

Chromotion Systems – MonoMotion

www.ChromotionSystems.com/monomotion.html

Software Version 1b – March 2013 – Manual Revision 1

Monomotion from Chromotion Systems is a Java based software application used to interface with compatible LED controllers with mono/single color LEDs. The software allows the user to create custom patterns and settings, then upload them to a compatible LED controller for it to run, by itself, without a computer connection. The graphic user interface makes it easy to create a multitude of dynamic patterns. Up to 8 Settings can be created, with up to 64 Frames per setting. Though each device has a limited amount of storage space for Frames that is available.

Settings

The current version of the software supports 8 Settings. A Setting is made up of a Mode, a variable amount of data Frames, and a Speed.

A Setting can be one of these Modes:

Cycle: LED Channels Cycle from value to value evenly and smoothly. Optional Forward and Reverse, mostly for Offset Settings.

Flash: LED Channel values change instantaneously from one value to the next.

Offset Setting: A type of Cycle setting, Up to 16 values are chosen and the LED Channel greyscale values are calculated by the software to create a seamless pattern end to end using the selected values.

Speed:

Each Setting has a selectable Speed, use the slider below the Settings buttons. 1 is fastest, 255 slowest.

Channels:

Each type of device has a varying amounts of channels and number of LEDs that can share the same channel. Those numbers are used to calculate the total LEDs. Ex: An 8 channel controller can have up to 5 LEDs per channel, so 8 to 40 LEDs can be used as the Total LEDs(Decided by the user based on hardware requirements). Every LED of the same channel behaves the same, though when they are in the correct numerical order, they will appear to behave independently.

Frames:

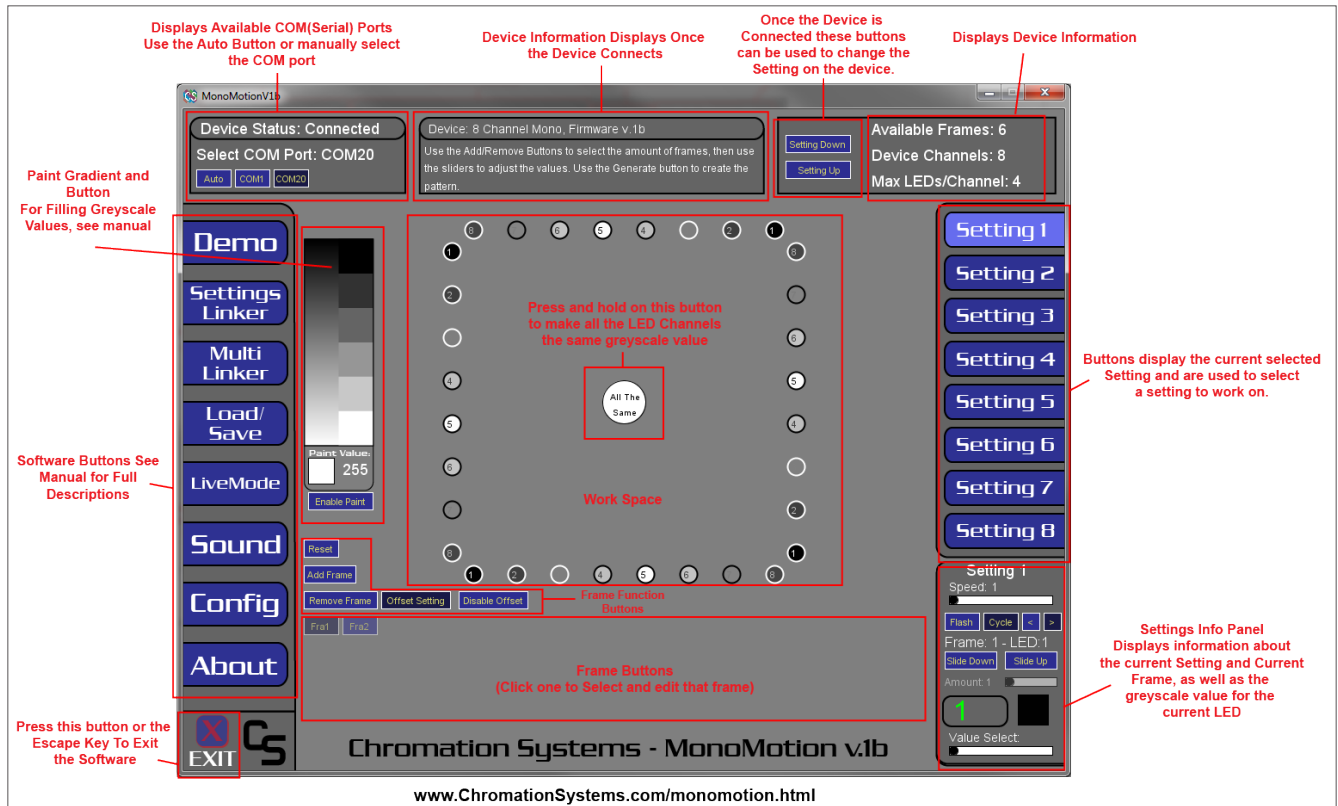
Each type of device has a limited number of Frames it can store, a Frame holds a value for each of the device's Channels, ex: an 8 channel device frame size is 8 values. Each of the channel values can be individually adjusted. Using any of the following methods:

- Either click-and-hold on any of the LED icons on the Work Space and use the radial menu to select a color, release mouse button to select the greyscale value.
- Click on the LED Icon to select it, then use the slider on the lower left hand corner to adjust.
- Click the LED Icon to select, then use the Up and Down Arrow keys to adjust the greyscale value for the selected LED channel.
- Click the Paint Value square, it will highlight red, then click on the gradient to select that level as the Paint Value. Then click the Enable Paint button, it will highlight, then clicking on a LED Icon will set the LED channel's value to the Paint Value.

When a Setting is in Flash Mode, any of the Frames can be set to slide the greyscale values from channel to channel, ex: Channel 1's value moves to channel 2, channel 2 to 3 ect, a variable amount of times, up or down. Once the Setting is in Flash Mode, to start set the first Frame to the starting greyscale values(the LED brightness levels that will be used), select the next Frame and click on either the Slide Up or Slide Down buttons to select. Then adjust the slider, values 1 to 127, to alter the amount of slides that will be preformed. The Left/Right Arrow keys can be used to adjust.

A slide value equal to the amount of LED Channels will end in the same state as it started. Use a Slide value of 1 less than the LED Channels to create a seamless pattern.

Software Interface



Linking:

Linking is done to place settings and patterns in the user's desired order. After clicking on a white Slot circle a white line will appear and connect the clicked Slot to the mouse cursor, then either a Setting or function is clicked and the white line will connect the two, indicating they are now linked. Clear All to clear all Links or while linking(white line connects to mouse cursor) Right-Click to cancel and clear that link. (More Below)

Menu Options

Demo:

Used to demonstrate the current displayed Setting without doing a full upload. Not enabled on all devices.

Linker:

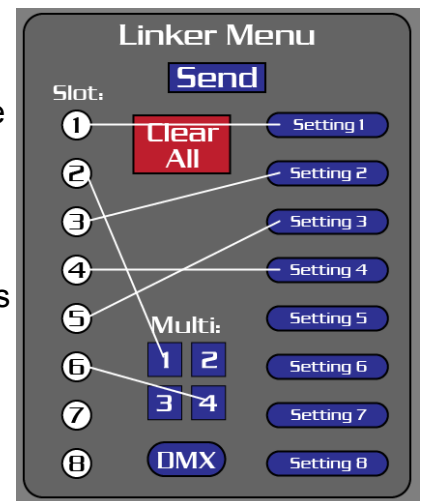
Settings are arranged in order they will be selected by the device, usually by pressing the device's button(s). This allows the user to only have to cycle(in the case of a button) through the Settings that they created and want on their device. Ex: The device starts on Setting 8 then when the button is pressed it could change to Setting 3, then to Setting 1, then another or start over at 8, user creates the order based on their needs.

Usage: Link the Slot circles(start with the lowest) to the desired Setting(Settings 1 – 8 or Multi-Settings 1-4) or function(DMX, not supported by all devices)

Multi Linker:

Some devices allow multi-settings, which allow a Setting to be ran(repeated) a variable amount of times then automatically change to the next selected Setting, that will be repeated a variable amount of times before continuing to another Setting or starting over. Ex: Run Setting 1, 4 times then run Setting 8, 10 times, repeat, or link up to 8 patterns, the same Setting can be linked to more than once.

Usage: Select a Multi-Setting(4 available) by clicking on it's button at the top of the menu. Then Link the Slot circles to a Setting button in the order they should run, then adjust the sliders on the left side to adjust the amount of repeats per Setting.

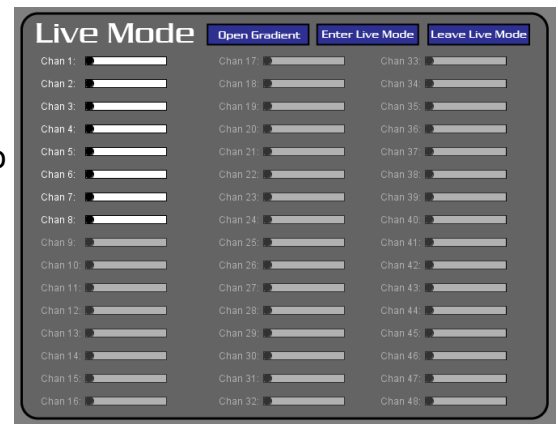


Load/Save:

There are 6 save locations, press the buttons to save or load a setting. Save files are device dependent and will probably not be compatible between devices. When Loading or Saving a preview with the file's information will appear, ensure it is compatible with the connected controller. Or the software may error and freeze, restart if the software if this happens. There is a preset file available for compatible devices.

Live Mode:

Open the menu and press "Enter Live Mode" to enter the device into live mode. Then the sliders can be adjusted and the device will instantly change it's outputs to the new slider value. Or press the Open Gradient button to view the gradient, which can be clicked on to set the greyscale value for the current LED channel, repeated clicks will set the next LED value. Press "Leave Live Mode" before closing the menu or closing the program after Live Mode was enabled.

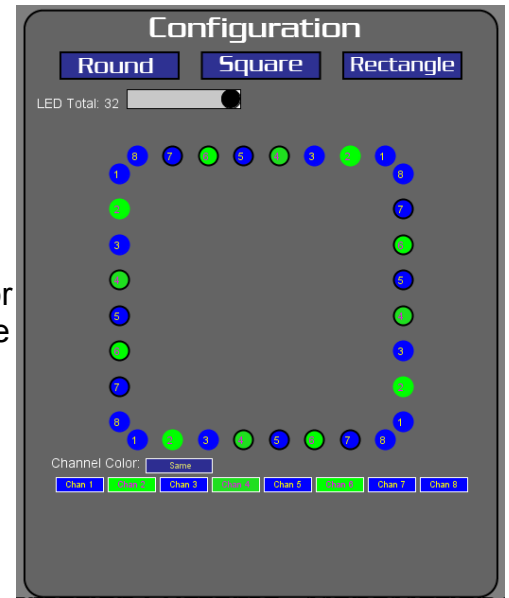


Sound:

Not yet implemented. But VU meter and a few other functions are planned.

Configuration(Config):

The shape, color, and amount of LEDs displayed on the Work Space is setup on this menu. The settings in this menu only affect the GUI. Once the device is connected, the software calculates the increments of LEDs that can be utilized, it allows the user to select the shape and amount of LEDs used in their Infinity Mirror or similar device. The Channel Color buttons can be used to select the display color of the LED icons, the color selected affects nothing other than the color shown in the software. White is the easiest color to work with.



About: Opens Software Website, check here for downloads and updates.

Work Space:

This is the main work area of the software where the patterns are created. It displays the LED Icons and and the Frame buttons.

Buttons:

- The Reset button removes all but one frame from being displayed, but it does not delete any Greyscale values or other data from the frames.
- Click the Add Frame or Remove Frame button to adjust the amount of Frames used in the selected Setting.
- Offset Setting, Opens the Offset Slider Menu. Creates dynamically generated Cycle patterns. Discussed above in the Mode section. Patterns crated with this appear to move like a wave.
- Paiting, click the square in the paint box, it will highlight, then select a greyscale value from the gradient, then the Enable Paint button can be toggled, when it is selected clicking once on an LED Icon will change it's greyscale value to the Paint Value. Click the Enable Paint button again to disable.

Usage:

Click-and-hold on a LED Icon to open the greyscale gradient, mouse over then release to select a value for that LED channel. Or use the Paint feature discussed in Frames section above.

Software Usage

- Start by connecting and powering up the device/controller. Connect the device to the computer via USB or USB to Serial Adapter. Then start up the software, and select the COM port or use the Auto button to find and connect to the device. The device should respond with it's Device Name and firmware version which displays at the top, in the center. If it does not, check for the text field near the top that displays user notifications.

Optional: Open the Load/Save Menu and select a Save file or preset to load.

- Open the Configuration menu and adjust the shape and the amount of LEDs to display on the Work Space. Total LEDs increments by device Channel amount. Optionally, alter the display colors, or leave them white. (Easiest to see the greyscale levels) Close the configuration menu.

- The lower right corner menu displays the information for the current setting and current frame. Select either Flash or Cycle Mode and adjust the Speed slider if desired.

- View the Work Space, Frame 1 should be selected. Adjust the LED channel Greyscale values as discussed previously in the Frames section.

- With the first frame done, click on the Frame 2 button, and select the desired Greyscale values for all the channels or set it to be a Slide Frame by clicking the Slide Up or Slide Down buttons(Flash Mode Only) in the lower left menu.

Note: Click the Paint Value square, it will highlight red, then click on the gradient to select that level as the Paint Value. Then click the Enable Paint button, it will highlight, then clicking on a LED Icon will set the LED channel's value to the Paint Value. Click the enable paint button again to return to normal, click-and-hold, release to select operation.

- Continue making all the required Frames. If more frames are required, press the Add Frame button to add another one, each device type has a limited number of frames, remove Frames from other/unused Settings if more are needed.

- When all the desired Frames are built, use the Remove Frame button on the Work Space to trim off the unused Frames, if any.

- Create more Settings if they are needed, use the Settings 1-8 buttons on the left side of the window to change Settings.

Optional: Open the Multi Linker Menu, and create up to 4 Multi-Settings by linking the Slots to Settings.

- Open the Linker Menu. Press the Clear button to clear all links. Click on the Slot 1 white circle and a white line will appear from the circle to the mouse cursor. Click on the Setting that should be first in the selection order. Link some or all of the Slot circles to a Setting or Function. When finished, click the Send button. It will take a few to several seconds to upload everything to the controller. A loading bar will indicate the progress. Once uploading is finished the device should start on the Setting the lowest Slot on the Linker was linked to. If it does not either press the controller button till it does or restart the controller, by first closing the software, then removing power from the device.

DMX Note:

Some devices support onboard DMX input, some may require an external adapter. Eitherway the controller must support DMX reception. Certain controllers could accept a standard serial signal instead of DMX.

Compatible Devices:

MonoMotion Version 1b:(**Current Version**)

24 Channel High Current LED Controller, MonoMotion Compatible v.1

48 Channel Mono/16 Channel RGB Controller, MonoMotion Compatible v.1

8 Channel LED Controller v.3, MonoMotion Compatible v.1b

MonoMotion Version 1(**Old Version**):

8 Channel LED Controller v.3, MonoMotion Compatible v.1

Compatible Operating Systems:

Windows

MacOSX

Linux – Most distros that support Java

MonoMotion requires the latest version of Java and a compatible operating system

Troubleshooting:

If device is not seen, can not be connected to or otherwise errors. First Try,

Close Software, unplug Device from computer, remove power from Device, wait 10 seconds, connect Device to computer, power on Device, Start Software

Q: USB Device requires driver or wrong driver is used.

A: Check the software directory for the 'inf' folder, direct Windows to use that driver.

Q: Device's COM port not showing up as an connection option

A: Attempt above method, to reset all devices.

Q: Program won't run or gives an error. Restart the device and software.

A: Update Java at <http://java.com/en/download/index.jsp>

www.ChromotionSystems.com/monomotion.html

Please E-Mail Support@ChromotionSystems.com

With Any Questions, Comments Bug Reports or Suggested Improvements.

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