

# Pattern Bliss

## User Guide for iPad/iPhone

Version 1.0.0 Rev. 220426

**Note: Tap on any page number to jump to that page.**

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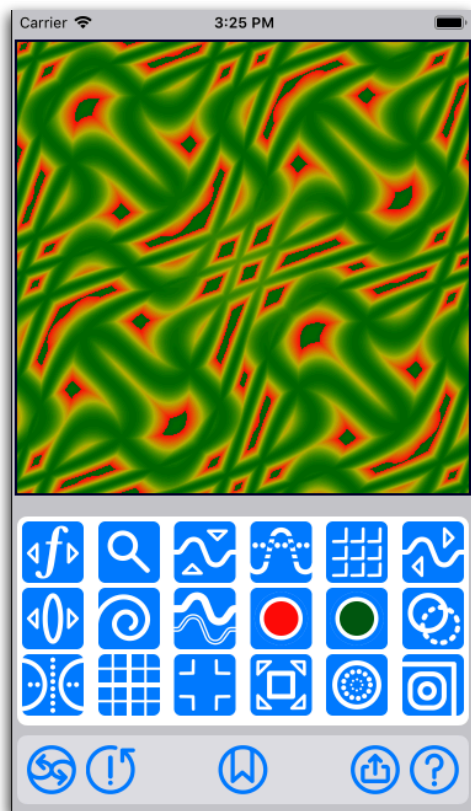
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# I. Introduction: What is this?

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!

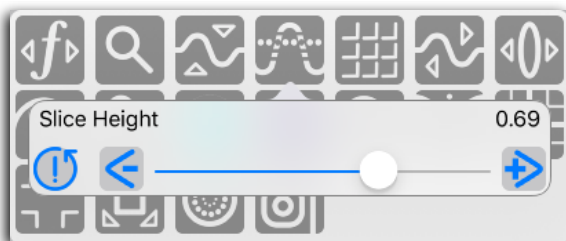


Run the application. When it opens, it presents a window with three panels. The "Preview" panel at the top shows the current pattern. The "Settings" panel in the middle has controls that let you fine-tune the look of the currently displayed pattern. The "Action" buttons along the bottom let you create 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 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.

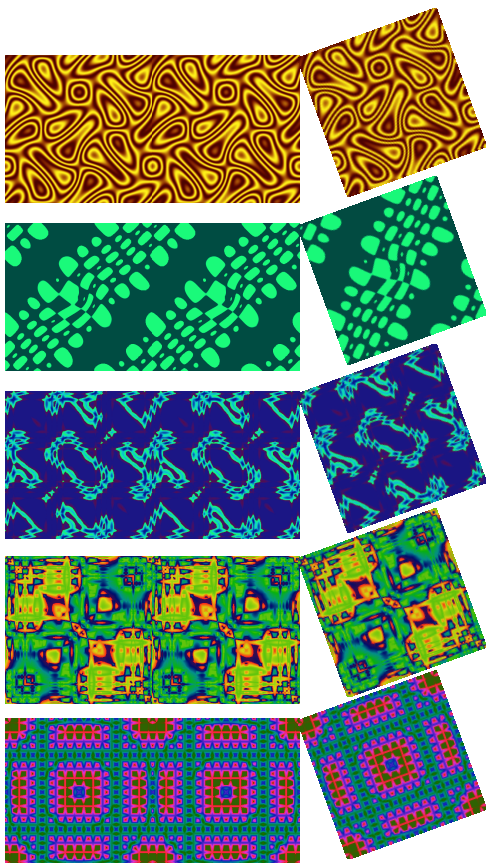


You can save the pattern image to your photo library or send it to somebody by tapping the Share Action button.

### 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 from the pattern to the photo. 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 to your photos, 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, sqrzfred, sqrzrcl, sumoire, duedate, twinpokes, ihorus, frdnand, blistk, ladya, diadotz, hyprbowl, runion, wootnany, nualiens.

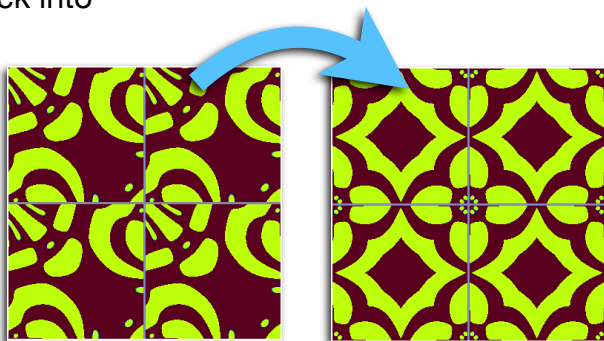
Most of the settings will not change a seamless tile into non-seamlessness. The one setting that usually does destroy the seamlessness is “Lens Bulge.” However, even with this setting,





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 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.

## **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.

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

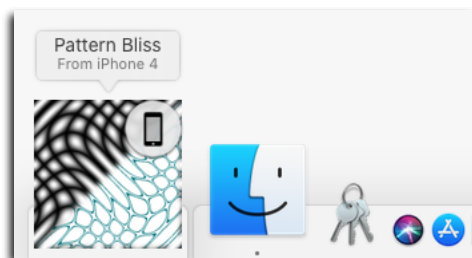
# Quickly “move” a cool pattern between your iPhone & your computer

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>

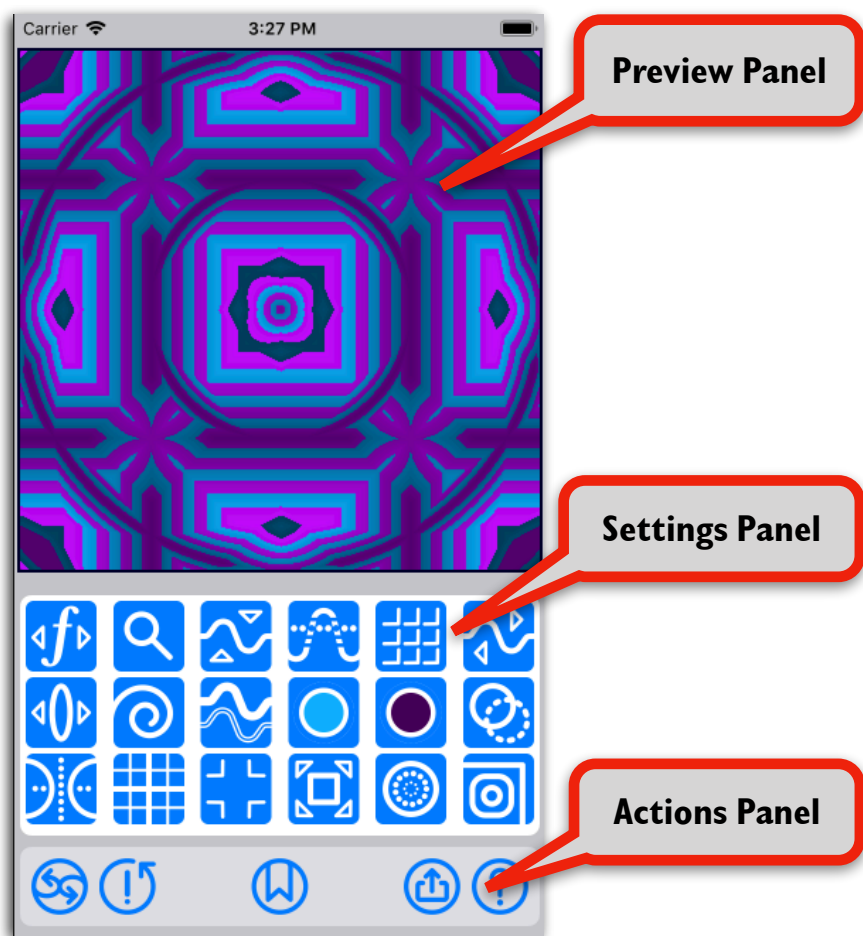


# 5. What does this thing do?

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.

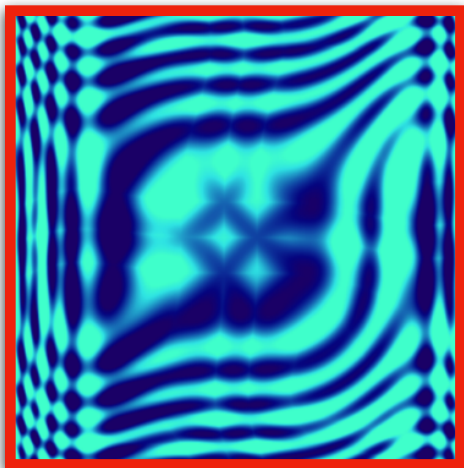


## Preview Panel

The Preview panel at the top shows the pattern you are working on.

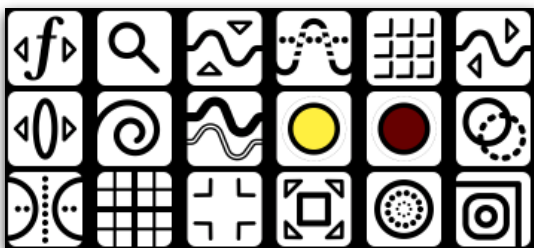
The pattern reacts and updates immediately as you change values of settings.

If you would like to see a text summary of all the settings that make this pattern, simply tap the pattern preview image, and a popup window will show a list of every setting value. Tap outside the popup window to close it.



# 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.



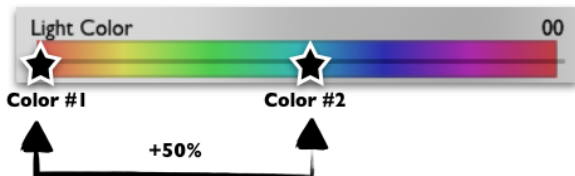
**Coloring Style:**

- **"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.

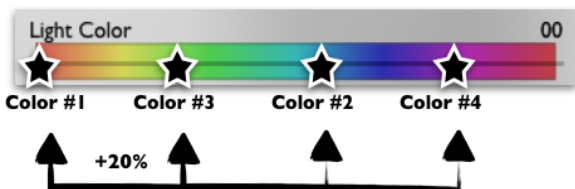
- **"2-Color"** -

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 rotating 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.

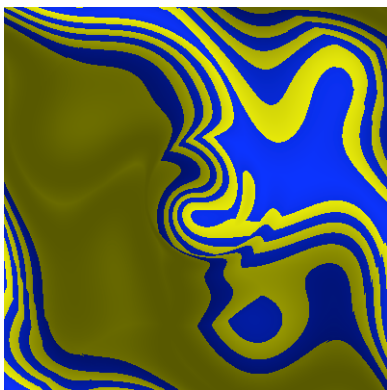


- "**Light-Ramp**" - Lightest color is completely opaque, gradually getting more transparent as colors get darker.
- "**Light-Cutoff**" - Lighter colors are completely opaque, switching to completely transparent for darker colors.
- "**Dark-Ramp**" - Darkest color is completely opaque, gradually getting more transparent as colors get lighter.
- "**Dark-Cutoff**" - Darker colors are completely opaque, switching to completely transparent for lighter colors.

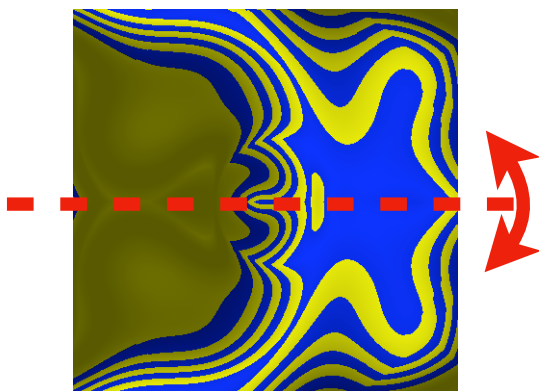


## Symmetry:

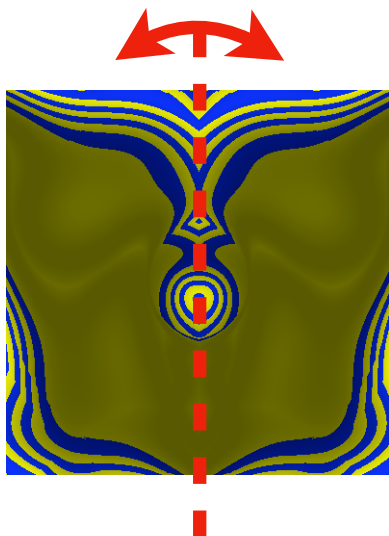
- **"No Symmetry"** - Displays the pattern as-is in the square, without adding mirror/symmetry. This allows things like "Swirl" to add asymmetrical distortions across the pattern.



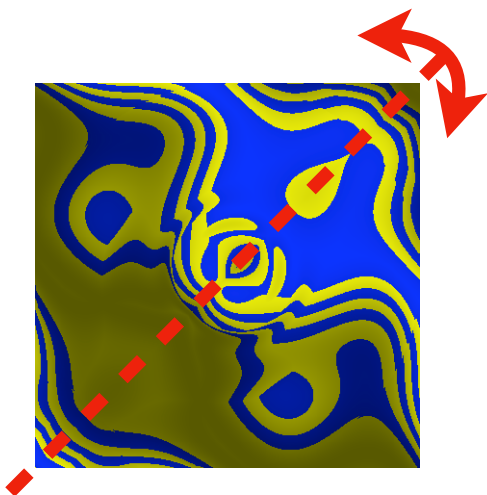
- **"1-axis (Horizontal)"**: mirrors up/down across the X (horizontal) axis.



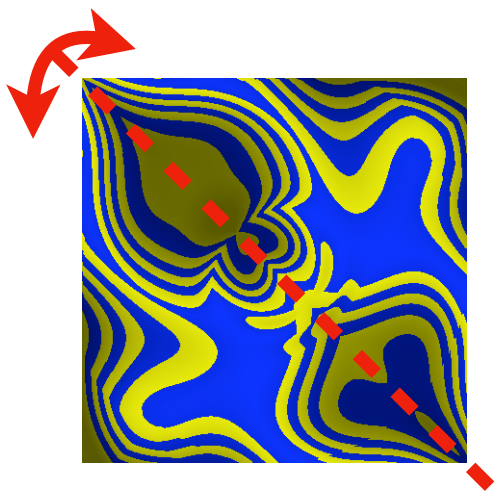
- **“1-axis (Vertical)”**: mirrors left/right across the Y (vertical) axis.



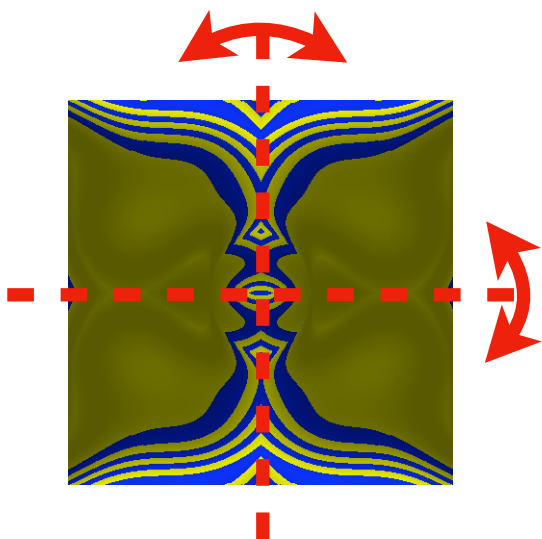
- **“1-axis (Diagonal Forward)”**: mirrors across one diagonal axis.



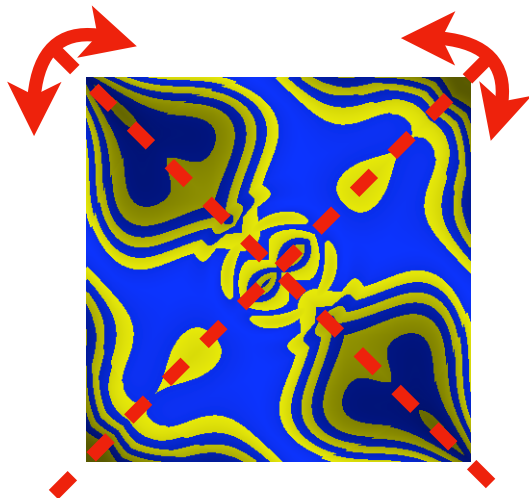
- **“1-axis (Diagonal Backward)”**: mirrors across one diagonal axis.



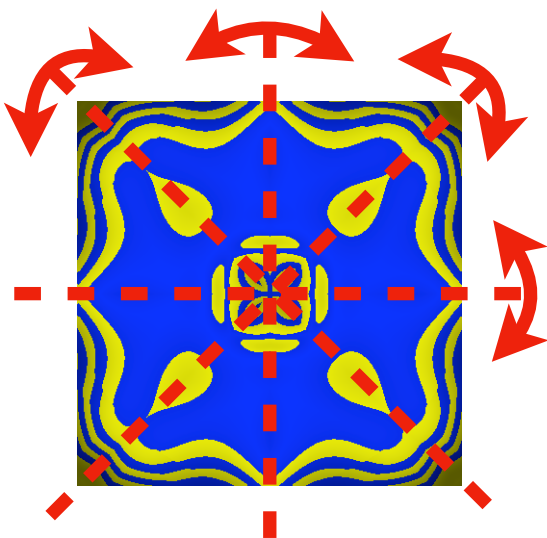
- **“2-axis (Perpendicular)”**: mirrors across the X and Y axes.



- **“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.

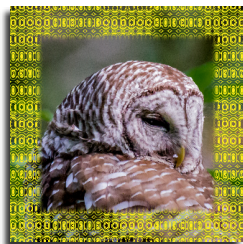


**Border Feathering:** How much feathering, or fuzziness to add to the border edges. 0 is a sharp edge, 1 is very soft blurry transition.



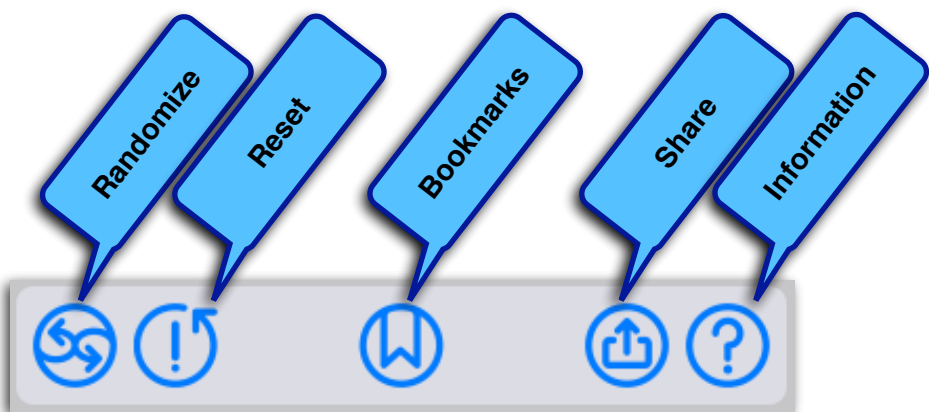
## Border Shape:

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




# 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 or the credits information.




## 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 an information window. You can view this user guide, and click on any page number on the first page's table of contents to jump right to that page. You can also view the credits for everyone who helped create this. In the "Lite" version, there is a button to display the feature differences between the Lite and Full versions of the software. There's even an option to listen to some music I wrote while you read.

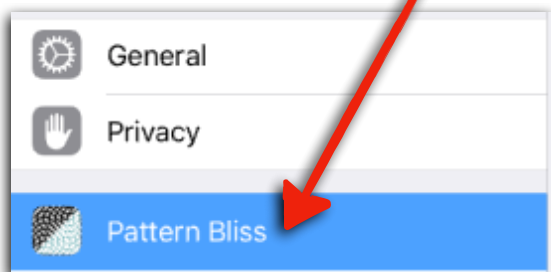
# App Settings

There are some additional settings you can configure for the app.

To change these settings, you must first quit the app so that it will read the updated settings when it starts again. To quit the app, you must double-tap the Home button to display all running apps, and side-scroll to find this app and slide it up off the screen to make it quit.

Then look for the Settings app (the GEAR icon) in your list of icons and tap it to run it:

Now, scroll to the bottom of the main settings screen to find the listing for this app:



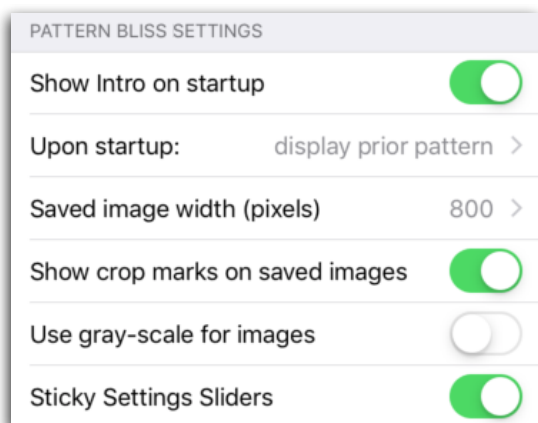
Tap it to open its Settings screen. Here you can see and change each setting. These settings will be remembered and used every time you launch the app. Just come back here if you ever want to change them.

The meanings for each of the settings are:

## Show Intro on startup:

This setting lets you turn on or off the automatic display of the introduction/tutorial screen when you first launch the app.

**Upon startup:** This setting lets you choose what the software does each time you start it



fresh. You can have it display the same pattern you left it with last time ("show prior"), or you can have it display a new random pattern each time ("new random".)

**Saved image 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 3000 pixels wide. Since the images are square, this is used for both height and width.

**Show crop marks on saved images:** This setting lets you display outer "crop-marks" on image files you save as a photo 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.

## 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](mailto:note@schwansongs.com)



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**Bringing Software to Delight!**

