ECLIPSE*cx* Ethernet Software for OSX

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Installation

Double-click the file **Install_Eclipse_Ethernet.dmg** to open a disk image. From the window that opens, run the application **Install EclipseCX 1.0b1 Software** and follow the onscreen instructions.

The following files will be installed on your main hard drive:

The folder **EclipseCX Software** will be paced in the `/Applications/` folder.
This folder contains the **EclipseCX** application, keysets, and documentation.

EclipseEtherMIDIDriver.plugin will be placed in `/Library/Audio/MIDI Drivers/`.

EclipseStartupItem will be placed in `/Library/StartupItems/`.

The folder **JLCooper** will be placed in `/Library/Application Support`.

The folder **Eclipse Uninstallers** will be placed on the `Desktop`.
This folder contains the **EclipseCX_Uninstaller** application.

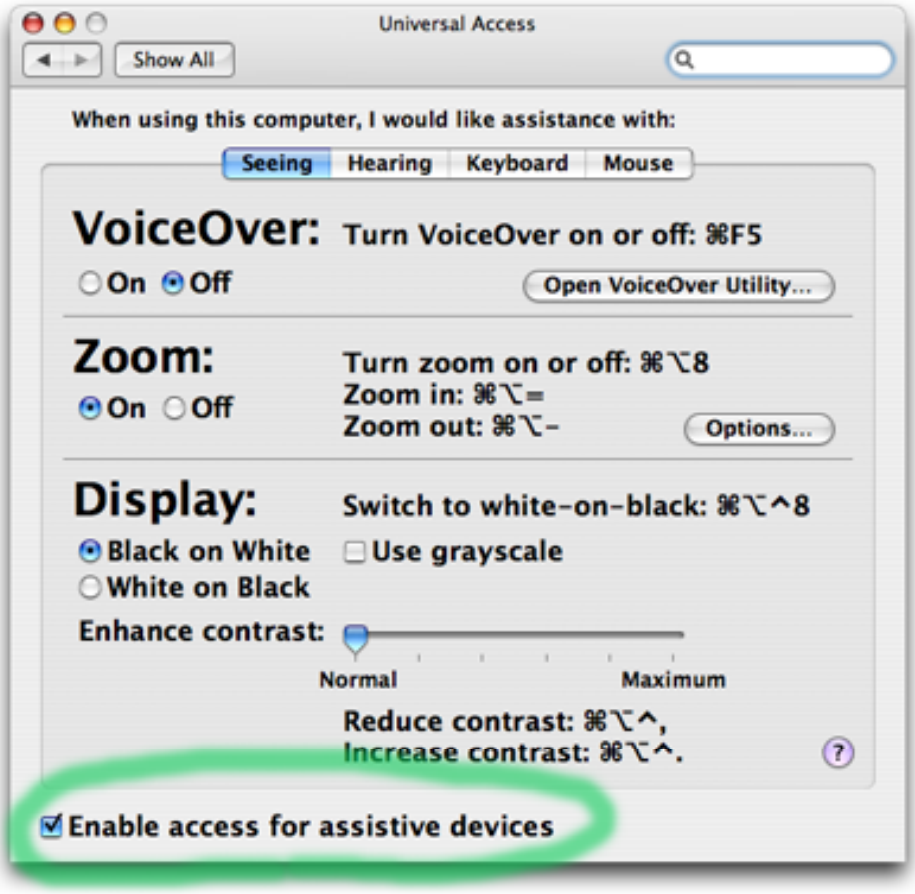
After the installation is complete, you will be directed to restart your computer.

Uninstalling

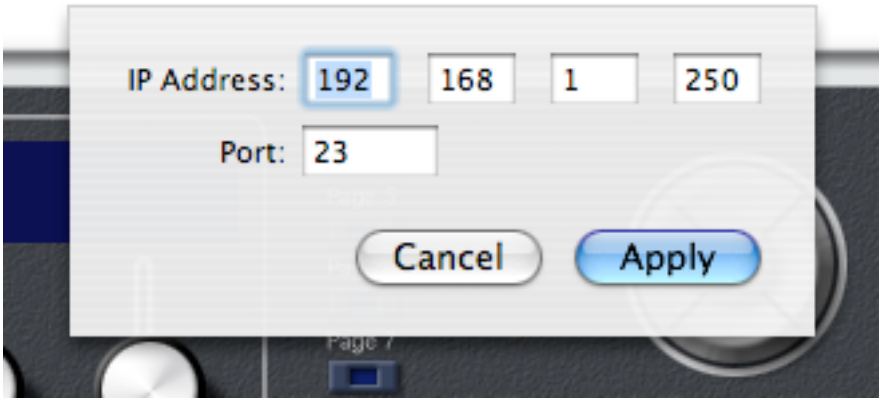
Launch the **EclipseCX_Uninstaller** application which is located in the **Eclipse Uninstallers** folder on the `Desktop`. Select the items you wish to uninstall (or click on the Select All checkbox) then click on the Uninstall button.

System and Software Setup

The Eclipse software relies on Apple's Universal Access to perform mouse emulation. In order for the Eclipse software to work correctly, you **must** open **System Preferences** and go to the **Universal Access** pane. Make sure "**Enable access for assistive devices**" is checked then quit **System Preferences**.



There is an additional one time step to perform. Open the application, “**EclipseCX**”. It is located in `/Applications/EclipseCX Software/`. Choose **Preferences…** from the **EclipseCX** menu.



Set the IP address and port to match those that you entered on the Eclipse hardware (see the Eclipse User Guide). This allows the Eclipse driver to communicate with the hardware.

Introduction to the Eclipse Ethernet Software

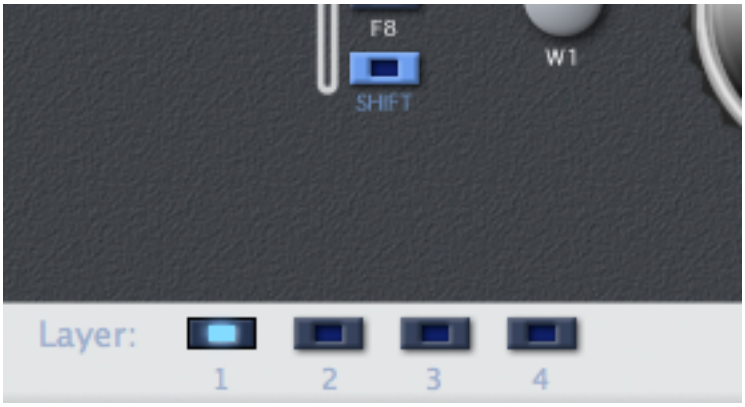
The Eclipse Software extends the EclipseCX hardware's ability to control various applications running on your Macintosh™. It does this by communicating with applications via MIDI, Ethernet and other messaging protocols built into the Mac OS. It can also simulate mouse clicking and dragging, keystrokes and can even emulate other control surfaces if necessary.

Keysets

The Eclipse software uses "keysets" which are sets of various actions that are taken when Eclipse controls are pressed or turned. Different keysets can be applied to different applications, and the Eclipse will choose the correct keyset for whichever application is in the foreground. If no keyset has been created for the current foreground application, the Eclipse will use a built in keyset called the "Default" keyset.

To create or edit Eclipse keysets, open the application, "**EclipseCX**". To create a new keyset, choose **New Keyset** in the **File** menu and navigate to the application that will use the new keyset. You can also use **Import Keyset** from the File Menu to get an existing keyset. Keysets that ship with the Eclipse are located at `/Applications/EclipseCX Software/keysets/`. You only need to use **New Keyset** or **Import Keyset** once for a given application. After that, keysets are stored with the Eclipse software's preferences.

Each application's keyset can have up to 4 layers, thus quadrupling the number of physical controls on the Eclipse. To choose which layer to edit, click on one of the Layer buttons at the bottom of the main window.



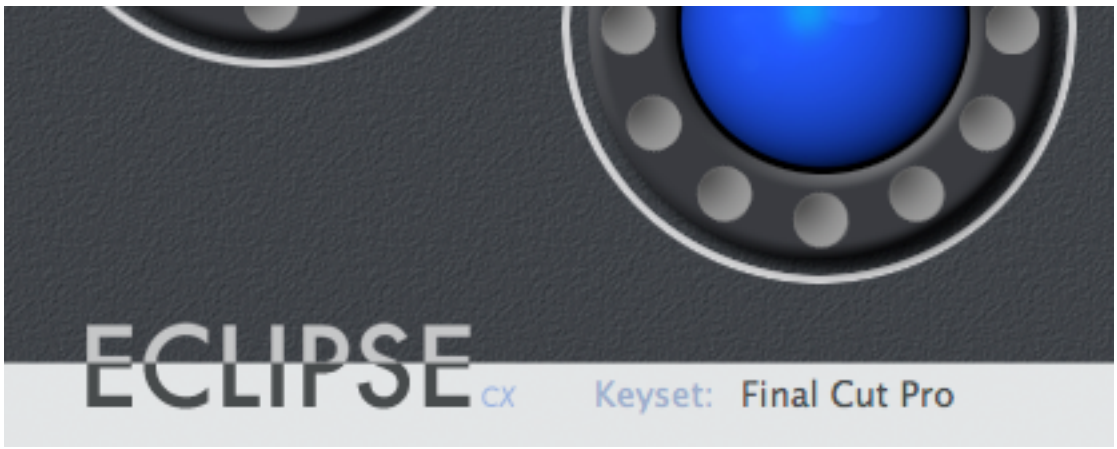
You can use **Export Keyset** from the **File** Menu to save a copy of a keyset so it can be transported to another Mac or archived for safekeeping. You don't need to use Export in your daily use of the Eclipse. As previously pointed out, your changes are added to the Eclipse software's preferences file automatically.

There are several sample keysets included in this package, including ones for Final Cut Pro™ and Color™.

Editing Keysets

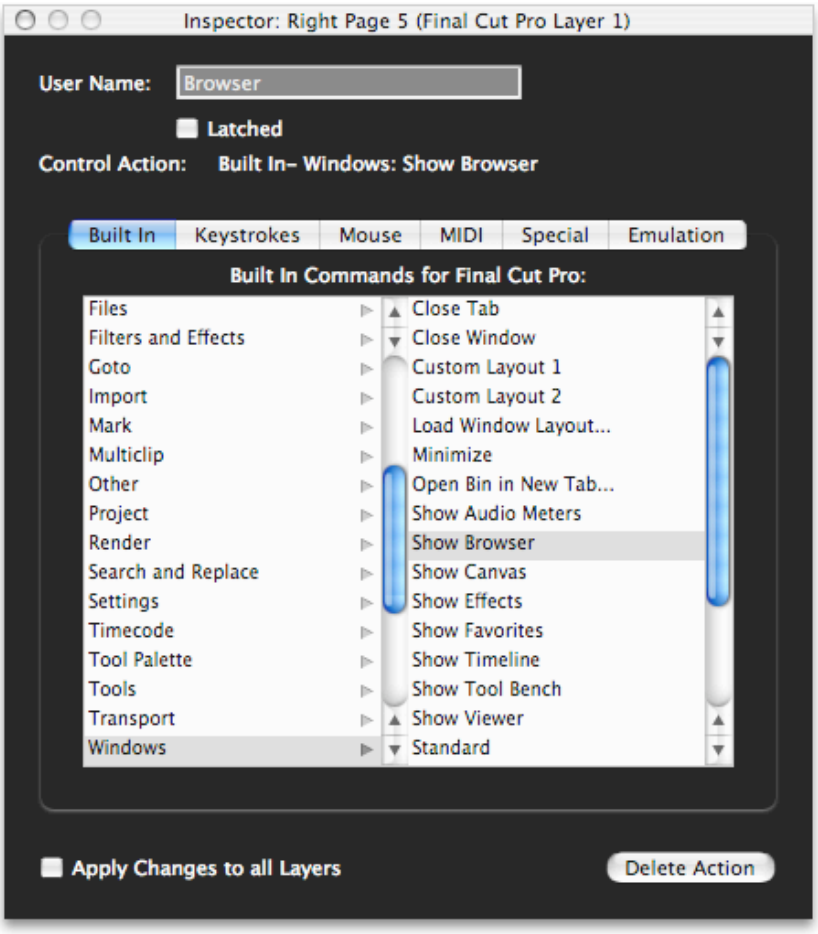
The application presents a graphical representation of the Eclipse front panel. When you click on an on-screen control (or move a control on the Eclipse itself), that control is selected and information about it appears in the floating **Inspector** window.

You can choose which keyset to edit within the **EclipseCX** application using the **Keysets** menu. The menu lists all keysets that you have created or imported. The name of the currently selected keyset will be displayed at the bottom of the main window.



The Inspector Window

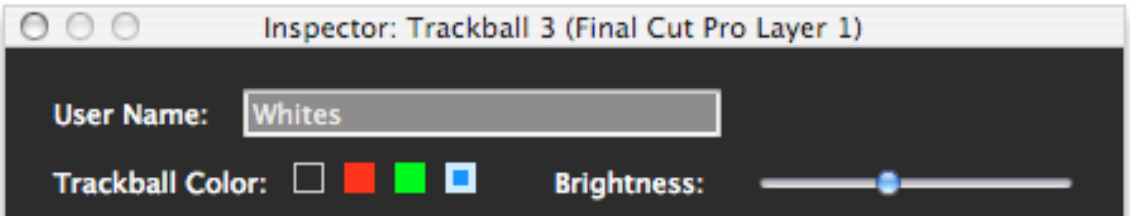
The **Inspector** window is where all your work takes place. It displays information about the currently selected control and contains the facilities for editing that information.



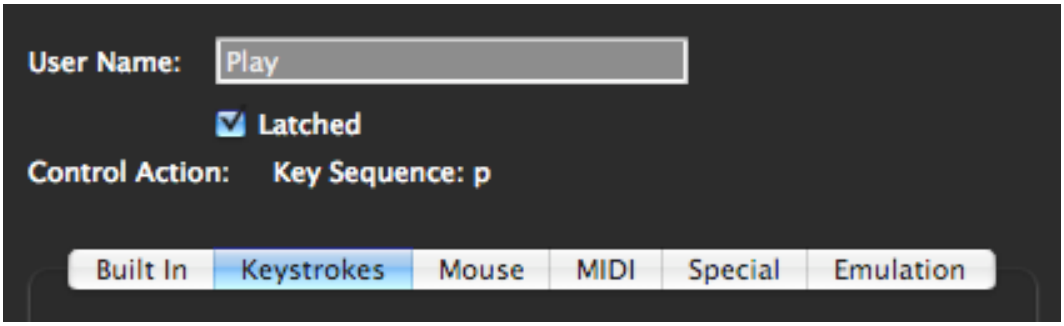
The User Name text box allows you to give a control a more descriptive name than “M1”, “W3” or “F7”. In the example above, the “Page 5” button has been assigned an action that opens the Final Cut Pro **Browser** window, so naming the button “Browser” conveys more information than “Page 5”.

Immediately below the User Name are editing controls that vary depending on what kind of Eclipse control is being edited. If the control is a button, you will see a “Latched” checkbox that lets you choose between a momentary (pressing the button turns it “on”, releasing it turns it “off”) or latched (pressing and releasing it turns it “on” and pressing and releasing it a second time turns it “off”) behavior.

If the control is a trackball, there will be controls that let you set its color and brightness. Other types of Eclipse controls don't have any special editing controls here.

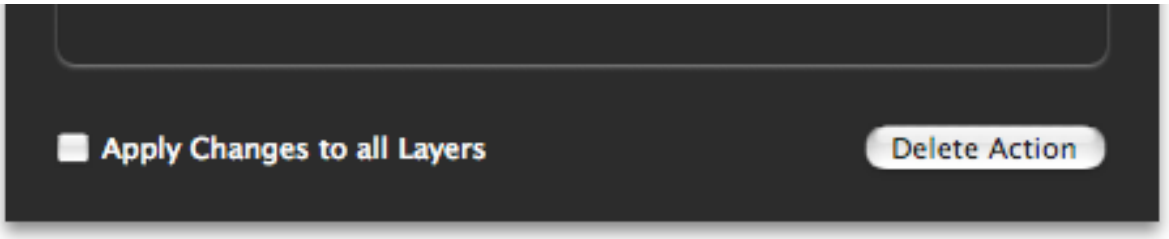


Next is a description of the action that is to take place when the selected Eclipse control is pressed or turned while the target application is active. Below that is the area where this action can be edited. There are a series of tabs representing the different kinds of actions that can be performed and clicking on one of these tabs will display controls for editing its kind of action. The available actions are **Built In**, **Keystrokes**, **Mouse**, **MIDI**, **Special** and **Emulation**.

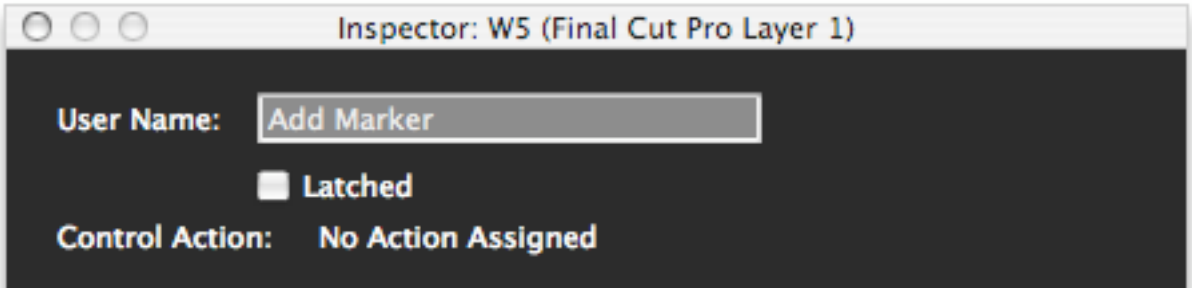


Any changes made in one of these tabs are immediately applied to the selected control. The Eclipse software allows multiple levels of Undo, so you can easily get back to any starting point.

At the bottom of the **Inspector** window is the **Apply Changes to all Layers** checkbox. If it is checked while you are making changes, those changes will be applied to the selected control in all layers. Some controls, such as the Transport controls, will probably perform the same function in every layer. The **Apply Changes to al Layers** checkbox will save you having to make changes in every layer in cases like this.



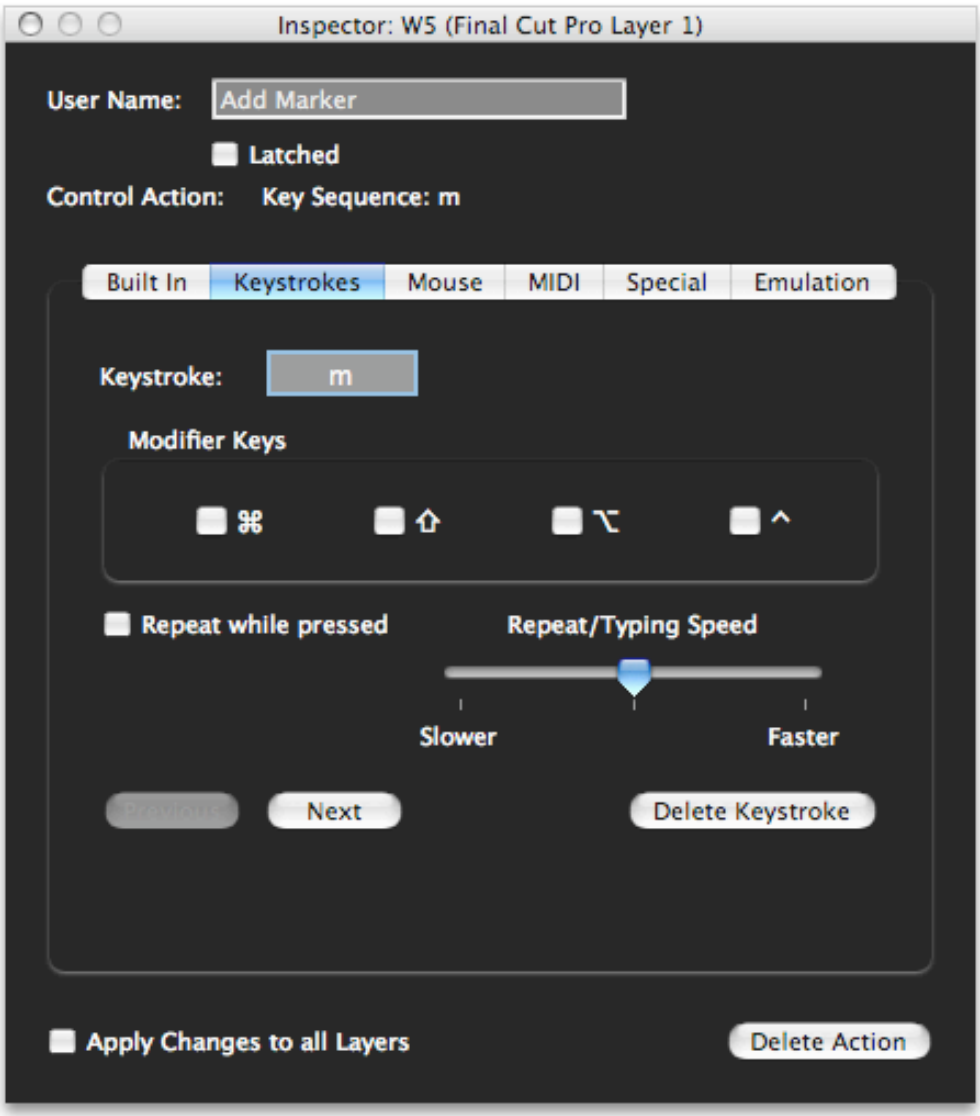
Also at the bottom of the **Inspector** window is the **Delete Action** button. When pressed it will delete the action currently assigned to the selected control. This is also undoable.



Action Tabs

Keystrokes Tab

The EclipseCX controls can be assigned to send a sequence of keystrokes to an application just as if they were keys on the Mac keyboard. These assignments are set up in the **Keystrokes Tab**.



Select a control to edit, place the cursor in the **Keystroke** field and type a key. If you hold down any modifier keys (command, shift, option or control) while typing this key, the modifier checkboxes will be set up accordingly. You can also manually change the modifier checkboxes by clicking on them.

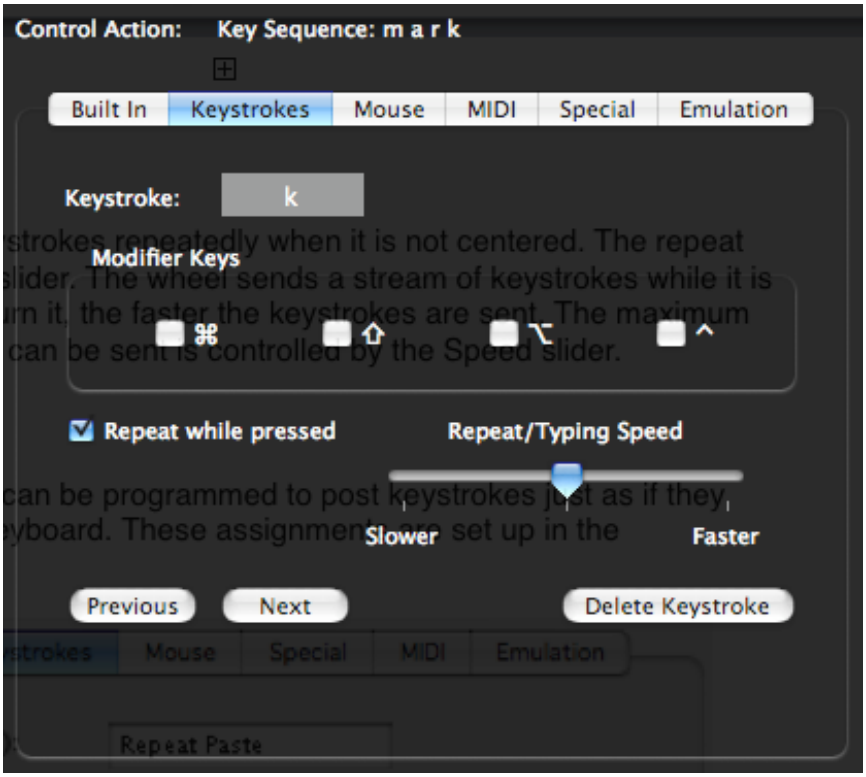
Some key/modifier combinations may be intercepted by the operating system before

they reach the **Inspector** window. If this happens, just type the key without any modifiers, then click on the appropriate checkboxes to add the desired modifiers.

To add more keystrokes to the sequence, click on the **Next** button and repeat the above procedure. You can move forwards or backwards in the sequence with the **Next** and **Previous** buttons. The **Delete Keystroke** button will remove the currently displayed keystroke from the sequence.

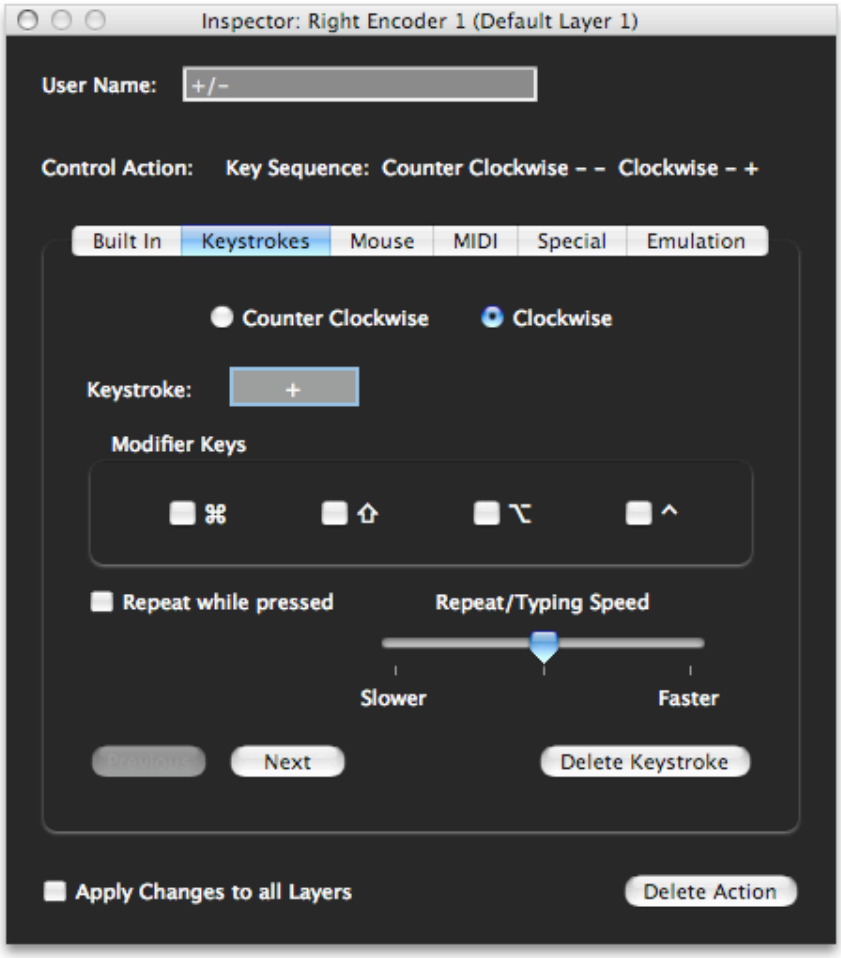
If **Repeat while pressed** is checked, the keystroke (or sequence) will repeat as long as the Eclipse control is held down. The speed of the repeat is controlled by the **Repeat/ Typing Speed** slider. This slider also determines how much time there is between keystrokes if the sequence is more than one keystroke.

If the key sequence in the example below was assigned to the **W5** button, pressing and holding **W5** would be the equivalent of repeatedly typing the word “mark” until **W5** was released.

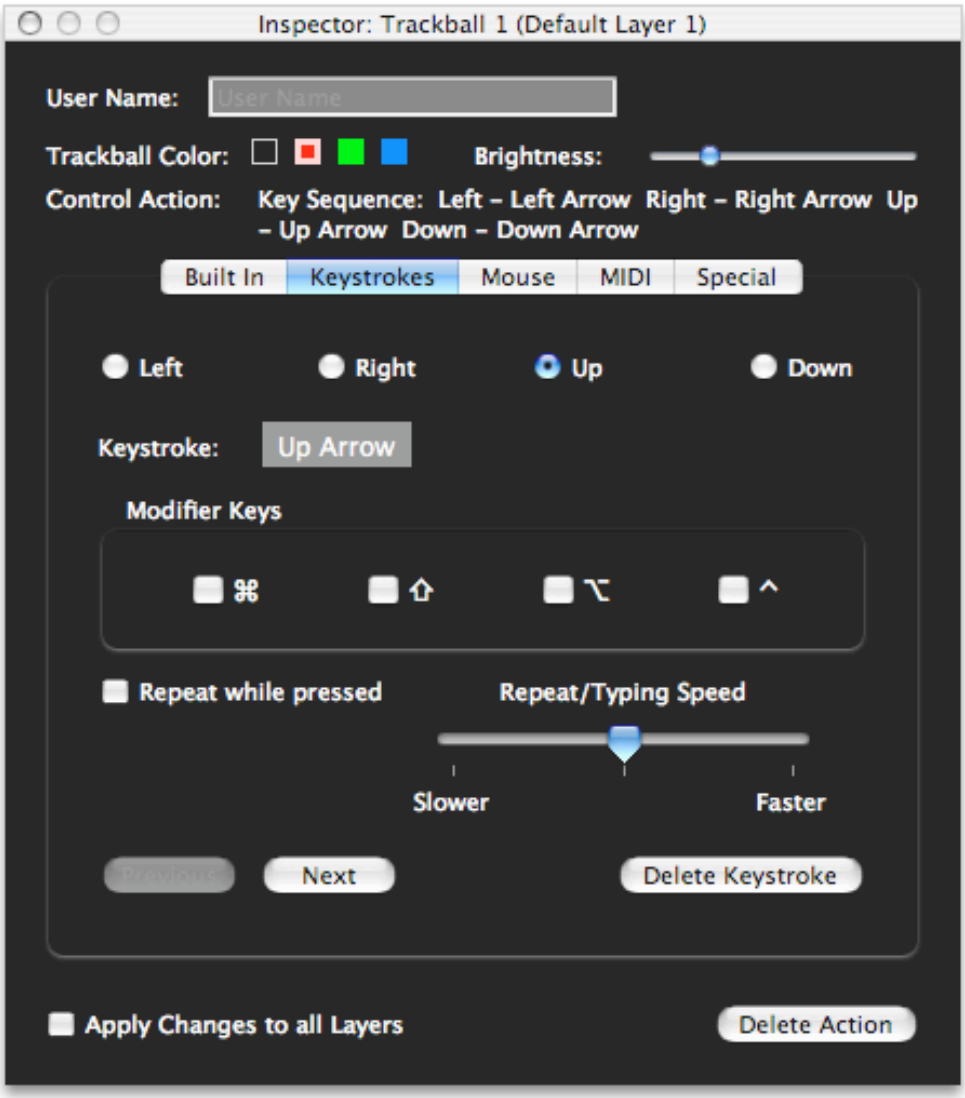


The **Keystrokes** tab can vary depending on the type of Eclipse control selected. For rotary encoders and the **Jog Wheel**, different key sequences can be assigned to each direction. Click on the **Counter Clockwise** or **Clockwise** radio button to choose which direction’s sequence to edit.

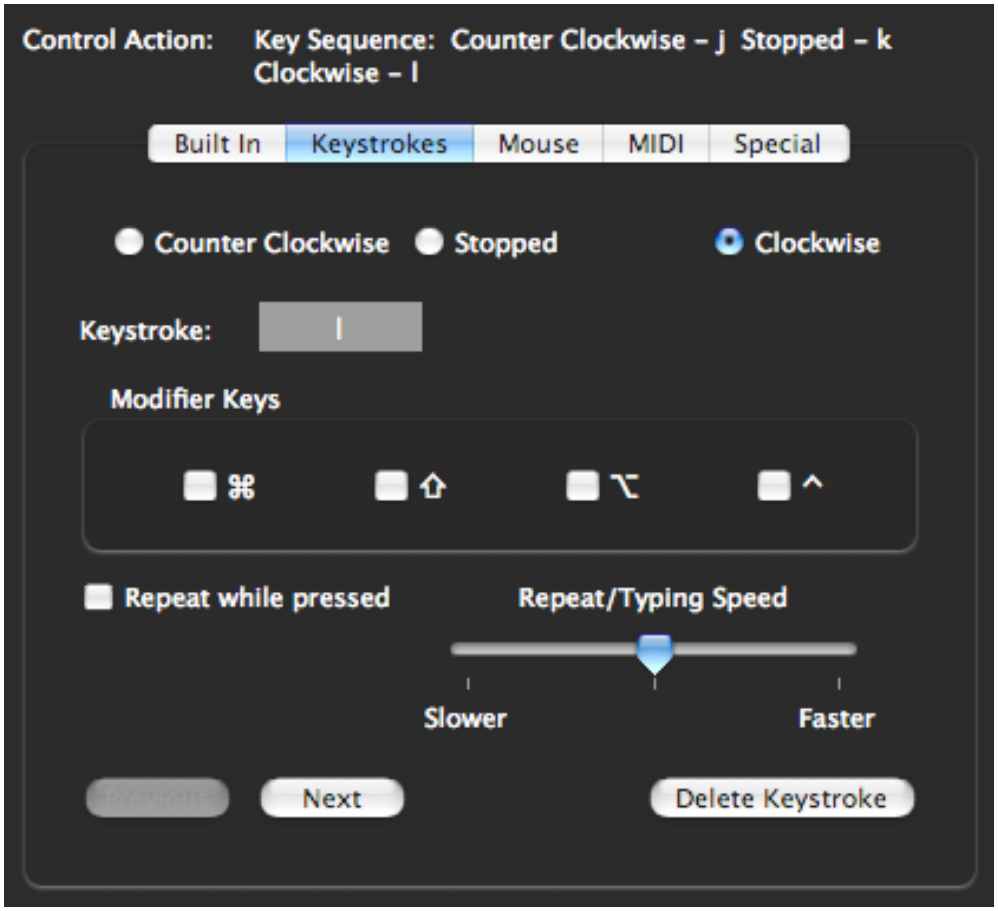
In the example below, a counter clockwise turn would send a “-” and a clockwise turn would send a “+”.



Trackballs can have a different key sequence for Up, Down, Left and Right movements. In the example below, the trackball would send a corresponding Arrow key for each direction.



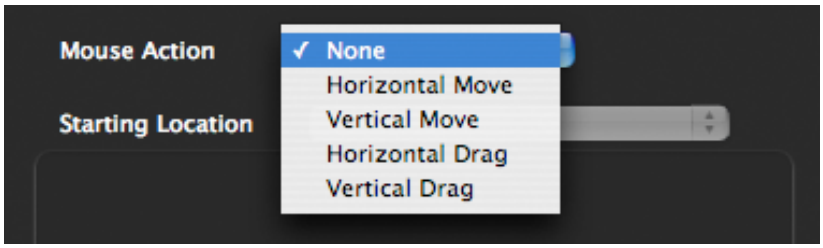
The Shuttle Ring can have a key sequence assigned not only to its counter clockwise and clockwise directions, but also to it's center detent. The example below implements JKL shuttling which is used by several nonlinear video editors. In other words, the shuttle will send a "j" when being turned counter clockwise, an "l" when being turned clockwise and a "k" when it is returned to the center position.



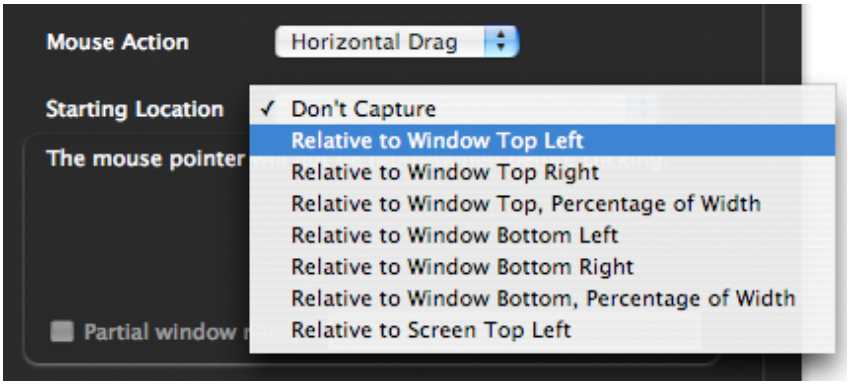
Mouse Tab

The controls on the EclipseCX can be made to emulate the Macintosh mouse. Buttons can perform clicks, rotary encoders, the **Jog Wheel** and the **Shuttle Ring** can perform horizontal and vertical moves and drags, and trackballs can perform 360° moves and drags.

The **Mouse Action** popup lists the actions available for the selected control. For example, if the **Jog Wheel** is selected the popup would look like this:



The **Starting Location** popup lets you choose where the click, move or drag will originate.



If you choose **Don't Capture**, the mouse action will always begin at the current location of the Mouse pointer. If you choose any other option, you will be prompted to pick a point in one of the target application's windows. The options in this menu determine how the Eclipse will find that point in the event that the destination window has been resized or moved.

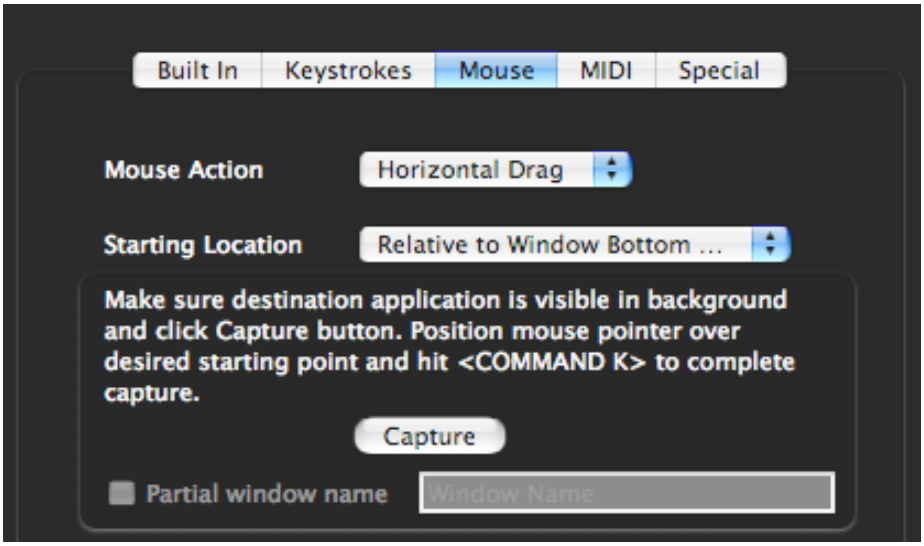
Option	When Destination Window is Resized or Moved
Relative to Window Top Left	The start point will stay the same distance from the top left corner of the window.
Relative to Window Top Right	The start point will stay the same distance from the top right corner of the window.
Relative to Window Top Percentage of Width	The start point will stay the same distance from the top of the window, but it's horizontal position will be a percentage of the window's width..

Option	When Destination Window is Resized or Moved
Relative to Window Bottom Left	The start point will stay the same distance from the bottom left corner of the window.
Relative to Window Bottom Right	The start point will stay the same distance from the bottom right corner of the window.
Relative to Window Bottom Percentage of Width	The start point will stay the same distance from the bottom of the window, but it's horizontal position will be a percentage of the window's width..
Relative to Screen Top Left	The start point will stay the same distance from the top left corner of the screen, no matter what the size or position of the window.

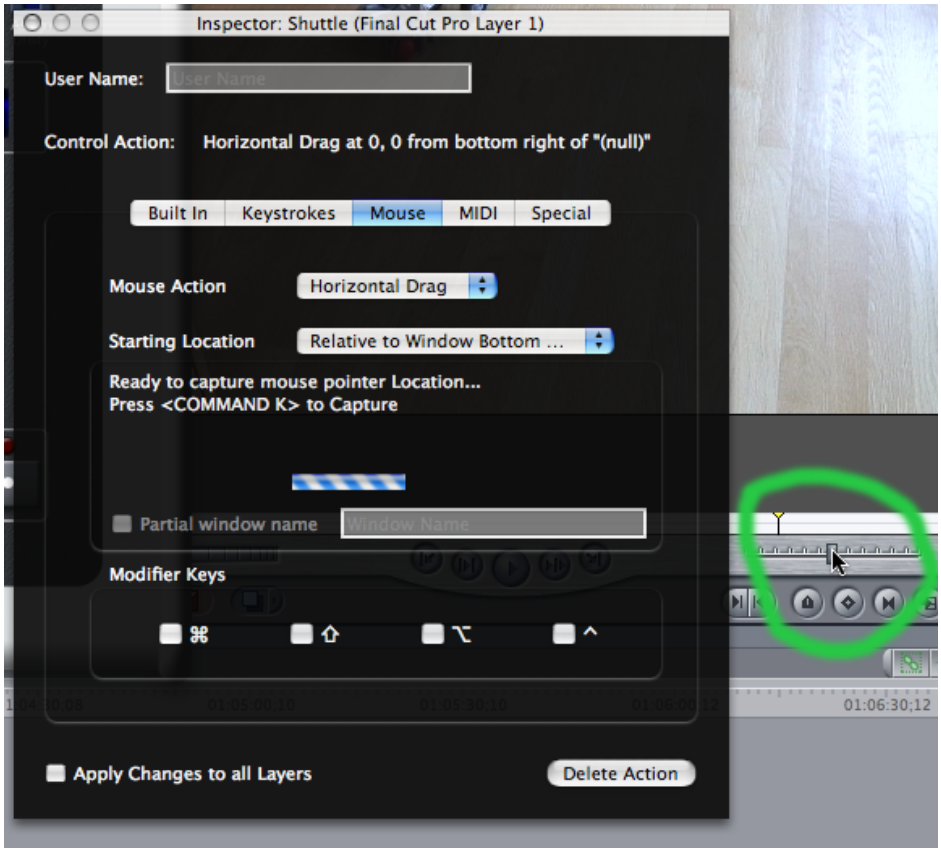
For example, let's say that a particular application has an onscreen shuttle slider in the lower right hand corner of it's Timeline window, and the center of that slider is 100 pixels from the right of the window and 20 pixels from the bottom of the window. When the window is resized, the slider stays at 100 pixels from the right and 20 pixels from the bottom of the window.

Suppose the only way to access this program's shuttle function is by dragging this slider left or right. You could program the Eclipse **Shuttle Ring** to do a horizontal drag starting at 100, 20 **Relative to Window Bottom Right**.

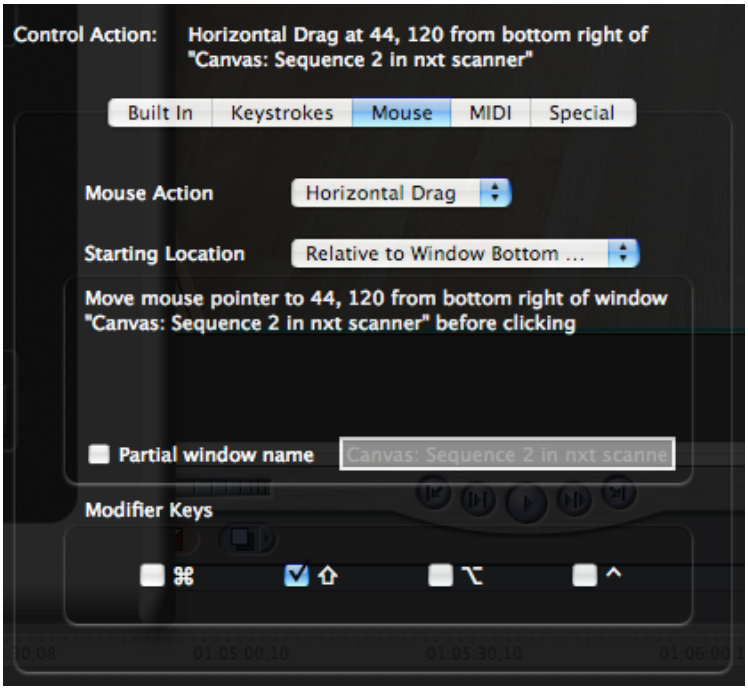
Once you have chosen from the **Starting Location** popup, you will be prompted to actually pick the starting point.



Make Sure the target application is open in the background, and that the destination window is visible. Hit the **Capture** button then position the mouse pointer over the desired starting point and type <COMMAND K>.



The **Inspector** window will be updated to show the window name and coordinates where the click, drag or move should take place.



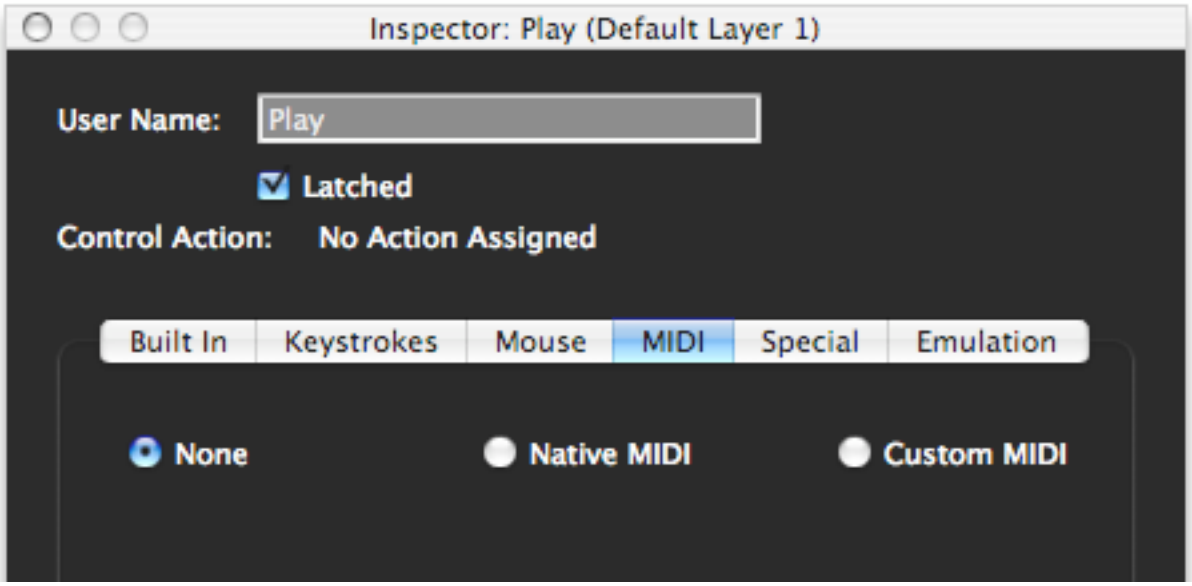
From now on, whenever you are in the target application and use the assigned control, it will move the destination window to the front, then click, move or drag at the selected location.

Once a window name and mouse location has been captured, you have the option of using a partial window name. This is useful in applications like Final Cut Pro, where the Canvas Window's title always starts with the word "Canvas" but the rest of the window title changes depending on what you're editing. Normally, the Eclipse tries to find a window with the exact name as the window where the click was first captured, but if the window name has changed, it will fail. You can choose the have the Eclipse just look for the word Canvas in Final Cut Pro and it would always find the Canvas Window, even if the exact name of the Canvas Window changed since the click was captured.

To use the partial name feature, click on the **Partial Window Name** checkbox. In the text box on the right, change the full window name to the partial name you want the Eclipse to use.

MIDI Tab

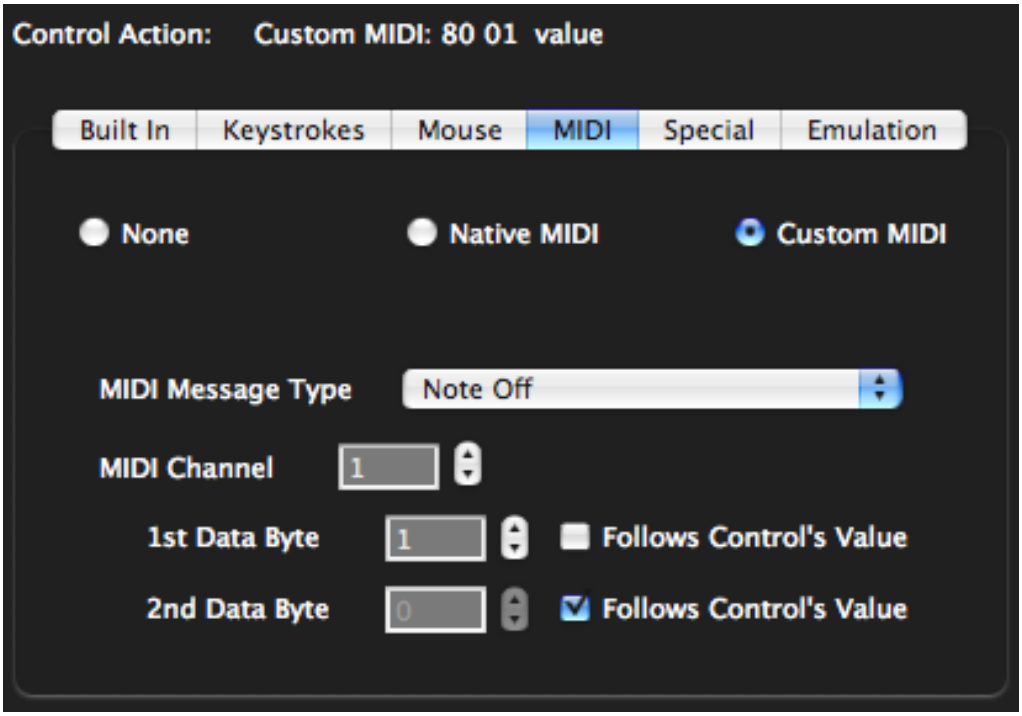
An Eclipse can be made to appear as a MIDI device to MIDI applications. Any Eclipse control can be programmed to send and respond to a MIDI message.



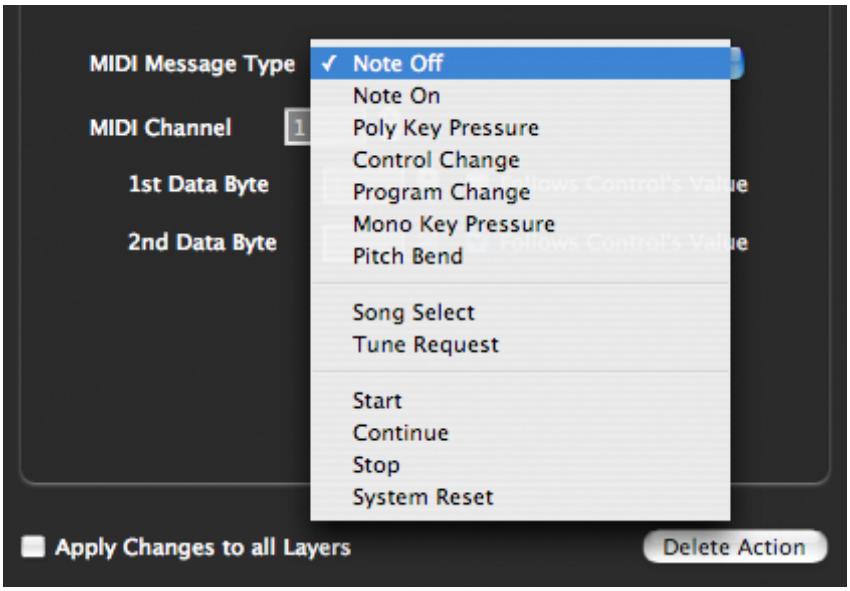
There are three radio buttons for choosing the type of MIDI message to assign.

None	No MIDI message for the selected control. If some other type of action has already been assigned, the None button will be selected. Clicking on the None button will delete the currently assigned action.
Native MIDI	Native MIDI actions send and respond to the Eclipse hardware's built MIDI protocol. You would typically use this setting with an application which directly supports the Eclipse (or MCS-3000 / MCS-Spectrum) protocol. It could also be used with an application that has a MIDI "Learn" feature. For convenience, choosing **Set all Controls to Native MIDI** in the **Actions** menu will assign Native MIDI actions to all of the Eclipse controls on all layers in the current keyset.
Custom MIDI	Custom MIDI actions send and respond to user defined MIDI messages.

When **Custom MIDI** is chosen, more controls will become visible for editing the custom messages.



The **MIDI Message Type** popup lets you choose any of the basic MIDI messages except for system exclusive and MIDI Time Code.



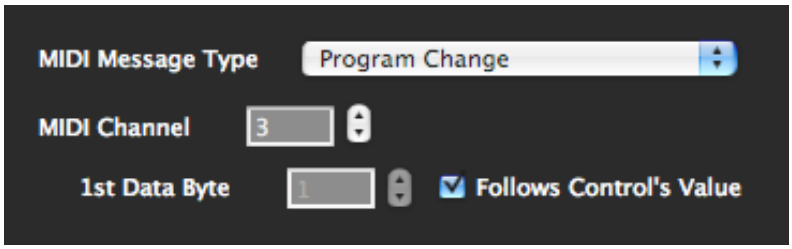
The first group of messages in the popup include a MIDI channel. If you choose one of these message types, a channel editor appears. You can either type or use the up and down arrows to set the channel. This editor accepts values from 1 through 16.

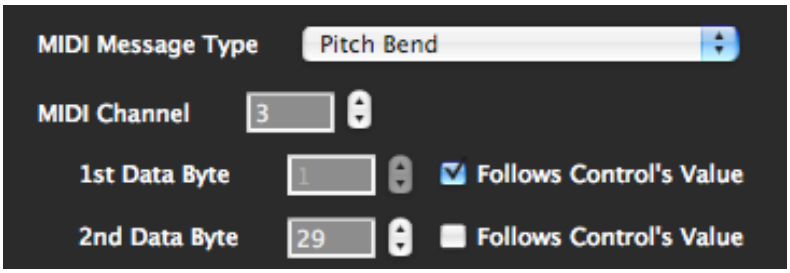
All MIDI messages except for system exclusive are either one, two or three bytes long. The first byte always is the message type, called the *status byte*. If there is a MIDI channel, it is embedded in the status byte. The bytes following the status byte, if any, are referred to as data bytes and contain additional information such as note numbers, velocities, control values, etc...

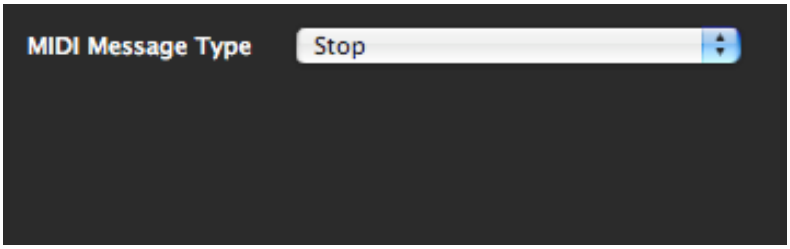
If you choose a message type that is more than one byte long the **1st Data Byte** (and possibly the **2nd Data Byte**) editor appears. You can set the data byte's value by typing or using the up/down arrows. The editor accepts values from 0 through 127.

Instead of setting an absolute value for a data byte, you can check the **Follows Control's Value** box. In this case, the value of that data byte is determined by the state of the Eclipse hardware control this message is assigned to. In other words, if you assigned a Custom MIDI Message to the **Jog Wheel** and the 2nd data byte was set to **Follows Control's Value**, a number representing the position of the **Jog Wheel** would be inserted as the 2nd data byte of the custom message. For Eclipse buttons, a value of 127 will be inserted for button presses, and 0 for button releases.

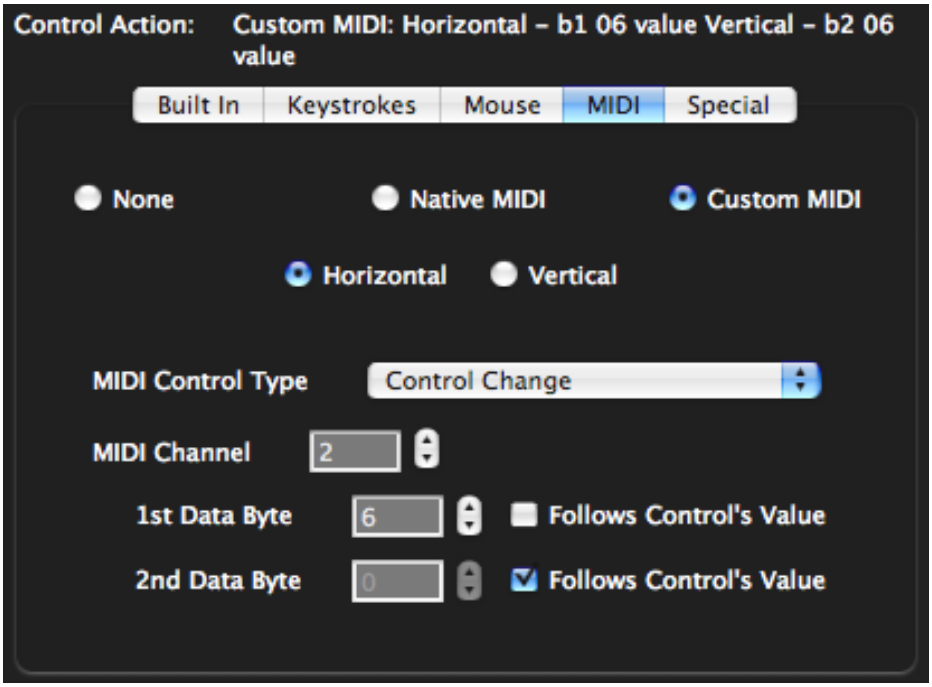
Following are some samples of the **MIDI Tab's** appearance for various message types.







When assigning **Custom MIDI** messages to a trackball, you set different messages for each axis of the trackball. You can also set either axis to **None**.

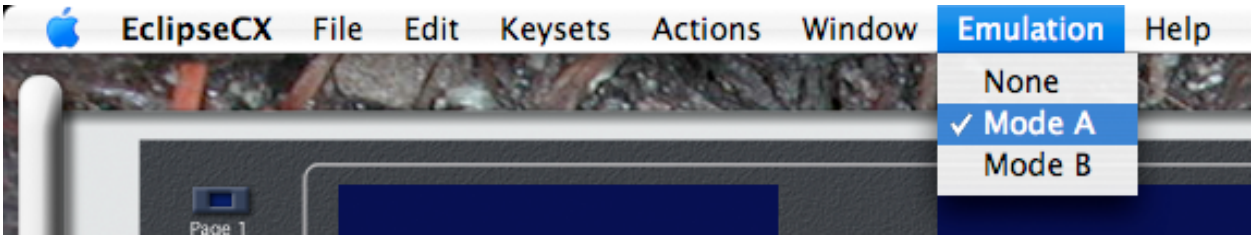


To access the Eclipse's MIDI messages in your MIDI application, connect your application's MIDI input and output ports to the ports labeled "EclipseCX". Depending on the application, the ports may be labeled "EclipseCX Ethernet". The exact method for connecting to MIDI ports varies from application to application. Consult the manuals of the MIDI applications you are using to learn how to do this.

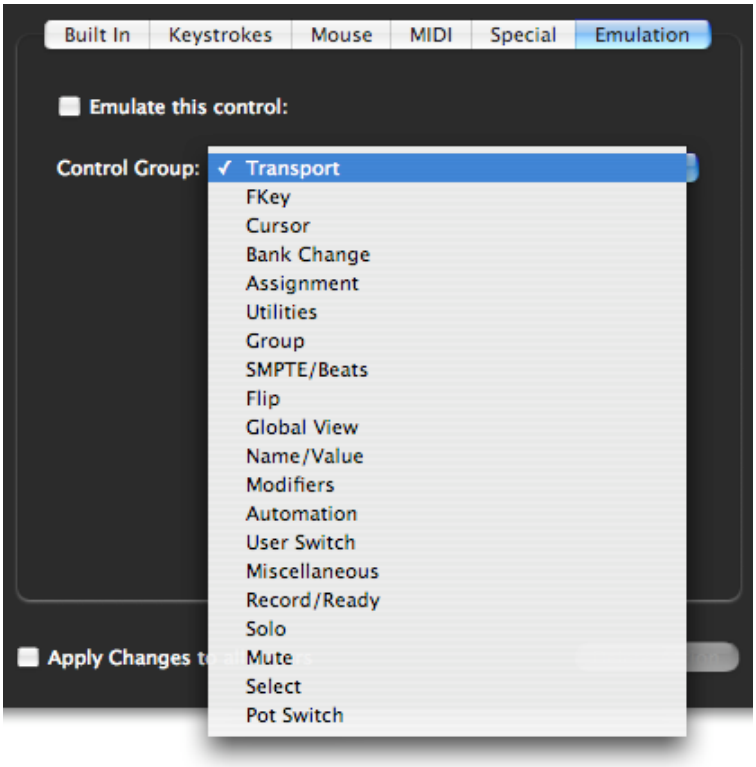
Emulation Tab

The Eclipse software has the ability to emulate other MIDI based control surfaces. This feature is useful if you are using the Eclipse with an application which doesn't directly support the Eclipse, but which supports one of these other controls surfaces.

You can set any control on the Eclipse to emulate a control on one of these control surfaces using the Emulation Tab. The Emulation Tab is not available until you turn on Emulation in the **Emulation** Menu. Here you can choose **None**, **Mode A**, or **Mode B**. **Mode A** and **B** represent two different control surfaces. Which one you choose depends on the application you are using with the Eclipse. More on this later.



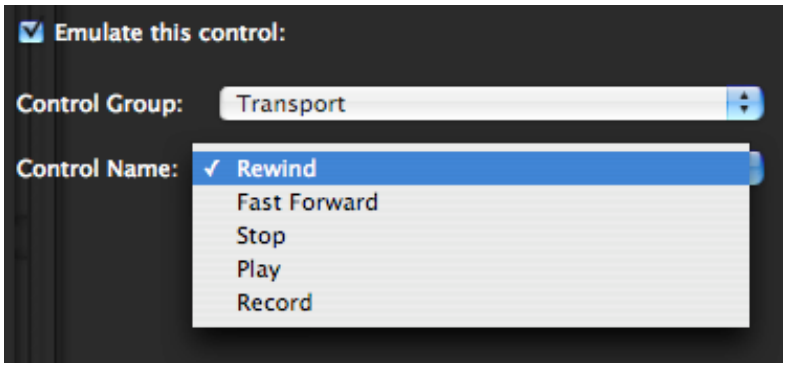
The contents of the **Emulation Tab** varies depending on the type of Eclipse control that is selected. This is what you will see at first if you select a button.



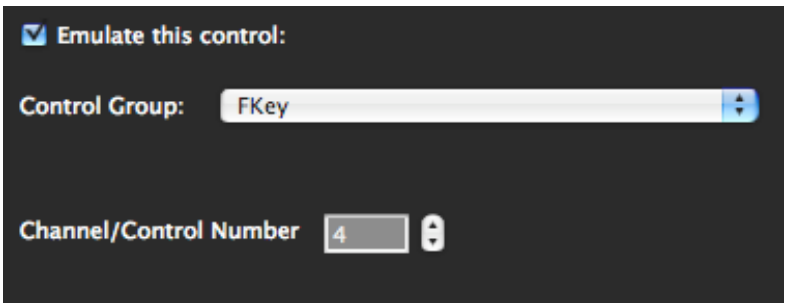
The **Control Group** popup lists the basic categories of controls that can be emulated by the selected Eclipse control. Checking **Emulate this control:** or choosing from the

Control Group popup will assign an Emulation action to the selected control. It will also display either a second popup or a numerical editor for choosing which control in the group to emulate.

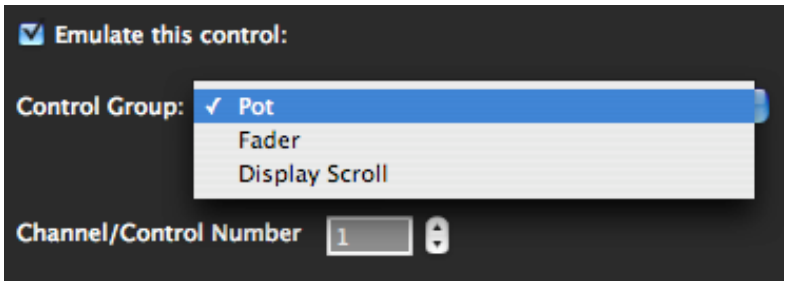
For some control categories, such as **Transport**, the individual controls in that category have names, such as **Rewind**, **Fast Forward**, **Stop**, **Play** and **Record**. For these categories a second popup will list the control names.



For other categories, such as **F-Keys**, the controls are just numbered. For these categories a numerical editor will appear. This allows you to either type or use up/down arrows to set the control number.



For rotary encoders and trackball rings, the available categories are **Pots**, **Faders** and **Display Scroll**.



Since the emulated control surfaces have wider displays than the Eclipse, text meant to be shown on one of these displays will not fit on the Eclipse display. If you assign

Display Scroll to a knob on the Eclipse, you can use that knob to scroll the display left and right so you can see all of the text.

The Jog Wheel only has one choice, **Emulate Jog Wheel**.

You cannot assign Emulation actions to the **Shuttle Ring** or **Trackballs** because none of the emulated control surfaces have these functions.

For convenience, choosing **Set all Controls to Emulation** in the **Actions** menu will assign **Emulation Actions** to many of the Eclipse controls on all layers in the current keyset. Some EclipseCX controls do not correspond to any controls on the emulated control surfaces, so those controls are left unassigned.

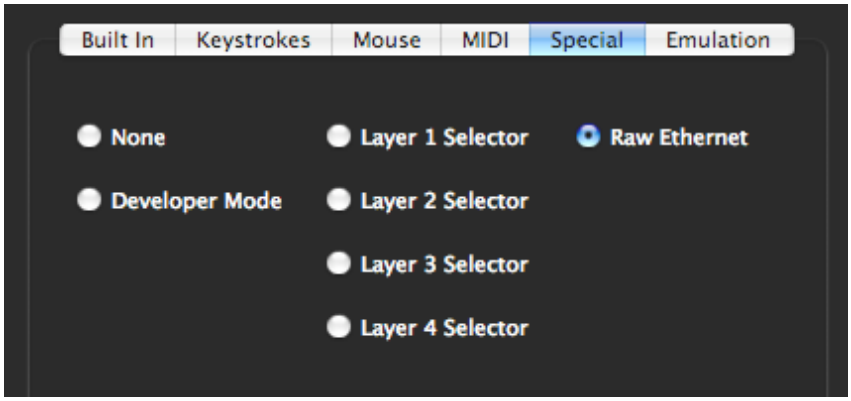
The following assignments are made when **Set all Controls to Emulation** is choosen.

Eclipse Control	Assignment
Up	Cursor Up
Down	Cursor Down
Left	Cursor Left
Right	Cursor Right
F1 - F8	F1 - F8
SHIFT	SHIFT
Right Page 1 - Right Page 4	Mute Channel 1 - Mute Channel 4
Right Page 5 - Right Page 8	Solo Channel 1 - Solo Channel 4
Right Encoders 1 - 4	Pots 1 - 4
Right Encoders 5	Display Scroll
M1	SMPTE/Beats
M2	Global View On/Off
M3	Global View: Inputs
M4	Global View: Audio Tracks

Eclipse Control	Assignment
M5	Global View: AUX
Bank 1	Bank Left
Bank 2	Bank Right
Bank 3	Channel Left
Bank 4	Channel Right
W1	Automation: Read/Off
W2	Automation: Write
W3	Automation: Trim
W4	Automation: Touch
W5	Automation: Latch
Keypad ENTER	ENTER
Jog Wheel	Jog
Rewind	Rewind
Fast Forward	Fast Forward
Stop	Stop
Play	Play
Record	Record

Special Tab

The **Special Tab** is a collection of actions that don't easily fit into other categories.

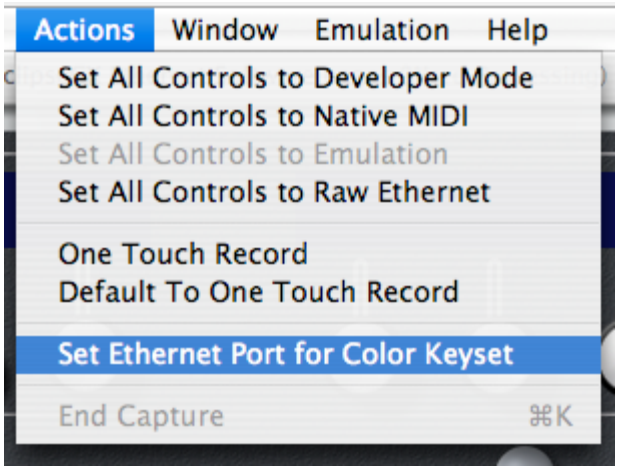


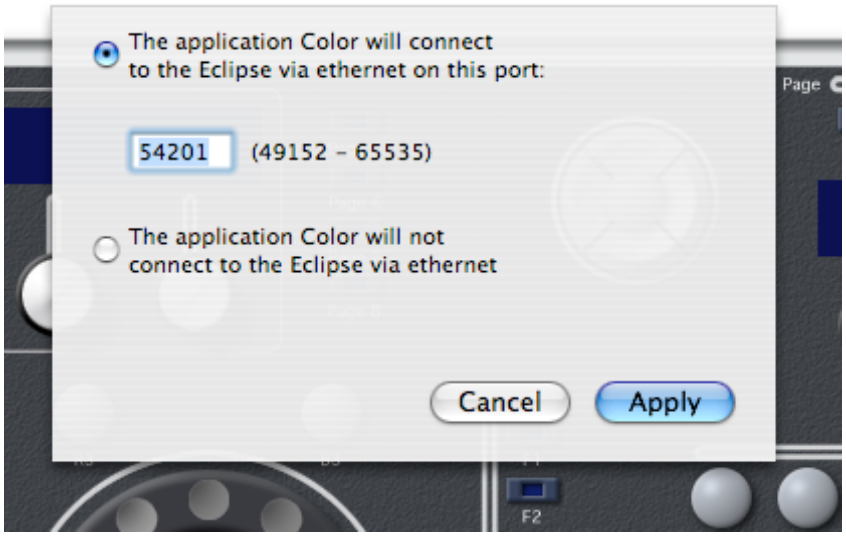
The choices are:

None	No Special Action for the selected control. If some other type of action has already been assigned, the None button will be selected. Clicking on the None button will delete the currently assigned action.
Layer Selectors	When assigned to an Eclipse button, that button can be used to switch between layers. When a Layer Selector Special Action is assigned to an Eclipse button, that assignment is automatically copied to that button on all layers.
Trackball Sensitivity	When assigned to an Eclipse rotary encoder, that encoder can be used to control the responsiveness of the Eclipse trackballs.
Developer Mode	This is intended for use with applications which directly support the Eclipse. This action uses messaging protocols built into Mac OS X to communicate with these applications. You normally wouldn't use this mode unless you knew that an application you were using supported it. 3rd party developers who support this mode would typically ship Eclipse keysets along with their applications. For convenience, choosing **Set all Controls to Developer Mode** in the **Actions** menu will assign **Developer Mode Special Actions** to all of the Eclipse controls on all layers in the current keyset.

Raw Ethernet	Some applications such as Apple Color™ can communicate directly with the Eclipse over Ethernet. You should create keysets for these applications and assign **Raw Ethernet Special Actions** to every control in theses keysets. For convenience, choosing **Set all Controls to Raw Ethernet** in the **Actions** menu will assign **Raw Ethernet Special Actions** to all of the Eclipse controls on all layers in the current keyset.

There is one additional step you must take if you are using **Raw Ethernet Mode**. Choose **Set Ethernet Port for <*keyset name*> Keyset** from the **Actions** menu. In the dialog box that opens, choose a port number, or click on **The application <application name> will not communicate with the Eclipse via ethernet** radio button.





The port number should be in the range 49152 - 65535. Some ports are reserved for specific purposes such as email, http, etc..., but the ports in this range are available for any application to use as it sees fit. However, some of these ports are used by Mac OS

X, and their usage can vary with different models of the Mac and versions of the OS. If you are having trouble getting an application to communicate with the Eclipse via ethernet, experiment with different port numbers.

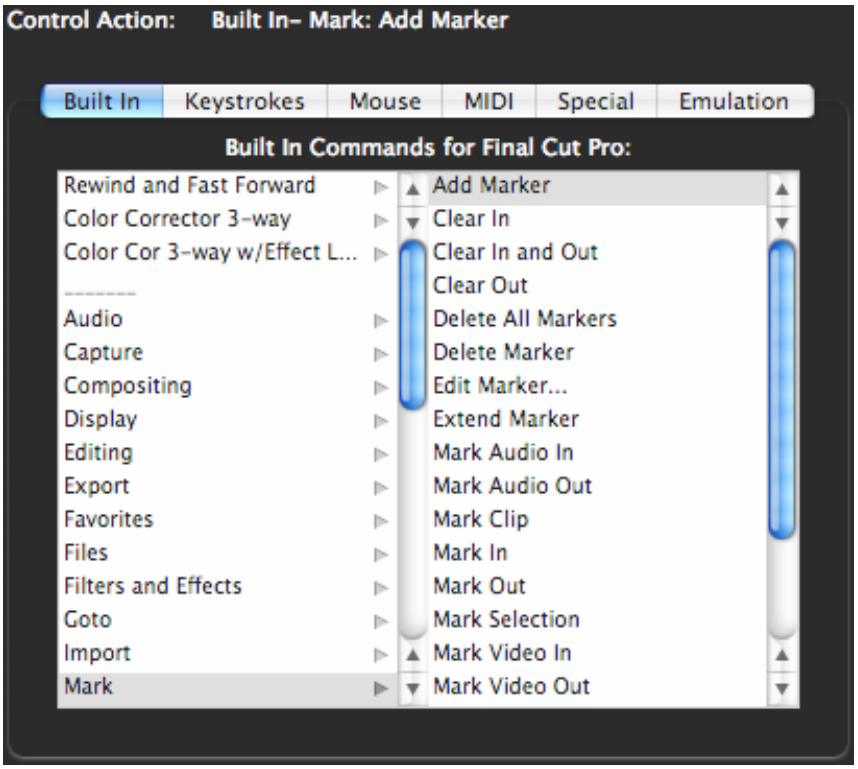
Any application such as Apple Color™ that communicates with the Eclipse over ethernet will have a preference setting for the IP address and the port. You should always set the port to match the port you set in that application's keyset and the IP address should either be **127.0.0.1**, **0.0.0.0** or the word "**localhost**" (no quotes). All three work equally well. Do **not** use the address that you set on the Eclipse hardware itself.

Also note that the Eclipse uses the same communication protocol as the JLCooper MCS-3000 and MCS-Spectrum control surfaces. If an application's control surface preferences only list the MCS-3000/Spectrum and not the Eclipse, then choose the MCS-3000/Spectrum as your control surface.

Built In Actions Tab

The built in actions are actions that are predefined for specific applications. When you choose a keyset, the built in actions appropriate to that keyset's application are displayed. If no built in actions have been defined for the current application, the display will be blank.

The built in actions are presented in two columns. The left hand column list basic categories and the right hand column lists the actual actions. Clicking on a category in the left hand column will change the list of actions displayed on the right. Double-click an action name to assign it to the selected Eclipse control.



Most of the categories and actions correspond to the keyboard shortcuts listed in the target application's manual. However, there are also actions defined by JLCooper that are not simple keyboard shortcuts. These actions will always appear at the beginning of the list, and there will be a separator line between them and other built in actions.

Displays

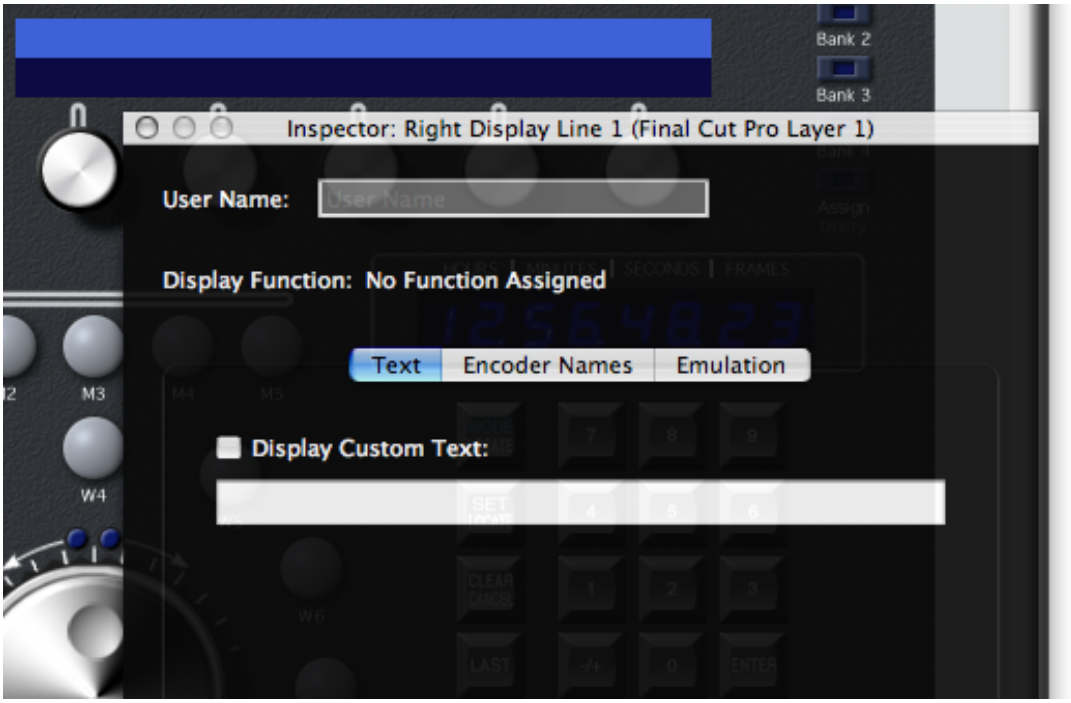
The Eclipse has three displays, referred to in the software as the Left, Center and Right displays, and a Timecode display. The Left, Center and Right displays are each have two lines. Each line is treated like a separate display. You can assign functions to these displays in much the same way as you assign actions to controls.

NOTE: If you are using an application that communicates with the Eclipse via MIDI, Developer Mode or Raw Ethernet, you should probably not assign any functions to the displays in the keyset for that application. The application will probably be writing its own information to the displays.

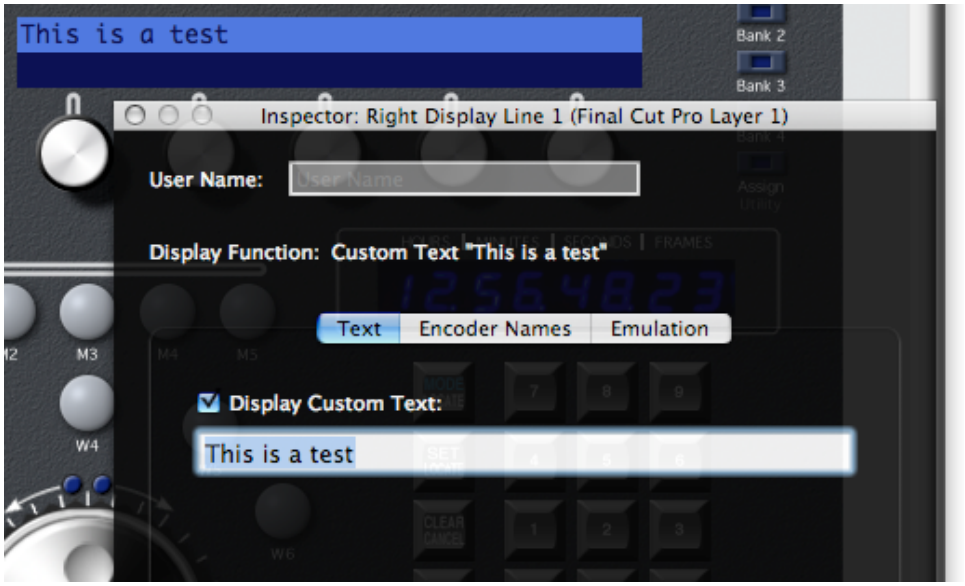
When you click on a display to select it, information about it appears in the **Inspector** window. This information includes a User Name, a description of the function assigned to the display and Tabs which contain controls for editing the display's function.

For the Left, Center and Right displays, the available Tabs are **Text**, **Encoder Names** and **Emulation**.

Display Text Tab



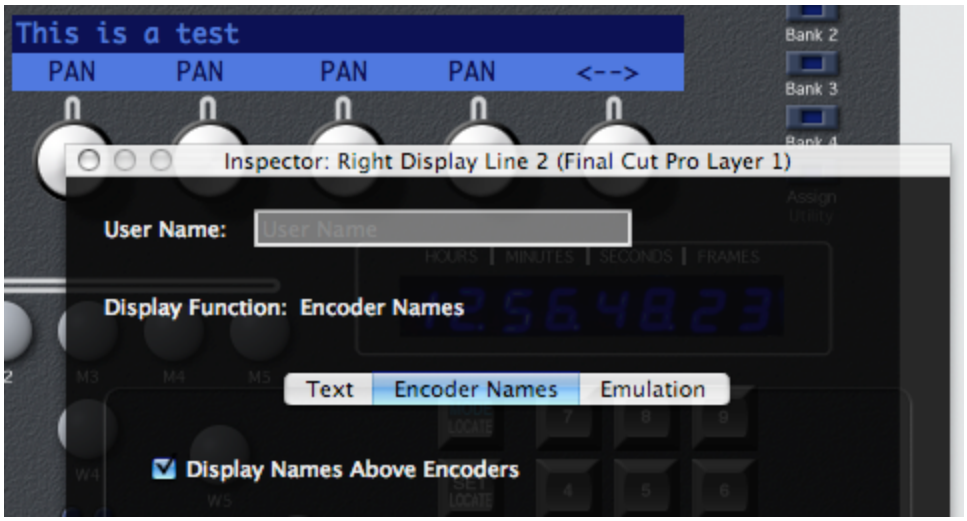
If you check the **Display Custom Text** box or type into the text box below it and hit the ENTER key, the text you type will be shown on the selected display line whenever the target application is in front.



Un-checking the **Display Custom Text** box will delete any function assigned to the currently selected display line.

Display Encoder Names Tab

If you check the **Display Names Above Encoders** box the User Names of the encoders below the selected display will be shown on the selected line whenever the target application is in front.

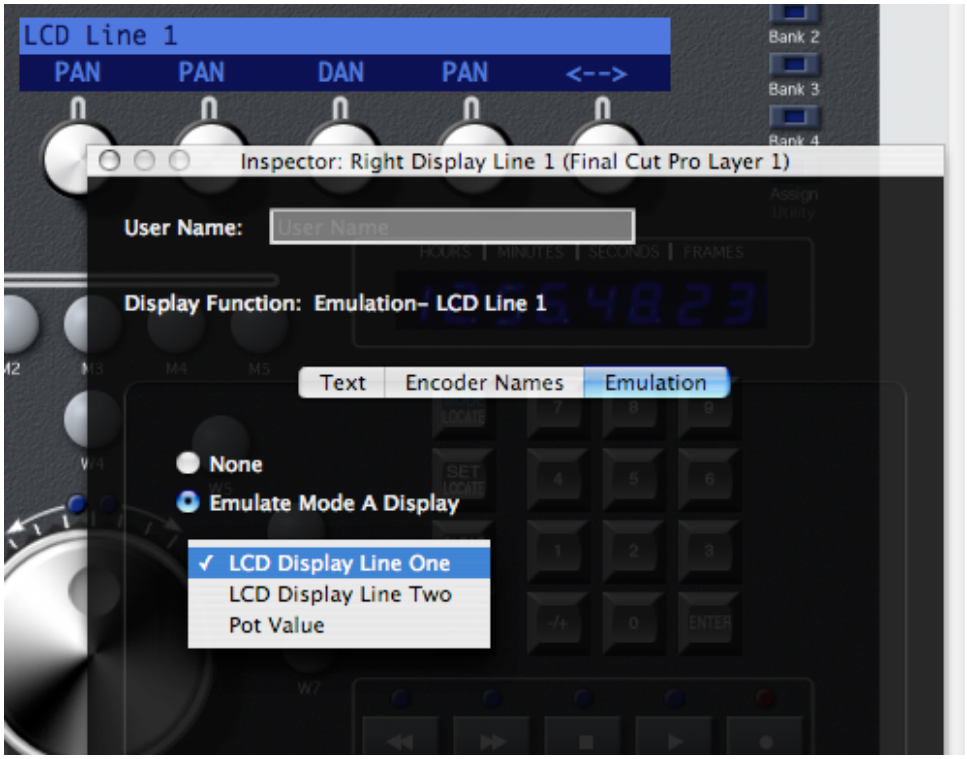


The display will update whenever the name of one of the encoders changes. If an encoder does not have a user name, then the display directly above it will be blank.

Un-checking the **Display Names Above Encoders** box will delete any function assigned to the currently selected display line.

Display Emulation Tab

If you have enabled Emulation in the current keyset, you can have any display on the Eclipse show the same information that the target application would display on the emulated control surface.

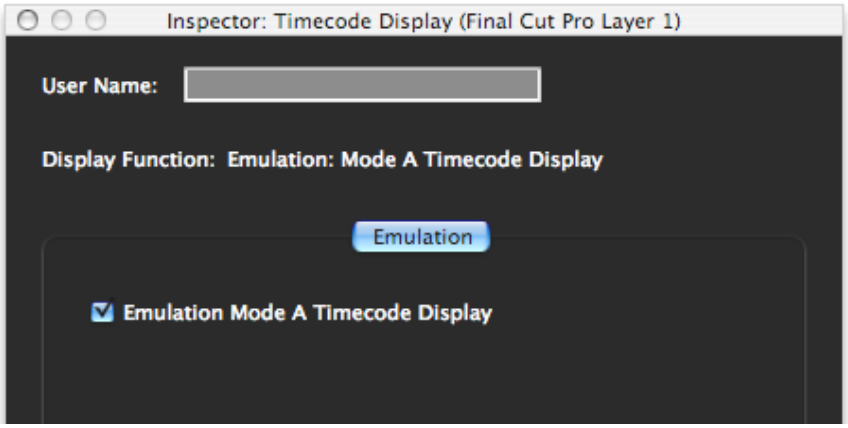


Click on the **Emulate Mode *X* Display** checkbox to enable display emulation. Click on **None** to delete the current display line's function. You can choose to emulate line one of the display, line 2 of the display or to display the values of the pots directly below the display (not currently implemented).

The Eclipse software's on-screen display will read "LCD Display Line 1" or "LCD Display Line 2", but when you are using the target application, the EclipseCX display will show text sent to it by that application.

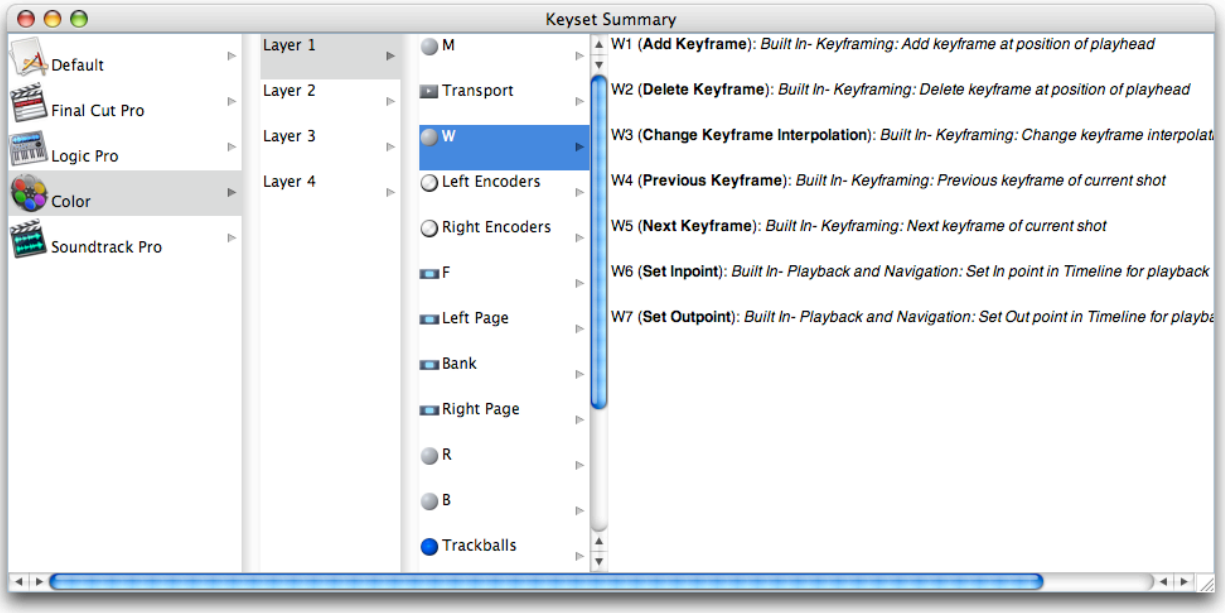
Timecode Display

For the Timecode Display, the only option is Emulation.



Keyset Summary Window

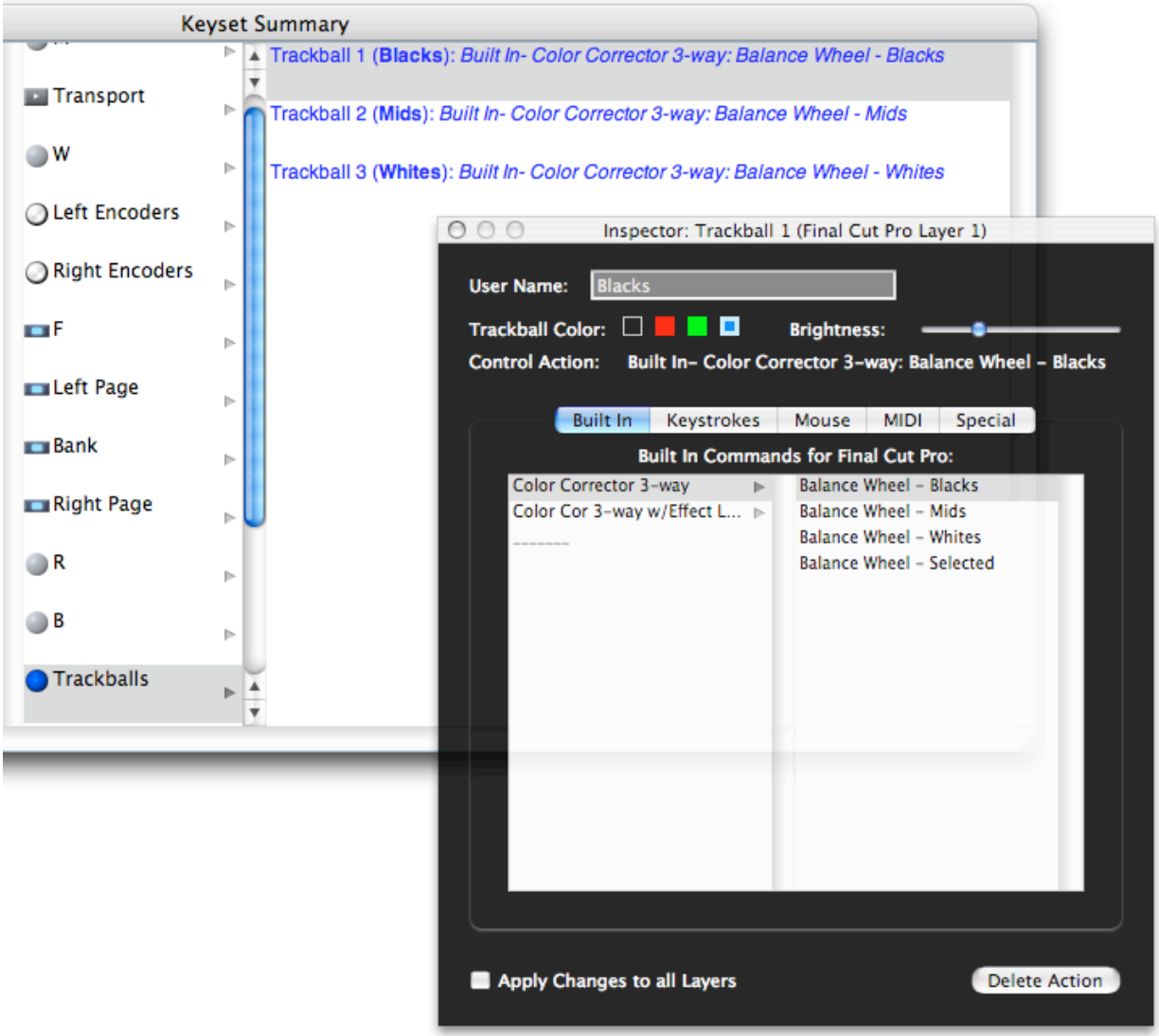
The **Keyset Summary Window** displays information about several controls at once, making it easier to tell at a glance how a particular keyset is set up. You choose the Keyset Summary from the Windows menu.



The window has four columns. The first column lists the currently active keysets. These are the same keysets that appear in the **Keysets Menu**. Clicking on a keyset in this column will change the selected keyset, just as if you had chosen a keyset from the **Keysets Menu**. Conversely, choosing a new keyset from the **Keysets Menu** will cause that keyset to be selected in the **Keyset Summary Window**.

The second column shows the selected keyset's layers. Clicking on a layer in this column has the same effect as clicking on one of the layer buttons at the bottom of the main **EclipseCX Window**. Clicking on a layer button in the main window will cause that layer to be selected in the **Summary Window**.

The third column lists controls grouped by function, such as **Transport**, **Trackballs**, **Encoders**, etc. Selecting one of these groups will cause the fourth column to display all of the controls in that group. Each control name is followed by its **User Name**, if any, and a desciption of its assigned function. Clicking on a control in this column will cause that control to be selected in the main window and its information to be displayed in the **Inspector Window** for editing. In the case of trackballs, the descriptions are shown in the trackballs' assigned colors.



Final Cut Pro™ Support

Final Cut Pro™ and Control Surfaces

With FCP version 5 some support for MIDI control surfaces was added. Unfortunately, only audio parameters and transport functions are controllable via MIDI. Fortunately, the Eclipse software not only emulates the supported control surfaces, it also can control many other parameters in FCP.

The EclipseCX has a large advantage over other control surfaces when used with Final Cut Pro because it is not limited to just the functions included in Final Cut's MIDI control surface support. With its built in functions and the ability to emulate the mouse and keyboard coupled with FCP's control surface support, virtually every function in Final Cut Pro can be controlled with the Eclipse.

Final Cut Pro™ Shuttle

The FCP Built In Shuttle command works equally well in the Timeline, Canvas, Viewer and Log and Capture windows.

Using the EclipseCX with Final Cut Pro

To use the EclipseCX with FCP, first run the EclipseCX application and import the Final Cut keyset provided by JLCooper. Now run Final Cut and open the **Control Surfaces** dialog from the **Tools** menu. Click on the "**+**" button to add a control surface and choose Mackie Control. Then choose **EclipseCX Ethernet - EclipseCX** for the input connection and output connections. Click OK to exit the dialog.

Final Cut requires the Audio Mixer (Tools Menu) to be open in order for control surface support to be active. You might want to save a window layout that has the Audio Mixer open.

Using the EclipseCX with the Final Cut Pro Color Corrector 3-way

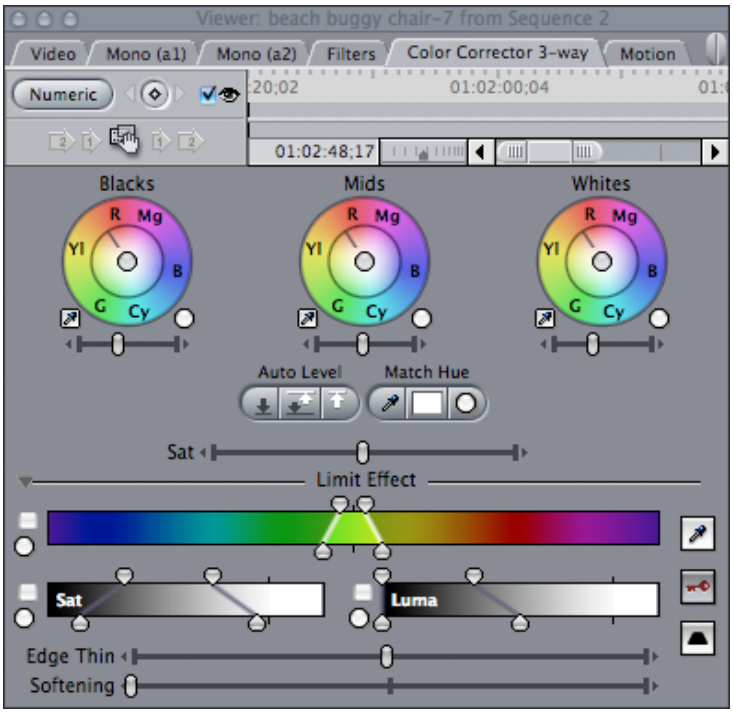
To use the Eclipse for color correction in Final Cut, Color Corrector 3-way must be applied to a clip, that clip must be open in the Viewer, and the Color-Corrector 3-way tab must be open in the Viewer. You can not drag the Color Corrector 3-way tab out of the Viewer window.

Assign the various color correction related built in actions to appropriate Eclipse controls (this has already been done in the JLCooper supplied FCP keyset).

There are two sets of color correction related actions in the FCP built in commands list, **Color Corrector 3-way** actions and **Color Corrector 3-way w/Effect Limits** actions. The first set is to be used when the **Limit Effect** controls at the bottom of the window are hidden. The second set of actions should be used when the **Limit Effect** controls are visible.

Using the **Color Corrector 3-way w/Effect Limits** actions when the **Limit Effect** controls are hidden and vice versa will not work in most cases.

The **Limit Effect** controls can be shown and hidden by clicking on the small triangle in the bottom left corner of the Viewer/Color Corrector 3-way window.



In the JLCooper-supplied Final Cut keyset, the **Color Corrector 3-way** actions are assigned to controls in layer 1 and the **Color Corrector 3-way w/Effect Limits** actions are assigned to controls in layer 2. The left hand Page 1 and Page 2 buttons can be used to switch between layers 1 and 2.

The EclipseCX Final Cut Pro Keyset

The Eclipse Final Cut Pro keyset uses a combination of emulated controls, mouse emulation, keystrokes and built-in commands. It is fully customizable using the techniques presented in this manual, so you can easily adapt it to your working style.

Here are the control assignments in the current version of the FCP keyset:

EclipseCX **Layer 1**	**FCP**	**EclipseCX** **Layer 2**	**FCP**
Left Page 1	Layer 1 Selector	Left Page 1	Layer 1 Selector
Left Page 2	Layer 2 Selector	Left Page 2	Layer 2 Selector
Left Page 3	Layer 3 Selector	Left Page 3	Layer 3 Selector

EclipseCX Layer 1	FCP	EclipseCX Layer 2	FCP
Left Page 4	Layer 4 Selector	Left Page 4	Layer 4 Selector
Left Encoder 1	Color Corrector 3-way Saturation	Left Encoder 1	Color Corrector 3-way w/effect limits Saturation
		Left Encoder 2	Color Corrector 3-way w/effect limits Color Gradient
		Left Encoder 3	Color Corrector 3-way w/effect limits Saturation Gradient
		Left Encoder 4	Color Corrector 3-way w/effect limits Luma Gradient
		Left Encoder 5	Color Corrector 3-way w/effect limits Edge Thinning
Left Encoder 6	Trackball Sensitivity	Left Encoder 6	Color Corrector 3-way w/effect limits Softening
R1	Color Corrector 3-way Reset Black Level	R1	Color Corrector 3-way w/effect limits Reset Black Level
B1	Color Corrector 3-way Reset Black Balance	B1	Color Corrector 3-way w/effect limits Reset Black Balance
R2	Color Corrector 3-way Reset Mid Level	R2	Color Corrector 3-way w/effect limits Reset Mid Level
B2	Color Corrector 3-way Reset Mid Balance	B2	Color Corrector 3-way w/effect limits Reset Mid Balance
R3	Color Corrector 3-way Reset White Level	R3	Color Corrector 3-way w/effect limits Reset White Level

EclipseCX Layer 1	FCP	EclipseCX Layer 2	FCP
B3	Color Corrector 3-way Reset White Balance	B3	Color Corrector 3-way w/effect limits Reset White Balance
Trackball 1	Color Corrector 3-way Balance Wheel Blacks	Trackball 1	Color Corrector 3-way w/effect limits Balance Wheel Blacks
Trackball 2	Color Corrector 3-way Balance Wheel Mids	Trackball 2	Color Corrector 3-way w/effect limits Balance Wheel Mids
Trackball 3	Color Corrector 3-way Balance Wheel Whites	Trackball 3	Color Corrector 3-way w/effect limits Balance Wheel Whites
Trackball Ring 1	Color Corrector 3-way Black Levels	Trackball Ring 1	Color Corrector 3-way w/effect limits Black Levels
Trackball Ring 2	Color Corrector 3-way Mid Levels	Trackball Ring 2	Color Corrector 3-way w/effect limits Mid Levels
Trackball Ring 3	Color Corrector 3-way White Levels	Trackball Ring 3	Color Corrector 3-way w/effect limits White Levels
Up	Goto Beginning	Up	Goto Beginning
Down	Goto End	Down	Goto End
Left	Left Arrow Key	Left	Zoom Out
Right	Right Arrow Key	Right	Zoom In
F1 - F8	F1 - F8	F1 - F8	F1 - F8
Right Page 1 - Right Page 4	Mute 1 - Mute 4		
Right Page 5	Show Browser	Right Page 5	Show Browser
Right Page 6	Show Viewer	Right Page 6	Show Viewer
Right Page 7	Show Timeline	Right Page 7	Show Timeline

EclipseCX Layer 1	FCP	EclipseCX Layer 2	FCP
Right Page 8	Show Canvas	Right Page 8	Show Canvas
Right Encoder 1 - Right Encoder 4	Pan Channel 1 - Pan Channel 4		
Right Encoder 5	Display Scroll		
Bank 1	Bank Left	Bank 1	Bank Left
Bank 2	Bank Right	Bank 2	Bank Right
W1	Mark IN	W1	Mark IN
W2	Mark OUT	W2	Mark OUT
W3	Goto INPOINT	W3	Goto INPOINT
W4	Goto OUTPOINT	W4	Goto OUTPOINT
W5	Add Marker	W5	Add Marker
W6	Goto Previous Marker	W6	Goto Previous Marker
W7	Goto Next Marker	W7	Goto Next Marker
Keypad 0 - 9	Timecode Entry 0 - 9	Keypad 0 - 9	Timecode Entry 0 - 9
Keypad ENTER	ENTER	Keypad ENTER	ENTER
Shuttle Ring	Shuttle	Shuttle Ring	Shuttle
Jog Wheel	JOG	Jog Wheel	JOG
Rewind	Rewind	Rewind	Rewind
Fast Forward	Fast Forward	Fast Forward	Fast Forward
Stop	Stop	Stop	Stop
Play	Play	Play	Play
Record	Record	Record	Record
Left Display Line 2	Encoder Names	Left Display Line 2	Encoder Names
Center Display Line 2	Encoder Names	Center Display Line 2	Encoder Names

EclipseCX Layer 1	FCP	EclipseCX Layer 2	FCP
Right Display Line 1	Emulated LCD Display Line 1	Right Display Line 1	Emulated LCD Display Line 1
Right Display Line 2	Encoder Names		

EclipseCX Layer 3	FCP	EclipseCX Layer 4	FCP
Left Page 1	Layer 1 Selector	Left Page 1	Layer 1 Selector
Left Page 2	Layer 2 Selector	Left Page 2	Layer 2 Selector
Left Page 3	Layer 3 Selector	Left Page 3	Layer 3 Selector
Left Page 4	Layer 4 Selector	Left Page 4	Layer 4 Selector
Up	Goto Beginning	Up	Goto Beginning
Down	Goto End	Down	Goto End
F1 - F8	F1 - F8	F1 - F8	F1 - F8
Right Page 1 - Right Page 4	Mute 1 - Mute 4		
Right Page 5	Show Browser	Right Page 5	Show Browser
Right Page 6	Show Viewer	Right Page 6	Show Viewer
Right Page 7	Show Timeline	Right Page 7	Show Timeline
Right Page 8	Show Canvas	Right Page 8	Show Canvas
Right Encoder 1 - Right Encoder 4	Pan Channel 1 - Pan Channel 4		
Right Encoder 5	Display Scroll		
Bank 1	Bank Left	Bank 1	Bank Left
Bank 2	Bank Right	Bank 2	Bank Right
W1	Mark IN	W1	Mark IN
W2	Mark OUT	W2	Mark OUT
W3	Goto INPOINT	W3	Goto INPOINT

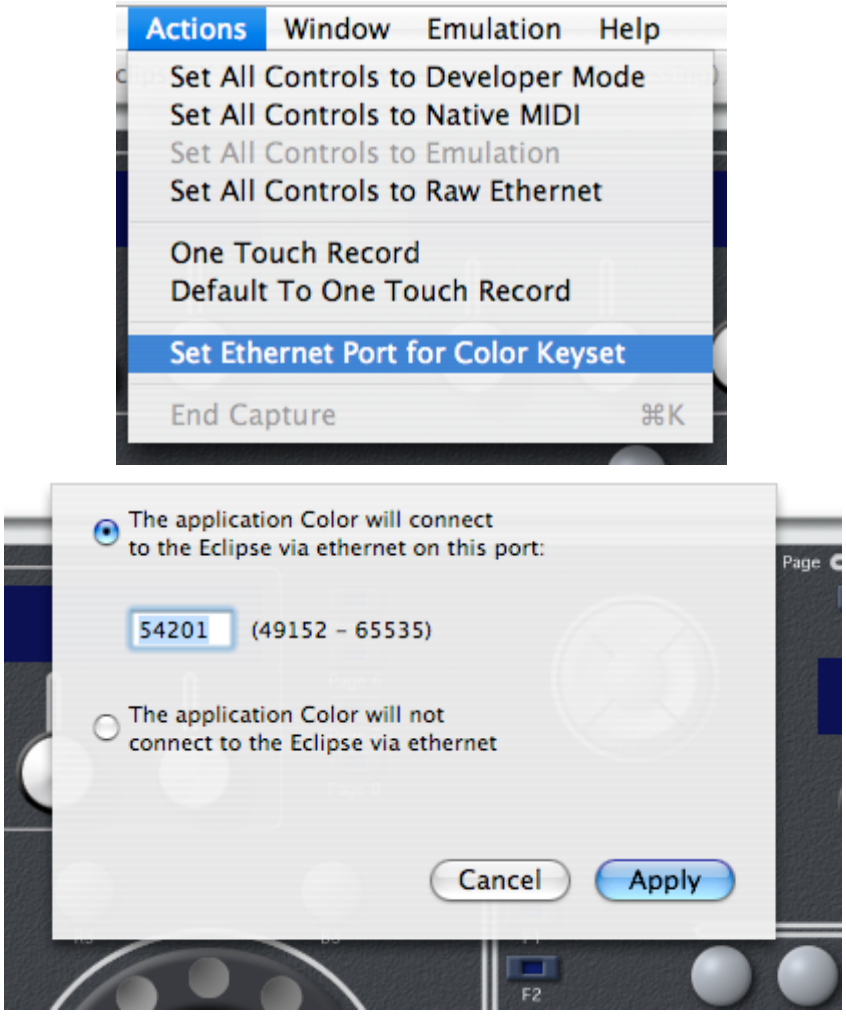
EclipseCX Layer 3	FCP	EclipseCX Layer 4	FCP
W4	Goto OUTPOINT	W4	Goto OUTPOINT
W5	Add Marker	W5	Add Marker
W6	Goto Previous Marker	W6	Goto Previous Marker
W7	Goto Next Marker	W7	Goto Next Marker
Keypad 0 - 9	Timecode Entry 0 - 9	Keypad 0 - 9	Timecode Entry 0 - 9
Keypad ENTER	ENTER	Keypad ENTER	ENTER
Shuttle Ring	Shuttle	Shuttle Ring	Shuttle
Jog Wheel	JOG	Jog Wheel	JOG
Rewind	Rewind	Rewind	Rewind
Fast Forward	Fast Forward	Fast Forward	Fast Forward
Stop	Stop	Stop	Stop
Play	Play	Play	Play
Record	Record	Record	Record

Color™ Support

Setup

Apple Color implements direct support of the EclipseCX. There are a couple of steps that must be taken before the first time you use Color with the Eclipse.

Run the EclipseCX application and **Import** the JLCooper supplied Color keyset. Choose **Set Ethernet Port for Color Keyset** from the **Actions** menu. In the dialog box that opens, choose a port number from 49152 to 65535.

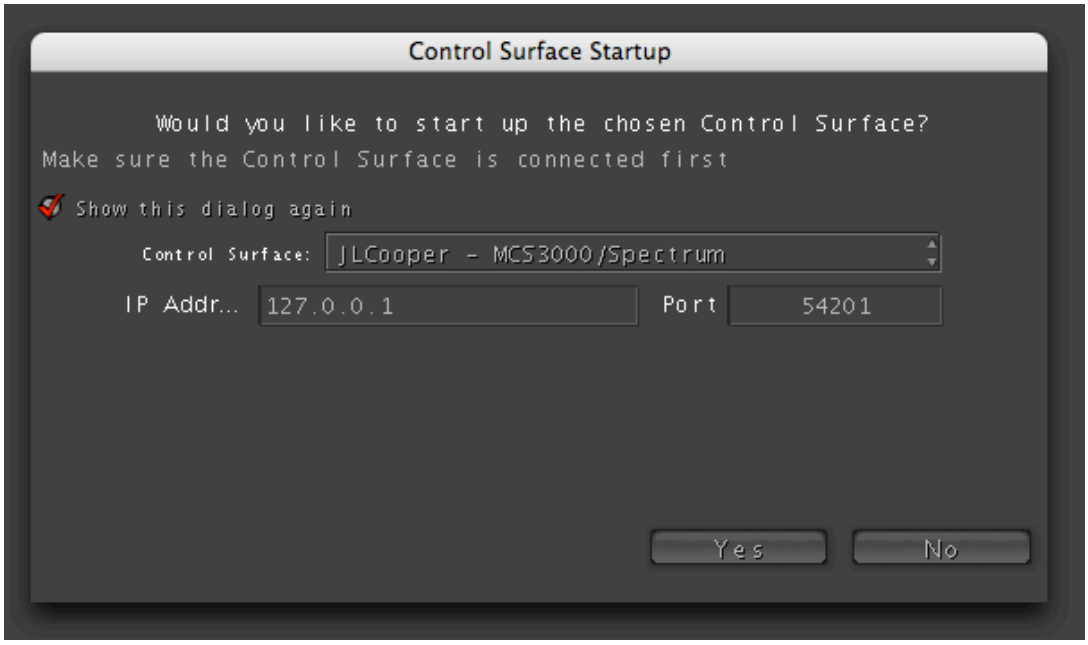


Some ports are reserved for specific purposes such as email, http, etc..., but the ports in the range 49152 - 65535 are available for general purpose use. However, some of these ports are used by Mac OS X, and their usage can vary with different models of the Mac and versions of the OS. If you are having trouble getting an application to communicate with the Eclipse via ethernet, experiment with different port numbers.

The first time you run Color after setting up the Color keyset you need to open the **Control Surface Setup** dialog. This dialog may open automatically when you launch Color. If not, go to Color's **Setup Room** and click on the **Show Control Surface Dialog** checkbox.

From the **Control Surface** popup menu choose JLCooper - MCS3000/Spectrum. The Eclipse CX and the MCS3000/Spectrum use identical communication protocols, so this setting works for both.

Set the IP address to either **127.0.0.1**, **0.0.0.0** or the word "**localhost**" (no quotes). All three work equally well. Do **not** use the address that you set on the Eclipse hardware itself. Set the port to match the port you set in the Color keyset.



The EclipseCX Color Keyset

The Eclipse Color keyset has most of its controls assigned to Raw Ethernet. All assignments listed in the Color manual in the section on the MCS3000/Spectrum function as advertised.

In addition, there are several assignments that allow more control than Color's built in support allows. The assignments are the same in all layers.

Eclipse Layer 1	Color	Eclipse Layer 2	Color
Up	Zoom Out	Up	Zoom Out
Down	Zoom In	Down	Zoom In
Left	Back One Frame	Left	Back One Frame
Right	Forward One Frame	Right	Forward One Frame
Center	Toggle Grade On/Off	Center	Toggle Grade On/Off
M3	Enable/Disable Secondaries	M3	Enable/Disable Secondaries
M4	Enable/Disable Vignette (Secondaries)	M4	Enable/Disable Vignette (Secondaries)
M5	Enable/Disable Clipping (Primary Out)	M5	Enable/Disable Clipping (Primary Out)
W4	Previous Keyframe	W4	Previous Keyframe
W5	Next Keyframe	W5	Next Keyframe
W6	Set Inpoint	W6	Set Inpoint
W7	Set Outpoint	W7	Set Outpoint
Record	Start Render	Record	Start Render
+/-	Types a Decimal Point	+/-	Types a Decimal Point
Left Page 1	Layer 1 Selector	Left Page 1	Layer 1 Selector
Left Page 2	Layer 2 Selector	Left Page 2	Layer 2 Selector

Eclipse Layer 1	Color	Eclipse Layer 2	Color
Left Page 3	Layer 3 Selector	Left Page 3	Layer 3 Selector
Left Page 4	Layer 4 Selector	Left Page 4	Layer 4 Selector
Right Encoder 4	Trackball Sensitivity	Right Encoder 4	Trackball Sensitivity

Eclipse Layer 3	Color	Eclipse Layer 4	Color
Up	Zoom Out	Up	Zoom Out
Down	Zoom In	Down	Zoom In
Left	Back One Frame	Left	Back One Frame
Right	Forward One Frame	Right	Forward One Frame
Center	Toggle Grade On/Off	Center	Toggle Grade On/Off
M3	Enable/Disable Secondaries	M3	Enable/Disable Secondaries
M4	Enable/Disable Vignette (Secondaries)	M4	Enable/Disable Vignette (Secondaries)
M5	Enable/Disable Clipping (Primary Out)	M5	Enable/Disable Clipping (Primary Out)
W1	Save (Primary In, Secondaries, Primary Out, Still Store)	W1	Save (Primary In, Secondaries, Primary Out, Still Store)
W2	Load (Primary In, Secondaries, Primary Out, Still Store)	W2	Load (Primary In, Secondaries, Primary Out, Still Store)
W3	Reset (Primary In, Secondaries, Primary Out)	W3	Reset (Primary In, Secondaries, Primary Out)
W4	Reset All Secondaries	W4	Reset All Secondaries
Record	Start Render	Record	Start Render

Eclipse Layer 3	Color	Eclipse Layer 4	Color
+/-	Types a Decimal Point	+/-	Types a Decimal Point
Left Page 1	Layer 1 Selector	Left Page 1	Layer 1 Selector
Left Page 2	Layer 2 Selector	Left Page 2	Layer 2 Selector
Left Page 3	Layer 3 Selector	Left Page 3	Layer 3 Selector
Left Page 4	Layer 4 Selector	Left Page 4	Layer 4 Selector
Left Encoder 1	Master Lift (Primary In, Secondaries, Primary Out)	Left Encoder 1	Master Lift (Primary In, Secondaries, Primary Out)
Left Encoder 2	Master Gain (Primary In, Secondaries, Primary Out)	Left Encoder 2	Master Gain (Primary In, Secondaries, Primary Out)
Left Encoder 3	Master Gamma (Primary In, Secondaries, Primary Out)	Left Encoder 3	Master Gamma (Primary In, Secondaries, Primary Out)
Left Encoder 4	Ceiling Red (Primary Out)	Left Encoder 4	Ceiling Red (Primary Out)
Left Encoder 5	Ceiling Green (Primary Out)	Left Encoder 5	Ceiling Green (Primary Out)
Left Encoder 6	Ceiling Blue (Primary Out)	Left Encoder 6	Ceiling Blue (Primary Out)
Right Encoder 4	Trackball Sensitivity	Right Encoder 4	Trackball Sensitivity
Right Page 1 - 8	Tabs 1 - 8 (Secondaries)	Right Page 1 - 8	Tabs 1 - 8 (Secondaries)

Soundtrack Pro™ Support

Setting up the EclipseCX for use with Soundtrack Pro is almost identical to setting up for Final Cut Pro.

Open the EclipseCX application and Import the Soundtrack Pro keyset or create a keyset of your own. If you create your own, start by setting the **Emulation Mode** to **A** then choosing **Set All Controls to Emulation** from the **Actions** menu. Later on you can customize this keyset with built-in commands, key sequences and mouse actions.

The next time you run Soundtrack Pro, open the **Preferences** dialog from the **Soundtrack Pro** menu then go to the **Control Surfaces** panel. Click on the "**+**" button to add a control surface and choose Mackie Control. Choose **EclipseCX Ethernet - EclipseCX** for the input connection and output connections. Click OK to exit the dialog.

The Soundtrack Pro Keyset

Although the EclipseCX is primarily a control surface for color grading applications, it can do many useful things in Soundtrack Pro when used with the Soundtrack Pro keyset.

The Soundtrack Pro keyset is a combination of emulated actions, keystrokes and built in commands.

EclipseCX	Soundtrack Pro
Left Encoders 1-4	Faders 1-4
Left Encoder 6	Master Fader
Right Encoders 1-4	Pan 1-4
Right Page 1-4	Mute 1-4
Right Page 5-8	Solo 1-4
Up	Zoom Out
Down	Zoom In
Left	Move Playhead to Previous Second
Right	Move Playhead to Next Second
Bank 1	Bank Left

EclipseCX	Soundtrack Pro
Bank 2	Bank Right
M1	Toggle SMPTE/Beats
W1	Insert Time Marker
W2	Add region marker for selection
W3	Add time markers at beginning and end of selection
W4	Insert Beat Marker
W5	Goto Previous Marker
W6	Goto Next Marker
Keypad 0-9	Types 0-9 for setting locate points
Keypad Last	Types “.”
Keypad +/-	Types “-”
Keypad Clear/Cancel	Cancel
Keypad Enter	Enter
Rewind	Move Back
Fast Forward	Move Forward
Stop	Stop
Play	Play
Record	Record
Jog Wheel	Jog