



## Operation becomes obvious and intuitive only after you read the *User Guide*

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### Overview

*nVeil* uses two separate apps to transform your images and video: *nVeil* proper that combines veils with images (.tiff, .jpg or .png) or video (Quicktime .mov), and *Veilmaker* that creates new custom veils from vector line drawings. A veil is composed of discrete areas (cells) through which your source imagery is projected and transformed. Visual results vary depending on the nature of the source, the veil chosen and the image control settings. A number of added characteristics can be assigned to individual cells within a veil's SVG file, such as fixed color, transparency, color inversion, border (stroke) rendering and cell linking, and your masterpiece exported in MOV, TIFF, JPG or PNG formats.

### Get started

1. After installing, open *nVeil*, open any .mov, .png, .jpg or .tiff file, or a live source with iSight camera or a connected webcam (click O > Cancel to access live video. Until a file is selected the window appears black. Press the "I" key to display the settings readout window. Remember to remove it before you export an image.
2. You first see the *nVeiled* imagery seen through veil 000 - Cubit.nvl, at default settings. Toggle the "I" key to see the settings readout window. Vary the (texture scale) blur by pressing the "[" key, toward 0.00 (max zoom-in), or the "]" key to 1.00 (no visible veil). Press the "]" key again to continue toward 2.00 (max zoom out). Experiment with other controls, especially the "up"/"down" arrow keys and the "+" and "-" keys to see the full range of visual effects possible. The "quilted-satin" appearance, for example, results from these settings: texture scale, 1.00+ to 2.00, convolution scale, .04, offset, 1.00.
3. Select veils from the LIBRARY folder by entering three-digit numbers (100 veils, 000 through 099, are preloaded in the VEILS folder. Press first digit, then second, then third).

### Create and ...Export

Images that might take hours to create with other graphics editors can be made in a second with *nVeil*. With video (.mov) as source, pause with the space bar; export a still image by choosing image format in Image Export (default, .tiff); pressing the E key will export a still image to the EXPORTS folder. Run a video, pause, export, create dozens of variations in seconds. The R key will process the full .mov file (in usually 2x to 3x the native video duration, depending on the video size) and saves to the EXPORT folder, leaving the screen black (open a new source with the O key). To use a live source (connected webcam or iSight camera) press the O key, click Cancel. Live source video exports are limited to still images.

### *nVplay* Controls:

(Keys below refer to QWERTY keyboards)

**O key** selects source image files (.mov, .tiff, .jpg or .png files).

**O > Cancel** selects iSight live video camera input).

**I key** toggles onscreen settings info display.

**Space bar** starts / stops video.

**Left / Right Arrow keys** adjusts play speed, frame rate.

**Up / Down Arrow keys** adjusts blur (convolution scale). Use in combination with texture scale and kernel offset to adjust cell gradation.

[ / ] (**Bracket**) keys adjust “texture scale” (apparent zoom blur). [ key zooms in (1.00 to .01 max poster flat, max color intensity), ] key zooms out (1.00 to 2.00 max “insect eye” appearance).

- /+ keys adjusts “kernel offset” (controls the actual amount of blur applied to the video frame).

**B** key toggles cell-with-border or cell-only rendering.

**W** key toggles cell or border line rendering.

**M/N** keys adjust border width.

</> key adjusts accumulation effect. This overlaps frames and effectively slows video play action, and reduces color intensity (not available for Live Video).

**A** key releases accumulation effect.

**C/V** keys adjusts added color blend. C= to full added color, V= to no added color.

**000-999** keys, press consecutively to load the corresponding veil (See Info, Show LIBRARY).

**E** key exports a still image to the EXPORTS folder. First, select format in Image Export (.tiff, .jpg or .png).

**R** key exports .mov video to the EXPORTS folder. Veil cannot be changed during recording.

**Drag** lower right window corner to change size

**Double click** window to see full screen view, again to return.

**Command-Q** exits the program.

## Create a custom veil

1. New veils are created from vector line drawings made in any SVG drawing/editing program (such as Inkscape, Dia, CorelDraw or Adobe Illustrator). Once your vector graphic is drawn and saved (see Veil Design, below), open *Veilmaker* and open your new .svg file. Wait for it to process your .svg file into an .nvl file. A very detailed .svg file (many anchor points) will take longer to process. Most take a few seconds, but the 053 - Oak veil, with thousands of anchor points due to irregular shapes, for example, took much longer. Lots of math.

2. Verify that the file has been correctly created by pressing keys 1, 2, 3, and 4 to view all test info. (See *Veilmaker* Controls, below). The processing is complete when all areas (cells) go from black to blue and are triangulated with green rays. Black cells did not process (see Troubles, below).

3. Save your file in the VEILS folder. Your first custom veil will be stored as 100. The name must have the following format: "123 - name" (three digits followed by space, dash, space and name).

## Veil Design:

The comments and workflow below address conditions using veil drawings generated by Adobe Illustrator CC 2014. Other SVG editors may vary slightly.

Open a new file. The TEMPLATES folder contains several preset aspect ratio choices with easy-drag sample visual effects *control circles* to alter the appearance of selected cells. Be sure file is in RGB color mode.

Work with no fill, minimum stroke width, and with Smart Guides turned on to help indicate tool location. Fills can mask unwanted lines that may later appear in the veil. Fills, strokes, text, groups, colors, transforms, and patterns are some SVG features ignored. Furthermore, *nVeil* ignores paths that do not form completely enclosed cells. This means that veils may not always appear as they do in the SVG editor.

Draw lines that connect (or slightly cross) to create closed cells. Use the zoom tool to inspect intersections. Paths outside the artboard will be ignored. Keep drawings clean and simple, with fewer anchor points. Extremely complicated drawings with thousands of anchor points may crash the *Veilmaker*.

Convert text to paths (Type > Create Outlines). Place the original text in a separate layer; it will be ignored. So if you need to change the text later, you can delete the outlined text and re-outline the modified text. Text “counters” (the enclosed area in an O, an R or P, for example) may appear “clogged” because the center (and, so, color) of the counter is different from the character’s background. Adding the same value blue stroked control circle to both the counter and the area outside the character fixes this. (See Cell Coloring, below)

Fixed cell coloring is created by adding control circles or ellipses of opacity < 100%, of any size, within any cell in the SVG file. The fill and stroke colors of the circle will be attributed to the cell in which the circle center lies. Fill determines the cell color. Stroke color determines the effects parameters:

-The **red** component of the stroke color determines the video/added color blend, as well as video inversion. 0% red yields normal video, up to 50% (126) yields the opaque added color, and <50% up to 100% (255) yields inverted video color.

-The **green** component of the stroke color determines the sensitivity of the cell to the global texture scale; 100% green means the texture scale never changes (the source image appears as-is), while 0% green means that the texture scale varies across the full range (as if no control circle).

-The **blue** component of stroke color links cells, causing them to have the same appearance, the same center point for the purpose of texture scaling. All cells with the same non-zero blue value are linked; a zero blue value leaves the cell independent. Use this feature to give text counters the same color as the character's background.

Save your work. Setting options in Illustrator (though some may not be necessary): SVG1.1 (not .ai), Preserve Illustrator Editing Capabilities (saves artboard dimensions), Decimals, 1, Encoding UTF8, Optimize for Adobe SVG Viewer, Include XMP (reveals SVG in Bridge and some browsers), Output fewer elements (reduces file size).

### *Veilmaker Controls:*

**Command-O**, opens an .svg file.

**Command-S**, saves .nvl files.

**1 key** views cell triangulation. All areas should gradually turn blue with green triangulation rays (black areas that do not mean a faulty veil (see Troubles, below).

**2 key** views cell scale boxes. Arcane info.

**3 key** shows the fill (cell) color of any control circles in the .svg file (see Veil Design, below).

**4 key** shows the stroke color of any control circles in the .svg file (see Veil Design, below).

**Up / Down Arrow keys** highlight individual cells in modes 1 and 2. (Kind of useless, but interesting to see the geometry.)

**Left Right Arrow keys** highlight individual cell triangles in mode 1. (Even more useless, but still interesting.)

Lower right corner can be dragged to resize and view.

**Command-S** saves as \*.nvl in VEILS folder, assigning the next higher number (100 - for your first custom veil).

**Command-Q** exits the app.

### The art

Results depend on the mix of image, veil and control settings, in varying combinations. Like life. Experiment.

Slow-moving video might have more interest. You can slow the apparent movement of a video with the Accumulation feature (<, >), which also reduces the intensity of the colors since frames are overlapping, and/or by adjusting the frame rate (left-right arrow keys).

The more cells in a veil the more the original image will be revealed; too few and the colors will tend to be less intense because each cell will be made of more source colors contributed to each cell.

Smaller cells toward the center, larger at the perimeter, are better because most images have more detail and color toward the center. *nVeiled* images have a "harmonic palette" of colors because cells borrow or share some color from neighboring cells.

*nVeiled* video, especially live action video will appear in sync with most music, due to "proximal incidence", visual and audio events occur closely enough to each other that the brain interprets them as related.

The center of the source image contribution to any cell determines the dominant color of the cell as it is zoomed in ([ key, toward .01).

Control circles need only have their center within a cell. Avoid more than one control circle telling a cell what to do. Sure confusion.

Any cells with the same center (concentric rings in a bullseye, for example) will render alike; you will see no difference between cells. Avoid concentricity.

## Troubles?

As with most software, if there is a malfunction, a likely remedy is to close and reopen the app. Clear the air.

There are occasional errors between what appears to be a perfect SVG image and the veil generated by *Veilmaker* that derive from stubborn anomalies in the SVG protocol (which we cannot yet explain). If this happens, try selecting all, then copy and paste the artwork into a new file (or template) which may clear the problem. No? Try then: select all, Pathfinder/Outline. Work around.

If a control circle (that assigns a behavior to a cell) appears in the *Veilmaker* processing, that circle was not created < 100% transparent (99%- does it). If a control circle refuses to behave (to control as advertised), delete it and recreate it.

If you see shapes appearing incorrectly (i.e., they are in the wrong place or are the wrong size), your SVG file probably contains extraneous, often invisible, marks. Another possibility is that the SVG file contains transforms or other commands not supported by *nVeil*. Copy all and paste into a new file (or template). If you find that cells are disappearing in the veils, make sure that paths are completely connected or slightly overlapping.

Often, especially with imported SVG files, you will have to Ungroup objects to be able to edit them. Ungroup until it works.

If live video camera is selected (O key > Cancel) then O key is again pressed, *nVeil* may close. Reopen.

In *Veilmaker*, do not open a new veil in full screen (black screen > Cmd Q).

## System Requirements:

*nVeil* runs Macs, OSX 10.7 (Lion) and above.



*Thanks for purchasing nVeil! Please let us know what you think of it. It's a work in progress. We are interested to see how you use it, and how you like it. Please send us comments and something you have created with it, to [info@nveil.com](mailto:info@nveil.com)*

**Storek Studio / Team nVeil**