, they can be moved higher or lower on the list for better organization. To do this, hold down "CTRL" (Windows) or "command" (Mac) and click on one of the actions in the list. This places a yellow outline around the action's name and displays the "move" buttons at the top of the module. Using the up and down "move" buttons, move the selected action higher or lower in the list.

NOTE: Only one action can be selected and moved at a time.

Once the action is moved to the desired location, click the X button at the top of the module to hide the "move" buttons.



6. Changing background colors for actions

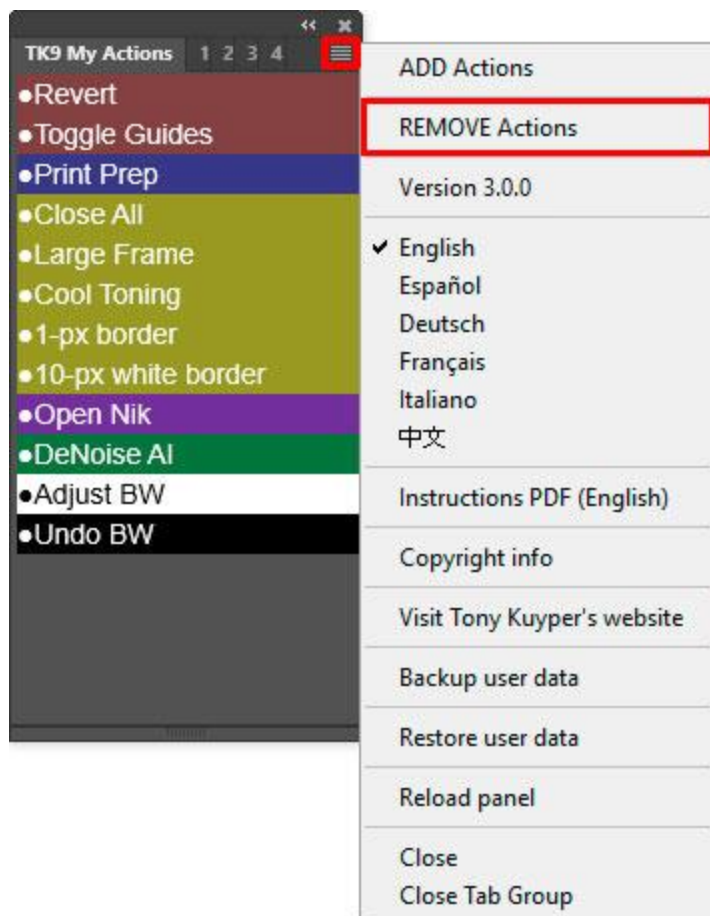
To help organize the actions in the actions list, the background color of each action can be changed to one of ten different colors. To do this, right-click on any action to open a window of available color choices and click on a color swatch. The chosen action will then have its background color changed accordingly.

NOTE: To remove a previously added background color, click the gray outline (center option on the bottom row) in the window of available color choices.

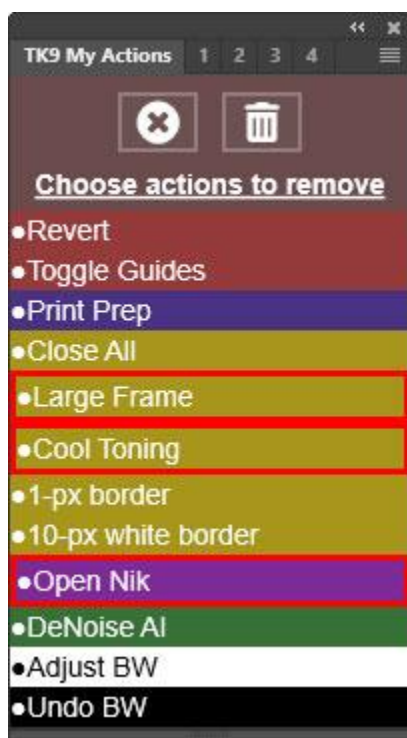


7. Removing actions

To remove actions from the module, open the fly-out menu in the upper right corner and click the REMOVE Actions option.



A new red-shaded interface opens. Choose one or more actions to remove. A red outline appears around each chosen action(s).



NOTE: To un-choose an action, click it again to remove the red-outline.

Finally, click the Trashcan icon button at the top of the interface to remove the chosen actions and return to the main action-list interface.

EXPORT MODULE

1. Overview

The Export module is intended to resize and sharpen images for display on the internet or a computer monitor. There are several options in the module to customize this process including:

- Number and location of images that get sharpened.
- The final size and name of the sharpened image.
- Cropping
- Playing an action on the resized/sharpened image.
- Adding a logo or watermark to exported images.
- Saving images for export.

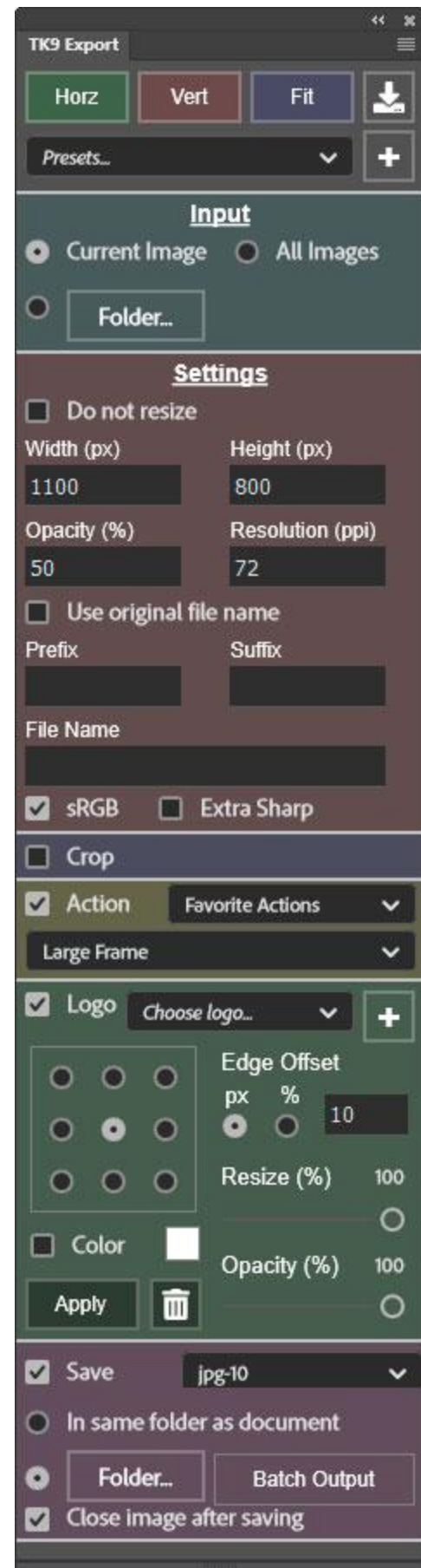
It's also possible to create an unlimited number presets that combine the various export options in order meet the specific requirements for websites, clients, or social media.

RECORDING ACTIONS

In the Export module, button clicks that initiate sharpening/export (Horz, Vert, Fit, and Run) are recordable as Photoshop actions. So is choosing a preset from the Presets drop-down menu. This means you can record an action to run multiple presets on the same image, a set of open images, or even entire folders of images. To do this, start recording an action. While recording, choose a preset, which gets recorded as an action step. Then click one of the buttons to initiate export processing. This also gets recorded as an action step. Continue repeating this process of recording preset selections and export-initiating button clicks. Then, when the action is played, it will select the preset and run the chosen export operation defined by the preset and keep going using recorded presets until the recorded action finishes playing. **VERY IMPORTANT:** Have your presets set up and tested before recording them as actions.

Choosing the Input Source is also recordable. So, it's possible to choose a preset and then change the Source for the images by clicking a different Input radio button.

It's also possible to change the input folder for images to be exported while the action plays. To do this, enable the user interaction flag for the action step of choosing the "Folder"



Input option. This will open the file-picker window when the action plays, allowing a new folder to be chosen each time the action runs. The same goes for the Save radio buttons. These are also recordable. Like with the Input folder, a new Output folder can be chosen each time the action runs by enabling the user interaction flag on the action step that records choosing the "Folder" output option.

2. Export module fly-out menu (preferences)

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

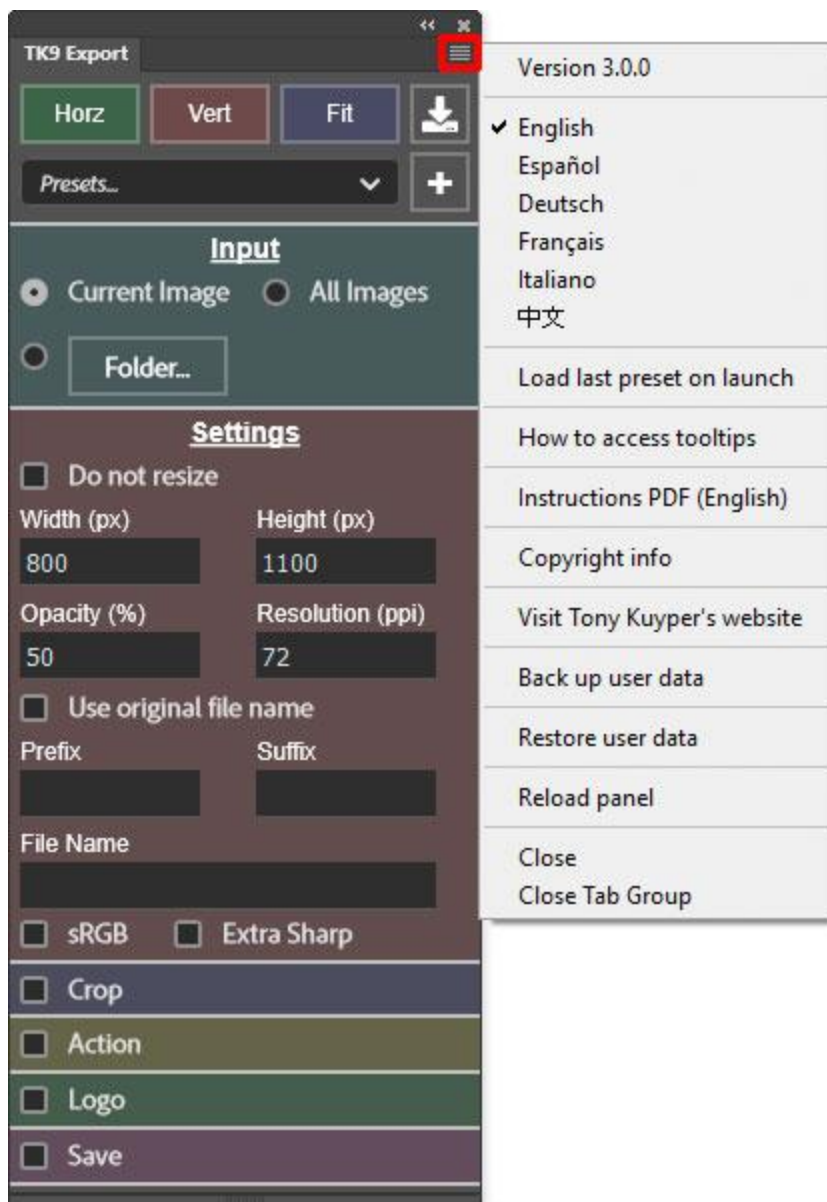
Version—This is the TK9 version number.

Language—While English is the default, users can choose to change to a different language. For languages other than English, button names, tooltips, and error messages change to the chosen language. A few things, like layer names for special layers generated by the module, remain in English.

NOTE: There are a few bugs in Photoshop that do not allow for properly changing the language on some items. This might be corrected in future versions of Photoshop.

Load last preset on launch—When checked, the settings for the last preset chosen by the user in a previous Photoshop session is displayed on the module when it opens for the first time in a new Photoshop session.

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



Instructions PDF (English)—Clicking this option opens a URL to download the TK9 instructions manual.

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

Visit Tony Kuyper's website—Clicking this option opens the front page of Tony Kuyper's website.

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

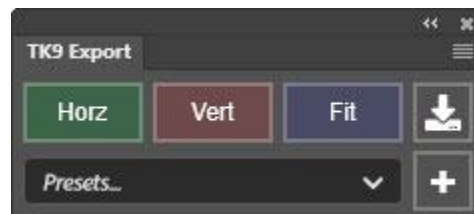
Restore user data—Clicking this options guides the user through the process of restoring user-specific data for this module that has previously been saved using the "Backup user data" option. More information later in this manual.

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

3. The "start" buttons

The top row of buttons initiate the process of resizing and sharpening images. These are located at the top of the module (instead of at the bottom) in order for them to be close to the module's docking icon. If the docking icon is placed near the top of a panel dock, then, once the module's export options are set, it's easy to open the module from the docking icon and then slide the mouse over to activate export processing with one of the "start" buttons.

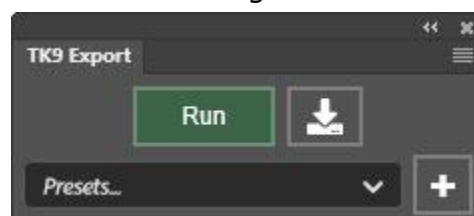
Horz—This button exports images such that the vertical dimension of the final image matches the value in the module's Width field. The final image's vertical dimension will be adjusted to maintain the aspect ratio of the original image.



Vert—This button exports images whose horizontal dimension matches the value in the module's Height field. The final image's horizontal dimension will be adjusted to maintain the aspect ratio of the original image.

Fit—This button exports images such that they fit in a box defined by the Width and Height fields. The final image's aspect ratio will match that of the original image.

Run—The run button appears (instead of the Horz, Vert, and Fit buttons) for export situations where the aspect ratio of the final image might NOT match that of



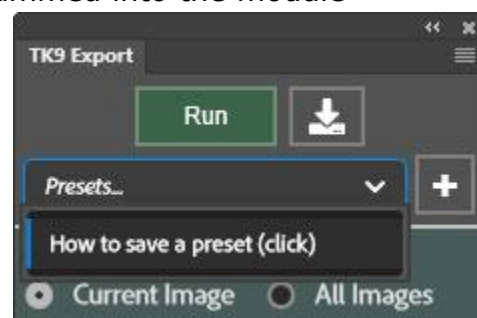
the original image, such as when the Crop checkbox is checked to include cropping as part of the export process.

Save button—This icon button can be used to save output from the resizing/sharpening process if the module's Save option is not enabled. Clicking the button opens Photoshop's "Save for Web" dialog window. Hold down "CTRL" (Windows) or "command" (Mac) to open the "Export As" dialog window instead.

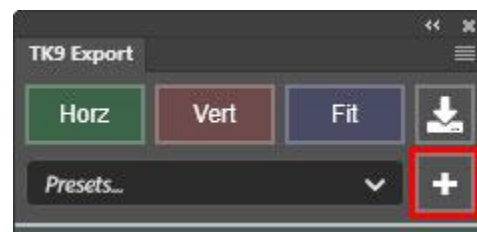
4. Presets

The Export module allows users to make presets that define the various options for the exported image. There are no "default" presets programmed into the module since optimal dimensions for images resized for specific purposes, like social media, are frequently revised.

NOTE: If there are no saved presets, the Presets drop-down menu will have one item named "How to save a preset (click)." Clicking this menu item will open a message describing how to save, change, and delete export presets. Once presets are added this menu item is no longer present.



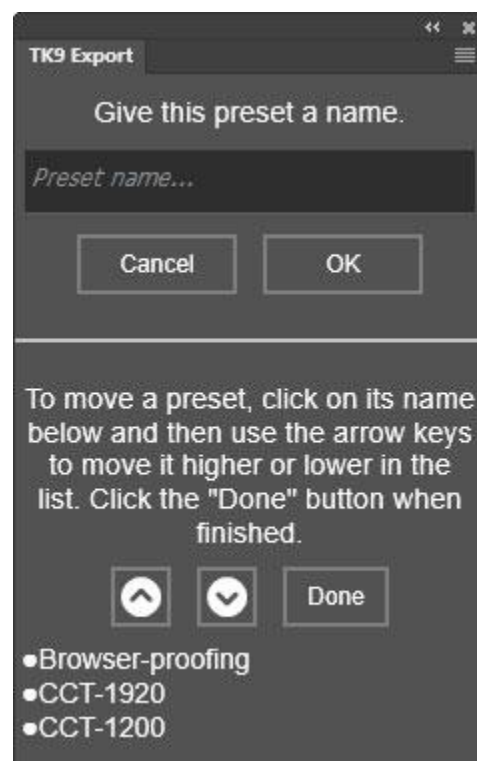
Plus (+) button—To make a preset, first go through the different sections of the module to set the various fields and checkboxes for a specific output situation, like social media post or to meet a client's needs. Then click Plus (+) button to open a new interface that allows giving the preset a name.



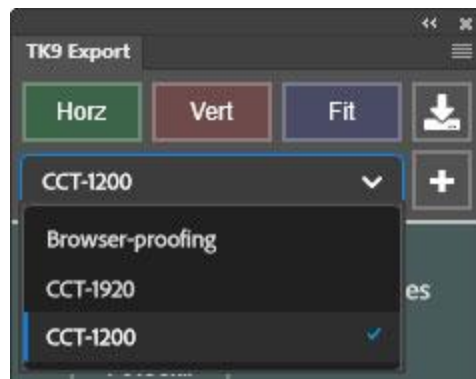
Choose a descriptive name that includes parameters that will help you remember what a specific preset will do. Clicking the OK button then adds that preset to the drop-down menu of preset names on the main interface.

NOTE #1: Preset names cannot include any special characters except period, hyphen, underscore, and parentheses.

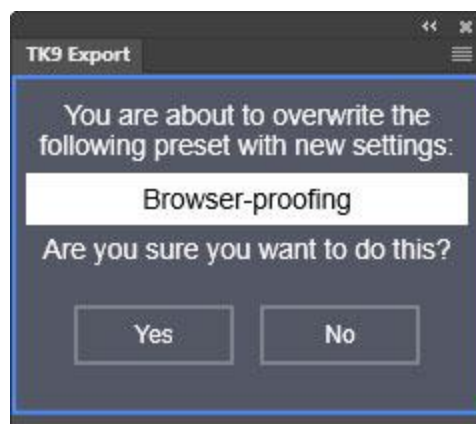
NOTE #2: The bottom portion of the interface for naming presets can be used to reorganize the list of presets that appears in the drop-down menu of the main interface. Simply click on a preset name in the list and use the arrow keys to move it higher or lower in the list.



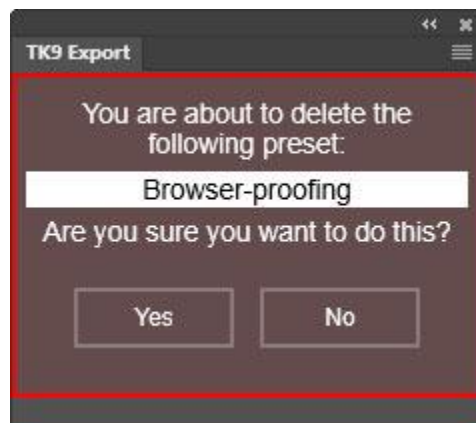
Presets menu (drop-down)—The presets drop-down menu on the main interface provides a list of presets saved by the user. Clicking on one of the preset names loads that preset's options into the module's interface. Then clicking one of the "start" buttons at the top of the module processes images according to these options.



NOTE #1: It's possible to overwrite a saved preset by holding down "CTRL" (Windows) or "command" (Mac) and clicking on its name in the menu. Be sure to choose the updated preset options in the module BEFORE overwriting the current preset with this procedure. A dialog will appear to confirm that overwriting the preset is intentional.



NOTE #2: To remove a preset, hold down the "SHIFT" key and click on its name in the drop-down menu. A dialog will appear to confirm that deleting the preset is intentional.



5. Input

There are three input options for processing images. They are controlled by radio buttons, so only one can be chosen.

Current Image—This option processes just the current active document in Photoshop according to the parameters set in the other parts of the module.

All Images—This option process all open images in Photoshop according to the parameters set in the other parts of the module.

Folder—This option processes a entire folder of images according to the parameters set in the other parts of the module. Clicking the Folder... button opens an Explorer window (Windows) or Finder window (Mac) in order to choose the folder which contains the images to be processed. The name of folder appears in the box next to the Folder... button once it has been selected.

NOTE: Images in subfolders of the chosen folder are NOT processed.

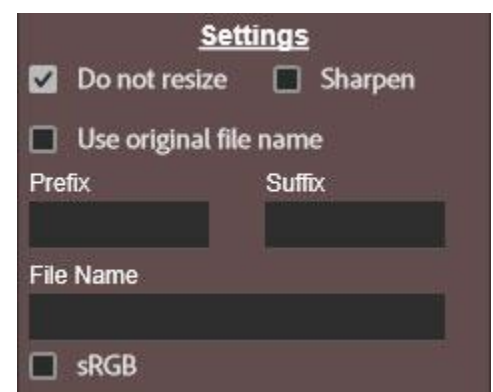


6. Settings

Exporting an image often requires downsizing and sharpening. The "Settings" section of the module allows inputting the parameters for such things as the dimensions for the exported image, how much it gets sharpened, and how it is named.



Do not resize—This checkbox allows exporting an image without resizing it. This could be useful in



order to add some sharpening to the image before exporting it, giving the exported image a new name, adding a watermark to the image, and/or saving it to a different location. Enabling this option hides the Height and Width fields and the Crop option as these are no longer an option if the image is not going to be resized.

Sharpen—This checkbox is only visible if Do not resize is checked. When Do not resize and Sharpen are both checked, a small amount of additional sharpening is added to the final image even though the final image will be the same size as the original. If no sharpening is needed when processing when Do not resize is enabled, then the Sharpen checkbox should be unchecked.

NOTE: Enabling Do not resize and unchecking Sharpen is the only way to turn off sharpening when the module processes images. At all other times, the module's sharpening algorithm engages when resizing images for export.

Width and Height—These fields determine the size of the final, sharpened image. However, the way in which they are used depends on the processing option chosen. For example, the Horz option only uses the Width value for resizing the image and the Vert option uses only the Height value. Fit uses both values as does the Crop option. It's important to be familiar with the different processing options available in the module and choose the one that best meets your intent for exporting the image.

Opacity—The opacity value in this field becomes the layer opacity of the group of layers that sharpen the image during processing. So, Opacity is essentially a "strength" field. Higher values will product stronger sharpening and lower values less in the sharpened image. Fifty percent (50%) is the default and a good starting point when experimenting with what the panel can do. It's also possible to adjust the layer opacity of the sharpening group after resizing as long as the image has not already been saved.

Resolution—This field allows choosing a resolution in pixels/inch for the final, sharpened image. This is somewhat unimportant as the final image is displayed at "actual pixels" size regardless of the value entered. However, if a watermark or logo is added to the image, it's best to have resolution of the final image match that of the document that contains the watermark or logo to help ensure that the Resize option in the Logo dialog works correctly.

Use original file name—In order to prevent altering the master file when resizing and sharpening for export, the module duplicates the original document before processing. Additionally, if the Prefix, Suffix, and File Name fields are left blank, the word "copy" is added at the end the original document's name to distinguish it from the original document. To use the original file name for the duplicate image

WITHOUT adding "copy" at the end, check the Use original file name checkbox. Enabling this feature also hides the Prefix, Suffix, and File Name fields as they are unnecessary when the choice is made to use the original file name for the duplicate image.

Prefix and Suffix—These fields can be used to add a designated prefix or suffix to the original file name when the original document is duplicated.

NOTE: Do not include a hyphen after the Prefix string or before the Suffix string as the module automatically inserts this where appropriate.

File Name—Entering a name in this field causes the duplicate image to be given this name when it is processed. If the Input option is All Images or Folder, each duplicated document is given the specified name but each is also given a suffix with a sequentially increasing number starting with the number one.



Settings	
<input type="checkbox"/> Do not resize	
Width (px)	Height (px)
800	1100
Opacity (%)	Resolution (ppi)
50	72
<input type="checkbox"/> Use original file name	
Prefix	Suffix
File Name	
<input type="checkbox"/> sRGB	<input type="checkbox"/> Extra Sharp

NOTE: Most special characters in duplicate image's the filename (including the Prefix, Suffix, and File Name) will be replaced with an underscore in order to avoid problems with the module's code and when saving the document.

sRGB—Checking this checkbox causes processed images to have their color profile changed to the "sRGB IEC61966-2.1" color profile. This is usually desirable for images displayed on the internet or a computer monitor.

Extra Sharp—Checking this checkbox disables the layer mask on the "Sharpen #2" layer in the group of layers used to sharpen the image. This mask normally has the effect of confining sharpening to darker values in the image in order to prevent light halos from appearing in the sharpened image. For highly detailed images, though, these halos might not be a problem, and disabling the mask by checking Extra Sharp might look OK. Disabling this mask, however, can cause the web-sharpened image to look a bit crispy sometimes. The default is to have this option unchecked. It's always possible to test if disabling the mask helps the sharpened image by holding down "SHIFT" and clicking the layer mask (or by using the red X button on the Combo or Cx modules) after processing has completed.

7. Crop

There are many situations where the original image needs to be cropped prior to export to meet needs of a specific web platform or a client. Checking the Crop checkbox enables cropping to occur while processing images for export, and there are several options available as described below. Before enabling Crop, make sure

the Width and Height fields both have accurate values for the final size required for the processed image as these will be the dimensions of the resized, cropped, and sharpened image.

NOTE: When Crop is enabled, the processing buttons at the top of the module change to a single Run button since the options available with the Horz, Vert, and Fit buttons no longer apply when cropping the image.

Centered—This option centers Photoshop's cropping guides on the image to create an aspect ratio defined by values in the Width and Height fields. Choosing the Centered option also displays the Adjust and Transform options described below.

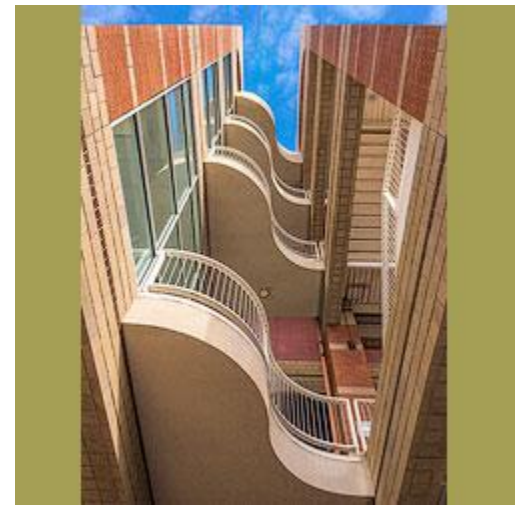
Adjust—Checking this checkbox stops processing to allow the user to manually adjust where the image gets cropped. Photoshop's cropping guides can be repositioned at this time, but the aspect ratio is locked to what is defined by the Width and Height fields in order for the final image, which will have these dimensions, to avoid being distorted from what was present in the original image. If the Adjust checkbox is unchecked, the centered crop occurs automatically; the user will NOT have the opportunity to choose a different crop for the image during processing.

NOTE: Canceling cropping on an image stops processing on that image and any additional images that are currently in the processing queue.

Transform—Checking this checkbox opens Photoshop's Free Transform for the image AFTER it has been cropped but BEFORE it is sharpened. This allows additional manipulation of the image to make it looked better within the cropped frame, if this is necessary.

NOTE: Transform always interrupts processing to allow the user to interact with the transform operation. Canceling Free Transform on an image does NOT cancel processing on additional images currently in the processing queue.

Bars—This option works differently than Centered. The user isn't allowed to actually crop the image smaller during processing when using the Bars option. The orientation (square, landscape, or portrait) and aspect ratio of the original remains unchanged. However, if the aspect ratio of the original image doesn't exactly match



that specified by the Width and Height fields, bars are added to fill the space difference between the resized original image and the edges of the output container specified by the Width and Height fields. For example, if an image in portrait mode needs to be exported as a square, the image is first resized and sharpened while maintaining its original aspect ratio to fit in the square box specified by the Width and Height fields, and then bars are added on the sides of the image to fill in the blank space between the resized image and the edges of the square. The image here shows a portrait mode image resized to fit in a square output container. Chartreuse bars were added so that the vertical image fits within the square box with no blank space. The Export module did all this as part of selecting the Bars option.



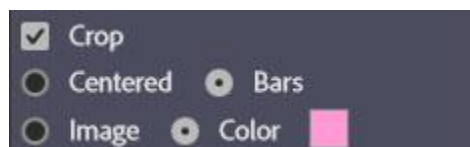
NOTE: Choosing the Bars option also displays additional options below it that can be used to customize the bars that get added. These options are described below.

Image bars—When content is needed to fill the blank space between the edge of the resized image and the edges of the output container, a blurred and slightly darkened version of the image is used for this purpose when the Image option is chosen. In the image shown here, a landscape mode image is sharpened and resized and needs to be exported to fit in a square output container. The Width and Height fields specify the size of the square output container and the module resizes and sharpens the image to fit into that container. The image (slightly enlarged, blurred, and darkened) is then used to create bars above and below the image to fill the vertical space between the edges of the image and the edges of the square container.



NOTE: After processing the image, the opacity of the "Darken Edges" layer can be adjusted to make the image bars darker or lighter.

Color bars—This option creates "colored" bars instead of "image" bars to fill the space between the image and the edges of the output container when the Bars option is selected. Clicking the color square that appears when the "Color" option is selected opens the Color Picker to choose the color of the bars. In



the image shown here, a pink color from the image was sampled as the bar color.

8. Action

Checking the Action checkbox enables the ability to run an action AFTER the image is processed (resizing, sharpening, and cropping), but BEFORE adding a watermark or saving the image. This can be useful for adding white borders or a custom frame to the processed image. To utilize this option, use the two drop-down menus in this section to select an action set and an action to run on the processed image.



9. Logo (watermark)

Checking the Logo checkbox enables the option to add a watermark or logo to the image as part of processing it. The watermark is usually applied after image cropping, resizing, sharpening, and playing an action has completed, but in the case of using the Bars Crop option, the watermark is applied to the actual image area and not to the bars. There are several options for placing the watermark on the image described below.



Watermark drop-down menu and Plus (+) button—In order to add a watermark to the image, first select one from the drop-down menu. If there are no items in the drop-down menu, click the Plus (+) button to add your watermark(s) to the menu. Then select the one you want to add to the image.

NOTE #1: The watermark gets added as an embedded smart object. If you are creating a watermark for your images and want transparency around the watermark to allow your image to show through, be sure to save with no background.

NOTE #2: The resolution of the watermark image file should match that used in the Resolution field of in the Settings section of this module. This helps ensure that the Logo Resize slider works properly.

NOTE #3: Generally the width of the watermark image file should be at least as wide as the widest image to which it will be applied. Photoshop scales the placed watermark image file to 100% of the width of the processed image if the watermark image file is at least as wide as the image to which it is applied. If the watermark image file is smaller (less wide) than the image to which it is applied, it will be applied at its actual size if it.

NOTE #4—Because watermarks are applied as smart objects, they can be moved and transformed if necessary after they are applied. However, the Export module

does NOT have a "transform" option. So, this would have to be done manually before saving the processed image.

Position—The array of nine radio buttons shows possible locations where the watermark can be applied to the image. Choose whichever works best.

Color—Checking this checkbox enables adding a color overlay to the watermark after it is applied. This changes the color of the watermark. The color used is the color of the square located to the right of the **Color** checkbox. To change the color of the square, click it choose a different color using the Color picker.

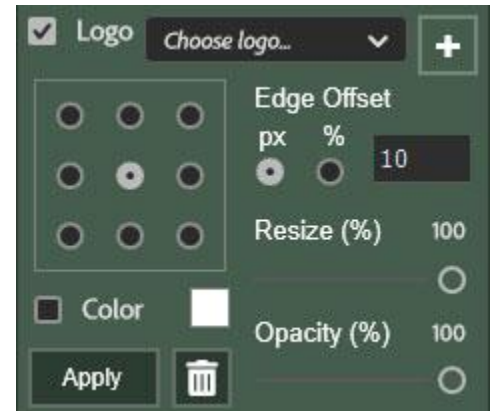
Edge Offset—The watermark gets applied flush to the edge(s) chosen in the **Position** array. **Edge Offset** allows the watermark to be moved slightly so it is not flush with image edges. This offset amount can be either in pixel (px) or percent (%) based the option chosen and the number entered in the text field.

Resize—This slider allows changing the size of the watermark after it is applied.

Opacity—This slider changes the opacity of the watermark smart object layer. Numbers less than 100 allow some of the underlying image to show through the watermark.

Apply—Normally the watermark gets applied as images are processed by the module. However, because of the numerous settings required in the **Logo** dialog, the **Apply** button provides a quick method to first test the watermark application to make sure all the settings are correct. Do this on an image where all the other processing has occurred in order to get an accurate idea of how the watermark will appear when it is applied during a processing run.

Delete Watermark—This button deletes an applied watermark. It is especially useful when tweaking the **Logo** setting to get the watermark appearance properly configured.



10. Save

The Export module can save processed images if the **Save** checkbox is checked and folder has been selected for saving them. There are just three choices to make in the **Save** section of the module.



Output format drop-down menu—Use this drop-down menu to select a file type and, in the case of .jpg and .webp images, an image-quality setting.

In same folder as document radio button—Choosing this option saves the processed image in the same folder as the original document. If this option is chosen, an error message appears if the user tries to save the sharpened image using the same name and file extension as an image already open in Photoshop or if the document has not previously been saved (like when it was created as a duplicate from another image).

Folder... radio button —This option allows processed images to be saved in a folder chosen by the user. The Folder... button opens an Explorer window (Windows) or Finder window (Mac) in order to choose the folder in which processed images are saved. The name of the folder will appear in the box next to the button once it has been selected.

Close image after saving—Checking this checkbox closes the duplicate image used for sharpening after it has been saved in the designated folder. This helps keep the Photoshop workspace clear of extra images. Leave this checkbox unchecked if you would like to make adjustments to the sharpened image before saving. In this case, the Save button at the top of the module can be used to save the image via Photoshop's "Save for Web..." or "Export..." dialogs.

BACK UP AND RESTORE

All TK9 modules allow for a significant amount of customization. Language, various preferences, color-tagging, and action lists in the My Actions modules are examples. It takes some time to personalize TK9, and most photographers don't want to have to repeat the process in case of some type of computer crash. With the Back Up and Restore functions in TK9, the user-specific settings for each module can be saved to a separate folder on the computer and then restored in case of an unexpected malfunction that wipes out this data.

There are a few important points to keep in mind with the Back Up and Restore functionality. The first is that each module needs its own backup folder. All the folders can be kept together in one larger folder, but there needs to be a separate backup folder for each module.

Also, backing up is a manual process. The modules cannot automatically create a backup on their own. The user needs to intentionally back up their TK9 data once they have customized the modules to their liking.

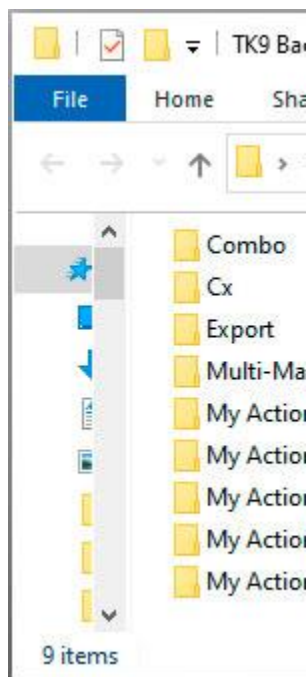
Finally, TK9 backups only back up TK9 data. This is most relevant when backing up TK9 modules that call user actions from the Photoshop Actions panel, like the My Actions modules. In this case, the TK9 backup data only contains references to the action sets and action names of the actions that are called using the module's list of actions. The actual Photoshop actions are NOT backed up. Backing up Photoshop actions is a separate process, and users should be sure to do this also to insure they don't lose their Photoshop actions in case of a computer crash.

The Back Up and Restore function can be used to transfer TK9 settings between computers. To do this, back up data on one computer, transfer the backup folder(s) to the second computer, and then run the Restore function from the second computer.

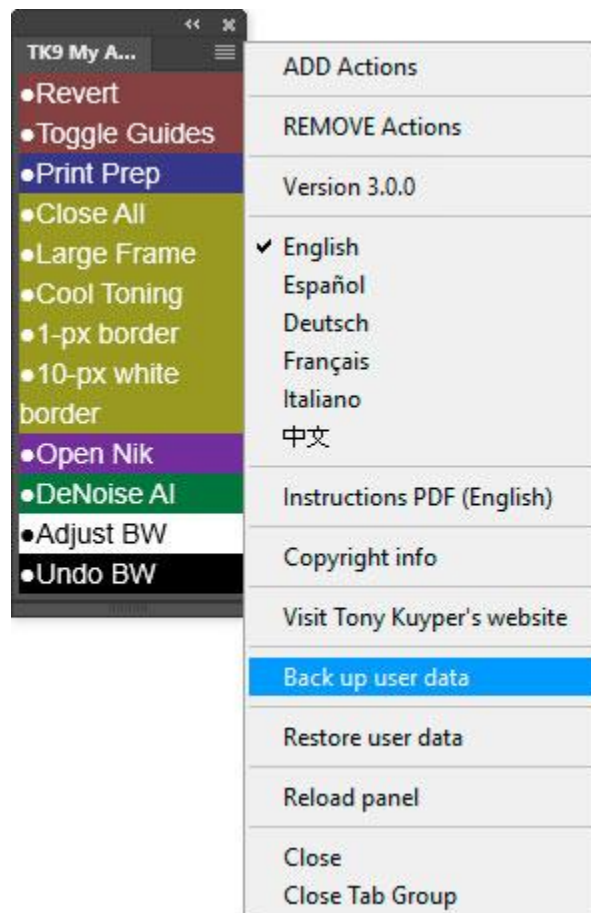
NOTE: Input and output folders specified in user data, like Export module presets, probably will NOT transfer between computers. Photoshop uses a system of tokens to specify files and folders, and these are computer-specific. While the tokens are saved in the module's user-specific data, they likely will NOT transfer to another computer.

1. Back up

The first step in backing up TK9 data is to create a separate folder for each module you want to back up. For example, I created a new "TK9 Backups" folder and inside created a new folder for each module. These module-specific folders will be the backup location for the corresponding modules.

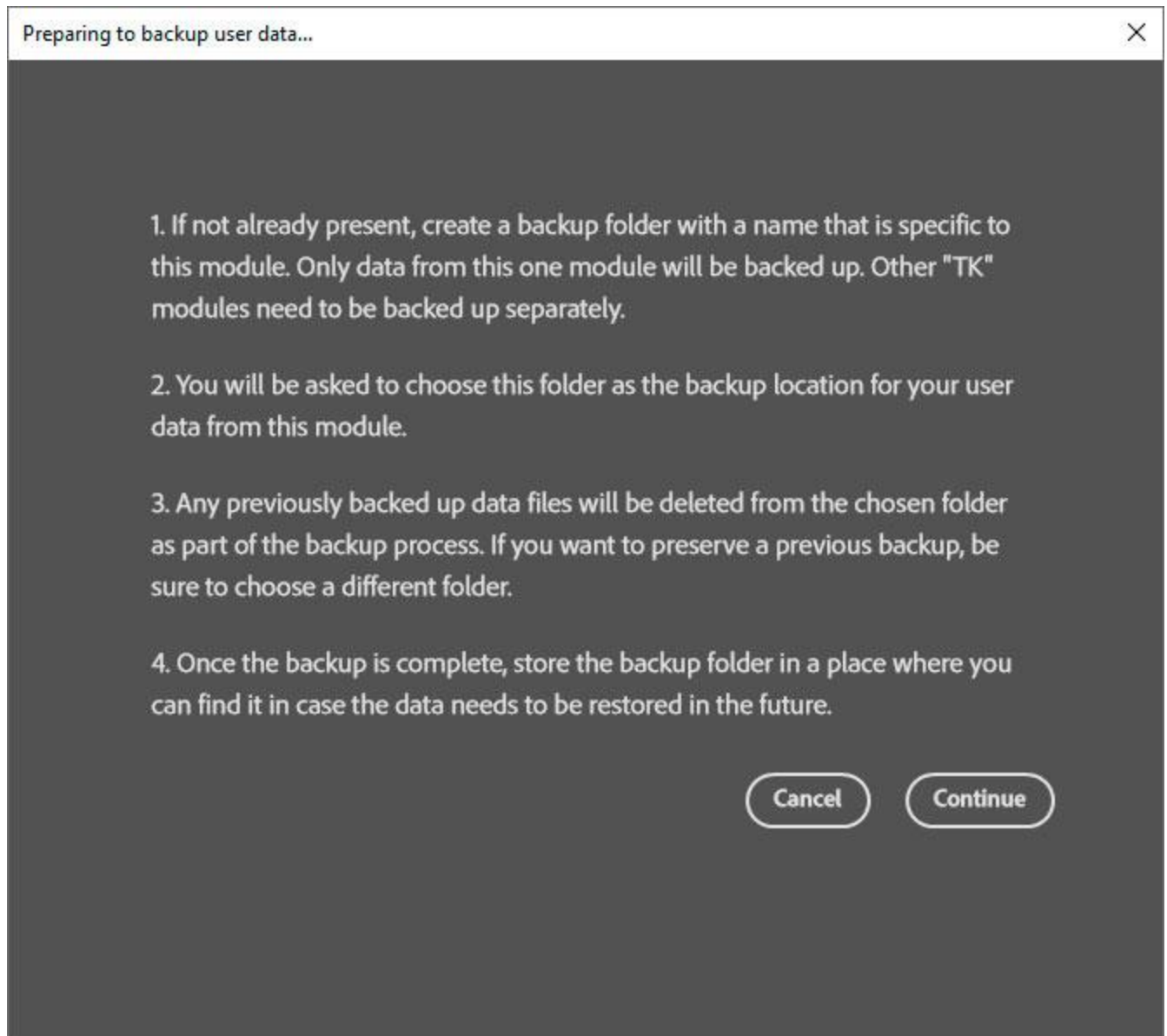


Then, to start the backup process, click the "Back up user data" option in the module's fly-out menu.



backup process, user data" option in menu.

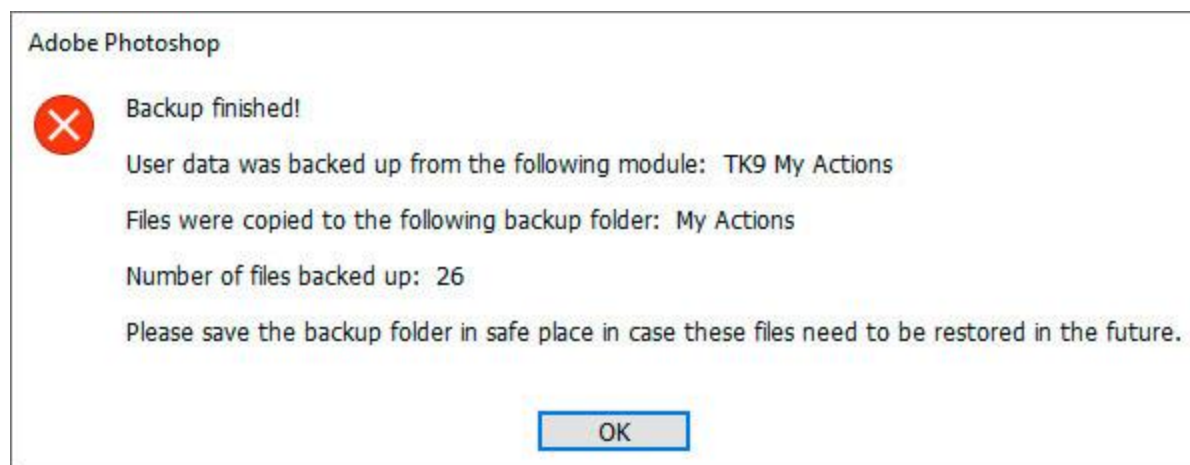
A message window will appear that will describe the process. Review the steps and then click Continue.



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

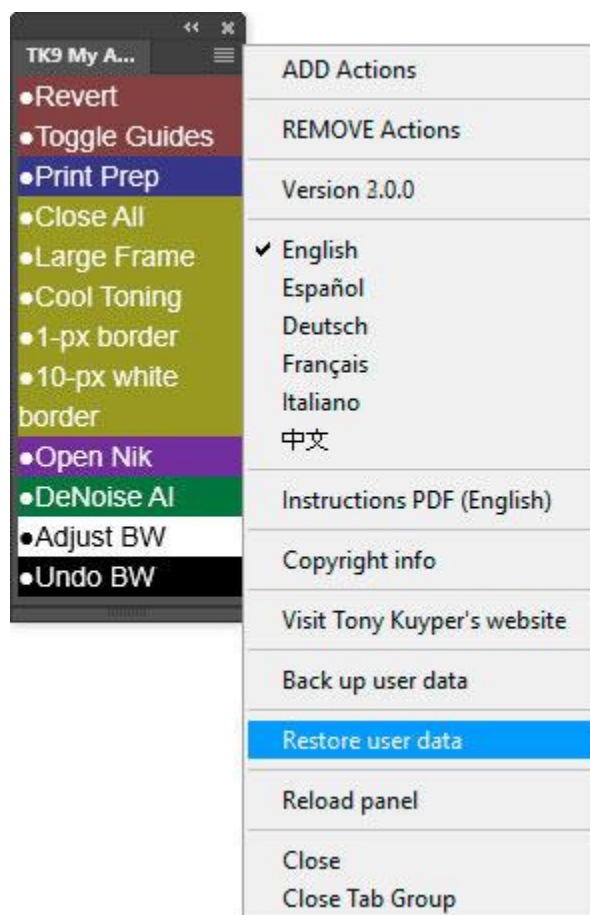
NOTE: All files in the selected folder will be deleted, and the files that make up the user data for the module will be written into the folder.

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

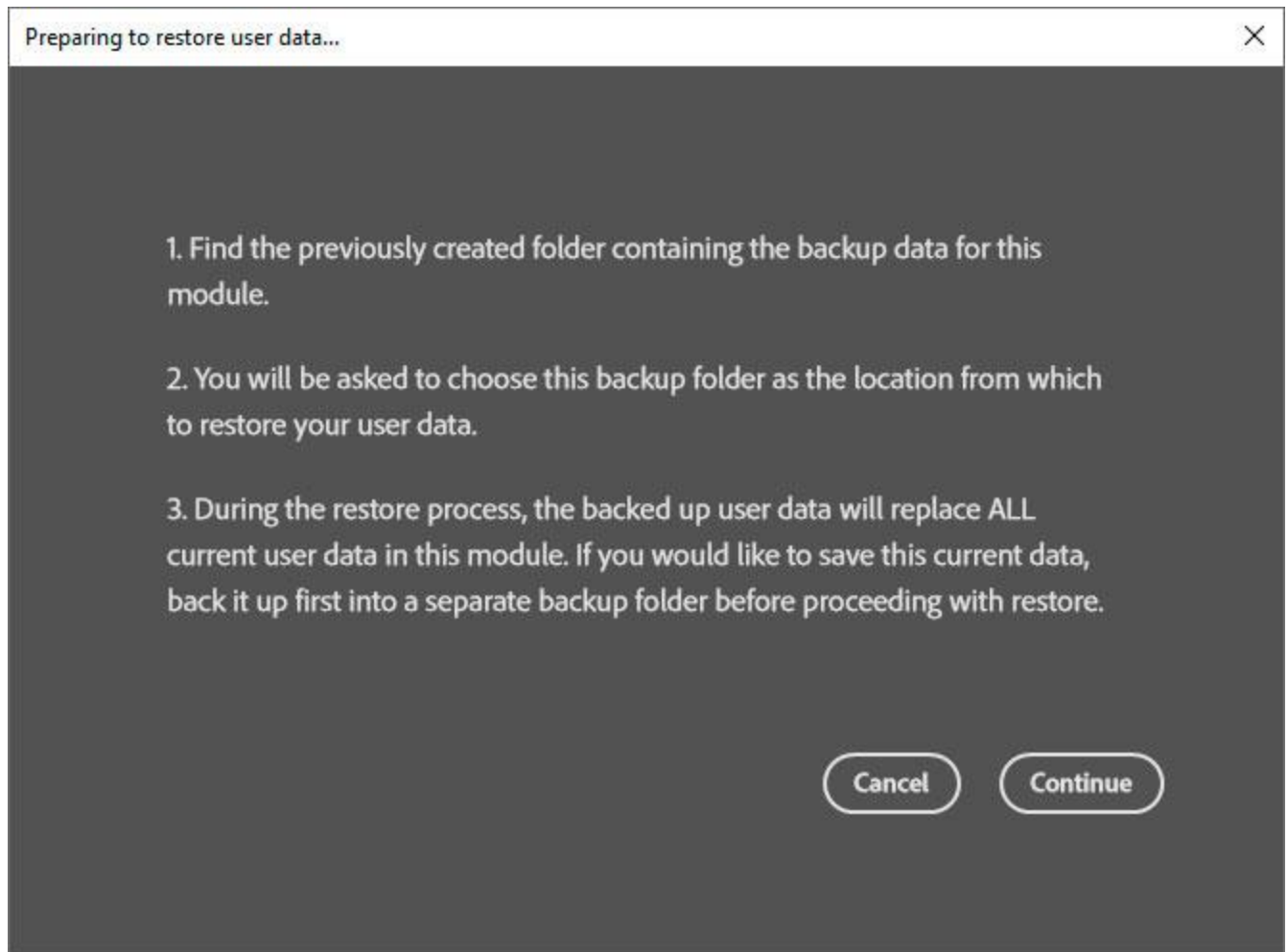


2. Restore

To restore a module's user data, go to that module's fly-out menu and click Restore user data.



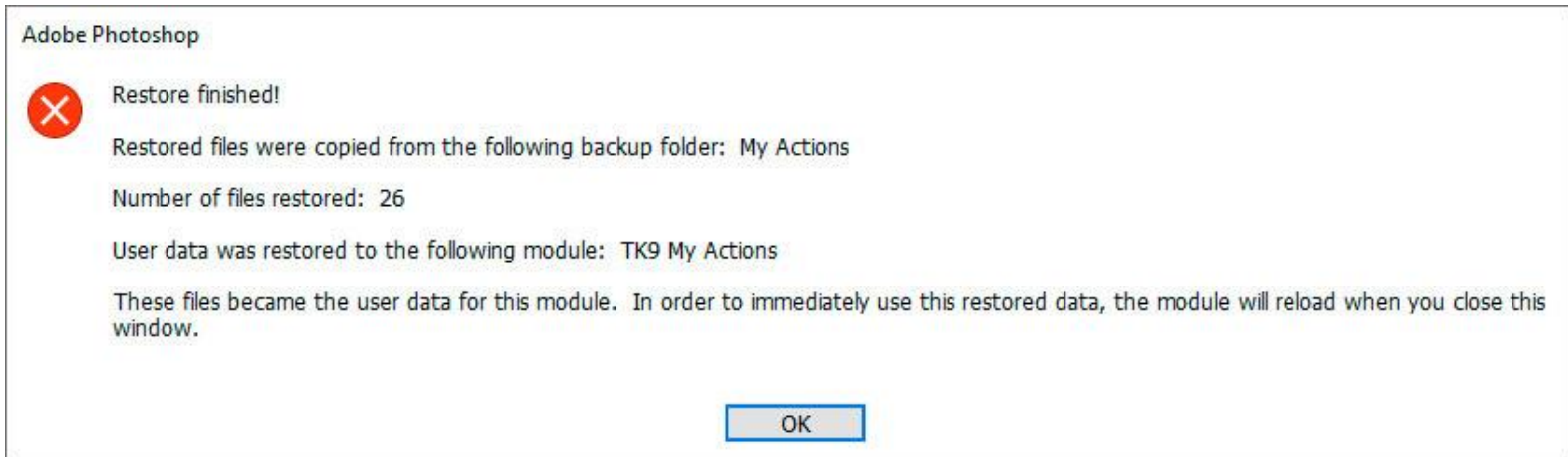
A message appears that describes the restore process. Click Continue when ready to proceed.



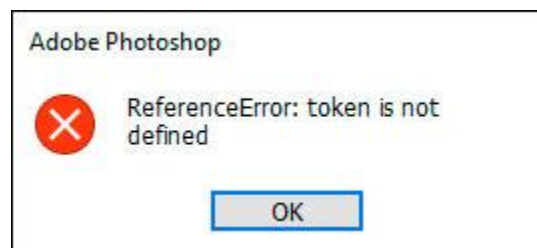
A file picker window opens to allow choosing the folder where the backed up user data is stored. Navigate to and choose that folder. Selecting the folder initiates the restore process.

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

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 module, which makes the restored user data available to the module.



Important information when restoring backed-up user data to a different computer: User-selected file and folder locations with UXP plugins are defined by "tokens" in accordance with Adobe's guidelines. This includes things like Input and Output folders chosen in the Export module and watermark files applied during Web-Sharpening. These tokens are saved in the module's user-specific data and are included in the Back Up process. However, tokens are both module-specific and computer-specific. This means that the Restore function can only successfully restore tokens to the same module on the same computer from where they were originally generated. Tokens that are restored to different TK9 modules or different computers will result in an error message, like the one below, when a process requiring a file and folder location defined by a token tries to execute.

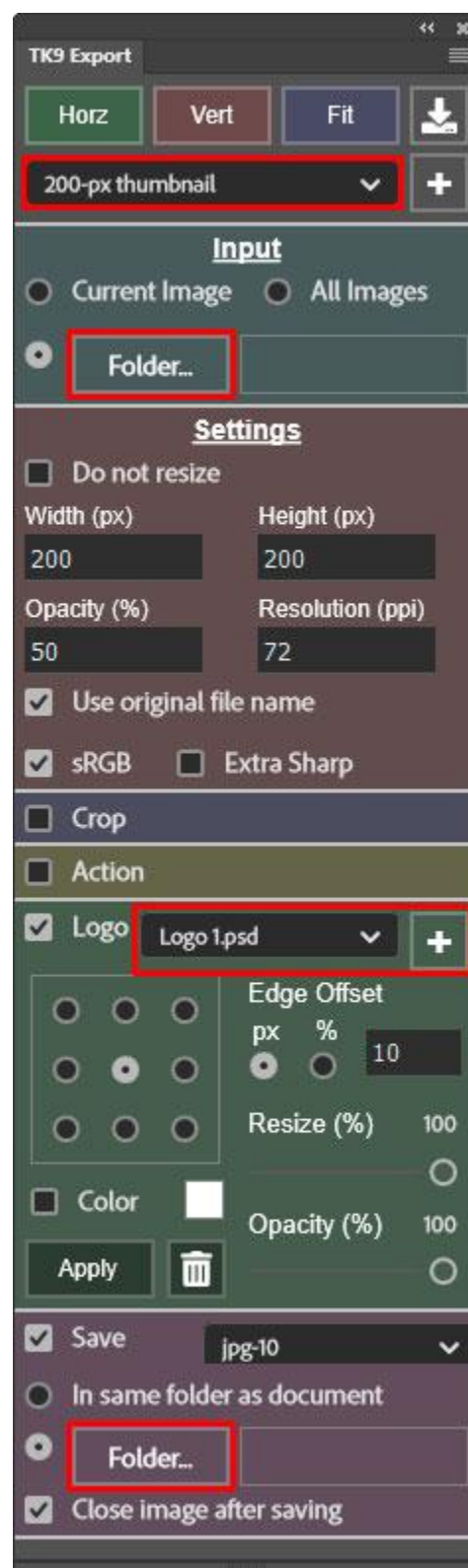


If an error message like this appears, here is what to do:

- Reselect the Input Folder (if any) in the Input section of the Export module,
- Reselect the Output Folder (if any) in the Save section of the Export module or the To: folder in the Auto Save section of the Web-Sharpening interface in the Combo/Cx modules, and/or
- Reselect the watermark file (if any). In the Export module, remove the watermark file name from the Logo dropdown menu (SHIFT+click on its name in the list) and then re-add it to the list using the Plus (+) button. In the Watermark section of Combo/Cx modules, simply click the Choose button and navigate to select the intended watermark file.

If the files and folders were called using a preset, it is also necessary to resave the preset by holding down "CTRL" (Windows) or "command" (Mac) and clicking the preset name in the Export drop-down menu or the preset button in Combo/Cx.

The red outlines in the images below show the areas that might need attention if you see the "token is not defined" error message.



TROUBLESHOOTING

The module has been tested on Mac and Windows. There are occasionally unexpected problems when using the module. A few of the most common problems and possible solutions are listed on the following pages. If you have other problems, please [contact me](#) and I'll try to help.

1. The modules have been installed but don't show up in Photoshop. There are a couple of things to try.

a) Make sure to check for the modules in the Photoshop "Plugins" menu.

The Plugins menu is new starting in Photoshop 2021. The old place of finding the TK panel under Window > Extensions (legacy) no longer works with this TK9 plugin.

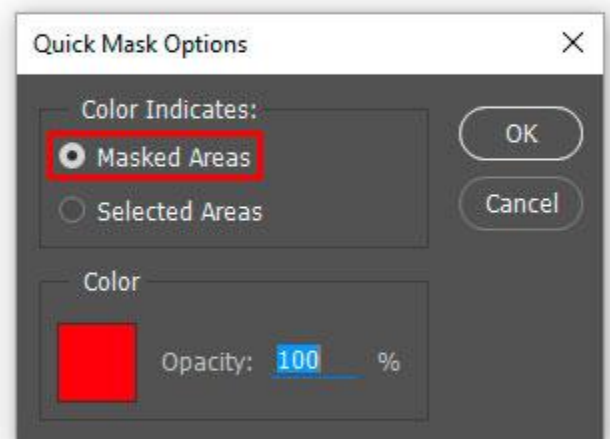
b) Try rebooting the computer.

2. The masks generated by the module are inverted (the "Lights" masks are negatives and the "Dark" masks are positives).

This is NOT a problem caused by the module. If you create a selection using one of the Photoshop's other selection tools and then save the selection as a mask, it will also be inverted. So this is a Photoshop problem. There are two possible solutions.

a) Double-click the Edit in Quick Mask Mode button (rectangle with a circle inside) near the bottom of the Tools panel. From the pop-up window, make sure the radio button for "Masked Areas" is selected. If the "Selected Areas" radio button is selected, masks will be inverted.

b) If the first solution doesn't work, it's possible the Photoshop "Preferences" file is corrupted and needs to be reset. An online video to help do this can be found [here](#).

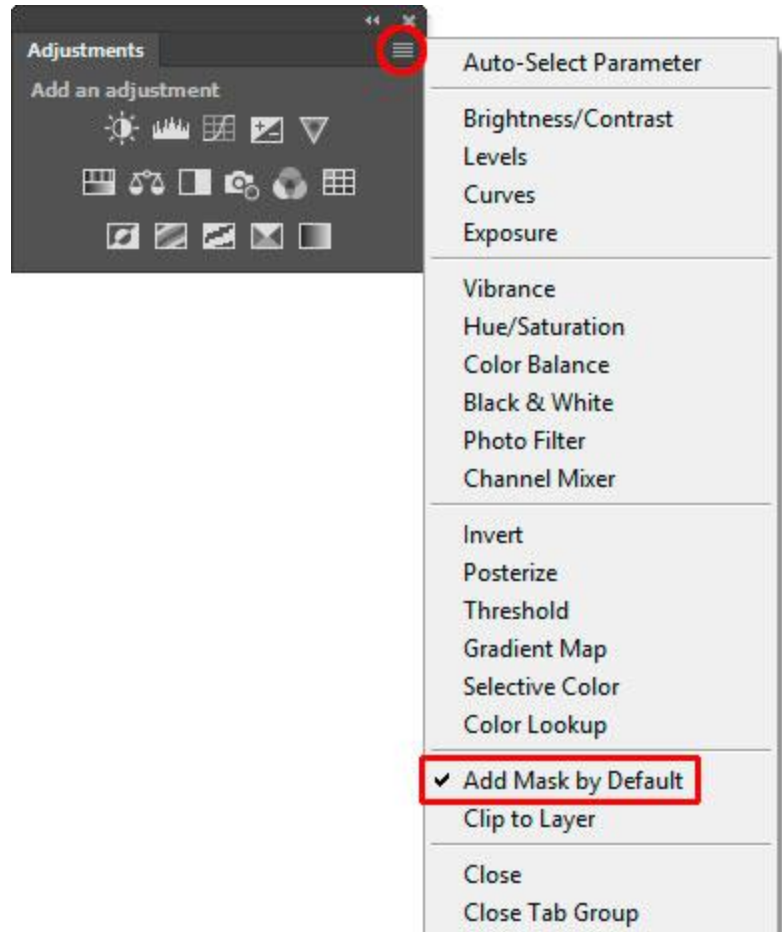


3. A recommendation to properly manage adjustment layers and layer masks.

As mentioned earlier in this PDF, it's generally a good idea to make sure Photoshop is adding a layer mask automatically when it creates a new adjustment layer. To check for this, first open the Adjustments panel (Window > Adjustments).

Then open the fly-out menu (four bars in upper right corner) and make sure the "Add Mask by Default" is checked. If not, click on it to toggle the check mark on.

Also make sure that "Clip to Layer" is NOT checked. If it is checked, click it to turn off the check mark.



I hope the TK9 plugin is useful to you and that it helps you achieve your artistic goals in Photoshop. Please feel free to [contact me](#) if you have any questions, problems, or suggestions.