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JL Cooper

MCS 3x series controller set-up

User Guide

Document: Pyramix™ JL Cooper Guide 02
Date: 21st July-2009
Introduction

Overview
This document details the physical and logical connections required to enable JL Cooper MCS 3x series hardware control surfaces to control Pyramix Virtual Studio using the optional Remote Control MIDI protocol.

Scope
The JL Cooper Controllers are supported by the Optional Pyramix MIDI Remote Control Protocol feature. In Pyramix the following MCS series devices are supported:

- MCS-3800
- MCS-3000
- MCS-Bridge
- MCS-3000x

For more information on installing and using the MCS family controllers, please consult the MCS-3000 Series User Reference Manuals.

Setup

Requirements:
Components required for operating a JL Cooper MCS Controller with Pyramix:

- A supported JL Cooper MCS series controller.
- Pyramix 5.0 or higher with the Remote Control MIDI Protocol option authorized.
- The PC Workstation running Pyramix must be equipped with a functioning MIDI interface.

Communication
Pyramix and the DM-2000 communicate via MIDI.

Connections

MIDI
Connecting the controller requires that a hardware device with MIDI port functionality be installed in the computer. An external USB to MIDI interface will also work fine, or a soundcard with MIDI I/O, e.g. a SoundBlaster.

All subsequent set-up information assumes that the MCS controller is properly powered and connected to a functioning MIDI interface.

Adding an MCS Controller

Before the MCS control surface can be used or the controls mapped it must be “added” in Pyramix and the correct driver selected.
To add a new controller go to the Settings > All Settings > Remote Control : Controller page.

If no controllers are installed, or more need to be added, click on the Add button. This opens the Controller Properties dialog window:

**Name**
Type a suitable, friendly name in the Name field.

**Driver**
Select MCS 3000 from the Driver combo-box drop down list. For an MCS-3800 controller select the MCS3000 driver.

**Properties**
Once the MCS3000 driver has been selected, clicking on the Properties button opens the MIDI Configuration dialog:

Choose the appropriate MIDI Input and MIDI Output device drivers corresponding to the ports your MCS controller is physically connected to. Clicking on OK accepts the changes and Cancel ignores the changes.
If no MIDI driver is installed, the MIDI Input and MIDI Output combo-box dropdown menus will be empty and the A device ID has been used that is out of range for your system error message will be displayed when either the Apply Changes to Controller button is clicked or the OK button is clicked to close the Pyramix Settings dialog:

![MIDI Warning Info]

**Enable**

Each installed hardware controller can be enabled or disabled with the Enable checkbox in the Controller properties dialog.

![Controller Properties dialog]

Make sure the Enable checkbox is ticked before clicking on OK to close the dialog.

**Removing an Installed Controller**

Highlight the controller you wish to remove in the The following controllers are installed: list by clicking on it then click on the Remove button:

![The Following controllers are installed:]

**MCS-3800 Control Mapping**

MCS-3800 mapping allows for user defined custom configurations. A wide range of Pyramix controls and audio effect parameters can be mapped to the MCS-3800 hardware surface controls. To configure the mapping, go to
the Settings > All Settings > Project : Controller Mapping page and select the target controller in the The following controllers are installed: list:

Note: This page can also be accessed by right-clicking on the track arming button in a Track Header to open the Pyramix Settings dialog and then clicking on Controller Mapping.

MCS-3800 Configuration

Click on the Properties button to open the MCS3000 Configuration dialog:

This window contains the components that will enable you to map Pyramix control functions onto MCS-3800 physical controls. These components are grouped by area and function as follows.
The Mixer Section
The Mixer section contains controls used in the mixing process that can be mapped to Pyramix controls. The mapp-able controls are the motorized, touch sensitive faders, push buttons above the faders, and the five rotary encod-ers.

Bank, Select and Page Buttons

The Page, Bank and Select switches are “hard wired” i.e. they cannot be user mapped. These buttons enable switching between different layers of controller assignments. The four Bank buttons each select one of four fader layers. This gives easy access for controlling up to 32 Pyramix mixer strips. Since the faders are motorized, they will always reflect the position of the control they are actually mapped to.

The Page buttons, in conjunction with the Select buttons, are used to switch the rotary encoders between pages of controllable parameters. This gives the encoders access to up to 40 control parameters per fader. To access the assignments, first hit the Select button above any fader and then use one of the 8 Page buttons to select one of the 8 pages of assignments for the rotary encoders.

For more information on Pages and or Banks, please consult the MCS-3000 Series User Reference Manual.
The Machine Buttons

This section contains five buttons labeled M1 through M5. These buttons are automatically mapped to the Pyramix Transport Internal Machine (M1) and M2 to M5 to any installed and enabled External Machines.
The Jog Wheel Buttons
This section contains seven function buttons labeled as W1 through W7.

They are part of the Transport Control section and have the following functions:

<table>
<thead>
<tr>
<th></th>
<th>M1</th>
<th>M1 + Shift</th>
<th>M2...M5</th>
<th>M2...M5 + Shift</th>
</tr>
</thead>
<tbody>
<tr>
<td>W1</td>
<td>Set In</td>
<td>Goto In</td>
<td>Set In</td>
<td>Goto In</td>
</tr>
<tr>
<td>W2</td>
<td>Move</td>
<td>Slide</td>
<td></td>
<td></td>
</tr>
<tr>
<td>W3</td>
<td>Fade In</td>
<td>Trim In</td>
<td>Nudge + 1 Frame</td>
<td></td>
</tr>
<tr>
<td>W4</td>
<td>Jog</td>
<td>Shuttle</td>
<td>Jog</td>
<td>Shuttle</td>
</tr>
<tr>
<td>W5</td>
<td>Fade Out</td>
<td>Trim Out</td>
<td>Nudge - 1 Frame</td>
<td></td>
</tr>
<tr>
<td>W6</td>
<td>Chase</td>
<td>Freeze</td>
<td></td>
<td></td>
</tr>
<tr>
<td>W7</td>
<td>Set Out</td>
<td>Goto Out</td>
<td>Set Out</td>
<td>Goto Out</td>
</tr>
</tbody>
</table>

**Note:** these buttons have different actions if M1 (Pyramix Internal Machine) or M2..M5 (possible External Machines connected to Pyramix) are selected.
Contextual Control Menu

The Controls in the MCS-3800 mapping configuration page also have a right-click contextual menu:

- **Clone this knob**
  
  This action takes the current mapped function of the item under the cursor when right-clicked and attempts to apply the same control function to all other buttons in the same position related to the subsequent Pyramix mixer strips. It makes more sense when you actually map a mixer.

- **Clone this strip**
  
  Performs the same action as **Clone this knob**, but on an entire strip including the rotaries.

  **Note:** When mapping a mixer from scratch we suggest starting by mapping the first strip then using this action.

- **Delete Mapping**
  
  Selecting this option deletes the currently assigned control mapping. This option is not available if no current control mapping exists for the control.

- **Toggle Mode**
  
  This option is only available for buttons. This option changes the button mode between latching push on - push off and momentary modes. This option is not available if no current control mapping exists for the control.

Control Tool Tips

As the mouse cursor hovers over an MCS control, the control becomes highlighted.
If the control is mappable and is currently mapped, the status bar will display the corresponding Pyramix mapped control E.g.:

<table>
<thead>
<tr>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixer</td>
</tr>
</tbody>
</table>

**MCS3000 Configuration dialog window Status Bar**

- **Load mapping...** This feature is not yet implemented and intended for future use.
- **Clear All...** Pressing this button deletes all currently assigned control mapping.

**Default Mapping**

- **Load and Save** This section enables the current mapping state to be saved from or loaded to the current MCS device configuration.

  **Note:** Once used, the defined Default mapping will be loaded every time a new controller configuration is created.

**The Control Tree View**

The collapsible tree view in the right-hand pane contains all available Pyramix controls. The controls are classified by category and are contained in specific folders.

![MCS3000 Configuration dialog window](image)
Navigating in the Tree View

Clicking on a **“plus”** icon opens a folder to reveal the sub-folders and controls it contains.

Clicking on a **“minus”** icon closes a folder.
Mapping MCS Controls to Pyramix Controls

**MCS-3800 Assignment**

To assign a Pyramix control to an MCS-3800 surface control, simply select a control in the *Control Tree View* section by clicking on it then drag and drop it onto the target MCS-3800 surface control.
**MCS-Bridge Assignment**

Another example with an MCS-Bridge device.
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