# Sonar LeMackie 2

## Lemur Mackie Emulation and ACT Controller for Cakewalk's Sonar




# Setting Up

First, let's cover the basics on setting up the Sonar **LeMackie2** Lemur template which you just downloaded. Together with this document, you must have downloaded a Lemur project file, **LeMackie2** and a **LemurACT.spp** file.

**LeMackie2** in Lemur consists of 3 pages: the **Mackie** page, the **ACT** page and the **settings** page where various options for the controls of both **Mackie** and **ACT** pages can be configured.

**Requirements:**

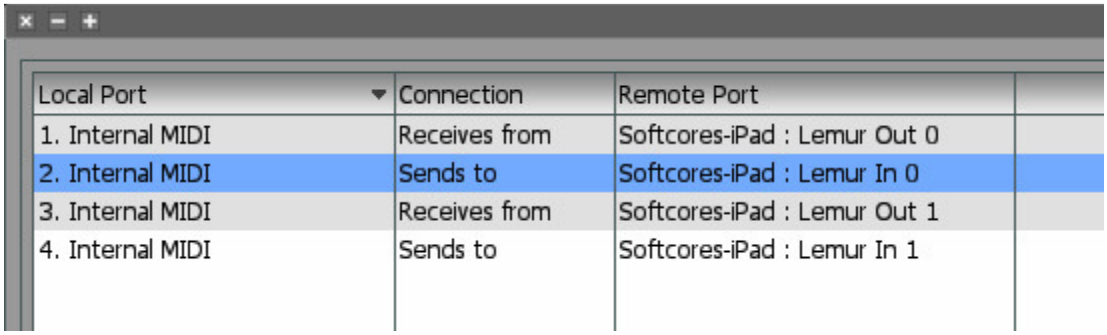
**Mackie:** in order to have a fully functional Mackie emulation for Sonar in Lemur you need to have virtual midi cables installed in your Windows machine which **do NOT block Sysex midi messages**. I fully recommend the excellent **LoopBe30** (http://nerds.de/en/loopbe30.html)

**ACT:** More than one pair of virtual midi cables is required in order for the secondary "ACT" page to work with your Sonar.

The **Mackie** page is mapped to **Midi 0** and the **ACT** page is mapped to **Midi 1** of Lemur – these also need to be set up in Daemon respectively.

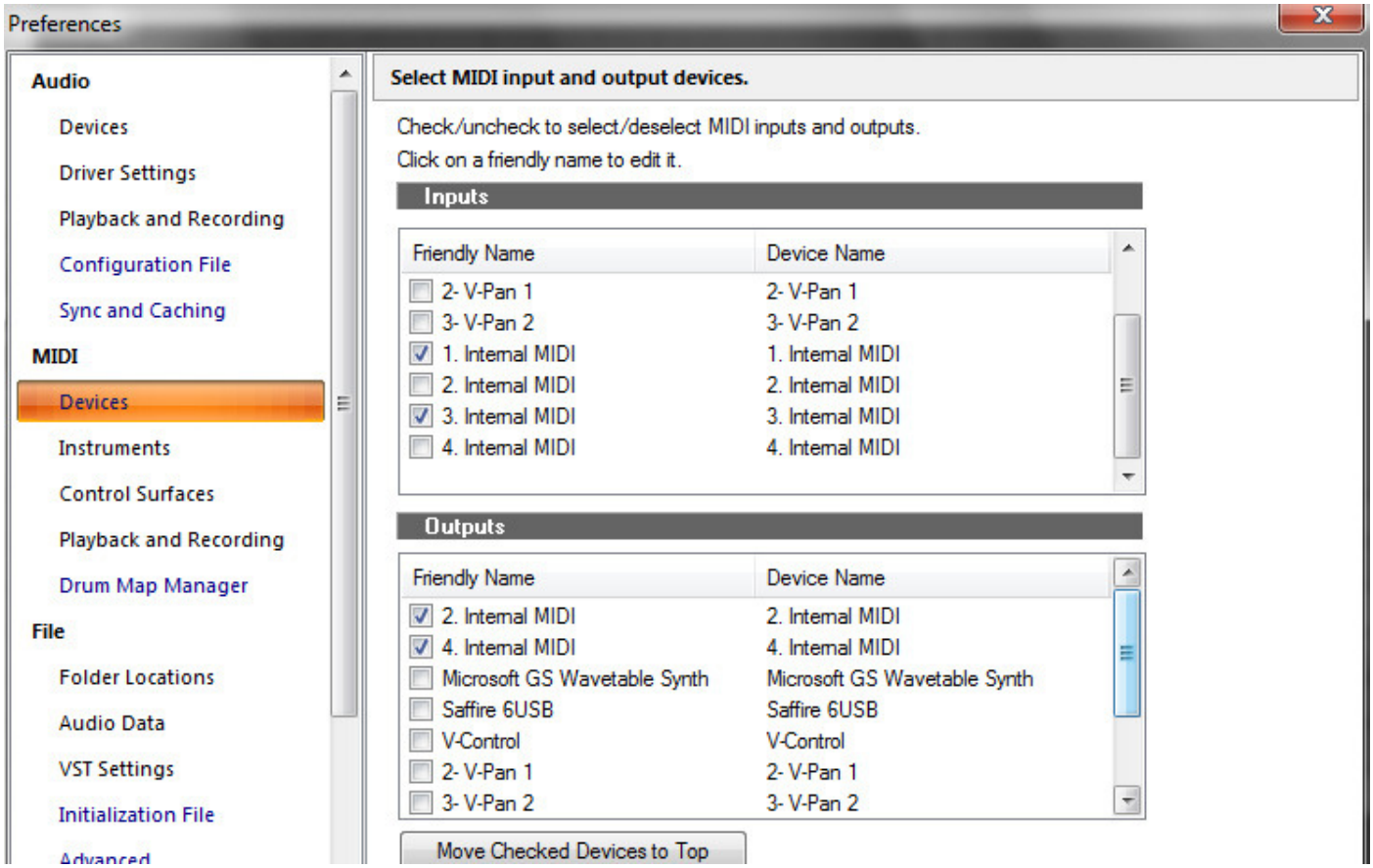
Here are some pictures to demonstrate a working set up with LoopBe30

**The Daemon settings:**



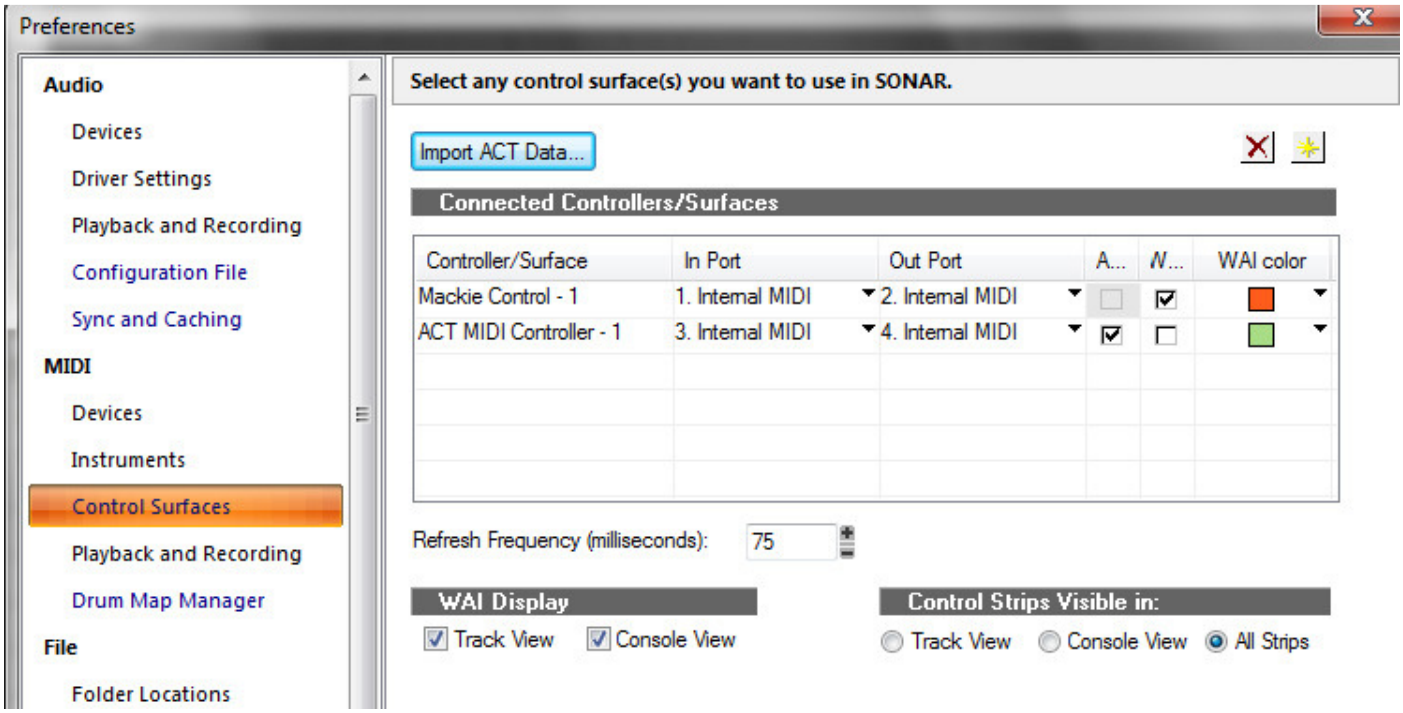
| Local Port | Connection | Remote Port |
|---|---|---|
| 1. Internal MIDI | Receives from | Softcores-iPad : Lemur Out 0 |
| 2. Internal MIDI | Sends to | Softcores-iPad : Lemur In 0 |
| 3. Internal MIDI | Receives from | Softcores-iPad : Lemur Out 1 |
| 4. Internal MIDI | Sends to | Softcores-iPad : Lemur In 1 |

**The Midi Devices settings in Sonar:**



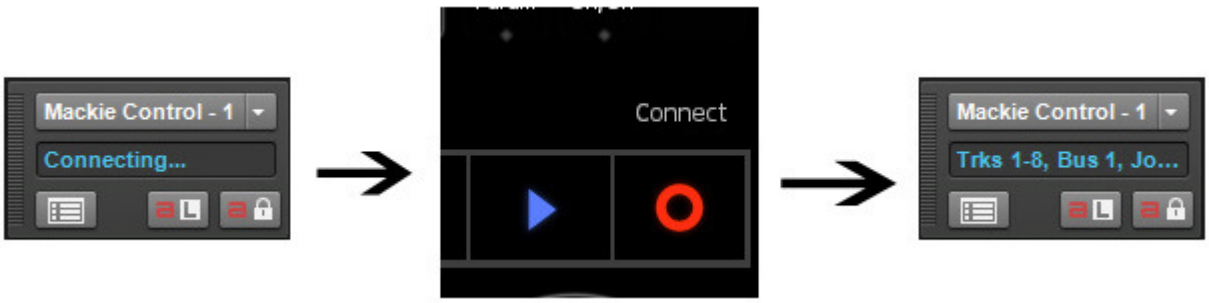

Notice that the second pair of Midi I/O (3.Internal in and 4.Internal out) is only required for the ACT page.

**The Sonar control Surface set up:**

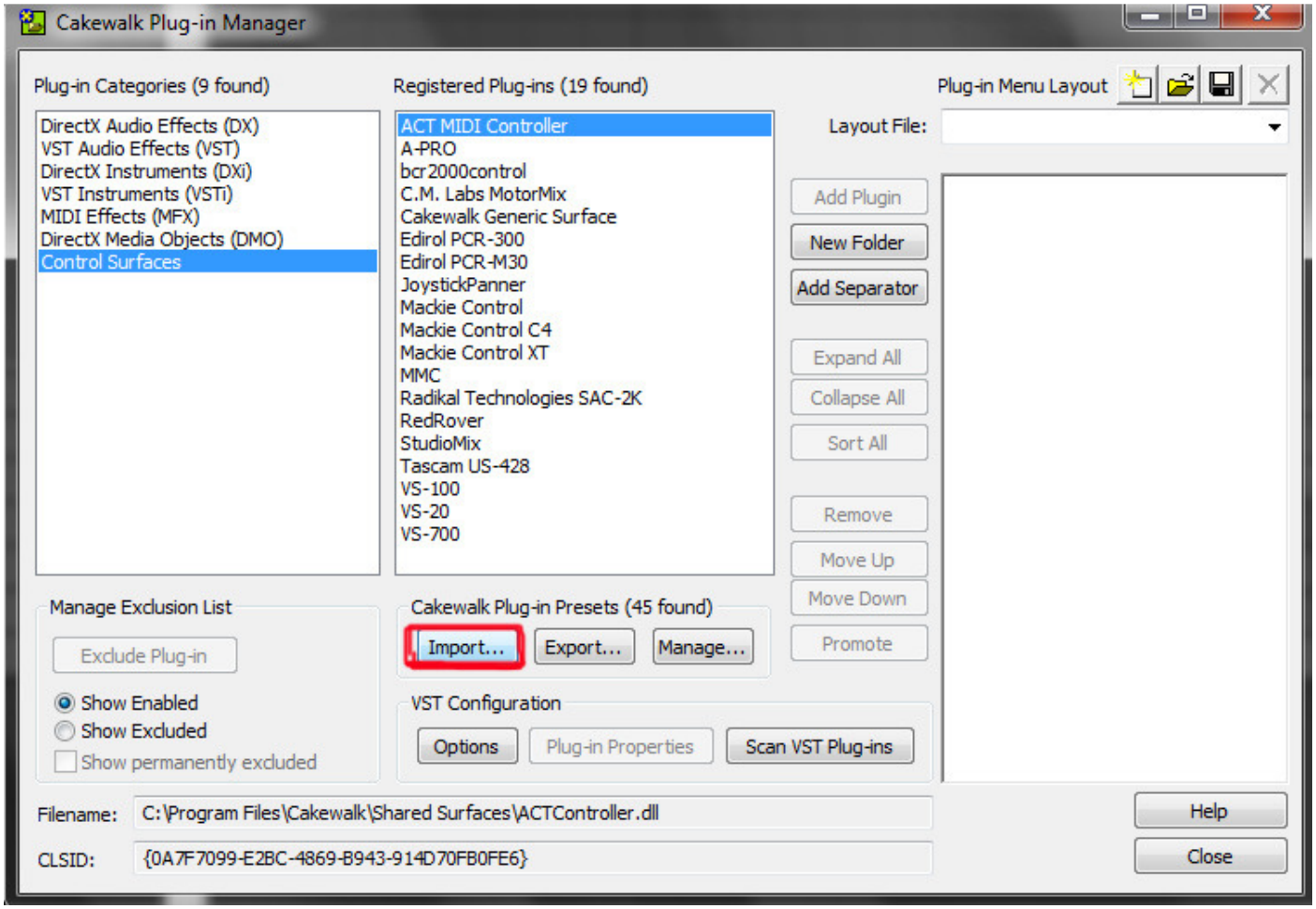



Notice that WAI (Where Am I) display is disabled for the ACT controller, as by default this is configured by Lemur to only affect plug in parameters, leaving strip-channel and mixer parameters to be controlled by the Mackie page.

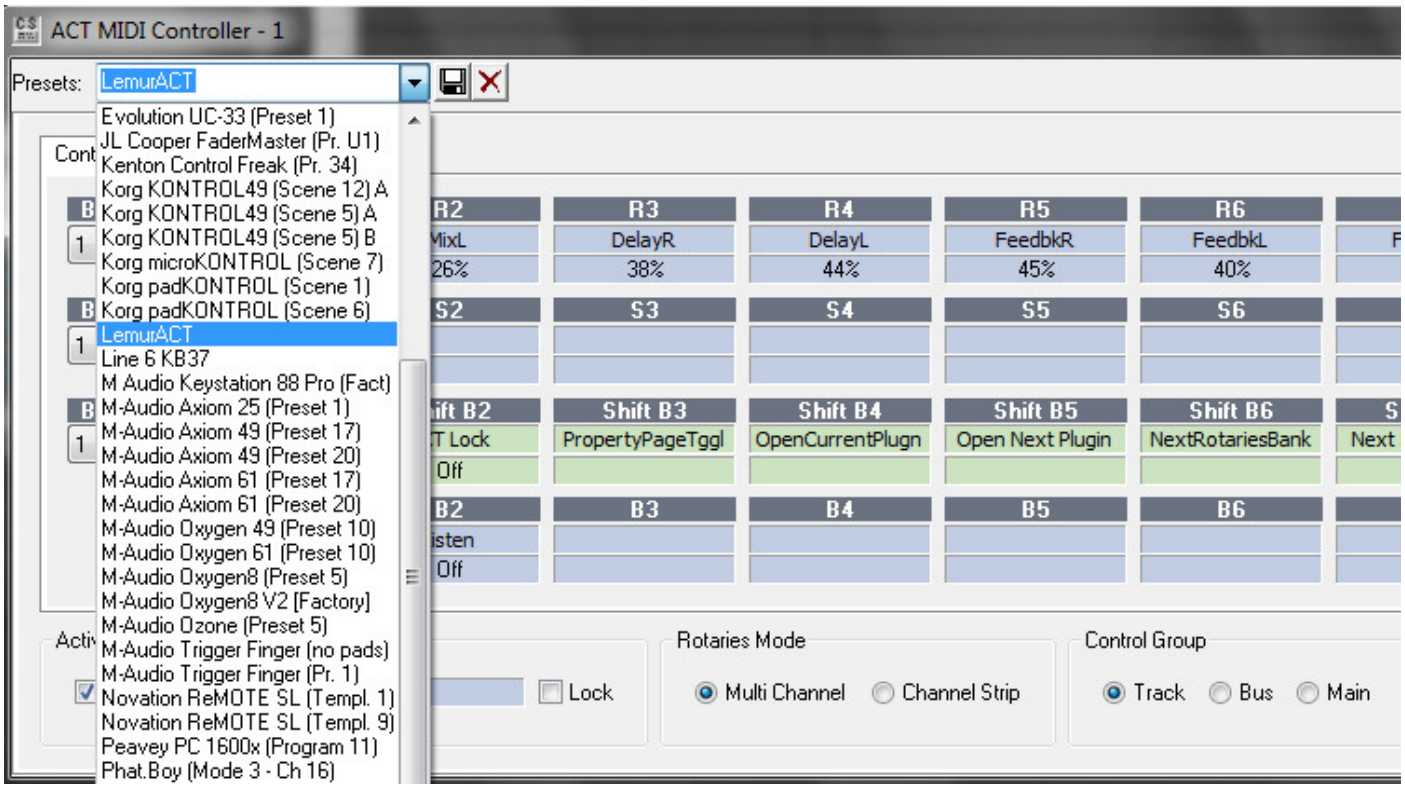
For the Mackie page to work, all you have to do is press the “connect” button (found above the “rec” button of the Mackie page) – this should make the “connecting” message in Sonar disappear and update Lemur Mackie with the correct values that correspond to Sonar.



Now in order to correctly set up the ACT controller you need to import the settings file, ***LemurACT.spp*** into Sonar. To do this, open Sonar's plug in manager, select "control surfaces" and "ACT MIDI Controller" and click on import button. On the dialogue window that appears, navigate to the included ***LemurACT.spp*** file and import it.



If you have done the above steps correctly then just open the ACT property window and select the “LemurACT” preset which should now appear amongst the available presets, as shown below.




After this final step, the ACT page of Lemur must be fully functional.

**ACT Limitations:**

Unfortunately, even though Cakewalk implies that ACT controller technology is bi-directional, this is not the case. Therefore, each time the ACT page maps itself dynamically to a different plug in the controls in Lemur are not updated to show the correct values - this is NOT in any way a malfunction of Lemur or of this template but rather poor feature implementation on behalf of Cakewalk. However the controls in ACT page are configured in “match” mode – the mapped parameter will not “move” until the control in Lemur “matches” the current value to avoid sudden jumps in parameters.

**FOR DETAILED INSTRUCTIONS** on how to use both Mackie Control and ACT controller in Sonar also read Sonar’s help files. (while in Sonar press F1)

**KNOWN ISSUES:** If a track is “Archived” V-Pots of all subsequent tracks in Sonar X2 do not provide accurate LED feedback. This is rather an issue with Sonar and not LeMackie emulation – there is no workaround as of yet besides just not using the archive function.

# Tables of All Button Functions of Mackie Control

## Channel Strip Controls (when in Track/Bus mode)

| Button or control | By itself | With M1 | M2 | M3 | M4 |
|---|---|---|---|---|---|
| Faders 1-8 | track volume (tracks mode); bus master send level (bus mode); main bus volume (main mode) | | | | |
| Master fader | current main output volume (double tap to reset to default) | | | | |
| Select | select track or bus | | | | |
| Mute | mute | | Archive | Input echo | clear all mutes |
| Solo | solo | | | | clear all solos |
| Rec | arm for recording | arm fader mapped parameter for automation* | arm track or bus for automation | | disarms all record armed tracks |

**Notes:**

* Usually by pressing M1 and the "Rec" button the volume level automation write is enabled because usually that's the parameter mapped to the Mackie faders – be cautious however, because if you have pressed "Flip" then whatever parameter is at that time mapped to the faders, that will be the parameter which will be armed for automation write. Therefore, after pressing M1, the "Rec" buttons display "Write Fader"

## V-pots

| V-pot | By itself | With M1 | M2 | M3 | M4 |
|---|---|---|---|---|---|
| When you **turn** a V-pot | whatever parameter is displayed on the LCD | fine adjustment | | | |
| When you **tap** a V-pot | sets parameter to default value or toggles an on/off switch | arms or disarms displayed parameter for automation | | | |




**Notes:**- When pan is mapped to the V-Pots a bottom light-blue LED indicates that the Pan is at center (default) position ± 1%




- When M1 is pressed, a red bottom LED indicates that the mapped parameter to the V-pot has automation write enabled.

## Assignment Buttons

| Button or control | Pushed once (puts controls into Multi Channel mode) | Pushed twice (Single Channel mode) | Pushed three times |
|---|---|---|---|
| Track/Bus | assigns V-pots to any track/bus/main parameter | same, but puts controls into Single Channel mode | |
| Pan | V-Pots control:<br>in Track mode--Pan/balance<br>Aux mode--Send Balance<br>Main mode--Balance | same, but puts controls into Single Channel mode | |
| Send | assigns V-pots to bus send parameter | same, but puts controls into Single Channel mode | |
| Plug-in | assigns V-pots to any plug-in parameter | same, but puts controls into Single Channel mode | |
| EQ | assigns V-pots to EQ parameter | same, but puts controls into Single Channel mode | assigns V-pots to EQ frequency and faders to EQ gain |
| Comp | assigns V-pots to Compressor parameter | same, but puts controls into Single Channel mode | |

**Note:** "Single Channel Mode" is always indicated by a dot in the Assignment LCD display.

## Fader Banks Buttons

| Button or control | By itself | With M1 | With Edit button | With M1 plus Edit | M4 |
|---|---|---|---|---|---|
| Left or Right Bank | go to previous or next 8 tracks or buses | go to first or last track or bus | go to previous or next 8 parameters | go to first or last parameter | |
| Left or Right Channel | go left or right by one channel | assign master fader to previous or next main output | go to previous or next parameter | go to previous or next plug-in | |
| Flip | Push once to cause faders to duplicate the V-pot functions (red led). Push twice to cause faders and knobs to exchange functions (green led). | Changes LCD so that lower line becomes upper | | | |
| Edit | allows Bank and Channel buttons to be used to assign parameters to V-pots (green led) | enables Numeric Input mode for Function keys (red led – see also next page, Function section) | | | |

# Display Section

| Button or control | By itself | With M1 | M2 | M3 | M4 |
|---|---|---|---|---|---|
| Name/Value | Switches display between parameter name and value | toggle between track names and track numbers | | toggle the disabling of LCD updates | forces an update of the current unit (the master) |
| SMPTE/Beats | View Big Time | opens BigTime view | | | forces an update of all units |

# Function Section

| Button or control | By itself | With M1 | M1 plus Edit (numeric input mode) |
|---|---|---|---|
| F1/Cut | Key binding assignment 1 | Cut | Enters number 1 into text box |
| F2/Copy | Key binding assignment 2 | Copy | Enters number 2 into text box |
| F3/Paste | Key binding assignment 3 | Paste | Enters number 3 into text box |
| F4/Delete | Key binding assignment 4 | Delete | Enters number 4 into text box |
| F5/Space | Key binding assignment 5 | Space | Enters number 5 into text box |
| F6/Alt | Key binding assignment 6 | Alt | Enters number 6 into text box |
| F7/Tab | Key binding assignment 7 | Tab | Enters number 7 into text box |
| F8/Back | Key binding assignment 8 | Backspace | Enters number 8 into text box |

When “Input Numeric Mode” is on the “Edit” button displays a red Led while the related input buttons light up to display their function



## Tracks Section

| Button or control | By itself | With M1 | M2 | M3 | M4 |
|---|---|---|---|---|---|
| New Audio | Insert audio track | Track-Clone | Track/Delete | Track/Wipe | |
| New MIDI | insert MIDI track | Track-Clone | Track/Delete | Track/Wipe | |
| Fit Tracks | fit tracks to window | show all tracks | show only selected tracks | show and fit selection | hide selected tracks |
| Fit Project | fit project to window | | | | |

## Dialog Section

| Button or control | By itself | M1 plus Edit (Numeric input mode) | M2 | M3 | M4 |
|---|---|---|---|---|---|
| OK/Enter | Enter | Enter | | | |
| Cancel | Cancel | Cancel | | | |

## Window Section

| Button or control | By itself | M1 | M2 | M1 plus Edit (numeric input mode) | M1 while in numeric input mode |
|---|---|---|---|---|---|
| Next Win | Next window | Previous window | File-Info | Tab | Shift + Tab |
| Close Win | Close window | Backspace | Spacebar | Backspace | Spacebar |

## Automation Section

| Button or control | By itself | With M1 | M2 | M3 | M4 |
|---|---|---|---|---|---|
| Read/Off | enable/disable playback of automation | toggle faders on and off | | | |
| Snapshot | automation snapshot | | | | |
| Disarm | disarm all automation controls | disarm all tracks (same as M4 + Rec) | | | |
| Offset | toggle between Offset and Envelope modes | | | Set all faders to defaults | Set all V-pots to defaults |

## Group Section

| Button or control | By itself | With M1 | M2 | M3 | M4 |
|---|---|---|---|---|---|
| Track | assigns Mackie's faders and controls to tracks | | | | |
| Bus | assigns Mackie's faders and controls to buses | | | | |
| Main | assigns Mackie's faders and controls to mains | | | | |

## Project Section

| Button or control | By itself | With M1 | M2 | M3 | M4 |
|---|---|---|---|---|---|
| Save | Save | Save As | | | |
| Undo | Undo | Edit-Undo History | undo zoom | reject loop take | |
| Redo | Redo | | redo zoom | | |

## Navigation Section

| Button or control | By itself | With M1 | M2 | M3 | M4 |
|---|---|---|---|---|---|
| Marker | mutually exclusive | Insert-Marker | View-Markers | | |
| Loop | mutually exclusive | Transport-Loop/Auto Shuttle | Set Loop to Selection | | |
| Select | mutually exclusive | select current track | select (extend) current track | Edit-Select All | Edit-Select None |
| Punch | mutually exclusive | Transport-Record Options | Set Punch to Selection | | |
| Jog Parameter | allows Jog Wheel to be used for numeric input | sets jog resolution to measures | sets jog resolution to beats | sets jog resolution to ticks | |
| Loop On/Off | toggle loop mode | Transport-Loop/Auto Shuttle | | | |
| Home | Go to beginning | Go to end | | | |

# Transport Section

## *Rewind Button*

| | |
|---|---|
| **By itself** | rewind |
| **M1** | go to beginning |
| **When Marker button is depressed** | Previous marker |
| **When Loop button is depressed** | go to loop start |
| **When Punch button is depressed** | go to punch in |
| **When Select button is depressed** | go to From |
| **M1 plus Marker** | insert marker |
| **M1 plus Loop** | set loop start marker to the Now time |
| **M1 plus Select** | Go to From |
| **M1 plus Punch** | Go to Punch In marker |

## *Fast Forward*

| | |
|---|---|
| **By itself** | fast forward |
| **M1** | go to end |
| **When Marker button is depressed** | next marker |
| **When Loop button is depressed** | go to loop end |
| **When Punch button is depressed** | go to punch out |
| **When Select button is depressed** | go to Thru |
| **M1 plus Marker** | insert marker |
| **M1 plus Loop** | set loop end marker to the Now time |
| **M1 plus Select** | go to Thru |

| | |
|---|---|
| **M1 plus Punch** | go to Punch Out marker |

### *Other Transport Buttons*

| Button or control | By itself | With M1 | M2 | M3 | M4 |
|---|---|---|---|---|---|
| Stop | stop | Reject Loop Take | | | |
| Play | play | Transport-Run Audio | | | |
| Record | record | Transport-Record Automation | Transport-Record Options | | |

## Cursor Section

### *Up Arrow Button*

| | |
|---|---|
| **By itself** | mimics computer Arrow key |
| **M1** | Page Up |
| **M2** | Home |
| **With Zoom Button** | zoom out vertically |
| **M1 plus Zoom** | scale waveforms in all tracks |
| **M2 plus Zoom** | scale waveforms in current track |
| **M3 plus Zoom** | zoom current track out vertically |
| **M4 plus Zoom** | fit tracks to window |

### *Down Arrow Button*

| | |
|---|---|
| **By itself** | mimics computer Arrow key |
| **M1** | Page Down |
| **M2** | End |
| **With Zoom Button** | zoom in vertically |

| | |
|---|---|
| **M1 plus Zoom** | scale waveforms in all tracks |
| **M2 plus Zoom** | scale waveforms in current track |
| **M3 plus Zoom** | zoom current track in vertically |
| **M4 plus Zoom** | fit project to window |

### *Other Cursor Buttons*

| **Button or control** | **By itself** | **With M1** | **M2** | **With Zoom Button** | **M4 plus Zoom** |
|---|---|---|---|---|---|
| Left Arrow | mimics computer Arrow keys | Shift + Tab | Backspace | zoom out horizontally | |
| Right Arrow | mimics computer Arrow keys | Tab | Spacebar | zoom in horizontally | fit project to window |
| Zoom | When depressed, changes Arrow buttons into zoom buttons | | | | |

## Jog Wheel

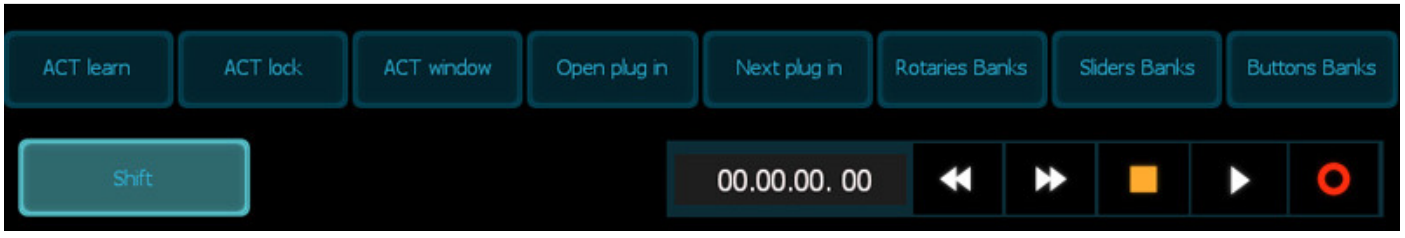
| | |
|---|---|
| **By itself** | moves the Now time; configurable in property page to measures, beats, or ticks |
| **M1** | jog in measures (minutes in SMPTE mode) |
| **M2** | jog in beats (seconds in SMPTE mode) |
| **M3** | jog in ticks (frames in SMPTE mode) |
| **M4** | set Balance of current main |
| **Scrub** | scrubs audio or MIDI in current view (Track, Piano Roll, or Staff) |
| **Jog Param** | change value of current active control (as highlighted in Track view) |

# The ACT Controller Page

ACT Controller is a Midi controller re-mapping feature of Sonar that enables dynamic mapping of midi controllers to context – either DAW specific parameters or plug in parameters can be mapped to the controller according to whatever is in focus at a given time.

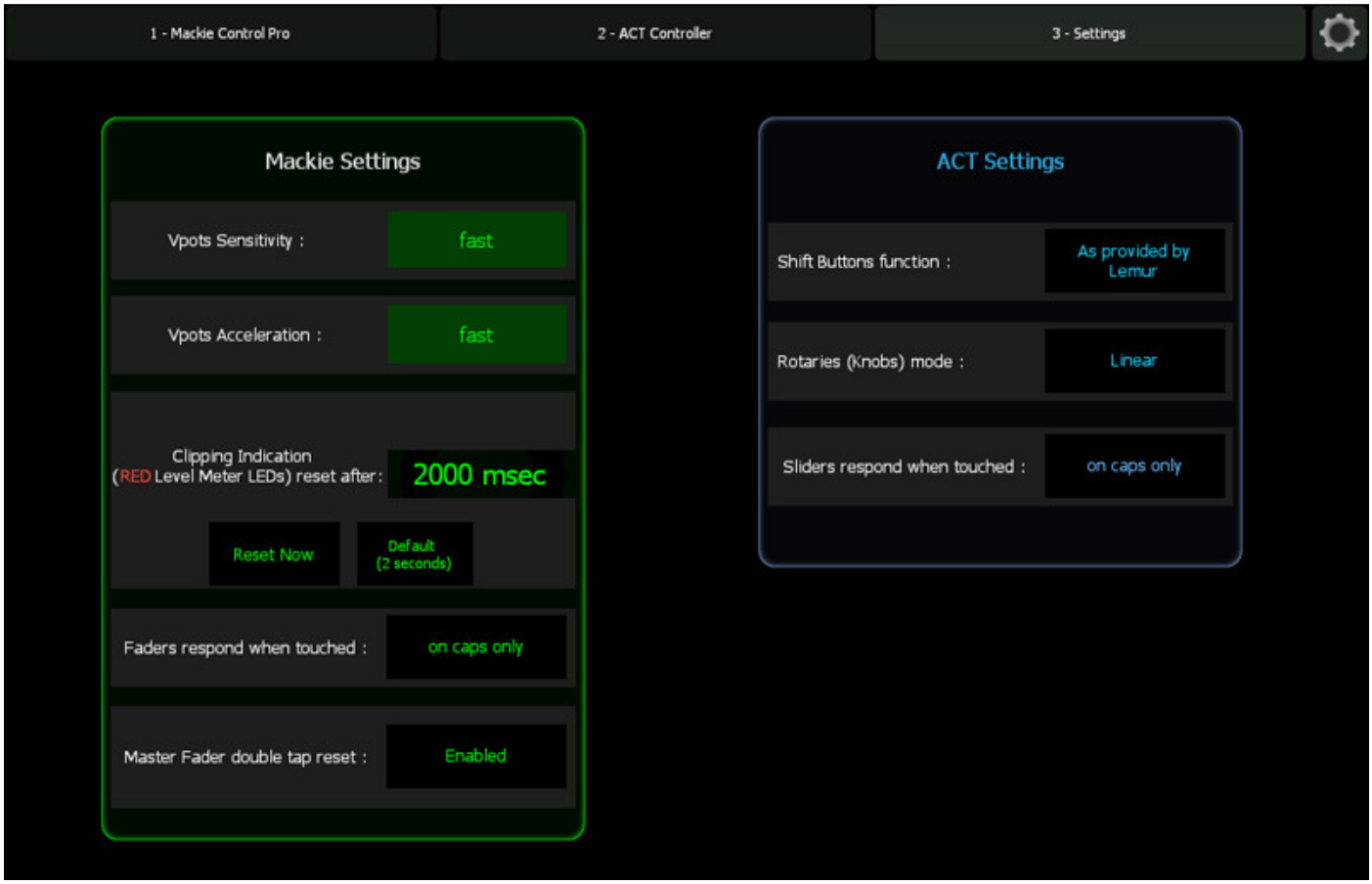



By default, the ACT preset provided with Sonar LeMackie does NOT map the ACT page to DAW parameters (Tracks, Sends, Transport, etc) as these can all be controlled via the Mackie page. Its purpose is to provide a fast and easy alternative to control Instrument and Effects plug-ins. Also, by default, when importing the provided ***LemurACT.spp*** file, the "shift" functions of the buttons of the ACT controller are pre-mapped to specific functions as shown below.




If you want to change these pre-mapped "shift" functions inside Sonar, you can prevent the shift buttons from displaying these pre-set functions in the "Settings" page.

# The Settings Page




# Mackie Settings

**V-Pots Sensitivity / V-Pots Acceleration:** By default, the V-Pots feature “acceleration” – if you turn them (drag up-down) fast enough the values of parameter controlled change more rapidly. You can set how fast the “normal” change of values is and how fast acceleration mode is enabled via the first two Mackie settings.

**Clipping Indication reset delay:** Whenever a track is “clipping” in Sonar (i.e. level higher than 0dB) the LED level meters in LeMackie go red for a short period of time. You can set how fast the Level Meters reset to “green” color with this setting. Also keep in mind that the Level Meters reset to normal color (green) each time either “play” is pressed, a track is selected via “select” buttons or when the tracks visible in LeMackie are moved either one by one or by banks.

**Faders response:** With “caps only” the faders move only when you touch on a fader’s cap while “anywhere” setting allows for fast automation changes – touching anywhere on a fader’s area will move the cap to that position.

**Master fader double tap reset:** By default, double tapping on the Master Fader resets it to its default 0dB position. You may want to disable this feature if “anywhere” response is enabled and you are planning to go wild with fast “cuts” or “boosts” with the Master Fader.

# ACT Settings

**Shift Button Functions:** by default, when importing the provided ***LemurACT.spp*** file, the "shift" functions of the buttons of the ACT controller are pre-mapped to specific functions. If you want to change these pre-mapped "shift" functions inside Sonar, you can prevent the shift buttons from displaying these pre-set functions with the "user defined" setting. Buttons, when "shift" is pressed will display generic "Shift + ButtonIndex" in this case.

**Rotaries Mode:** With polar the knobs are turned by touching and moving your finger in a circular motion (pretty much like a real knob would do). With Linear Mode they behave like the V-Pots – drag up or down to move them.

**Faders response:** With "caps only" the faders move only when you touch on a fader's cap while "anywhere" setting allows for fast automation changes – touching anywhere on a fader's area will move the cap to that position.

Enjoy!

Big thanks to Liine community for invaluable help on designing this controller plus Kiss Lorand (forum member: Lori) for his brilliant contribution of the V-Pots and other goodies (bug fixing, Master fader double tap reset function, etc)

http://www.liine.net

**Softcore 2013** – http://www.softcore.net.gr