NUENDO 3

MEDIA PRODUCTION SYSTEM









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1 Introduction

About this chapter

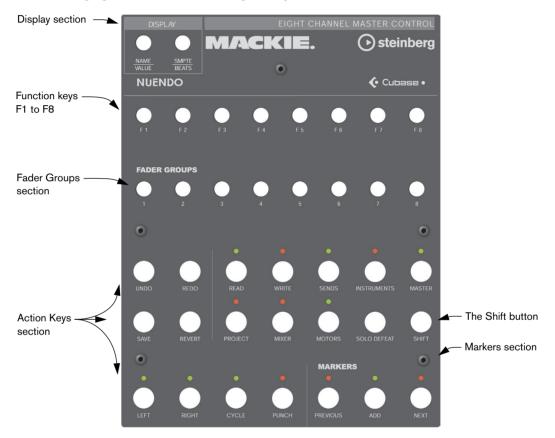
This chapter describes the Steinberg-specific layout for Mackie Control, and also provides information regarding the Mackie Control XT 8 channel extender unit.

The Steinberg layout for Mackie Control

An overlay is included with your Mackie Control that shows all Steinberg-specific key assignments for this device. The overlay can be placed over the top right part of Mackie Control, above the transport controls. These key assignments are used to remote control Nuendo.

You can also order this overlay from Mackie. Contact your hardware dealer for details.

The following figure shows the Steinberg overlay for Mackie Control.



Please note that we will refer to the key assignments of the Steinberg overlay throughout this manual, i.e. the original key labels replaced by this overlay are not used.

About the Shift button

In the Action Keys section, to the right in the second row of buttons, you will find the Shift button. The Shift button is always used in combination with another button to extend that button's functionality. Pressing the Shift button alone has no effect.

About Mackie Control XT

Mackie Control XT 8 channel extender units are also supported. All faders and encoder/displays are combined into one continuous surface. The following applies:

- When the encoder section is used to display the data for one channel (channel strip mode, or for plug-ins), the parameters are presented over the encoder section of all devices, from left to right.
- Fader bank navigation and encoder section assignment is controlled by the Mackie Control unit.
- For each Mackie Control and Mackie Control XT unit, a new device needs to be added in the Device Setup.
 - For each device select the appropriate MIDI ports.
- In the Device List, the top-most device represents the right-most channels, and vice versa. Please make sure that the used MIDI ports are deactivated in the "All MIDI Inputs" device.

2 Basic mixing

About this chapter

This chapter describes how to work with the faders and the rows of buttons above them (Solo, Mute, Select and Rec), and how to select which channels are affected by the fader settings.

Selecting which channels to control

Mackie Control's fader section controls eight different channels in Nuendo (plus the master level, which has its own fader). You select which channels to control with the aid of the Fader Banks section of Mackie Control.



The Fader Banks section

Using the controls in the Fader Banks section

In the Fader Banks section, press the left or right Bank button to switch from one set of eight channels to the next. For example, if you are currently controlling Mixer channels 1 to 8, pressing the right Bank button will switch to the next eight channels, i.e. channels 9 to 16. To go back to the previous eight channels, press the left Bank button.



- If you press the left or right Channel button in the Fader Banks section, the fader assignment will shift in steps of one channel instead.
 - Let's say the faders currently control audio channels 9-16. If you press the left Channel button, the faders will shift one step to the left and control audio channels 8-15.
- Pressing the Flip button in the Fader Banks section switches the parameter assignment between the faders and the V-Pots, i.e. what was controlled with a fader is now controlled with the corresponding V-Pot and vice versa.
- Press the Edit button in the Fader Banks section to open an editor for the current selection.
- Hold down Shift and press Edit to close the currently active window.

Using the faders

The faders of Mackie Control are used for hands-on level control and mixing, and allow precise adjustments of the corresponding channel levels in Nuendo. Since the faders are motorized, they will move to reflect any level automation you have created in your projects. The faders will also move when you select a new set of eight channels to control, instantly jumping to reflect the current levels of the eight channels.

- The faders are also touch sensitive, which means that as soon as you move a fader manually, the motors are "overridden".
 - In other words, if you have automated level changes, you can grab a fader at any time, overriding the automation just as you can click and hold a moving fader on screen with the mouse.
- Even though the faders are very quiet, there may be situations when you want absolute silence –
 e.g. when mixing an extremely soft and subtle piece of music. If that is the case, you can disable
 the motors by clicking the Motors button in the Action Keys section.

When you are finished, click the Motors button again. The fader motors are enabled again, and the faders will instantly move to reflect the current levels.

Turning the motors off does not affect the automation in Nuendo – all automation data saved in your project is played back as usual.

Rec/Rdy

The buttons directly underneath the row of V-Pots are used to arm a track for recording. The LEDs indicate the record arming state for a particular track.



The Signal LEDs underneath the Rec/Rdy buttons indicate signal activity on the channels. The LED lights up as soon as the level meter for a channel shows any activity.

Mute and Solo



The two rows of buttons underneath the Rec/Rdy buttons allow you to mute or solo channels. The following rules apply:

- You can mute or solo several channels at the same time.
- The Mute and Solo buttons always show the status of the current set of eight channels!
 This means that if you mute a channel and then select another set of eight channels for fader control, the Mute indicator will go dark.

If you have soloed a channel, this is indicated by the Rude Solo LED at the top right of the Mackie Control panel. You can un-solo or un-mute any channel or combination of channels by pressing (without or with Shift) the Solo Defeat button. See page 29.

Using the Select buttons



In the rows of buttons above the faders you will find the Select buttons. These are used for selecting a single channel for detailed settings (Selected Channel mode, see page 13).

- Only one channel at a time can be selected.
- When you solo a channel, it is automatically selected as well.
- If you select a channel and then select another set of eight channels for fader control, the Select button will go dark.

This is because the channel is still selected, but it's not shown in the current fader set.

A note about automation

The Read and Write buttons in the top row of the Action Keys section control the status of the Read and Write buttons in the Mixer of Nuendo, allowing remote control of Mixer automation.

- Press the Read button to enable or disable the reading of automation data for the selected channel.
- Hold down the Shift button and press the Read button to enable or disable the reading of automation data for all channels.
- Press the Write button to enable or disable the recording of automation data for the selected channel.
- Hold down the Shift button and press the Write button to enable or disable the recording of automation data for all channels.

3 Control strip assignment

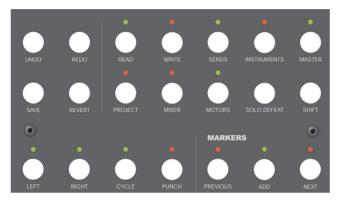
About this chapter

This chapter describes the assignment of the control strip to access all VST settings in Nuendo: EQ, effect sends, effect and VST Instrument parameters and so on. It also contains descriptions of the available parameter pages, as shown in the display of Mackie Control.

Basic procedures

Selecting a parameter group

To be able to view the settings of a parameter in the display and edit the values with the V-Pots, you need to select the corresponding parameter group. This is done by pressing one of the buttons in the Assignment and Action Keys sections of Mackie Control.



The Action Keys section



The Assignment section

About the three modes

Mackie Control operates in one of three modes: Selected Channel, Fader Set or Global. Which mode is used depends on which parameter group is selected. For example, pushing the Pan button in the Assignment section puts Mackie Control in Fader Set mode.

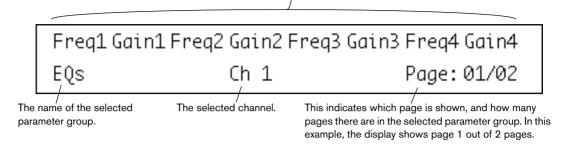
The functionality of the three modes is described on the following pages.

Selected Channel mode

This mode gives you access to up to eight different parameters at the same time for a single, selected channel. You can think of this as working with a single, vertical channel strip on a mixer desk, having access to pan, EQ, sends, etc. for a single channel.

When you have selected a parameter group in this mode, the display shows the following information:

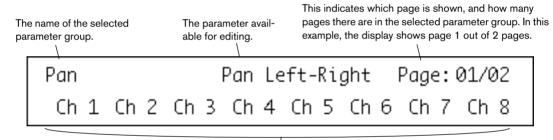
The upper row shows the names of the available parameters. Each parameter can be controlled with the corresponding V-Pot. In this example, V-Pot 1 would control the "Freq1" parameter, V-Pot 2 would control "Gain1" and so on.



 You select which channel to edit in Selected Channel mode by pressing one of the eight Select buttons directly above the faders.
 See page 11.

Fader Set mode

In this mode, you can view and edit a single parameter for eight different channels (the current Fader Set). You can think of this as working with a horizontal segment of a mixer desk, e.g. the pan controls for eight consecutive channels.



The lower row shows the names of the eight channels in the current Fader Set. You can control the selected parameter for each one of the eight channels by using the corresponding V-Pot. In this example, V-Pot 1 would control the Pan parameter for the channel "Ch1", V-Pot 2 would control the same parameter for the channel "Ch2" and so on.

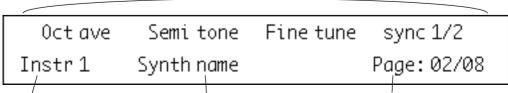
 You select which set of eight channels to edit by using the buttons in the Fader Banks and/or the Fader Groups section, as described on page 9.

Global mode

This is where you make global settings, i.e. settings that are not related to the individual channels. Examples include parameter settings for the send effects, master effects and VST Instruments.

The contents of the display depend on the selected parameter group. Here, the "Instruments" group is selected, and the display shows settings for one of the active VST Instruments:

The upper row shows the names of the available parameters. As you can see, only four parameters are shown on one page, allowing longer parameter names. Each parameter can be controlled with any of the two V-Pots above it. Here, the "Octave" parameter would be controlled with V-Pot 1 or 2, "Semitone" would be controlled with V-Pot 3 or 4 and so on.



The name of the selected parameter sub-group. See page 15 for an explanation of parameter sub-groups.

The name of the VST Instrument.

This indicates which page is shown, and how many pages there are in the selected parameter group. In this example, the display shows page 2 out of 8 pages.

Using the control strip

When you have selected a parameter group (or parameter sub-group - see below), you need to go to the page containing the desired parameter. This is done by pressing the two buttons labeled I/O for Page Down and Sends for Page Up at the top of the Assignment section.



- Holding down the Shift button (on the right in the second row of buttons in the Action Keys section) and pressing Page Up or Page Down takes you to the first or last available parameter page.
 - Once the parameter is shown in the display, you can adjust its value by moving the corresponding V-Pot.
- When you move the V-Pot, the display will switch to show the parameter values instead of the parameter names.
 - After you have moved a V-Pot, the display will keep the values shown for a short while before switching back to parameter names.
- To view the parameter values without making any changes, press the Name/Value button in the Display section.
 - This makes the display switch to showing parameter values. Click the Name/Value button again to go back to parameter names.
- The parameter values are also indicated by the LED rings around the V-Pots.

About parameter sub-groups

Most of the settings are structured in the following way: a parameter group (accessed by pressing a button in the Assignment or Action Keys sections) contains one or several pages, each holding one or several parameters.

However, in the case of send effects, master effects, instruments (Global mode) and inserts (Selected Channel mode), there is one more hierarchical level, called a parameter sub-group. For example, the parameters for master effects are structured in the following way:

The "Master Effects" parameter group contains eight sub-groups – one for each insert effect slot in Nuendo. Each sub-group contains a number of pages which contain a number of parameters (both numbers depending on the activated effects).

To select another parameter sub-group, go to the first page of the current sub-group and use
 V-Pot 1.

The figure below shows the first page of the first parameter sub-group in the Master Effects group.

This indicates Master Effect slot 1. Use V-Pot 1 to select another parameter sub-group (i.e. another Master Effect slot).

MFX#1 On Symphonic
Master FX1 Page: 01/03

About the symbols used in this chapter

On the following pages, all the different parameter groups are described. The parameter groups are divided according to the three modes, Selected Channel, Fader Set and Global.

For quick navigation in this manual, an icon at the top of each manual page shows to which mode it belongs:



This icon indicates the "vertical" Selected Channel mode.



This icon indicates the "horizontal" Fader Set mode.



This icon indicates Global mode.

When a group of parameters has more than one page of parameters in the Mackie Control display, this is indicated by the following symbol:



This corresponds to the Page Up/Down buttons in the Assignment section of Mackie Control.

For example, in the picture below, you would use the Page Up/Down buttons to switch between the "Level" and the "Enable" parameter pages:

FX Se nd1 Level Page: 01/05
Ch 1 Ch 2 Ch 3 Ch 4 Ch 5 Ch 6 Ch 7 Ch 8



 FX Se nd1
 Enable
 Page: 02/05

 Ch 1
 Ch 2
 Ch 3
 Ch 4
 Ch 5
 Ch 6
 Ch 7
 Ch 8

Selected Channel: EQ

Accessing the EQ controls for the currently selected channel is achieved by pressing the EQ button in the Assignment section. If you press Shift + EQ one band per page will be shown for the selected channel.

Please select a channel by pressing one of the Select buttons above the faders.



The controls for the equalizers are divided into 2 pages:

Page 1

- Frequency and Gain pairs for the four bands.

Page 2

- Enable and Q controls for the four bands.

Freq1 Gain1 Freq2 Gain2 Freq3 Gain3 Freq4 Gain4
EQs Ch 1 Page: 01/02



Enab1Q1 Enab2Q2 Enab3Q3 Enab4Q4EQsCh 1Page: 02/02

Selected Channel: FX Send



Accessing the FX Send (auxiliary) controls for the currently selected channel is done by pressing the DYN button in the Assignment section. Pressing Shift+ DYN will step through Fader Set mode "FX Send 1" to "FX Send 8".

Please select a channel by pressing one of the Select buttons above the faders.



The controls for the sends are divided into 4 pages:

Page 1 - Send Levels for each of the 8 FX Sends.

Page 2 - Enable switches for each of the 8 FX Sends.

Page 3 - Switches to change between pre/post fader mode.

Page 4 - Controls to choose the destination of the FX send signal.

Leve1 Leve2 Leve3 Leve4 Leve5 Leve6 Leve7 Leve8

FX Send Ch 1 Page: 01/04



Enab1 Enab2 Enab3 Enab4 Enab5 Enab6 Enab7 Enab8

FX Send Ch 1 Page: 02/04



Pre1 Pre2 Pre3 Pre4 Pre5 Pre6 Pre7 Pre8

FX Send Ch 1 Page: 03/04



Bus1 Bus2 Bus3 Bus4 Bus5 Bus6 Bus7 Bus8

FX Send Ch 1 Page: 04/04

The Bus destinations control whether the FX send signal is sent directly to the internal effects, to the Group channels or to a physical bus output (if your sound card has additional outputs.)

Selected Channel: Inserts



Accessing the Insert Effect controls for the currently selected channel is done by pressing the Plug Ins button in the Assignment section.

Please select a channel by pressing one of the Select buttons above the faders.



 When Page 01 is selected, V-Pot 1 selects which of the insert slots is currently being edited (see page 15).

If no effect is selected for the current insert slot, the display will show that 'No Effect' is selected.

IFX#1 Off No Effect
Insert1 Ch 1 Page: 01/01

After a plug-in has been selected in Nuendo, the display will change to show the selected plug-in in this effect slot and the 'number of pages' indicator will be updated to show the amount of pages necessary to display all the plug-in's declared parameters.

Here the Reverb32 plug-in has been selected.

IFX#1 On Rever b32 Inser t1 Ch 1 Page: 01/03



Mix	Pred elay	Rev.Time	Lo Cut
Rever b32	Ch 1		Page: 02/03



Hi Cut	Room size	
Rever b32	Ch 1	Page: 03/03

Fader Set: Pan



Accessing the Pan controls for the current Fader Set is done by pressing the Pan button in the Assignment section.



The left/right panning of a channel in the current Fader Set is controlled by the corressponding V-Pot.

Pan Left-Right Page: 01/02 Ch 1 Ch 2 Ch 3 Ch 4 Ch 5 Ch 6 Ch 7 Ch 8



Pan Front-Rear Page: 02/02 Ch 1 Ch 2 Ch 3 Ch 4 Ch 5 Ch 6 Ch 7 Ch 8

Global: Send Effects



Mackie Control can control the parameters of the effects that are loaded in the first insert of FX channels. To access these effects, press the Sends button in the Action Keys section.



When Page 01 is selected, V-Pot 1 selects which effect of the FX channels is currently being edited (see page 15).

If no effect is selected for the current slot, the display will show that 'No Effect' is selected.

FX#1 OffNoEffect
Send FX1 Page:01/01

After a plug-in has been selected in Nuendo, the display will change to show the currently selected plug-in this effect slot and the 'number of pages' indicator will be updated to show the amount of pages necessary to display all the plug-in's declared parameters.

Here the Reverb32 plug-in has been selected.

FX#1 On Rever b32
Send FX1 Page: 01/03



Mix Predelay Rev.Time Lo Cut Send FX1 Reverb32 Page:02/03



Hi Cut Roomsize
Send FX1 Reverb32 Page:03/03

Global: Master Effects



Mackie Control can control the parameters of the effects that are loaded in the master effects section of the main output. To access these effects, press the Master button in the Action Keys section.



 When Page 01 is selected, V-Pot 1 selects which of the master effect slots is currently being edited (see page 15).

If no effect is selected for the current master effect slot, the display will show that 'No Effect' is selected.

MFX#1 Off NoEffect

Master FX1 Page:01/01

After a plug-in has been selected in Nuendo, the display will change to show the currently selected plug-in this effect slot and the 'number of pages' indicator will be updated to show the amount of pages necessary to display all the plug-in's declared parameters.

Here the Symphonic plug-in has been selected.

MFX#1 On Symphonic

Master FX1 Page: 01/03



Mix Delay Depth Raite

Master FX1 Symphonic Page: 02/03



Sync Beat Stere obasi TmsS ync

Master FX1 Symphonic Page: 03/03

Global: Instruments



Mackie Control can control the parameters of the instruments that are loaded in the VST Instruments rack. To access these, push the Instruments button in the Action Keys section.



 When Page 01 is selected, V-Pot 1 selects which of the VST Instrument slots is currently being edited (see page 15).

If no VST Instrument is selected for the current slot the display will read 'No Effect'.

VST#1	No Effect	
Instr1		Page: 01/01

After an instrument plug-in has been selected in Nuendo, the display will change to show the currently selected instrument in this effect slot and the 'number of pages' indicator will be updated to show the amount of pages necessary to display all the plug-in's declared parameters.

VST#1	Synth name	
Instr1		Page: 01/08



Oct ave	Semi tone	Fine tune	sync 1/2
Instr1	Synth name		Page: 02/08



Oct ave	Semi tone	Fine tune	Noise level
Instr1	Synth name		Page: 03/08



Filte rFreq	Res onanc	Evn Amt	Over drive
Instr1 9	ynth name		Page: 04/08

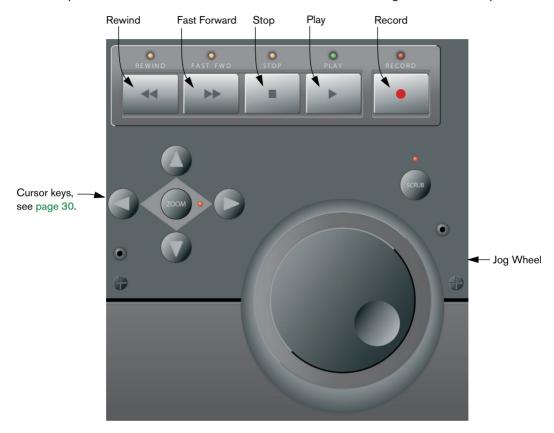
4
Transport control

About this chapter

This chapter describes how to control playback, recording, positioning and the time display in Nuendo from Mackie Control.

The transport controls

The transport controls of Mackie Control are located in the lower right corner of the panel:



 Note that pressing Shift while pressing Rewind or Fast Forward will move the project cursor to the beginning or the end of the project.

About the jog wheel

The wheel is used for moving the project cursor position in Nuendo. The Scrub button above the jog wheel is reserved for future use.

Working with markers



You can use Mackie Control to move directly to particular positions defined in your project with the aid of markers. Also, you can place such a marker at the current position in the project. The most common use for this is probably to move to the L and R markers – the left and right locators.

Jumping to a marker

 In the Markers section (directly above the Transport Controls), press the Prev or Next button to jump from the current project cursor position to the previous or next marker position in your project.

Adding a marker

- 1. Navigate the project cursor to the position where you want to add a marker.
- In the Markers section, press the Add button.A marker is placed at the current cursor position in your project.

Switching the time display

When you press the SMPTE/Beats button in the Display section, the time display of Mackie Control will switch between "bars and beats" and the timecode format as selected in the project setup of Nuendo.

This change is also reflected on the Transport bar of Nuendo.

If you first change the time display on the Transport bar in Nuendo, this change is not reflected by Mackie Control. For the time display to be correct in Mackie Control, the Frame Rate and the Display Format in the Project Setup dialog in Nuendo should be identical.

5 Other functions

About this chapter

This chapter describes the remaining functions available on the Mackie Control panel.

Project functions



The Save and Revert buttons in the Action Keys section of the panel have the following functionality:

- Press the Save button to save the current project.
 This is the same as selecting "Save" from the File menu in Nuendo.
- Hold Shift and press Save to save a backup copy of the current project.
 This is the same as using the "Save New Version" command in Nuendo.
- Press the Revert button to go back to the last saved version of the current project.
 This is the same as selecting "Revert" from the File menu in Nuendo.

Edit functions



The Undo and Redo buttons in the Action Keys section of the panel have the following functionality:

- Press Undo to undo the last operation in Nuendo.
- Pressing Shift and Undo simultaneously opens the Edit History dialog in Nuendo.
- Press Redo to "undo the undo".

Working with windows





The buttons above and to the left of the Markers section allow you to control project functions or to open and close windows in Nuendo.

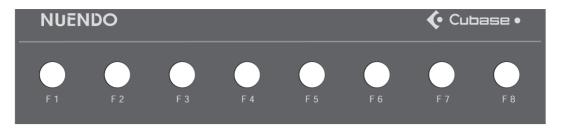
- Press the Left button to set the project cursor to the position marked by the left locator.
- Hold down Shift and press the Left button to move the left locator to the current project cursor position.
- Press the Right button to set the project cursor to the position marked by the right locator.
- Hold down Shift and press the Right button to move the right locator to the current project cursor position.
- Press the Cycle button to switch Cycle mode on or off in Nuendo. This setting is reflected on the Transport bar in Nuendo.
- Press the Punch button to switch automatic punch in on or off in Nuendo. This setting is reflected on the Transport bar in Nuendo.
- Press the Project button to bring the current Project window to the front.
- Press the Mixer button to open or close the Mixer window.
- Press the Motors button to switch on or off the faders' motors see page 10.
- Press the Solo Defeat button to disable Solo for all channels.
- Hold down Shift and press the Solo Defeat button to disable Mute for all channels.

In the top right corner of Mackie Control, next to the display, you will find an LED labeled Rude Solo. This LED lights up as soon as any channel has been soloed.



The Rude Solo LED

Function keys



You can use the function keys F1 to F8 and function key combinations with the Shift button to access functions in Nuendo. Refer to the Nuendo operation manual for information about how to assign program functions to remote controller function keys.

On the rear panel of Mackie Control you will find two input jacks for foot pedals, labeled User Switch A and B.



The switches and inputs on the rear panel of Mackie Control

The procedure for assigning functions to these foot pedals is the same as for the function keys (see above).

Cursor keys



Pressing the cursor keys located to the left of the jog wheel is the same as pressing the arrow keys on your computer keyboard. Note that the Zoom button is not supported.

Showing level meters in the parameter display

You can show level meters for each channel in the parameter display. This is done by pressing Shift and the SMPTE/Beats button. Pressing the same buttons again reverts the display back to parameter mode.

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