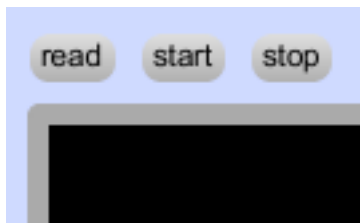# Ghost Machine

October 2012

System Requirements

Mac OSX - - needs Quicktime codec Installed

Instructions

Double click the GhostMachine application.

At the top left is a button marked 'read' - click this and choose the Local Color PDF, available on the CD. You can also load other PDFs or quicktime movie clips using the same method. The app should start to cycle through pages of the PDF straight away, but if not, click the start button next to read button.

This application 'reads' the PDF as a human reads a book: left to right, top to bottom. There are three screens in this app, the first (just below read and start) shows the source PDF. What section of this material is being read, is represented in this screen by a green box that moves across the page. In the second screen, to the right of the first, you will see an enlargement of the contents of the green box. It represents what the computer is reading at a given time.

Next to the labels 'page speed' and 'scan speed' are number boxes. Click and drag on these to change these speeds. You can also enter numbers manually to change speed more drastically. If you want the scan speed to stop altogether, uncheck the box next to the scan speed label
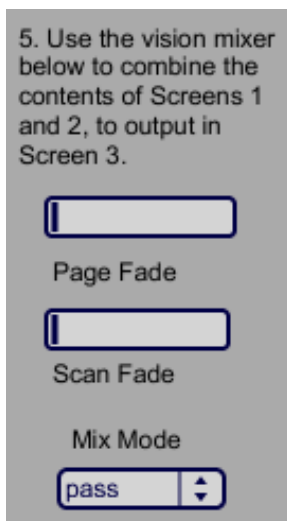
The page speed represents the speed at which the pages are cycled through. Increase the number to increase the speed.

The scan speed represents how quickly the green box moves across the page. It's measured in how long the computer waits before progressing to the next location. Therefore, raising the number will decrease the speed.

Labelled step 5, there are 2 grey faders, that allow you to mix the first two screens into a third floating window -- the output of the application. If both faders are set to the left, no output will appear in the floating window. Moving either to the right, imagery should appear in the floating window, but this also depends the Mix Mode - controlled by a drop down menu beneath the faders.

Mix Mode determines how the pixel values from each screen are combined into the third image - they might be added together, subtracted from each other, multiplied or

compared in some way. You can use it to change the visual result, but it's largely a case of experimentation - some options will produce results, others will not; it is also dependent on the source material.

The full screen button will scale up the imagery from the floating window to fill the computer monitor, use escape key to exit this mode. If you have an extended desktop, you can move the floating window to your second screen, and use the full-screen option to fill that screen, whilst keeping use of the application window on the first.

The two buttons 'write 25…' and 'stop' allow you to record the output of application - ie. what is shown in the floating window. If you forget to click stop and close the application, a corrupt movie file will be created. You have to click 'stop' at the end of your recording, to produce a movie file that works.
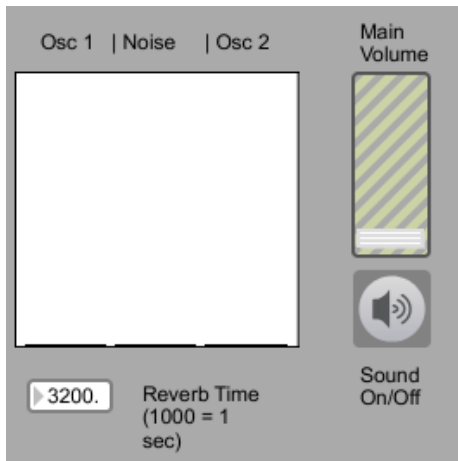
To the right of the application there are 4 faders that alter the sound of the application. Click the speaker icon to turn on the sound driver. Raise the main volume (green-grey striped fader) half-way, and use the black and white faders to change the sound mix. The sound of Ghost Machine is created by two oscillators, controlled by the visual content of the third screen (ie. the floating window). The red, green and blue colour values are mapped onto a musical scale (choose which in the drop-down menu below the faders). The two oscillators (Osc 1 & Osc 2) are affected by different colour values.

The third, central fader creates static noise by treating colour values directly as varying amplitudes. How quickly and steadily these values are converted into amplitudes is controlled by the x/y fader at the bottom left of the application. Again this is mostly experimentation to produce interesting results.

Lastly, you can save/recall settings by using the preset object. To save, shift-click on one of the grey circles. To recall, click on one of the darker grey circles. Alter the reverb time in the number box to the right of the preset object.