

Pattern Bliss

User Guide for Macintosh

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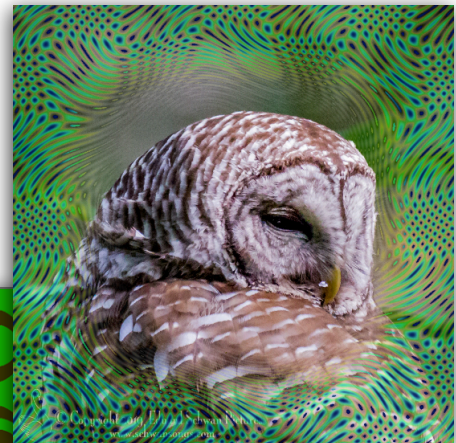
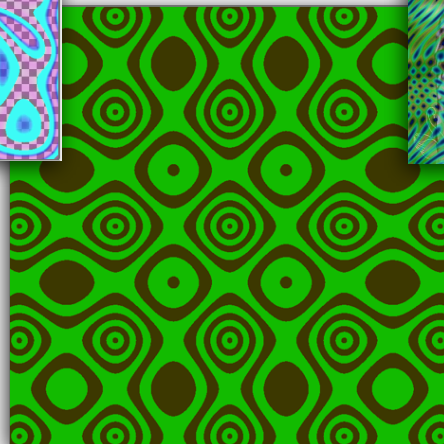
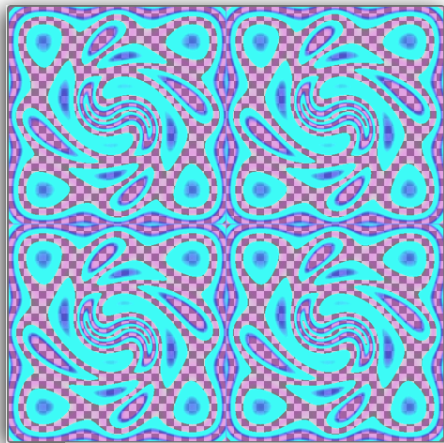
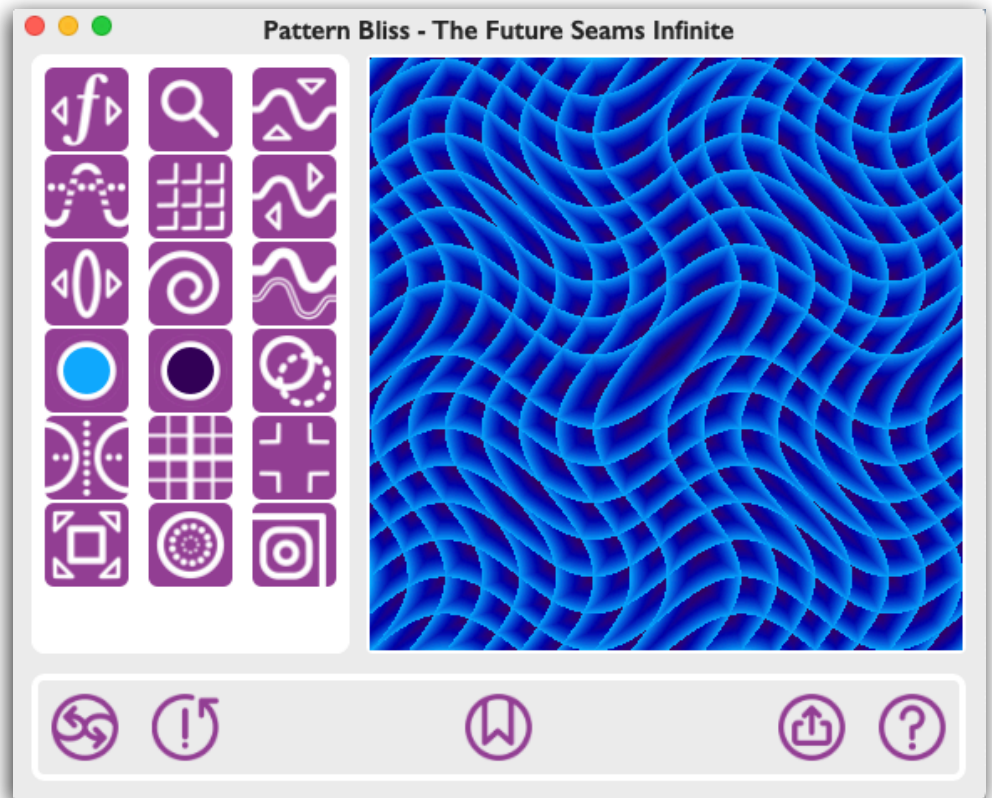
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I. Introduction: What is this?

Pattern Bliss is a unique graphic design tool that generates limitless seamlessly tiling abstract patterns. You can quickly create background patterns for brochures, designs for coloring books, custom wrapping paper, and even wrap ornate frames around your own photos.

This user guide will get you started making beautiful artwork right away, and then delve deeper into all the extra power features.

These generated patterns are all royalty-free for you to use in any of your own projects or publications, no attribution is necessary.



2. Tutorial: Let's make some patterns!

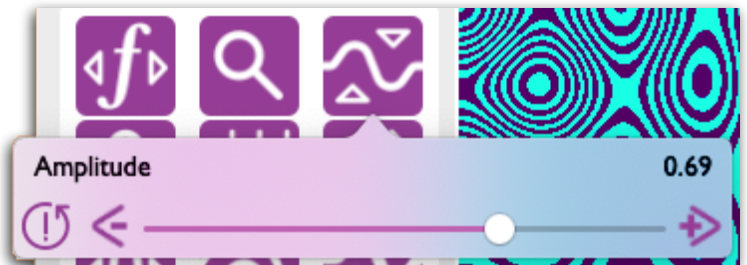


Run the application. When it opens, it presents a window with three panels. The "Preview" panel in the upper right shows the current pattern. The "Settings" panel along the upper left side has controls that let you fine-tune the look of the currently displayed pattern. The "Action" buttons along the bottom let you create completely new random patterns, bookmark (save) them for recalling later, add another image behind the pattern, send patterns to friends, or or read this user guide.



You can instantly make new patterns by simply pressing the "Randomize" Action button. Each press will "intelligently scramble" the settings and create a unique pattern.

Or you can get more creative and fine-tune and customize your creation, by adjusting any of the settings yourself. When you tap on one of the settings buttons, it will open a popup slider, letting you adjust the value of that particular setting. As you adjust the value, the displayed Preview pattern will immediately update, showing you the effect you are creating. Letting go of the slider will automatically close the popup, so you choose another setting to adjust.



You can also tap the arrow-buttons on either side of the slider, or type the left-arrow and right-arrow on the keyboard, to nudge the slider value up and down step-by-step.



For now, try "Zooming out" to 3 or 4, then choosing some different Function settings and see what happens.



After choosing a function, now adjust the "Ripple Freq" setting, and then try the "Swirl" setting, and see how they alter the pattern.



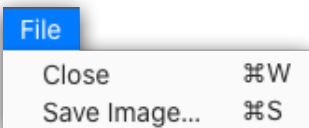
You can also tap the Light Color and Dark Color settings to change the two "endpoint" colors used for painting the pattern.



Once you have something you like, you can bookmark this pattern to re-display later on by tapping the "Bookmark" Action button and saving the bookmark.



You can save the pattern image to your photo library or send it to somebody by tapping the Share Action button.

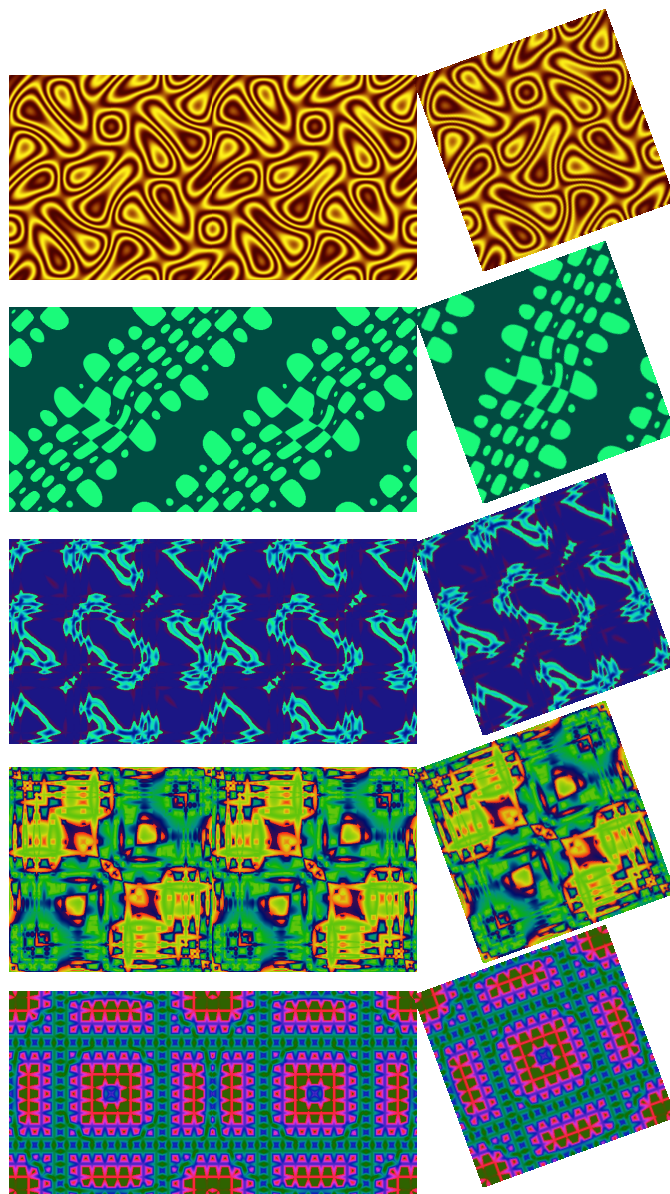


You can also save it as a high quality PNG or JPG image file by choosing "Save Image..." from the File menu. See the "App Preferences" section below to learn how to change the file type and image size.

3. What can I make with it?

These flowing abstract patterns can be simple or complex, colored or B&W lines, single panel or seamlessly repeating. There are so many things you can create with them... here are a few ideas:

- Create small images that create large seamless backgrounds for web pages.
- Make unique patterns to brainstorm new artwork ideas.
- Make backdrops and add your own artwork over them.
- Use the patterns as templates for gilding, electro-plating, silk-screening, or 3D printing
- Generate ornate "Picture Frames" to lay over your own image/photo.
- Make seamless tile artwork assets for wall or floor textures in your computer games.
- Create abstract artwork for your own coloring books.
- Create a variety of striking slide backdrops for presentations.







4. How do I...

Here are some quick tips on how to do some cool things with this software.

Create a frame for your photo or artwork

You can create a pattern and cut out the middle area to let your photo or artwork show through, then lay the pattern over your photo using a word processor or image layering or page layout software.

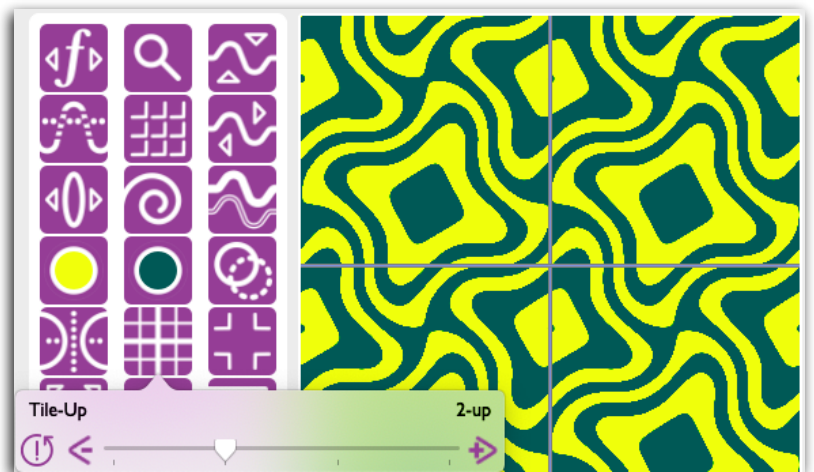
1. First, create a pattern with the colors you like.
2. Now you need to "cut away" the pattern in the middle of the photo, and show only a border around the edges. Tap the "Border Inset" setting, and drag the slider out until it looks about the right size. 
3. You can change the shape of the inner cutout area to square or rounded-square or circle. Those can be chosen by tapping the "Border Style" setting, and choosing the shape you want. 
4. You can also change how sharply the border fades the pattern out to the photo in the middle. Change this fade-out amount by tapping the Border Fade setting, and adjusting the slider to taste. 
5. Now make sure you have one of the Transparency modes on, so you can see through the pattern. 
6. Finally, save the pattern, or share it out to another computer to edit.

Once you have the pattern file, you can import it, along with your photo, into a word processor or page layout application, and bring the pattern to the front and stretch/lay it over the photo.

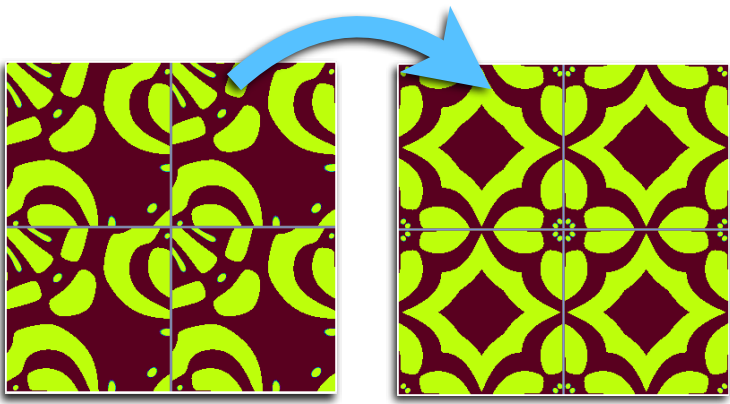
Know which images will tile seamlessly

Many of the functions seamlessly tile, and many do not. There are some settings that will distort a seamless pattern until it is no longer perfectly seamless. There are also some tricks to make non-seamless tiles become seamless. So here is a quick overview of what to look for to stay safely seamless, and how to venture off the edge into the discontinuity of dragons, and how to get back again.

A quick way to visually see if a pattern will seamlessly tile is to choose the "Tile-Up" Setting and choose "2-up". You can then sight along the two perpendicular gray lines that cross the middle of the Preview area, and see if the pattern matches up to itself on either side of those gray lines.



The functions that are **not** seamless are: waifstn, riktascale, fleurd, syren, dadabada, dadaisnt, dadisgrate, momamom, sinehere, dysterbia, guppypool, betemoire, moireless, costic, klydescope, fourfarms, diatron, nospork, teebone, sqzrfred, sqzrcl, sumoire, duedate, twinpokes, ihorus, frdnand, blistk, lada, diadotz, hyprbowl, runion, wootnany, nualiens.



Most of the settings will not change a seamless tile into non-seamlessness. The one setting that usually does destroy the seamlessness is “Lens Bulge.” However, even with this setting, if you change it to exactly 0.25 or 0.50, certain functions will snap the distortion back into seamlessness.

Another option is to turn on the Symmetry setting, and use 2-axis perpendicular or 4-axis symmetry, which can often make a discontinuous pattern seamless again.

Bump those sliders up and down just one tick

Some of the sliders have a lot of values (e.g., the “Functions” slider) and it is hard to get to the exact spot by simply sliding the knob back and forth. At either end of the slider is a button. The left side will make you grow smaller, and the right side will make you grow larger. For some settings with discrete values, these buttons will bump to the next or prior value. For smooth/continuous settings (e.g., Amplitude or Color) they will simply “bump” a small distance either way. On the far left is a “reset” button, which will set the value immediately back to zero.

On the Mac: When a setting slider popover is displayed, you can also press the right or left arrow keys, or the “U” or “D” keys on the keyboard to move the value up or down one position. You can also type the number zero key (0) to reset the slider to its default setting (usually far left.)

Print this user guide to a printer

Here is how you would print out a copy of this user guide, instead of viewing it on-screen.

First open the user guide window by choosing “Pattern Bliss User Guide” from the “Help” menu. With that window displaying, now choose “Print” from the “File” menu, and it will print the entire user guide to your printer.

-or-

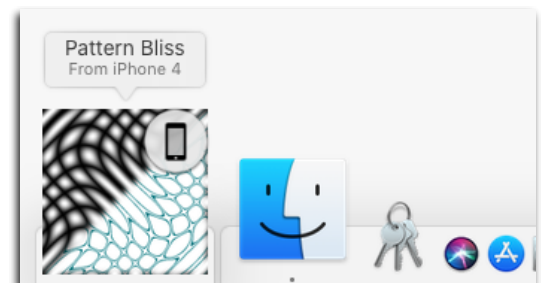
Open your web browser on your desktop computer, and go to the Pattern Bliss product web site: www.schwansongs.com/patternbliss/

Then scroll down to the Pricing section, and you will see that there is a free “User Guides” download button. Click it to get the full PDF file to your computer, which you can now open and print.

Quickly “move” a cool pattern between your iPhone & your computer

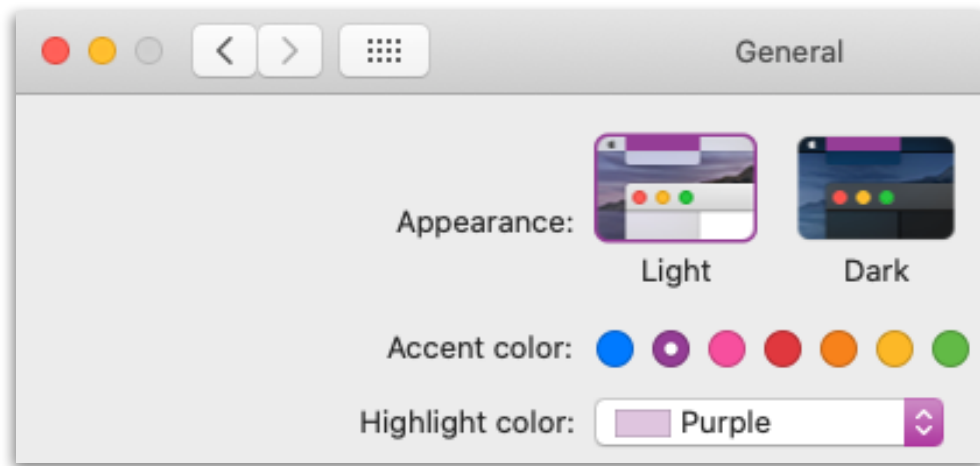
Apple Handoff is supported! If you have Pattern Bliss installed on a couple of your devices, iPhone or Mac, connected to the same iCloud account, you can use “Handoff” to instantly show the same pattern on both devices. For example, whenever you run Pattern Bliss on your iPhone, a little Pattern-Bliss 'handoff icon' appears on your nearby Mac.

If you click that icon on your Mac, Pattern Bliss launches and shows the identical pattern from your iPhone. You can read more about Apple's Hand-Off technology here: <https://support.apple.com/en-us/HT209455>



Change the color of the Settings/Action buttons

The buttons use the color you have chosen as your computer's "Accent Color", which you can change in the System settings, under the General pane:

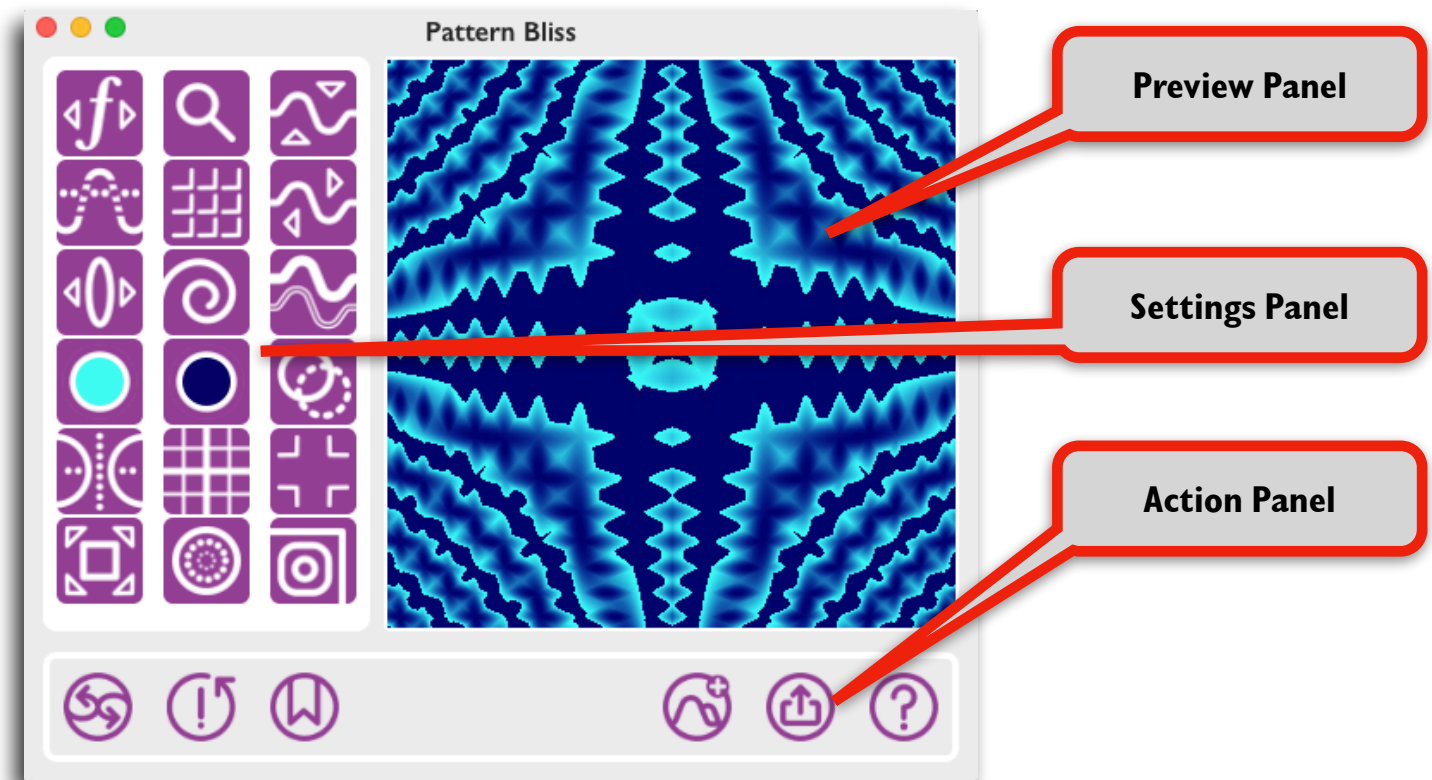


5. What does this thing do?

Let's dive into the details, and describe the screen and each of its controls.

Main Screen

The main screen contains three main panels, which let you adjust the patterns, get a preview of what the pattern looks like, and do other useful things like bookmark a favorite pattern, share it with friends via e-mail or messages, or read this useful guide.

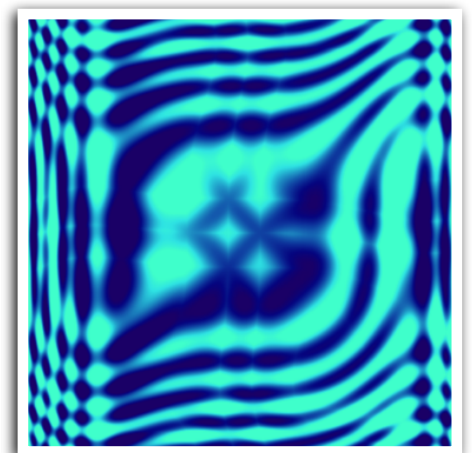


Preview Panel

The Preview panel shows the pattern you are working on, and will grow or shrink as you resize the window. Note that making the window larger on the Macintosh will slow down the graphic responsiveness a bit.

The pattern reacts and updates immediately as you change values of settings.

If you would like to see a text summary of all the settings that make this pattern, simply click the pattern preview image, and a popup window will show a list of every setting value. To close the popup window, press the <ESC> key or click somewhere off the Pattern Bliss window.




Settings Panel


The settings panel contains all the controls that let you adjust the appearance of the pattern. You can choose the basic mathematical functions that generate it, change various zoom and distortion effects, coloring effects, and transparency. You can even cut out an inner area to create a picture frame "border" effect.


Before I dive into the details, I will give your mind a better visual idea of what it is you are looking at, and this should help you get a feel for what each of the settings do, without getting too heavily into any pesky mathematics or trigonometry. These patterns are actually 3-dimensional shapes, cut into a 2-dimensional slice on the screen, so think back to your 2-dimensional and 3-dimensional math graphing days for a moment.


Pretend like the preview pane is a flat (2-dimensional) square of paper held out in front of you. I will describe the pattern drawn on this paper using X, Y, Z direction names, so remember these direction names, or axes, for the settings below. Directions to the left and right (across the page) will be along the "X"-axis. Directions up and down (toward the top and bottom of the page) will be along the "Y"-axis. Directions "into" and "out of" the page (toward and away from you) will be along the "Z"-axis. Now imagine some wiggly cloud shape in the air, which is being "sliced" by the paper you are holding, so that you can now see the sliced wiggles on the page where it cuts through. Keep that idea in mind when reading these descriptions of the settings.





 **Function:** List of abstract patterns (3-D curve functions) that can be dropped in and sliced with your paper. Each function has a smirky mnemonic name and a numeric identifier. Note that because the Lite version of the software has fewer functions, it will have gaps in its list of function identifiers.


 **Zoom:** Zooms out with higher slider numbers, making the pattern shrink, so more will fit on the page.


 **Amplitude:** Stretches the pattern just along the Z axis (toward and away from you) on the page, making the curve lines steeper/thinner/sharper.

 **SliceHeight:** Moves the paper toward you along the Z axis on the page, "cutting" a different section of the 3-D curves along that amplitude.

 **Waffle:** Increases the frequency (tightness) of "waffling" that overlays the function value, sort of like adding corrugated egg-cartons to the function.

 **Ripple Freq:** Increases the frequency (tightness) of ripples that wash across the X and Y axes, "crinkling up" the function you chose.

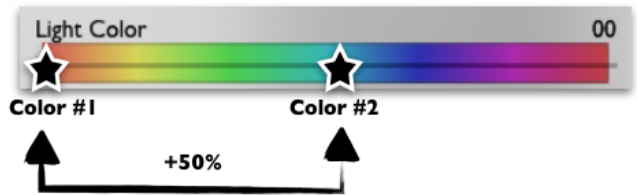
 **Lens Bulge:** Similar to Ripple Freq above, but this distorts the function with multiple individual circle ripples instead. Increasing the slider value will increase the frequency of the waves (make them closer together.)

 **Swirl:** Distorts the overall image into a spiral shape, with the most swirl at the center, either twisting Clockwise or Counter-Clockwise from the center slider position.

 **Coloring Style:**

- **"Color Gradient"** - Starts at the Light color, and ramps to the Dark color.

- **"Darken"** - Starts at the Light color, and ramps to a darker version of the same Light color. The chosen Dark color is not used in this mode.
- **"Stripes"** - Threshold: draw light color for any value less than "SliceHeight", and draw dark color for greater than "SliceHeight".
- **"Band-It"** - Banded-Gradient: break the color gradient into 8 darkening bands, and alternate between the Light color and Dark color for each band.
- **"Thin Lines"** - similar to 2-band, but the threshold is down near 20% to thin the line.
- **"Thick Lines"** - similar to 2-band, but the threshold is at 50% and light/dark colors are flipped.
- **"2-Color"** - Similar to "Stripes", but uses your chosen "Light Color" as the first color, and then calculates the second "Dark color" as 50% beyond the "Light Color" along the color slider. If the second color would then be beyond the end, it will wrap around from the beginning.
- **"4-Color"** - Similar to "Stripes", but uses your chosen "Light Color" as the first color, and then calculates the next 3 colors 20%, 40%, 60%, and 80% beyond the "Light Color" (wrapping around just like 2-color above.)



Light Color: This is a color hue slider, letting you choose a bright color rotating through all the colors from red, green, blue, purple and back to red. Color saturation is fixed at 75%, brightness set at 100% (bright.)



Dark Color: This is a color hue slider, letting you choose a dark color going through all the colors from red, green, blue, purple and back to red. Color saturation is fixed at 100%, brightness set at 30% (dark.)



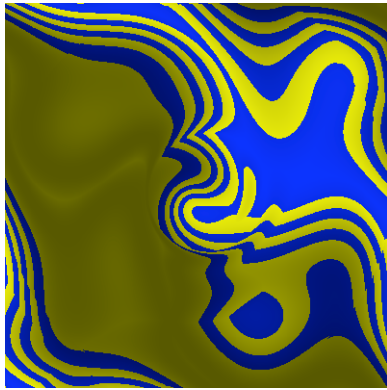
Transparency: This allows you to add transparency to certain parts of the image, from none (opaque), to making either the lighter colors transparent or the darker colors transparent.

- **"Opaque"** - Image is completely opaque, no transparency.
- **"Light-Ramp"** - Lightest color is completely opaque, gradually getting more transparent as colors get darker.
- **"Light-Cutoff"** - Lighter colors are completely opaque, switching to completely transparent for darker colors.
- **"Dark-Ramp"** - Darkest color is completely opaque, gradually getting more transparent as colors get lighter.
- **"Dark-Cutoff"** - Darker colors are completely opaque, switching to completely transparent for lighter colors.

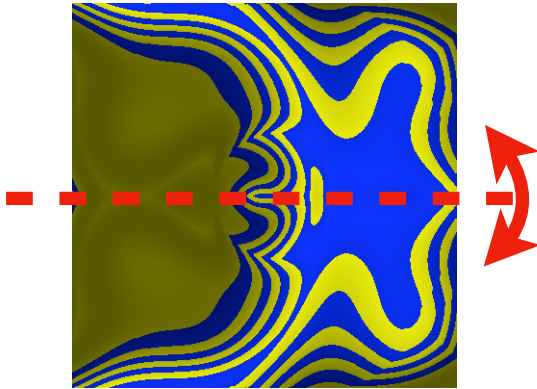


Symmetry:

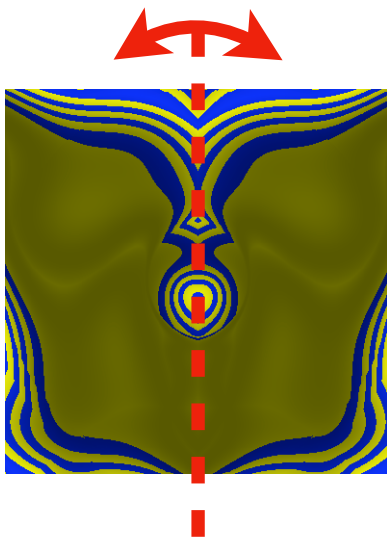
- **"No Symmetry"** - Displays the pattern as-is in the square, without adding mirror/symmetry. This allows things like "Swirl" to add asymmetrical distortions across the pattern.



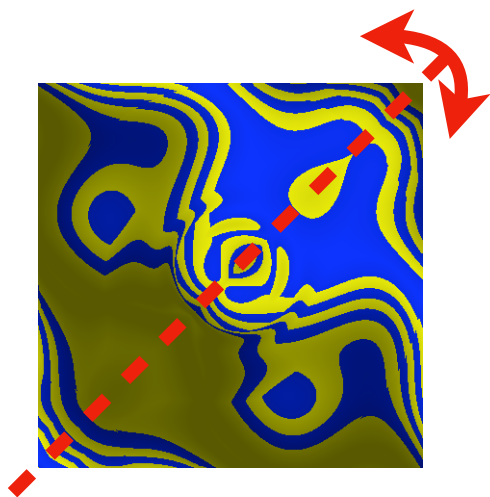
- **"1-axis (Horizontal)"**: mirrors up/down across the X (horizontal) axis.



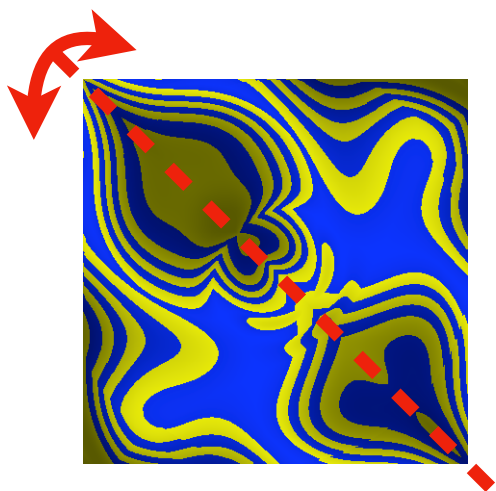
- **"1-axis (Vertical)"**: mirrors left/right across the Y (vertical) axis.



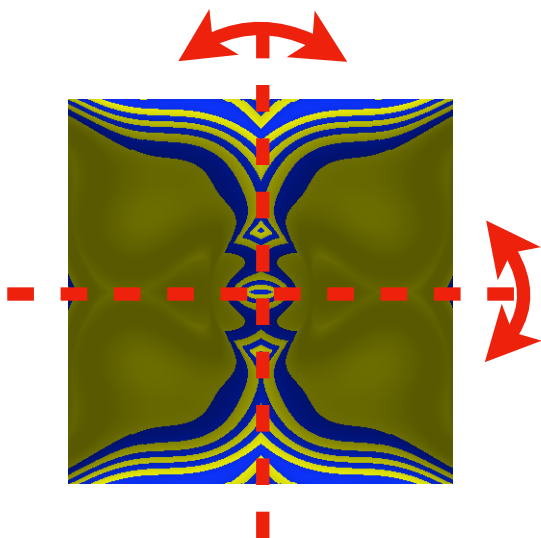
- **“1-axis (Diagonal Forward)”**: mirrors across one diagonal axis.



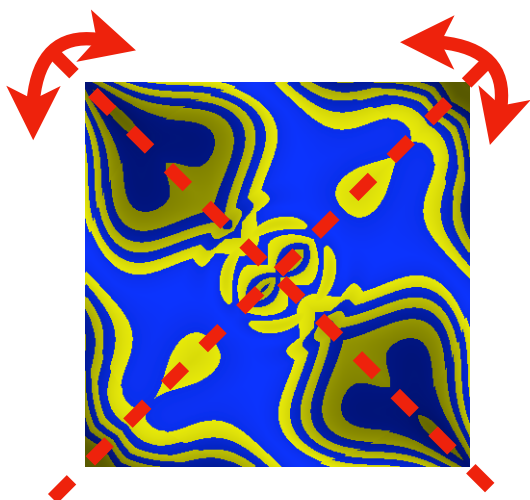
- **“1-axis (Diagonal Backward)”**: mirrors across one diagonal axis.



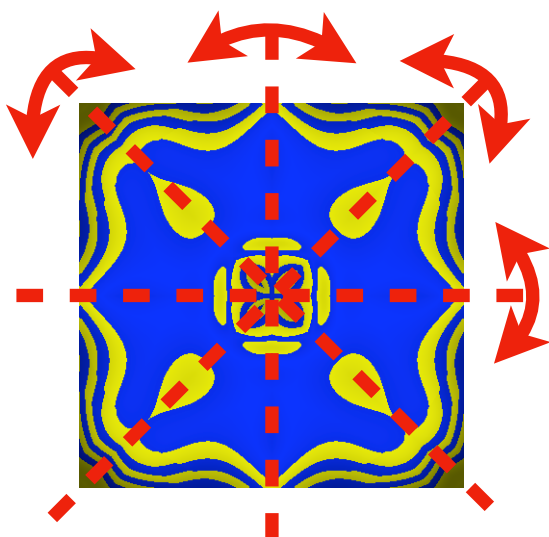
- **“2-axis (Perpendicular)”**: mirrors across the X and Y axes.



- **"2-axis (2xDiagonal)":** mirrors across two diagonal axes.



- **"4-axis (Diag&Perpendicular)":** mirrors across four axes (X, Y, and 2 diagonals.)



Tile-Up:

- **"1-up"** - draws a single full-sized pattern, no repeating.
- **"2-up"** - draws the pattern as 4 repeated tiles in a larger square so you can see how the edges mesh. Also turns on a light blue cross-hair line to demarcate the seams.
- **"3-up"** - draws 9 patterns, three tiles across, three down.
- **"4-up"** - draws 16 patterns, four tiles across, four down.



Crop Inset: This slightly shrinks the tile inside the margins (and draws a little outside the edge of the tile), and draws crop-marks where the very edge should be. Goes from 0 (no inset) to 1 which is about 20% inset.



Border Inset: How large the border shape cutout should be. 0 is invisible, and it expands from the center toward 1, where it leaves just a small percentage of the pattern around the edge.

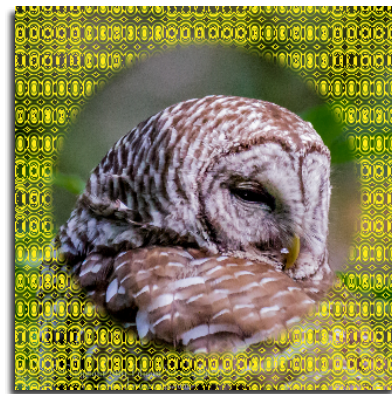
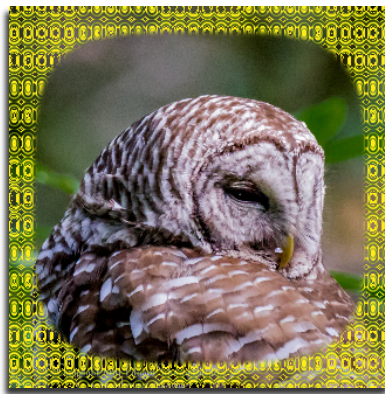


Border Feathering: How much feathering, or fuzziness to add to the border edges. 0 is a sharp edge, 1 is very soft blurry transition.



Border Shape:

- **"Rect"** - square cutout
- **"Round-Rect"** - square cutout with rounded edges
- **"Circle"** - circle cutout

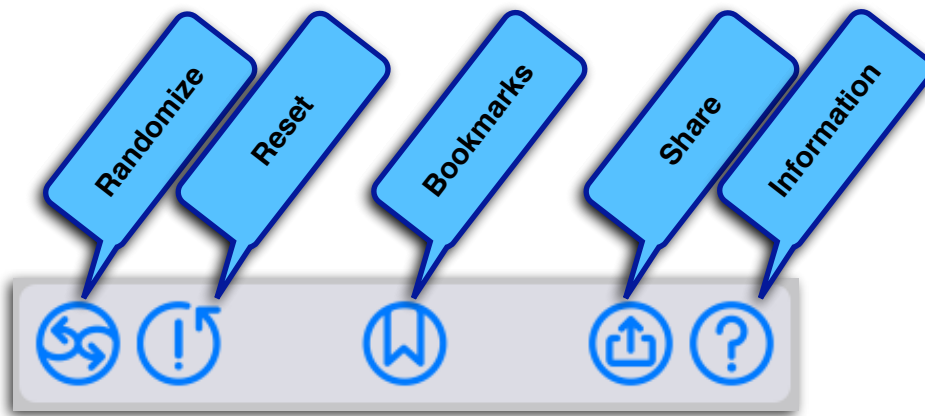


Tip: On the Mac, you can hover your mouse pointer over any of the Settings buttons, and a tool-tip will appear showing you the name of the setting button, and its current value.




Actions Panel


The Actions panel contains buttons that let you do things like instantly scramble all the Settings to some new random pattern, load one of your photos in behind the pattern, save or load the current pattern to/from a bookmark list, share your created pattern out via e-mail or to your photos, and access this user guide.




Randomize (All Settings)

-  This button will do a "smart-randomize" of most of the Settings, wildly scrambling some, and carefully-scrambling others, to insure that each time you click, you will get a new interesting pattern. Certain settings are always left untouched, in case you want to leave them set a certain way and just randomize the other settings. The settings that are left unchanged are: Transparency, Tile-Up, Crop Inset, Border Inset, Border Style, and Border Feathering.

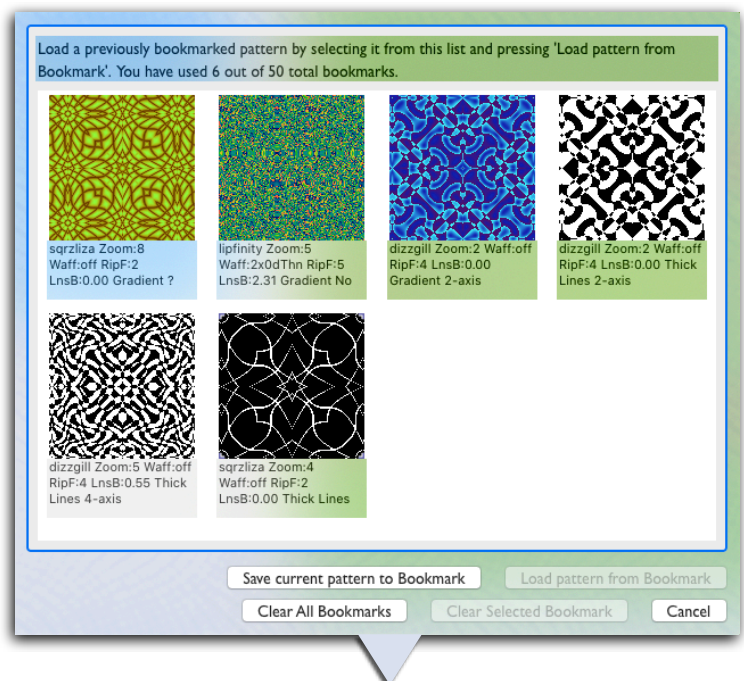
Reset (All Settings)

-  This button will reset all of the Settings controls back to their original "zero" values. This can be useful if you changed many of the settings, and don't want to manually move each one back.


Bookmarks

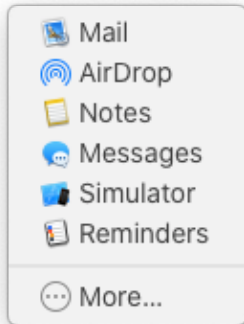
-  This brings up a "Bookmarks" popover window, letting you see and manage all the bookmarked patterns you have. You can save the currently displayed pattern as a new bookmark, or you can select an already saved bookmarked pattern from the list of thumbnails and load it back in as the current pattern, or you can clear (remove) either the selected bookmark or all the saved bookmarks.

Each pattern is displayed with a small "thumbnail image" of the pattern (with transparency shown if it has it), and a terse text description of some of the main settings that create it.




Share

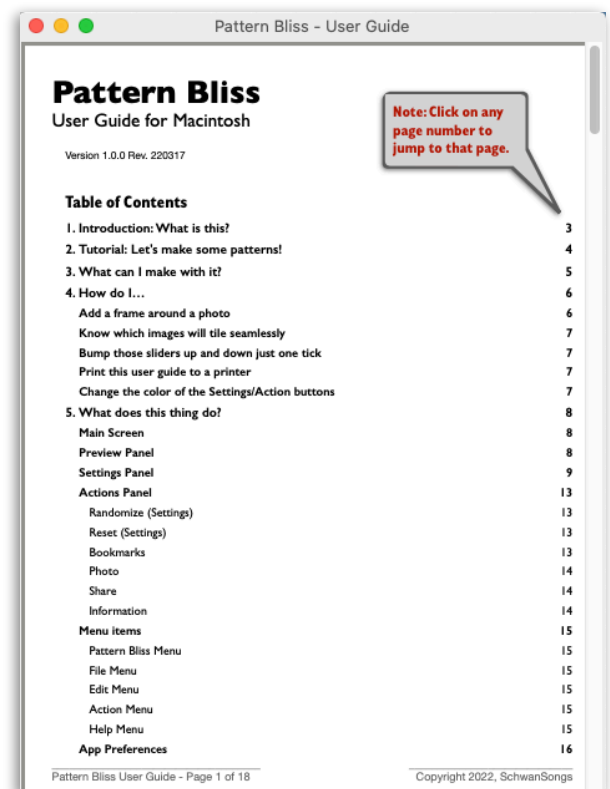
 This brings up a popup list of places you can send the current pattern to... messages, e-mail, photo library, AirDrop to another device, etc.



Information

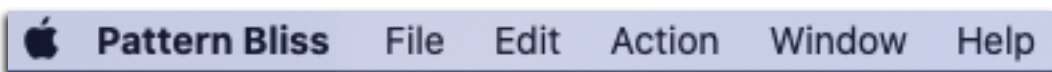
 This brings up a window showing this user guide. You can scroll through the pages to read it, and increase the window size for larger text. You can also click on any page number on the first page's table of contents and it will jump right to that page.

You can also choose PRINT from the File menu to print a copy of the user guide if you like.



Menu items

The menus along the top "menu bar" contain special commands for saving/randomizing/bookmarking your patterns, etc. Here are descriptions of the items specific to Pattern Bliss.



Pattern Bliss Menu

About: This will open a "Credits" window, displaying credits for everyone who helped create this. You can even listen to some music I wrote while you read.

Preferences: Choose this item to open a window that lets you change application-specific settings. These settings are described in the next section under "App Preferences".

File Menu

Close: Closes the window, and the application, just like "Quit".

Save Image: This will allow you to save the currently displayed pattern as an image file. It can be either PNG or JPEG format (depending on which suffix you add to the file name, .png or .jpg). Its dimensions will be based on the image width (pixels) you chose in the app preferences window.

Share: Quickly send the pattern as a graphic image to your friends, via e-mail, message, etc.

Edit Menu

Copy Image: Copies the current pattern as an image to the clipboard.

Copy Info Text: Copies all the settings that make the current pattern as a text string to the clipboard.

Action Menu

Randomize: Shortcut which does the same thing as the Randomize Action button, see "Actions" section above.

Reset all Settings: Shortcut which does the same thing as the Reset Action button, see "Actions" section above. Note the keyboard equivalent is <command>-ZERO.

Save Bookmark: Shortcut which does the same thing as clicking the "Save current pattern to Bookmark" button, see the Bookmark dialog in the "Actions" section above. This menu item is disabled if this pattern is already saved as a bookmark.

Help Menu

Pattern Bliss User Guide: This menu item opens a window that displays this user guide. You can adjust the size of the text by resizing the window larger or smaller. You can also choose "Print" from the File menu, to print a copy of the user guide if you like.

Pattern Bliss Introduction: This menu item opens a window that displays a multi-tabbed introduction, illustrating some of the features of the software.

Pattern Bliss Feature Comparison: This menu item opens a window that displays the feature differences between the Lite and the Full versions of this software.

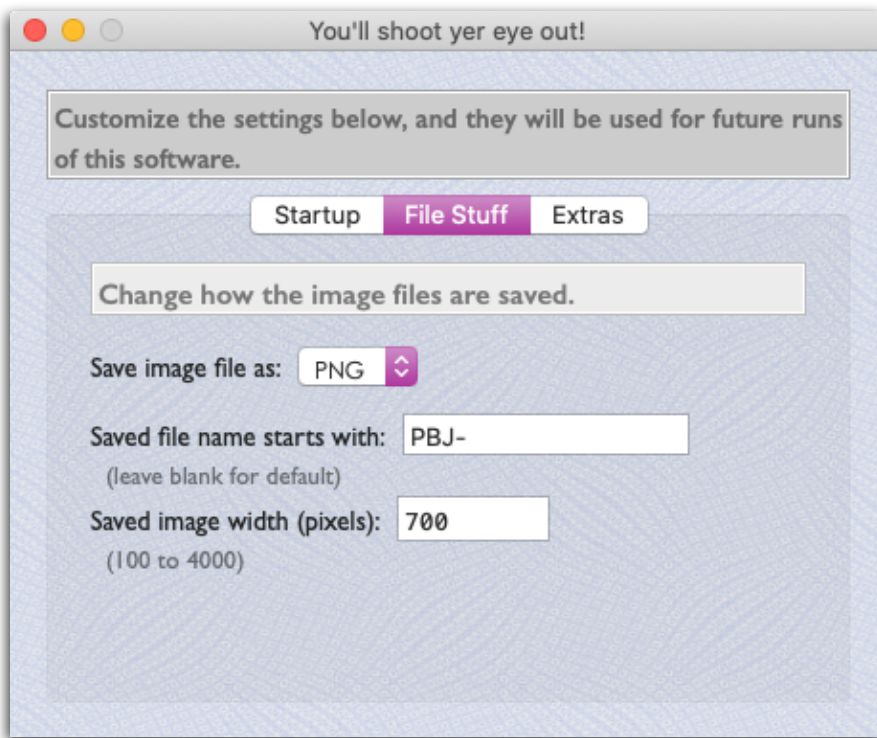
Rate/Review Pattern Bliss: This menu item opens an Apple App-Store window that lets you add your rating, and write a review for this software, letting others know how you like it.

Pattern Bliss Product Web Page: This menu item opens a browser window that displays the product web page for this software.

Company Web Page: This menu item opens a browser window that displays my company web page.

App Preferences

Choose "Preferences" from the "Pattern Bliss" menu to open a window that lets you change application-specific settings. The settings on here do not affect your patterns, but instead alter the look or behavior of the overall application itself.



Startup

Upon startup: This setting lets you choose what the software does each time you run the app. You can have it either display the same pattern you left it with last time, or you can have it display a new random pattern each time.

File Stuff

Save image file as: You can choose to save your images as JPEG files, or as PNG files. The main difference between these two formats is that JPEG files will not keep any transparency values, and will be completely opaque. PNG format can preserve any transparency in your image. Also, JPEG files are often a little smaller files, but also a little lower quality.

Saved file name starts with: If empty, the software will create a default filename string when you save your file. If you enter some text here, then that text instead will be used as the beginning of your file name. You can always edit the name before you save it, but if you find yourself naming a bunch of files almost the same thing, this can pre-fill part of the file name for you.

Save images at this width (pixels): This setting lets you choose a destination image size whenever you save or share an image. It can be any size from 100 to 4000 pixels wide. Since the images are square, this size is used for both height and width.

Extras

Show crop marks on images: This setting lets you display outer "crop-marks" on image files you save or share, to help align and cut along the edges of the patterns. The crop marks will only show up when you have added a CROP INSET setting.

Use gray-scale for images: This setting lets you choose whether to display the images as full-color (using the Light-Color and Dark-Color settings), or to display in Gray-Scale. This setting also affects the saved and shared images.

Sticky Settings Sliders: Normally when you tap on a Setting button and the slider window pops up, you can slide the slider to some new position and let go, and the slider window will automatically close. If you turn this setting on, then the slider window will now stay open after you let go. You can later close it by tapping anywhere outside the slider window.

Display main window in "Dark Mode": On older macOS versions that didn't have "Dark Mode", this setting lets you choose to change the window appearance to "dark mode". This checkbox only appears on macOS 10.12 and earlier. For newer versions of the OS, you can simply use your System Preferences to turn on dark mode system-wide, and this software will obey your settings.

6. More Information

This software was written by Eduard Schwan of SchwanSongs.

After 4+ years, it has grown to over 25,000 lines of Objective C code, carefully designed and tested by me and a small group of friends.

Feel free to contact me if you have a feature idea you would like to see added, or any problems you have found. I always do my best to update my software so that it does what *you* want.

Send any feedback or correspondence to: note@schwansongs.com



SchwanSongs
Bringing Software to Delight!

