

# **Media Control Station<sup>3</sup>**

**USB/RS232 For Windows98/2000/XP**



## ***User's Manual***

***Second Edition***

©2000-2002 JLCooper Electronics

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***JL* COOPER ELECTRONICS**

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*MCS<sup>3</sup> For Windows Version Users Manual Second Edition*

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# Introduction

Thank you for purchasing the JLC Cooper Media Control Station<sup>3</sup>. This MCS<sup>3</sup> is a serial device (USB or RS-232), for use with Windows 95, 98, 2000 and XP.

The MCS<sup>3</sup> allows you to create a personalized control station for virtually any application. You will find that the MCS<sup>3</sup>'s smooth, optically encoded jog wheel and transport keys make creative multimedia production and editing easier than ever.

The MCS<sup>3</sup> wheel can play back movies, jog through sound files, scroll through event lists, and more. And the MCS<sup>3</sup> keys can send function-key equivalents and mouse clicks.

This allows you to use your MCS<sup>3</sup> to bring the most frequently used menu items and commands speedily within reach, providing more comfortable and creative control of your favorite applications.

The MCS<sup>3</sup> allows you to create an unlimited number of "Keysets". You can have a different "Keyset" for each application.

The MCS<sup>3</sup> detects which application is active, and the behavior of the MCS<sup>3</sup> changes accordingly as you change applications.

**The included MCS<sup>3</sup> application software and driver are required for the MCS<sup>3</sup> hardware to operate.**

Please take a moment to send in your product registration card, so we can notify you in the future about any new products or updates as they become available.

# Connecting the MCS<sup>3</sup>

Locate an available serial port on your PC (an RS-232 port will be a D shell shaped 9 or 25 pin connector).

A USB port will be rectangular with a symbol such as:



Connect the MCS<sup>3</sup> to the PC. If the MCS<sup>3</sup> is an RS-232 unit, connect the power supply (supplied) to the power connector at the end of the MCS<sup>3</sup>'s cable.

## Installing the Software

Before you run the installation program, (as with any other Windows installation program), it is strongly recommended that you first quit all other programs.

If you have previously installed a version of the MCS<sup>3</sup> software on your computer, be sure that you unload the Driver prior to installing the software. To do this, right-click the wheel icon in the System Tray (lower right corner) and select 'Exit' from the popup menu to unload the driver.

### Launch the Installer

Then start the "**setup.exe**" program on the MCS<sup>3</sup> disk. Follow the instructions in the install routine. After the install routine has installed the software, it prompts you to restart your computer. It is strongly recommended to restart your computer at this time to finalize the installation and automatically load the MCS<sup>3</sup> driver.

Remember that the MCS<sup>3</sup> Driver is required for the MCS<sup>3</sup> to operate. The MCS<sup>3</sup> will not appear to send any commands into the PC unless the Driver has been properly loaded.

The reason for this is that the MCS<sup>3</sup>, unlike a mouse or keyboard, sends special "invisible" codes into the PC. And it is the Driver that is responsible for "re-mapping" these commands into useful keyboard and mouse commands, such as key presses and pointer movement.

# Getting Started

## Serial Port Settings

Launch the MCS<sup>3</sup> application, either from the Windows Start Menu or by right-clicking on the MCS<sup>3</sup> icon in the Windows system tray and choosing “Control Panel”. From the Edit menu, select "Preferences".

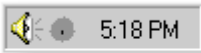
If the MCS<sup>3</sup> is a USB version, the PC will automatically identify it on the USB bus. The driver will then recognize it. If the MCS<sup>3</sup> is an RS-232 version, the MCS<sup>3</sup> Driver will automatically scan the available COM ports, starting with COM1. It tries to locate an MCS<sup>3</sup> on the first port that is currently not in use. If the automatic scan process was not successful, you will need to set the COM port manually, in the Preferences menu.

After you change the COM port you need to reload the driver. This is done by right-clicking on the MCS<sup>3</sup> icon in the lower left of the computer monitor and select “Reload”.

If the port cannot identify the MCS<sup>3</sup>, please refer to the Troubleshooting section of this manual.

## Driver Popup Menu

In the lower left corner of the screen, the MCS<sup>3</sup> “wheel icon” appears in the system tray.



This indicates that the MCS<sup>3</sup> “Driver” is loaded.

Right click on the icon to open the popup menu for the Driver. The first menu item opens the Application.

## Enable MCS<sup>3</sup> (Disable MCS<sup>3</sup>).

There may be times when the MCS<sup>3</sup> is connected to the PC, but you do not want to use it. For example, you may not want to accidentally engage or terminate playback because you accidentally bumped the controller. You can temporarily disable the MCS<sup>3</sup> by selecting “Disable” from this menu. Re-enable the MCS<sup>3</sup> by selecting “Enable” from this menu. 6

## **Reload Driver**

There may be times when you need to reload the driver. To reload the driver simply means to quit the driver and load it again. For example, if you change COM Port settings in the Preferences, you will need to re-load the driver. To Reload the Driver, select Reload from this menu.

## **Exit**

Selecting Exit Unloads the Driver. If you select Exit, the Driver will unload and the icon will go away. To reload the driver and begin using the MCS<sup>3</sup> again, you will need to Restart the computer.

## **Launching the MCS<sup>3</sup> Software Application**

The application is launched either from the Windows Start Menu or by right-clicking on the MCS<sup>3</sup> icon in the Windows system tray and choosing “Open MCS<sup>3</sup> Editor”.

## **MCS<sup>3</sup> Shuttle LEDs**

Normally, on power up, the shuttle ring LEDs will not light until the shuttle ring is centered.

After that, the shuttle ring LEDs will light depending upon the direction of rotation from center. Both LEDs are on when the ring is centered.

## **V/Stick**

The V/Stick is located to the upper right of the jog/shuttle control. It is a soft, four position switch.

The switch is activated by applying pressure either left, right, toward you, or away from you. (It is not necessary to press down or rotate the control.)

Like the other MCS<sup>3</sup> keys, it can be assigned to send a key press or a mouse click.

Typical assignments include arrow keys, home and end keys, page up and page down, etc.

# What Does the MCS<sup>3</sup> Do?

When you press a key or turn the wheel, the MCS<sup>3</sup> behaves like a PC keyboard or mouse.

The MCS<sup>3</sup> gives you the ease and convenience of using a conventional tape recorder style transport control, which will improve the speed you are able to work .

The MCS<sup>3</sup> also provides a way of remotely controlling your computer when seated at a location other than directly in front of the monitor.

## Key Press Emulation

The MCS<sup>3</sup> can send a variety of commands, including simple keystrokes, like the letters “a”, “j”, symbols such as “@”, and function keys such as “F1”.

The MCS<sup>3</sup> can also send keys with modifiers. Pressing a *single* MCS<sup>3</sup> key can send the equivalent of a cluster of keys, for example, Control-Alt-A.

The simplest example is this: Many applications will play back previously recorded music and or movies when you press the keyboard’s spacebar. So, you might want the MCS<sup>3</sup> Play key to imitate a spacebar. When you press the MCS<sup>3</sup> Play key, the PC “thinks” that you have pressed the spacebar, and the software begins to play back music and or movies.

## Mouse Emulation

The MCS<sup>3</sup> keys also send mouse clicks. Pressing the MCS<sup>3</sup> key can produce a mouse click at specific, user-selected location within a window.

Most software applications have some on-screen buttons or icons for which there is no key-equivalent at all. Again, the MCS<sup>3</sup> gives you single-key access to those buttons and icons.



## **The Jog Wheel and Shuttle Ring**

These can send repeated key characters, (such as arrow keys for playing movies).

The jog wheel and shuttle ring are also capable of performing horizontal and vertical mouse click and drag.

The rate of pointer movement or repeated key presses is set by a Speed Slider, which allows the user to personally customize the wheel response.

Certain applications allow even more control from the MCS<sup>3</sup> wheel, including features such as video or audio jog or shuttle.

## **What is a Keyset?**

The MCS<sup>3</sup> has five keys called "Transport" keys.

They're called Transport keys because they are labeled with the standard "tape recorder" transport icons for rewind, fast forward, stop, play, and record.

There are 6 keys along the top, F1 through F6.

There are 7 keys around the jog/shuttle wheel, W1 through W7.

There are four switches built into the "V/Stick".

All of these are user-definable. Each key can send a different command. That is a total of 22 commands.

In addition to Jog and Shuttle, one key may be assigned to be a wheel modifier. The wheel can send different kinds of commands depending on the state of the wheel modifier.

**The 22 key commands, plus the wheel commands, and the shuttle commands, are collectively called a "Keyset".**

# Keyset Selection

One Keyset may be created for each application.

The MCS<sup>3</sup> automatically senses which application is running, and selects the appropriate Keyset.

For example, say you've already configured the MCS<sup>3</sup> to control a certain application.

Now suppose you click on a window in the background, and make a different application active.

This immediately "re-configures" the MCS<sup>3</sup> with a completely different Keyset, with 22 different commands and different jog/shuttle assignments.

When you return to the previous application, its associated Keyset is instantly and automatically restored.

For example, suppose that one application plays a movie when you press the spacebar, and a different application plays a song when you press the return key.

You can set up the MCS<sup>3</sup> so that the MCS<sup>3</sup> Play key will always cause the movie or the song to play.

The MCS<sup>3</sup> will keep track of which application is active, and "know" whether pressing the MCS<sup>3</sup> Play key should send a spacebar or a return key.

## Try it Now

Launch the MCS<sup>3</sup> application.

Select "About Media Control Station".

Rotating the wheel causes the "movie" to go forward and also makes the picture of the wheel slowly rotate.

The transport keys on the MCS<sup>3</sup> make the movie rewind, stop, play, and go fast forward.

## About The Default Keypad

The first time you use the MCS<sup>3</sup>, the so-called "Default Keypad" is automatically selected.

The Default Keypad is ready to use and should have some functionality with certain applications.

The wheel sends left and right arrow keys, to playback QuickTime™ movies one frame at a time. The QuickTime™ application will also recognize the Play and Stop keys to toggle between play and pause.

Play and Stop keys send a space and return, respectively.

F1 through F6 send function keys F1 through F6.  
The V-Stick sends up, down, left and right arrow keys.

The W keys have no assignment. They will not send any keyboard commands or mouse clicks unless you edit the Default Keypad.

Any time you open an application, if you haven't yet created a Keypad for that specific application, the Default Keypad will be automatically selected.

# Editing the Default Keypad

You can edit (that is, change) the Default Keypad at any time, using the MCS<sup>3</sup> application. Here are two simple examples of how to edit the default Keypad:

## Example of Changing What the Wheel Does

Presently, the wheel sends left and right arrow keys at a medium speed.

Turning the wheel will play a movie in a QuickTime™ related application.

Suppose you are editing a movie, and you want to use the wheel to easily view the movie frame by frame. You may want to slow down the response of the wheel, to make it easier to find a specific frame.

We will use the Wheel Speed slider. First, select the Wheel. Rotate the wheel a little in either direction. Alternately, you may click on the picture of the wheel.



The Wheel Speed slider setting affects the wheel for both directions of rotation. For the purposes of this example, it doesn't matter whether you select clockwise or counterclockwise rotation.

Click on the Wheel Speed slider and drag it to the left.

Now the next time you switch to a QuickTime™ related application, the wheel will make the movie play back more slowly, allowing finer control.



The wheel will still produce the equivalent of typing arrow keys, but with a slower key press repeat rate.

## Example of Changing What a Key Does

Presently, in the Default Keyset, pressing the Record key does nothing. Suppose that you want the Record key to send the equivalent of the PC's Enter key.

Press the MCS<sup>3</sup> Record key to select it. Notice that the "Control Info box" shows which key you've selected, Record, and the Key Press that the Record key will emulate: None.

Tab to select the Key Press field. On the keyboard, press Enter. Now the MCS<sup>3</sup> Record key will send Enter.



## Restoring the Default Keyset Using Clear

To restore the default Keyset back to its original generic QuickTime™ settings, select Clear from the Edit menu. The wheel will send left and right arrow keys again, to playback QuickTime movies one frame at a time.

Play and Stop keys make the MCS<sup>3</sup> send space and return.

# The MCS<sup>3</sup> Editor

## Application

The MCS<sup>3</sup> application features a picture of the MCS<sup>3</sup>.

In the upper left is the name of the current Keyset.

To the right is the “Control Info Box”, which displays what each MCS<sup>3</sup> control will do within a specific application.

To edit (change) what the MCS<sup>3</sup> sends, first select the control by pressing the desired key or rotating the wheel.

(Or, use the mouse to click on the picture of the control).

The control's name and function are displayed in the Control Info Box, where they can be edited.

*When "Stop" is pressed on the MCS<sup>3</sup>, it will emulate the PC's "Return" key.*



*The "Stop" key is selected*

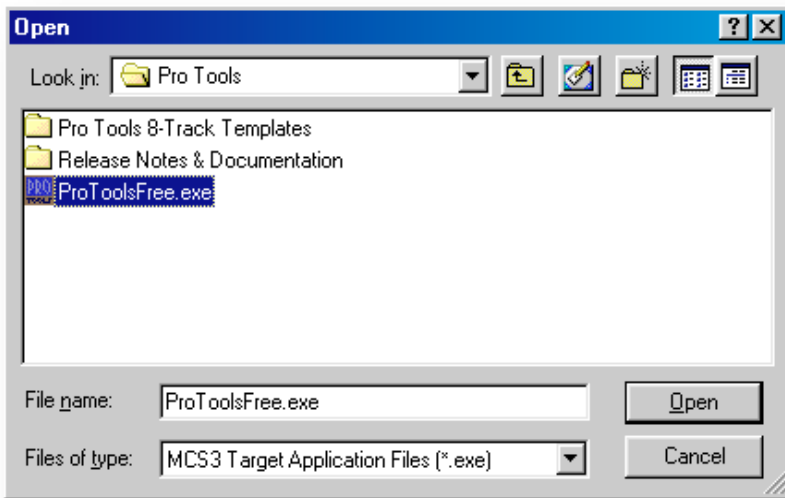
# Creating a New Keyset

Remember that a Keyset is the collection of commands that the MCS<sup>3</sup> can send. Each application can have its own Keyset. The MCS<sup>3</sup> senses which application is active, so it knows which Keyset applies to each application.

When you are ready to start programming the MCS<sup>3</sup>, you begin by selecting New Keyset from the File menu. This "links" the operation of the MCS<sup>3</sup> with the application you want to control.

Select New Keyset from the **File** menu.

This opens a Select dialogue. Select the application that you wish use with the new Keyset.



Current Keyset: "protoolsfree"

The currently active Keyset name is displayed in the upper left part of the MCS<sup>3</sup> window.



## **Launch the Target Application**

We will refer to the application that you wish to control as the target application, to distinguish it from the MCS<sup>3</sup> application.

Launch the target application that you desire to control, if it is not already open.

You use the MCS<sup>3</sup> application to edit Keysets, to make the MCS<sup>3</sup> do what you want to do to the target application.

While you are editing and fine tuning your Keysets, you may switch back and forth between the MCS<sup>3</sup> application and the target application.

Then, quit the MCS<sup>3</sup> application, since it is not needed to use the MCS<sup>3</sup>. Any time in the future that you open a target application, the MCS<sup>3</sup> will be ready to control that application.

Once you have created your Keysets, you do not need to open the MCS<sup>3</sup> application again to use the MCS<sup>3</sup>.

Remember also that if you open an application for which no Keyset exists, the MCS<sup>3</sup> will use the Default Keyset.

***The only times that you ever need to open the MCS<sup>3</sup> application are when you wish to Create a New Keyset, Delete a Keyset, Import, Export or Edit an existing Keyset.***

Once you have created the desired Keysets, ordinary daily use of the MCS<sup>3</sup> does not necessitate launching the MCS<sup>3</sup> application.

# Assigning the Keys and V-Stick

Select a key by pressing the key. Or, click the picture of the key.

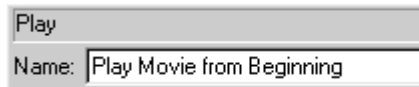
The V-Stick is really four separate keys. Select by moving it left, or right, or "up" (away from you) or "down" (toward you).

Look at the Control Info box.

The permanent name of the MCS<sup>3</sup> key is displayed first.

Under this, the Name field is highlighted.

You may give the key a name which is more descriptive of the key's actual function.



Then Tab or click to select the "Key Press" field.

The Key Press field sets the character to be sent.

(The Mouse Emulation pop up menu sets mouse clicks.)

Decide if you want the key to send a character, or a mouse click, or both.

## To Make a Key Send a Character

Simply type the character on the keyboard, with or without modifier keys. Notice that the character and modifiers appear in the MCS<sup>3</sup> application's Key Press field.

If you do not want the key to send any character, press the keyboard's delete key.

If you want the key to send only a character, and not emulate a mouse click, make sure that None is selected in the Mouse Emulation pop up menu.

Understand that this process allows a *single* key on the MCS<sup>3</sup> to send a character with a "cluster" of modifiers.

For example, pressing Play only on the MCS<sup>3</sup> can send the equivalent of "Control-Alt-P".



## To Make the Key Send a Mouse Click

If you chose to assign a key to send either a left or a right mouse click, the click can take place in a specific location within a window.

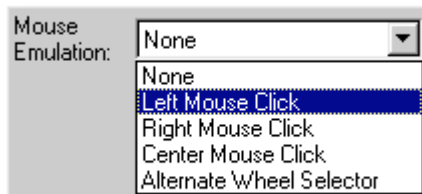
Alternately, the click can be unspecific, that is, the click can occur wherever the pointer happens to be located.

## To Make a Key to Send a Simple Mouse Click:

Select a key by pressing the key.

Select Left or Right Click from the Mouse Emulation menu.

The click will occur within the target application, anywhere the pointer is located.



### **To Make an MCS<sup>3</sup> Key Send a Click at a Specific Point:**

This is the method that you use when you want an MCS<sup>3</sup> key to click on a button or icon within a window.

From the Mouse Emulation menu, select a Left or a Right Click.

Then check the box, “Capture Coordinates...”.

Now, switch to the target application. You will use your mouse briefly to specify the place where you want the click to occur. Use the mouse to position the pointer over the location where you want the click to occur.

**Now, very important, you capture the mouse pointer coordinates by pressing the desired MCS<sup>3</sup> key. (Not by clicking with the mouse!)**

Now the next time that you press that key on the MCS<sup>3</sup>, while you are in the target application, a click will occur at the desired coordinates, without having to use the mouse.

### **Example**

Suppose you have an application which features a window with transport buttons. And suppose that these transport buttons have no key equivalents; the only way to activate them is to click on them.



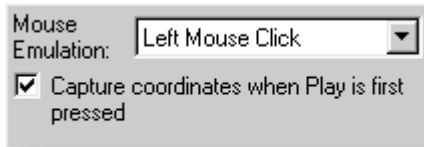
First you need to create a New Keyset. Select New Keyset from the file menu. Then select the application that you want to control. The name of the application will be displayed as the "Current Keyset:" in the MCS<sup>3</sup> application.

We will refer to this application that you are controlling as the "target application", to distinguish it from the MCS<sup>3</sup> application.

We will program the MCS<sup>3</sup> Play key so that pressing the MCS<sup>3</sup> Play key will result in a click on the target application's Play button.

Select the Play key by pressing the Play key on the MCS<sup>3</sup>. For this example, the key should send a mouse click only, and no characters. Press the delete key on the keyboard to delete any characters from the Key Press field.

Select Click from the Mouse Emulation pop up menu. Check "Capture Coordinates".



## Hide Pointer

When the click occurs, you will see the pointer momentarily move to the location where the click occurs. Then the pointer quickly returns to its original location.

If you do not want to see the pointer move, check "Hide Pointer" from the Keysets menu.

Then the mouse click will occur "invisibly". This is a very nice effect because it makes it appear the MCS<sup>3</sup> was designed as a hardware control surface especially for your application.

If a click does not do what you expected, uncheck Hide Pointer so you can observe where the click is actually occurring.

For each Keyset, you can choose to check or not to check Hide Pointer in the Keysets menu.

## About Captured Coordinates

When a click has been captured, the coordinates of the click and the name of the window in which the click occurred are shown in the MCS<sup>3</sup> application.



If the window does not have a name, then no name will appear between the quotes.



## Re-Capturing Coordinates

You may want to "re-capture" the coordinates. For example, you may not have had the mouse positioned correctly the first time that you pressed the MCS<sup>3</sup> key.

In that case, simply uncheck the check box. It will revert to its original "Capture Coordinates of [name of control]...". Then check it again. This "re-arms" the MCS<sup>3</sup> to capture fresh coordinates the next time you switch to the target application.

# Assigning the Jog Wheel and Shuttle Ring

The MCS<sup>3</sup> jog wheel and shuttle ring can send repeated key presses, mouse emulation, or both.

(Some software applications may be able to read the wheel commands directly, providing more precise control.

Consult the documentation or read me files for the software that you are controlling to find out if there are any special references regarding support for the MCS<sup>3</sup>.

The jog wheel is assigned by first selecting the wheel by rotating it a little clockwise or counterclockwise. Alternately, the wheel may be selected by clicking on the picture of the wheel.

Select the right side of the wheel for assigning what the wheel will send when rotated clockwise.

Select the left side of the wheel for assigning what the wheel will send when rotated counterclockwise.

Select the shuttle ring by turning it away from center. Alternately, click on the direction arrows.

Look at the Control Info box.

The direction is displayed first.

Under this, the Name field is highlighted.

You may give the jog wheel and shuttle ring a name which is descriptive of its function.

Then Tab to select the "Key Press" field.

The Key Press field sets the character to be sent.

(The Mouse Emulation pop up menu sets mouse clicks.)

Decide if you want the wheel to send a character, or a mouse click, or both.



## **Wheel Modifier Key**

Suppose that within one application, you want the wheel to have two different functions.

For example, in some applications, repeated arrow keys are used to play a movie frame by frame, while *shifted*-arrow keys make a movie play back two frames at a time.

Any MCS<sup>3</sup> key can be assigned as the Wheel Modifier key. As long as the Wheel Modifier key is held down, the wheel can send an entirely different command.

For example, to make W7 the Wheel Modifier key, first press W7. Then use the mouse emulation menu to assign it to Wheel Modifier.

Next, press and hold down W7 while selecting the wheel. Notice in the Info Box that you can now assign the wheel to an alternate set of clockwise or counter clockwise commands.

In actual use, turning the wheel will send one set of commands. Hold the Wheel Modifier key and turn the wheel to send a different set of commands.

## **To Make the Wheel or Ring Send Repeated Characters**

The wheel or ring will repeatedly send the same character over and over again as you rotate the wheel. It can send a different character for clockwise and counter clockwise rotation.

Type the desired character on the keyboard, with or without modifier keys (Alt, Ctrl or Shift). Notice that the character and modifiers appear in the MCS<sup>3</sup> application's Key Press field.

Press the PC's Delete key if you do not want it to send any keystrokes.

If you want it only send characters, and not emulate a mouse, make sure that None is selected in the Mouse Emulation pop up menu.

## **To Make the Wheel or Ring Emulate a Mouse**

The wheel and ring emulates a mouse by moving the pointer either **horizontal** or **vertical**.

There are three possible ways that the wheel relates to the mouse button, called **Move**, **Drag**, and **Scroll**.

### **Move**

The pointer moves without any click.

### **Drag**

Rotating the wheel automatically causes a click as if the mouse button were being held mouse down. If the pointer is positioned over a movable object, such as a window or icon, then rotating the wheel will drag the object. The mouse click is automatically released shortly after the user stops turning the wheel.

### **Scroll**

This is a pointer move that begins with a mouse-down, just like a drag.

Only in this case, the mouse does not automatically "unclick" (mouse-up) after the user stops turning the wheel.

Rather, the mouse-up occurs when the wheel is rotated back to its original starting point, where the mouse-down first occurred.

The mouse-up also occurs when any key is pressed.

This is useful for playing back audio and video in applications that feature a small scroll bar for playback. The user can initiate forward or backward playback by turning the wheel a little and then taking their hands off the wheel, without having to continuously rotate the wheel.

Since the Ring has a center detent, it is naturally suited for the "scroll" function. (It cannot be assigned to Move or Drag.)

## **Wheel Drag from Specific Coordinates**

This is the method that you use when you want the MCS<sup>3</sup> wheel or ring to perform a drag or scroll from specific coordinates within a window.

From the Mouse Emulation menu, select either Horizontal Drag, Vertical Drag, Horizontal Scroll or Vertical Scroll.

Then check the box, "Capture Mouse Coordinates".

Now, switch to the target application. You will use your mouse briefly to simply specify the coordinates where you want the click (mouse down) to occur.

Use the mouse to position the pointer over the area that you want the click to occur.

Now, very important, you capture the mouse coordinates by turning the wheel or ring. (Not by dragging with the mouse!)

Now the next time that you turn the wheel on the MCS<sup>3</sup>, while you are in the target application, a drag will occur starting at the previously captured coordinates.

## **Hide Pointer with Drag or Scroll**

While dragging or scrolling, the pointer moves to the location where the click occurs. Then the pointer quickly returns to its original location.

If you do not want to see the pointer move, check "Hide Pointer" from the Keysets menu.

Then the pointer will drag "invisibly".

For each Keyset, you can choose to check or not to check Hide Pointer.

## Wheel Speed

The rate of keystrokes or mouse movement is set by the Wheel Speed slider.



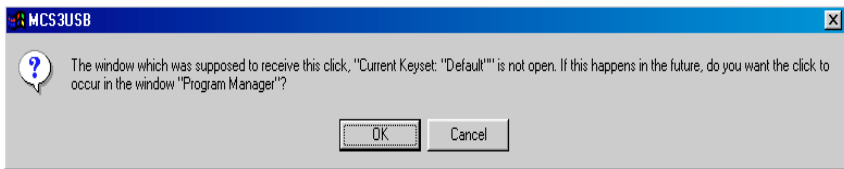
This slider allows you to tune the responsiveness of the wheel. For example, choose a faster speed for faster playback. Choose a slower speed for finer control.

# Alert During Clicks, Drags and Scrolls

When Capture Coordinates is checked, MCS<sup>3</sup> remembers the pointer coordinates when you first pressed the key or turned the wheel within the target application. A mouse click is occurs, and the MCS<sup>3</sup> remembers the name of the window in which the click occurred.

So the next time you press a key or turn the wheel, the MCS<sup>3</sup> will "look for" the name of the window in which the pointer coordinates were first captured, and produce a click.

It is also possible that the window name has been changed. If you press a key or turn the wheel and the name of the window has been changed since the click was first captured, you will see a message like this.



The original window name and the new window name are shown. Click Cancel to cancel the click. Click OK if you want to replace the window name with the new window name. The click, drag, or scroll will occur in the new window.

## **Special Wheel Mode**

The so called “Special Wheel Mode” is reserved for software developers.

When the wheel is assigned to send a “Special” command, it sends an invisible command code. The wheel will most likely appear do nothing.

Some applications have been developed for enhanced MCS<sup>3</sup> support. The Special mode has been used by some developers to implement features such as Audio and Video Jog and Shuttle.

Some applications come with an MCS<sup>3</sup> Keypad which makes use of the Special mode. For specific information, refer to the documentation of the software that you are controlling if it includes an MCS<sup>3</sup> Keypad.

## Additional Time Saving Hints

When capturing mouse clicks, it is not necessary to continually switch back and forth between the MCS<sup>3</sup> application and the target application you intend to control.

You can "pre-arm" the MCS<sup>3</sup> application to capture the pointer coordinates for the wheel and all the keys.

### Example

Suppose that you wish to create a Keyset that makes each transport key click on a transport button within the window of the target application. First, select New Keyset from the file menu. Open the target application.

We will first delete the two "Default" key presses.

On the MCS<sup>3</sup>, press Stop to select the Stop key.

On the PC, press Delete.

On the MCS<sup>3</sup>, press Play to select the Play key.

On the PC, press Delete.

Next, arm each transport to capture coordinates.

From the Mouse Emulation menu, select Click.

Check "Capture Mouse Coordinates".

**Repeat this process for the Fast Forward, Stop, Play, and Record keys.**

Then, switch to the target application. Use the mouse to point to the "rewind" button within the target application.

On the MCS<sup>3</sup>, press the Rewind key.

This captures the mouse coordinates for the rewind button.

Move the mouse to the next on-screen button within the target application, fast forward.

On the MCS<sup>3</sup>, press the fast forward key. This captures the mouse coordinates for the fast forward button.

Repeat the process for each of the remaining keys.

# About Delete and Tab

When the Key Press field is highlighted, pressing the PC's **Delete** key will clear any key press and insert the word "none".

No character is sent when the key is pressed or wheel is turned.

If you want a control to actually send the equivalent of the PC's Delete key, do the following.

Press Delete *with a modifier key*. For example, Alt-Delete. The Key Press field will show that Alt-Delete was pressed.



Then use the mouse to click and de-select the Alt button. This will leave the Delete intact. Now the MCS<sup>3</sup> can send the equivalent of the PC's Delete key.



When the PC's **Tab** key is pressed, you can select whether a control's Key Press or Name field is highlighted.

If you want a control to actually send the equivalent of the PC's Tab key, do the following.

Press Tab *with a modifier key*. For example, Ctrl-Tab. The Key Press field will show that Ctrl-Tab was pressed.



Then use the mouse to click and de-select the Ctrl button. This will leave the Tab intact. Now the MCS<sup>3</sup> key send the equivalent of the PC's Tab key.





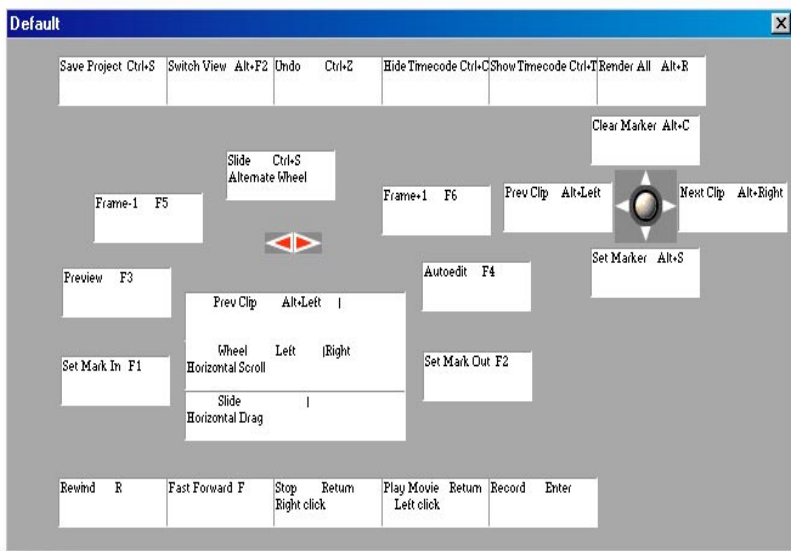
# Display Keyset

When Display Keyset is selected, a second window opens.

This window displays the current assignments of each control in the Keyset.

The name of the controls are displayed, in addition to the control's Key Press or Mouse Click assignments.

To make the window go away, click the Close box.



## **Saving and Deleting Keysets**

The MCS<sup>3</sup> Keysets are automatically saved within MCS<sup>3</sup>'s Preference file, called "MCS3 Prefs". You never have to do a "Save" when using the MCS<sup>3</sup> application.

To delete a Keyset, select the Keyset from the Keyset menu. Then select Delete from the Edit menu.

## **Importing and Exporting Keysets**

Keysets, though automatically stored invisibly within the Preferences file, may also be Exported or Imported.

This allows you to easily move Keysets from one location to another, such as another computer. It also allows third-party Keysets to be developed and added at any time.

To Import a Keyset, select Import Keyset from the File menu. A standard Open dialogue lets you select the Keyset. Once imported, the Keyset will appear in the Keysets menu. It will also automatically be saved in the Preferences file.

To Export a Keyset, select Export Keyset from the File menu. A standard save dialogue will appear, to allow you to choose where to put the exported Keyset. The Keyset retains the name of the application that it is linked to.

## **Using Supplied Keysets**

Some Keysets for selected applications are included on the MCS<sup>3</sup> disk. Refer to any Read Me files on the disk for a description of the functions provided by these Keysets.

To use any of these Keysets, select Import from the File menu. Then select the Keyset within the Import dialogue.

The Keyset will then be automatically saved in the Preferences file, and will appear in the Keysets menu.

# MCS<sup>3</sup> Editor Application's Menus

## File Menu

### **New Keypad...**

Creates a New Keypad, and links it with a particular Target Application.

In other words, when you are ready to start defining the function of the MCS<sup>3</sup>, the first thing you do is select New Keypad.

You will see a standard dialogue. Then select the application that you wish to control with the MCS<sup>3</sup>. We refer to that application as the "target" application, simply to distinguish it from the MCS<sup>3</sup> application.

Then you use the MCS<sup>3</sup> application to assign what each control will send. These assignments are collectively called a Keypad.

### **Import Keypad...**

Imports a previously exported Keypad file.

Places the Keypad into the Keypads menu, and saves the Keypad within the MCS<sup>3</sup> application's Preference file.

### **Export Keypad...**

Exports a Keypad as an independent file, to allow you to more easily transfer the file to another computer.

### **Quit**

Exits the MCS<sup>3</sup> Application. Once you have defined your Keypads, the MCS<sup>3</sup> *Application* does not need to be running for the MCS<sup>3</sup> hardware to operate.

## **Edit Menu**

**Undo** Undoes last operation.

**Cut** Copies the currently selected text the Clipboard.  
Clears text.

**Copy** Copies the currently selected text to the Clipboard.

**Paste** Pastes the previously copied text.

**Delete** Deletes the selected text.

**Copy Keyset** Copies the currently selected Keyset to the Clipboard.

**Paste Keyset** Pastes the previously copied Keyset into the current Keyset.

**Clear Keyset** Clears the Keyset.  
Resets the individual controls to their Default settings.

**Delete Keyset** Deletes currently selected Keyset. Will not delete the Default Keyset.

## **Keysets Menu**

This menu contains a list of all the Keysets that you have created or imported.

It will always at least contain the Default Keyset.

Use this menu to select a Keyset to display the control assignments and edit them.

## **Display Keyset**

Opens window which displays all the names and control assignments in the Keyset.

## **Preferences**

Opens window allowing the setting of preferences at the program startup.

# Technical Information

## Specifications

Dimensions: .....6.5" x 7.0" x 1.25"

Shipping Weight: .....3.7 lbs

## Troubleshooting

If for some reason the MCS<sup>3</sup> does not give you the expected results, take a moment to do some investigating.

The most important concept is that the Driver must be loaded for the MCS<sup>3</sup> to operate. Confirm this by observing that the small wheel icon is present in the lower left corner of the screen in the Windows "System Tray".

If the unit is not operating at all, or if an error dialog appears, first perform a shutdown and restart. Depending on which version of the MCS<sup>3</sup> is installed, check the following:

For the RS-232 version: Confirm that the power supply is connected. Confirm the COM port settings in the Preferences dialog. Click on the small wheel icon, and Reload the Driver. Also confirm from the popup menu that the MCS<sup>3</sup> is "Enabled."

For the USB version of the MCS<sup>3</sup>; verify that the USB bus recognizes the MCS<sup>3</sup>. From the Start menu, click on Settings, then Control Panel, then System. (on Windows 2000 and XP, then click on Hardware then the Device Manager). Then click on the Universal Serial Bus Controllers. The MCS<sup>3</sup> USB should be listed in the devices.

On Windows NT, 2000 and XP, make sure you are logged in as system administrator, or the system will not allow the software to be installed

If a mouse click does not appear to work, first try unchecking "Hide Pointer", so you can see where the click is actually occurring.

## **Care and Service**

If properly cared for, your MCS<sup>3</sup> should provide years of trouble-free performance. Avoid dropping the MCS<sup>3</sup>, or hard banging on the keys.

Clean with a soft cloth dampened with window cleaner. Do not allow liquids to get inside the unit.

There are no user-serviceable parts in the MCS<sup>3</sup>. Please refer to the really fine print following for detailed warranty and service information.

## **JLCooper Electronics Limited Factory Warranty**

JLCooper Electronics ("JLCooper") warrants this product to be free of defects in materials or workmanship for a period of 12 months from the date of purchase.

This warranty is non-transferable and the benefits apply to the original owner. Proof of purchase in the form of an itemized sales receipt is required for warranty coverage.

To receive service under this warranty, customers in the United States should contact the JLCooper factory at 310-322-9990 and talk to a service technician. If necessary, a Return Authorization number may be issued.

For our customers outside the United States, it is recommended that you first contact your Dealer or Distributor, since they may offer their own service or support policy.

If local support is not obtainable, please send a FAX to JLCooper's Service Department at 310-335-0110, with a detailed description of the service required.

Upon issuance of return authorization, the product should be properly packed and shipped to Service Department, JLCooper Electronics, 142 Arena St., El Segundo, CA 90245.

Please include the following: copy of the sales receipt, your name and address (no P.O. Boxes, please), a brief description of the problem, and any other related items discussed with the service department and considered necessary to evaluate the product or effect a repair. The return authorization number must be clearly written on the outside of the package.

JLCooper will, without charge for parts or labor, either repair or replace the defective part(s). Shipping costs are not covered by this warranty.

JLCooper's normal repair turn around time at the factory is approximately 15 business days, from receipt of product to shipping. Your actual turn around time will include return shipping.

Actual turn around time will vary depending upon many factors including the repeatability of the customer's reported complaint, the availability of parts required for repair, the availability of related products needed to evaluate the product if necessary.

Priority services are available. These should be discussed with the service technician at the time the return authorization is issued.

This warranty provides only the benefits specified and does not cover defects or repairs needed as result of acts beyond the control of JLCooper including but not limited to: abuse, damage by accident/negligence, modification, alteration, improper use, unauthorized servicing, tampering, or failure to operate in accordance with the procedures outlined in the owner's manual; nor for acts of God such as flooding, lightning, tornadoes, etc.

THE DURATION OF ANY OTHER WARRANTIES, WHETHER IMPLIED OR EXPRESS, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTY OF MERCHANTABILITY, IS LIMITED TO THE DURATION OF THE EXPRESS WARRANTY HEREIN. JLCOOPER HEREBY EXCLUDES INCIDENTAL AND CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO: LOSS OF TIME, INCONVENIENCE, DELAY IN PERFORMANCE OF THIS WARRANTY, THE LOSS OF USE OF THE PRODUCT OR COMMERCIAL LOSS, AND FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY, APPLICABLE TO THIS PRODUCT. JLCOOPER SHALL NOT BE LIABLE FOR DAMAGES OR LOSS RESULTING FROM THE NEGLIGENCE OR INTENTIONAL ACTS OF THE SHIPPER OR HIS CONTRACT AFFILIATES. THE CUSTOMER SHOULD CONTACT THE SHIPPER FOR PROPER CLAIMS PROCEDURES IN THE EVENT OF DAMAGE OR LOSS RESULTING FROM SHIPMENT.