

CLUSTERWORKS

There are very enticing words to describe the movement and beauty of ClusterWorks, but there is no substitute to playing with it for yourself. Much of the enjoyment from this program comes from experimentation, from discovering features that render new and beautiful images and sound. No matter if you think of it as a game or reactive digital art, the more time you spend playing with the settings and functions, the cooler ClusterWorks gets. This document is meant to tickle your curiosity with a brief summary of the functionality of ClusterWorks.

Setting up your Sound

ClusterWorks requires QuickTime and QuickTime Musical Instruments which are available for free from Apple Computer at <http://quicktime.apple.com>. (QuickTime 2.5 will work, but version 3.0 is recommended for optimum performance).

ClusterWorks can also be used with General MIDI. If you have General MIDI, better audio output can be obtained. Visit <http://www.opcode.com/downloads/bms/mac/> to get the latest MIDI driver.

Getting Started

Double-click on the file entitled "ClusterWorks," located in the same folder as this ReadMe, to begin.

Screensaver

ClusterWorks can also be used as a screensaver. After you launch ClusterWorks, but before you "Click to Start," choose OPTION from the menubar to select screen saver settings. You may select a time interval from 1 to 60 minutes before ClusterWorks will launch because of computer inactivity. Please note, ClusterWorks will not be able to run as a screensaver unless it is running. It can be running in the background, even hidden from view, but it needs to have been launched.

How to use CLUSTERWORKS

Moving your mouse will cause similar movements in the animations across the screen. The brightness of particles and sound volume change as you direct the mouse. When you move the mouse quickly, the particles grow brighter and the sound louder. When you move the mouse more slowly, the particles become less bright, and the sound volume decreases.

Switching modes and Other Preferences

A toolbar appears whenever you move the cursor down to the bottom part of the screen. Scroll the mouse left and right to select the following commands.



CLOSE returns you to the opening splash screen.

Keyboard Shortcut: command + w

? brings up a screen with keyboard shortcuts. Clicking this icon again advances to the next help screen, and clicking one more time hides help altogether.

Keyboard Shortcut: ?

3x3 Grid brings up a menu of the nine Stupa patterns. Click on one of the patterns to make it active.

Keyboard Shortcut: tab

LEFT ARROW/RIGHT ARROW cycles through the nine Stupa patterns.

Keyboard Shortcut: left/right arrows

SPEED increases/decreases the velocity of the particles that make up the animations. Click inside the gauge and move the blue bar to change the velocity of the particles.



DELAY controls the fluidity of the animation in response to your mouse movement. Click inside the gauge and move the blue bar to make the animation more and less fluid.

SOUND controls sound volume. Click inside the gauge and move the blue bar to change the volume of the sound generated by ClusterWorks.



AUTO ROAM is like autopilot; it sends the Stupa module dancing around the screen in unpredictable patterns whenever there's no mouse movement.

SUSTAIN affects the time that particles remain on the screen. When SUSTAIN is deselected, the particles in an animation will decay when the mouse stops moving. When SUSTAIN is selected, the pattern will continue generating particles even when the mouse is not moving.

REVERSE flips the direction in which the particles flow.
Keyboard Shortcut: SpaceBar

RANDOM automatically cycles among the Stupa patterns at random intervals.



LINE increases/decreases length of particles. To use, click inside the gauge and move the blue bar. Moving the blue bar to the right increases the length of the particles. The greater the LINE, the brighter and more animated the screen becomes.
Keyboard Shortcut: number keys 1 to 9

SWING affects the way particles arc across the screen. To use, click inside the gauge and move the blue bar.

Additional Commands

control + command + A turns Authoring Mode on and off. For many people, this is one of ClusterWorks' most unusual and varied features. The following commands only work when Authoring Mode is enabled:

< (less than symbol) Cycles through the 5 different projection modes that ClusterWorks is capable of.

Projection is the perspective from which you view the Stupa pattern. This is one you'll have to experiment with.

X toggles the visibility of the Stupa pattern. Try hiding the animation and enabling trace with T for some beautiful effects.

V toggles the visibility of the nine Stupa patterns simultaneously. When this is enabled, all nine patterns will animate beside each other, and react to the movement of the mouse.

return randomly changes the color of the animation. Pressing this successive times will turn the animation into a fluid rainbow of color.

command + I toggles a very cool feature on and off for the STUPA modules only. If this option is turned on, the animation will dip, twist, and flow according to the chord

progressions and musical notes playing from the Audio CD. For best results, increase the [Speed] to its maximum value. If you have a very fast computer (G3 or better), you may want to increase the DELAY to its maximum value as well. Sit back and enjoy. Please note, this option only functions with Stupa modules. These are the final nine designs out of 45 in ClusterWorks that you can access by pressing the "Tab" key, and navigating to the rightmost little box at the bottom of the screen.

T traces the movement of the pointer across the screen. Pressing T again hides the trace.

W clears the screen. This is useful when the trace has become so complex that it is obscuring the pattern.

Z toggles background stars. Pressing Z cycles through small stars, then large bright stars, and finally no stars at all.

option + M mutes the sound coming from the Audio CD.

command + 1 to 9 cycles through various instrument sounds for the ClusterWorks music. To change the volume of the music, use the SOUND gauge in the toolbar at the bottom of the screen.

option + 1 to 5 cycles through different algorithms that ClusterWorks uses to generate music as you move the mouse.

P adds piano accompaniment to the music generated by the movement of the pointer.

shift + 1 to 4 changes the size of the dots in the animation.

command + R restores parameters to default values. Especially useful in case of a panic attack to set everything straight and smooth again.

command + Q quits the program. Works in screen saver mode also.

Arrowkeys

- up zooms in closer to the animation, increasing distance between particles.

- down zooms out from the animation, decreasing distance between particles.

- left moves to previous module of 45 possibilities.

- right moves to next module.

- command + up increases the tempo of the music generated by ClusterWorks, and increases the speed

 - with which the animation changes color.

- command + down decreases the tempo of the music generated by ClusterWorks, and decreases the

 - speed with which the animation changes color.

Numeric Keypad

- 2 decreases the vertical projection or scaling of the animation across the screen.

- 8 increases the vertical projection.

- 4 decreases the horizontal projection.

- 6 increases the horizontal projection.

- 5 resets all horizontal and vertical scaling/projection.

Note: this is a difficult concept to explain without visual aids. Best just to try it out!

If you have questions or concerns regarding ClusterWorks, please send email to support@wonderlab.com, visit <http://www.wonderlab.com> or peruse the FAQ included alongside this ReadMe.