

STUDIO DRUMMER



Manual



The information in this document is subject to change without notice and does not represent a commitment on the part of Native Instruments GmbH. The software described by this document is subject to a License Agreement and may not be copied to other media. No part of this publication may be copied, reproduced or otherwise transmitted or recorded, for any purpose, without prior written permission by Native Instruments GmbH, hereinafter referred to as Native Instruments.

“Native Instruments”, “NI” and associated logos are (registered) trademarks of Native Instruments GmbH.

Mac, Mac OS, GarageBand, Logic, iTunes and iPod are registered trademarks of Apple Inc., registered in the U.S. and other countries.

Windows, Windows Vista and DirectSound are registered trademarks of Microsoft Corporation in the United States and/or other countries.

All other trade marks are the property of their respective owners and use of them does not imply any affiliation with or endorsement by them.

Document authored by: Native Instruments GmbH

Software version: 1.2 (07/2012)

Special thanks to the Beta Test Team, who were invaluable not just in tracking down bugs, but in making this a better product.

Germany

Native Instruments GmbH
Schlesische Str. 29-30
D-10997 Berlin
Germany
www.native-instruments.de

USA

Native Instruments North America, Inc.
6725 Sunset Boulevard
5th Floor
Los Angeles, CA 90028
USA
www.native-instruments.com



© Native Instruments GmbH, 2012. All rights reserved.

Table of Contents

1	Introduction	6
2	Quickstart	8
2.1	Basic Navigation	8
2.2	Editing the Drums	8
2.2.1	Fine-Controlling Individual Drums and Articulations	8
2.2.2	Changing the Snare	9
2.2.3	Creating a Mix	10
2.2.4	Adding and Removing Drums	11
2.2.5	Preset Handling	12
3	The Performance View	13
3.1	Kit Page	13
3.1.1	OH and ROOM MIX Knobs	15
3.1.2	TUNE Knob	16
3.1.3	ATTACK, HOLD and DECAY Knobs	16
3.2	Mixer Page	17
3.2.1	Common Mixer Controls	18
3.2.2	CLOSE MICS Area	19
3.2.3	KIT MICS/BUSES Area	19
3.2.4	Effects	20
3.2.5	Channel Settings	24
3.3	Grooves Page	25
3.4	Options Page	29
3.4.1	VELOCITY Settings	30
3.4.2	MIDI Mapping	30
3.4.3	KIT VIEW Settings	31
3.4.4	RANDOMIZE Settings	31

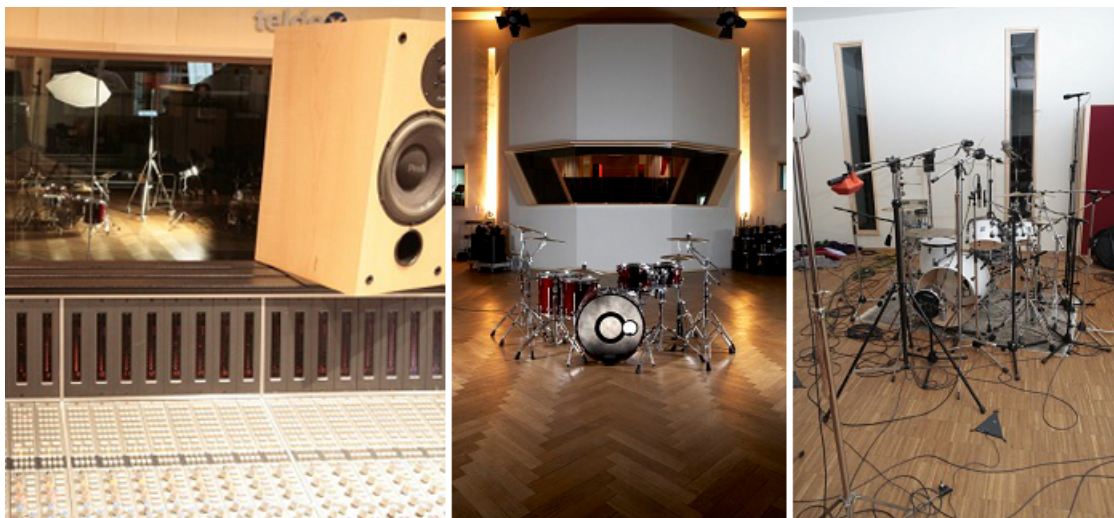
4	Kit Selection	33
5	Drum Articulations	35
5.1	Session Kit	35
5.2	Stadium Kit	39
5.3	Garage Kit	43
6	Credits	47

1 Introduction

STUDIO DRUMMER is an acoustic drum library that gives you premium drum kits, a top of the line studio sound, full mixing control with high quality effects, and a huge selection of MIDI grooves covering a variety of popular music genres. It gives you everything you need to create the perfect drum tracks for all kinds of productions.

Three top tier drum kits were recorded: a Yamaha Maple Custom Absolute kit, a Pearl Masters Premium Maple kit, and a Sonor SQ2 Drum System kit. Just about every articulation was played on the various drums and cymbals and recorded with up to 25 velocity layers and up to six variations per same-velocity hit. Each kit has up to 18 microphones that can be mixed separately, including many direct mics, a mono and stereo overhead set of mics, and room mics to capture the ambient sound of the various recording spaces in the studio.

The drums were recorded at Teldex Studio in Berlin, Germany, world renown for legendary classical recordings as well as many other styles for several decades. Their famous recording hall as well as state of the art equipment and highly skilled professional engineers provided the perfect setting to record the STUDIO DRUMMER library.



From left to right: the mixing desk at Teldex Studio Berlin, Germany, with the Yamaha kit visible in the background; the Yamaha Maple Custom Absolute kit set up in the live room; the Sonor SQ2 Drum System kit, set up for recording.

Document Conventions

This document uses particular formatting to point out special facts and to warn you of potential issues. The icons introducing the following notes let you see what kind of information can be expected:



Whenever this exclamation mark icon appears, you should read the corresponding note carefully and follow the instructions and hints given there if applicable.



This light bulb icon indicates that a note contains useful extra information. This information may often help you to solve a task more efficiently, but does not necessarily apply to the setup or operating system you are using; however, it's always worth a look.

Furthermore, the following formatting is used:

- Text appearing in (drop-down) menus (such as *Open...*, *Save as...* etc.) and paths to locations on your hard drive or other storage devices is printed in *italics*.
- Text appearing elsewhere on the screen (labels of buttons, controls, text next to checkboxes etc.) is printed in **light blue**. Whenever you see this formatting applied, you will find the same text appearing on the screen.
- Important names and concepts are printed in **bold**.
- References to keys on your computer's keyboard you'll find put in square brackets (e.g., "Press [Shift] + [Return]").

► Single instructions are introduced by this play button type arrow.

→ Results of actions are introduced by this smaller arrow.

About KONTAKT / KONTAKT PLAYER

STUDIO DRUMMER is a KONTAKT Instrument; you will, therefore, have to have KONTAKT or the free KONTAKT PLAYER installed on your computer in order to use this instrument. Refer to the KONTAKT / KONTAKT PLAYER documentation to learn how to load and configure KONTAKT Instruments.

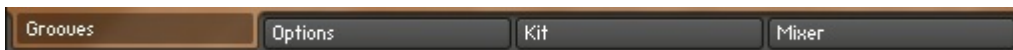
2 Quickstart

In this chapter, you will find a quick guide to navigating the controls of STUDIO DRUMMER, as well as step by step guides to certain functions.

2.1 Basic Navigation

The interface has four main pages of control. You can navigate among these pages by clicking on the tabs at the bottom of the instrument's Performance View. The different pages and their uses are as follows:

- **Grooves page:** On this page is a browser of many genre-separated MIDI grooves and fills with variations that can be dragged to your host for immediate song creation.
- **Options page:** This page has options for technical kit settings such as kit mapping and velocity options, as well as randomization parameters.
- **Kit page:** You can select each drum on this page to adjust the overhead and room mixes, tuning, and volume envelopes for those drums. You can also select which snare you want to use, as well as load and unload the separate kit pieces.
- **Mixer page:** This page has all of the standard controls for an audio mixer, including levels, panning, solo, mute, send levels and channel routing. This is also where all effect settings and effect routing options are edited.



The four navigation tabs at the bottom of the Performance View

2.2 Editing the Drums

2.2.1 Fine-Controlling Individual Drums and Articulations

To change the individual kit piece's sound settings and articulations:

1. Click on the [Kit](#) tab.
2. To edit the settings for a particular drum or cymbal, just click on its picture. Percussion is selected from a sub-menu of icons next to the drum kit image.
3. To change the overhead and room mix amounts for each piece, adjust the corresponding [OH MIX](#) and [ROOM MIX](#) knobs.
4. To alter the tuning, adjust the [TUNE](#) knob.
5. To change the volume envelope of the selected piece, you can adjust the [ATTACK](#), [HOLD](#) and [DECAY](#) with the respective knobs.



A typical drum's control panel

2.2.2 Changing the Snare

Each kit has alternate snares to choose from. To change the snare:

1. Click on the [Kit](#) tab.
2. Click on the snare drum image.
3. Click on the [A](#) or [B](#) button located underneath the snare drum image to switch between the snares.

→ The snare image will change to indicate the newly selected snare.



Switching between the snares

2.2.3 Creating a Mix

To create a mix of the kit, click on the [Mixer](#) tab. This will give you a virtual mixing console with many of the same controls you would find on a real mixing desk. Here you can control the volume, pan, mute, solo, and routing of the various tracks. You can also add many customizable effects to all channels.



A typical channel on the Mixer page

You can also adjust the levels of the in, out, and sub mics on the kick, the top and bottom mic on the snare, and the amount of snare mic bleed when the kick and toms play.



Additional controls for the Kick and Snare channels

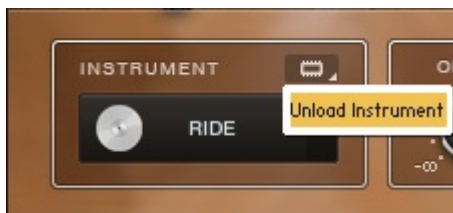
2.2.4 Adding and Removing Drums

If you will not be using a particular drum, cymbal or percussion instrument, you can remove it from the kit, thus freeing up more computer memory. To do this:

1. Click on the [Kit](#) tab.
2. Select the instrument that you want to remove.
3. Click on the small memory chip icon above the instrument name at the bottom left of the page.
4. A drop-down menu will appear, giving you the option to add or remove the instrument from the kit with *Load Instrument* and *Unload Instrument* options. When an instrument is unloaded, a darkened version of it will replace the original image.



If you unload an instrument, you can always load it back again using the same method.



Unloading an instrument on the Kit page.

2.2.5 Preset Handling

- ▶ To step through the presets, simply click on the right and left arrows.
- ▶ To load a preset, simply select the preset from the drop-down menu.

Saving User Presets

You can save presets for the settings of the whole mixer on the Mixer page, as well as kit mapping layouts on the Options page. Each of these preset menus contains a selection of factory presets and allows you to save your own custom presets. Factory presets cannot be overwritten (indicated by the darkened ) but they can be adjusted and saved as a new user preset.

To save a user preset:

1. Adjust the settings you want to save and recall for your preset.
 2. Click in the text area on the preset drop-down menu.
 3. Type in the name for the new preset and click on the Save icon above the drop-down menu.
- The new preset will now appear at the bottom of the drop-down menu and is ready to be used when opening the kit again.



If you save a user preset without changing the name, it will overwrite the current user preset.

Removing User Presets

1. To remove a user preset:
 2. Select the preset in the drop-down menu.
 3. Click on the  icon above the drop-down menu.
- The user preset will be deleted and not be available when opening the kit again.

3 The Performance View

This chapter describes the Performance View interface of STUDIO DRUMMER. Learn how to use the functions and controls of the four pages: [Kit](#), [Mixer](#), [Grooves](#) and [Options](#).

3.1 Kit Page

The [Kit](#) page has a view of the drum kit where you can select each drum and adjust:

- the tuning
- the volume envelope
- the overhead microphone mix
- the room microphone mix

You can also choose which snare you want to use, as well as load or unload the selected drum.



Kit page Performance View of the Stadium Kit

To select a drum or cymbal for editing, click on it with the mouse. To select a percussion instrument, click on its icon at the right of the drum kit image. For details on editing the instrument settings on the [Kit](#) page, see section [↑2.2.1, Fine-Controlling Individual Drums and Articulations](#).



Clicking on an instrument will also play the sound of that instrument, giving you a quick preview of the sound. For instructions on how to disable (or enable) sound playback on mouse click, see section [↑3.4.3, KIT VIEW Settings](#).

After selecting an instrument, its name and controls will appear in the panel at the bottom of the page. Editing the sound of a selected instrument will edit all articulations of that instrument.

Each kit has two snare drums to choose from. You can select the snare drum you want to use by clicking on the **A** and **B** buttons below the snare image. Switching between the snares will unload the current snare from memory and load the other one, and will change the image of the snare drum.

When the **SELECT BY MIDI** icon at the upper right of the Kit page is activated, the drums will be selected depending on the notes played with your MIDI input device.



This function is automatically turned off during host playback, or while the file player of the KONTAKT stand-alone application is running (e.g. playing back a MIDI groove).



You can also select the kit pieces by using the **INSTRUMENT** drop-down menu at the left of the panel at the bottom.

You can remove the selected instrument from the kit (and thus unload it from memory) by clicking on the small memory chip icon to the right of the **INSTRUMENT** header, as described in section [↑2.2.4, Adding and Removing Drums](#). Removing unused kit pieces is useful for freeing up computer memory. You can always load the kit pieces back at any time. When a kit piece is unloaded, its image turns dark.

The rest of the panel contains the controls for the Overhead (OH) and Room microphone mixes, the drum Tuning control, and the volume envelope of the drum with controls for the Attack, Hold, and Decay (AHD envelope). For more information on these controls, see sections [↑3.1.1, OH and ROOM MIX Knobs](#), [↑3.1.2, TUNE Knob](#), and [↑3.1.3, ATTACK, HOLD and DECAY Knobs](#).

3.1.1 OH and ROOM MIX Knobs



OH MIX and ROOM MIX knobs

The **OH MIX** and **ROOM MIX** knobs adjust the volume levels of the Overhead microphone(s) and the Room microphone(s) of the selected drum, cymbal, or percussion instrument. This allows you to create your own custom mix of those microphones for each individual drum, which is not possible in a traditional studio recording.



Please note that this is a separate control from the overall level of the OH and Room mics. These levels can be adjusted on the [Mixer](#) page.

3.1.2 TUNE Knob



TUNE knob

The **TUNE** knob changes the pitch of the selected kit piece. The pitch changes for all microphones and all articulations of that piece. The range of the **TUNE** knob is limited to values that are relatively realistic.

3.1.3 ATTACK, HOLD and DECAY Knobs



ATTACK, HOLD and DECAY knobs

The **ATTACK**, **HOLD** and **DECAY** knobs are controls for a typical AHD volume envelope for each selected drum.

- Increasing the **ATTACK** value adds more of a fade-in to the beginning of the sound.
- The **HOLD** knob adjusts how long the sound stays at maximum volume.
- The **DECAY** knob adjusts how quickly the sound fades out after the **HOLD** time has passed.

For the most natural drum sound, the default setting is the best (**ATTACK** is off, and **HOLD** is at maximum). Adjusting these controls is only necessary if you want to shape the sound in an “unnatural” way.

3.2 Mixer Page

The **Mixer** page has the same microphone level and panning controls as a real mixing board, as well as a large selection of effects and routing controls. You can save and load all mixer settings by using the **MIXER** panel at the upper left of the page. This panel appears on every page of STUDIO DRUMMER, in order to select different mixer page presets while using other parts of the interface. As each kit has a very different sound, these mixer presets can only be used for the kit that they are saved with.



Mixer page Performance View

3.2.1 Common Mixer Controls

- The channel faders on the [Mixer](#) page control the **volume level of the various microphones**. The faders in the [CLOSE MICS](#) area control the volume of the individual direct microphones, and the [KIT MICS](#) faders control the volume of the overhead and room microphones.



The levels of each instrument within the overhead and room microphones can be adjusted separately, but this is done on the Kit page (see section [↑3.1, Kit Page](#) above).

- Each close mic and mono kit mic has a **PAN** knob to change the left and right location of that mic in the stereo field.
- Each stereo kit mic has a **WIDTH** knob, ranging from **MONO** to **STEREO**. **STEREO** is the standard setting, where the left and right channels are independent on the left and right sides. As the knob is turned towards **MONO**, the left and right channels are combined until they become a single central sound source when the knob is turned all the way to the left.
- The **S** and **M** buttons allow you to solo (**S**) and mute (**M**) the individual channels. When a track has the Solo button pressed, all other channels are silent and only the soloed channel can be heard. Putting additional channels into solo mode will add those channels into the mix, but still keep all other channels silent. When the mute button is pressed, the selected track can no longer be heard. Mute has a higher “ranking” than solo, so if a track has both buttons pressed, the track will be muted.
- The **SEND** knob at the top of each channel controls the amount of reverb effect to be included in the mix for that channel. The global reverb level is adjusted with the reverb fader in the **BUSES** area.

3.2.2 CLOSE MICS Area

The **CLOSE MICS** area takes up the left portion of the **Mixer** page. As the name suggests, this area contains the **channel controls for the close microphones**. The close microphones (also known as “direct” mics) are placed very close to the drums. There are close microphones for the kick, snare, hi-hat, toms, and some percussion.

3.2.3 KIT MICS/BUSES Area

The right portion of the **Mixer** page displays the controls for either the kit microphones or the busses:

The **Kit Microphones view** includes controls for the overhead and room microphones. These microphones are placed in such a way to record the sound of the entire kit, either with a stereo pair or with a single mono microphone.

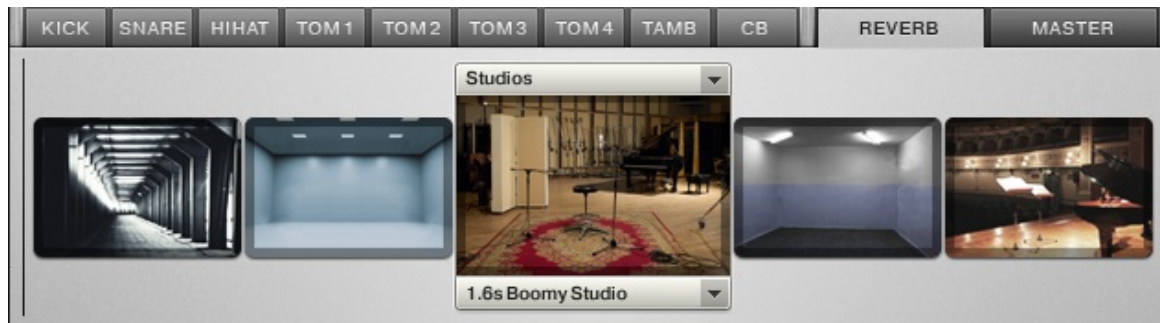
The controls in the **Buses view** are used to adjust the levels of the master output, master panning and reverb return level.

- ▶ To switch between the Kit Microphones and Buses view, click on the **BUSES** or **KIT MICS** button, respectively, both of which are located at the top-right of the **Mixer** page.
- ▶ You can also switch the left and right position of the master out with the **L↔R** button on the **MASTER** channel. All channels are labeled at the bottom, and the labels are highlighted when editing the channels.

3.2.4 Effects

Several new high quality effects are included with STUDIO DRUMMER, specifically tailored for acoustic drum production. These effects are **Convolution Reverb**, **Solid G-EQ**, **Solid Bus Comp**, **Tape Saturation**, and the **Transient Master**. Each of these effects can be turned on or off for any of the channels by clicking on the LED next to each effect name at the bottom of the page.

Convolution Reverb



Convolution Reverb effect

The Convolution Reverb includes many impulse samples of some of the best acoustic spaces for acoustic drum production.

- ▶ To **select an acoustic space**, click on the **BUSES** tab and then click on the **Reverb** channel. The various spaces will then appear at the bottom of the screen.

- ▶ To **shift the selection over to reveal more room types**, click on the room images to the right and left of the selected image.
- ▶ To **select the room type**, click on the drop-down menu above the selected room image. The drop-down menu below the room image allows you to select a specific room preset within that room type.
- ▶ To **adjust the overall level of the reverb**, move the fader on the Reverb channel. The amount of reverb in each channel is adjusted with the **SEND** knobs at the top of each microphone channel.

Solid G-EQ



Solid G-EQ effect

The SOLID G-EQ is a uniquely musical EQ. Up to four frequency ranges can be adjusted with high precision.

- The **HZ/KHZ** knobs set the center frequency that is being adjusted with the EQ.
- For the two mid frequency ranges, there are **Q** knobs to adjust the width of the bell curve for the adjusted frequency range.
- The **DB** knobs adjust the gain boost or gain reduction of the selected frequencies.
- The low and the high frequencies can switch between bell curve and shelf modes by clicking on the **BELL** button.
- The **OUTPUT** knob on the right side adjusts the overall output level.

Solid Bus Comp



Solid B-Compression effect

Also available as a fully-fledged product in its own right, this virtual reproduction of a legendary compressor adds presence and drive to your drums without blurring the detail.

- The **ATTACK** knob adjusts the amount of time in milliseconds that it takes for the compressor to reach the ratio after the input signal exceeds the threshold level.
- The **RELEASE** knob adjusts the amount of time in milliseconds that the compressor will take to stop affecting the sound after the input signal falls below the threshold.
- The **THRESHOLD** knob adjusts the level in dB that the input signal must exceed before the compressor starts affecting the sound.
- The **RATIO** knob controls the amount of compression expressed as a ratio of “input level” to “output level change”. The higher the **RATIO** knob is set, the more the output level will be reduced as the sound goes beyond the threshold.
- The **MIX** knob allows you to add the dry signal to the mix as well, for a parallel compression sound.
- The **MAKEUP** knob allows you to increase the overall output level of the compressed sound.
- The **OUTPUT** knob on the right side adjusts the overall output level.

Tape Saturator



Tape Saturator effect

The Tape Saturator adds the simulated warmth of sound that comes from an analog tape machine.

- The **WARMTH** knob manipulates the frequencies of the audio to give a “warming” tone to the sound.
- The **GAIN** knob adjusts the amount that the input signal is boosted with the saturated sound.
- The **HF** knob takes away the highest frequencies in a similar way that analog tape rolls off those high frequencies.
- The **OUTPUT** knob on the right side adjusts the overall output level.

Transient Master



Transient Master effect

The Transient Master can subtly or drastically change the sound of the drums, depending on how you want to use it.

- The **INPUT** knob adjusts the level of the input signal going into the effect.
- The **ATTACK** knob adjusts the level of the attack of the signal.
- The **SUSTAIN** knob adjusts how long the sound will ring out, which can effectively sound like changing the dampening or the size of the various drums, or even changing the size of the room that the drums are in.
- The **OUTPUT** knob on the right side adjusts the overall output level.

3.2.5 Channel Settings

Each channel has its own settings for effect routing and channel output routing, and each mic channel can also be unloaded from memory if not in use.



Channel Settings view for the Kick Drum

- In the **FX ROUTING** area, there are four different effect routing presets to choose from. These change the order of which effect comes before the other, depending on your preference in a mix (for example, some engineers prefer to use EQ before compression, while others prefer to use it after compression). The signal chain of the effects goes from left to right according to the image, and you can step through the different order presets using the right and left arrows.
- The **CHANNEL** area gives an **OUTPUT** drop-down menu to select which output that channel will be routed to. Please note that the channel outputs must first be setup in KON-TAKT before being able to route them here. To unload a channel that is currently not in

use from your computer's memory, select it from the drop-down menu (represented by a memory chip icon) in the top-right corner of the **CHANNEL** area. You can always load that channel back at any time.

Additional Kick and Snare Controls

The **Kick** and **Snare** close microphones have additional controls to adjust multiple direct microphone levels:

- For the **Kick** close mic, there is an additional area on the left where you can adjust the separate levels of the Direct In mic (placed inside the kick drum pointing towards the front head), the Direct Out mic (placed a short distance outside of the kick drum) and the Direct Sub mic (a special inverted speaker microphone placed next to the Direct Out mic to pick up the sub frequencies of the kick drum).
- For the **Snare** close mic, there is an additional area on the left where you can adjust the separate levels of the Direct Top mic (placed over the snare drum pointing down), the Direct Bottom mic (placed under the snare drum pointing up), and the Snare Bleed. The Snare Bleed fader adjusts the amount of the “buzzing” sound that the bottom of a snare produces when resonated by the Kick and Toms.

3.3 Grooves Page

The **Grooves** page is a browser with a huge library of organized MIDI grooves that can be used to quickly create drum parts for a song or production. You can edit several parameters to change the beats, and all grooves can be dragged into your host.

The **GROOVE** panel at the top right of the page allows you to play the groove with the play button, and select through the variations of that groove with the right and left arrow buttons. This panel is available on every page of STUDIO DRUMMER so you can play the grooves when using any of the other pages.

- To use a groove in your host, click in the area of the groove name and drag the groove to your track in the host. A MIDI file of the groove will be created in your track.



Grooves page Performance View

The **GROOVE BROWSER** has a total of three columns:

- The leftmost column shows a list of Genre folders, each with its own set of customized Grooves, Fills and Variations.

- The middle column shows the list of Grooves and Fills available for that Genre. The standard time signature is 4/4, unless otherwise shown in the name of the Groove or Fill. And the end of each Groove, there is a suggested BPM (beats per minute) tempo to use, but the grooves can be used at any tempo.
- The rightmost column is a list of all Variations for the selected Groove or Fill. To select a Variation, double click on the variation name. After selecting one variation, you can use the up and down arrows on your computer keyboard to select among the variations, or the right and left arrows in the **GROOVE** panel.

Available Grooves

The **8 Genres included with STUDIO DRUMMER** are Pop, Rock, Funk, Jazz, Indie, Metal, Country, and Blues.

A Groove for a particular Genre is a typical beat that would be used for that genre. Similarly, a Fill for a particular Genre is a drum fill that would be used in music for that genre. A Variation has the same general sound and feel of the main Groove or Fill, but has some small changes, ranging from different hi-hat rates to additions of ghost notes to changes of drums used, etc. The different Variations have key words in their names to identify the changes made in a particular variation, which are listed below:

- *4th, 8th, 16th*, etc.: This represents the note division on which the tempo of the groove is played or felt. This is usually based on the instrument that is keeping the time, such as the hi-hat or ride cymbal.
- *Hat/Ride/Other*: This is the instrument that is keeping the time of the groove, typically a hi-hat or ride cymbal.
- *Closed/Open/Both*: This term is used when a hi-hat is keeping the time, and describes whether the hi-hat is always closed, always open, or uses both closed and open hits. This term will not be used if a ride cymbal or other instrument is keeping the time.
- “Extra”: Sometimes an extra word is added at the end to classify the sound of the groove:
 - *Ghost*: This is used when there are additional ghost notes added to the groove, such as snare or kick ghost hits.
 - *Side*: This term is used if a snare sidestick is used instead of a center hit.
 - *Toms*: When additional toms are included in the groove, this term will appear.

- *Perc*: If additional percussion sounds are used, which includes extra percussion such as cowbells or hand claps, as well as “rim only” articulations, then this term will be used.
- *Multi*: If more than one of the above sounds or techniques is used, then the term at the end will be Multi to represent multiple types.

Groove Controls

- The **TIGHTNESS** knob changes the amount of “groove” in the beat. The center value is the original sounding played beat. When turned all the way to the right, the beat is completely quantized and “machine-like”. As the knob is turned to the left, the beat gets more and more loose until it sounds very “sloppy” when turned all the way to the left. Depending on the type of music, all knob positions can be useful for different styles.
- The **SWING** knob adjusts the amount of swing in the beat. Swing allows for rhythmic shifting of a groove where the first note in a series plays longer than the one that follows. When the knob is all the way to the right, the swing is the most severe. When all the way to the left, a “negative” swing is applied, where the first note in the series is actually shorter than the one that follows. Different time signatures affect the swing in different ways, so it is often best just to try the **SWING** knob to see how it sounds with the selected groove.
- The **GRID** selector allows you to select different quantization timings for the **TIGHTNESS** and **SWING** knobs. For example, selecting $1/8$ will push the grooves towards or away from the 8th notes of the beat when using the **TIGHTNESS** knob.
- The **VELOCITY** knob changes the range of the velocities in the grooves. At the center position, the groove plays with the same velocities that were recorded with it. As the knob is turned to the right, the range is “compressed” to the high range so that all velocity values increase until they are all at maximum when the knob is all the way to the right. Similarly, when the knob is turned to the left the velocities are “compressed” to the low range until all velocities are the lowest when turning the knob all the way to the left.
- The **TEMPO** selection buttons allow you to immediately change the tempo of the groove or fill to be half the speed or double the speed of the originals. This can be useful when a song is recorded at a high BPM tempo, but the feel of the song is actually half of that speed (or vice versa).

3.4 Options Page

The [Options](#) page is where additional “technical” parameters of a kit are adjusted, such as the MIDI note mapping and velocity ranges. There is also a [RANDOMIZE](#) section where various sound parameters have random values applied.



Options page Performance View

3.4.1 VELOCITY Settings

The **VELOCITY** area at the top allows you to fine-tune the way STUDIO DRUMMER responds to MIDI input:

- In the **CURVE** section you can select a curve for incoming MIDI note velocities. The default is a linear curve, but many MIDI input devices have different levels of sensitivity, making a convex or concave curve more appropriate. There is also an option to select a constant “fixed” velocity (represented by a horizontal line).
- Utilizing the **RANGE** controls, you can change the lowest and highest velocity values. This is useful for preventing the quietest and/or the loudest sounds from playing, and instead be limited to the specified minimum and maximum. Different MIDI input devices, such as MIDI keyboards and electronic drum kits, will also need their own velocity setting adjustments to match your playing style.

3.4.2 MIDI Mapping

The **MIDI MAPPING** area contains all of the controls for changing the mapping layout of the kits. Each articulation can be assigned to one or more MIDI notes, allowing for your own customized mapping. This is very useful for adjusting the mapping to the way that suits you best when playing the drums with a MIDI keyboard, or for adjusting the mapping to a custom electronic drum setup.

To assign the MIDI notes manually by entering or selecting the note in the **NOTE** selector:

1. Select the **INSTRUMENT** and the **ARTICULATION** in the drop-down menus.
2. Click on the checkbox next to the **APPLY CHANGES?** label.

→ The changes will be applied.



You can also click the **SELECT BY MIDI** icon to change to the **NOTE** value by playing the MIDI note, and then following the procedure above to assign the note.

All custom MIDI mappings can be saved and loaded from the mapping preset menu.

Mapping Presets

STUDIO DRUMMER also comes with a selection of mapping presets that are set up to work with popular software and electronic drum setups. These include General MIDI, V-Drums (two options), DrumIt Five, EZDrummer, Superior Drummer, BFD, iMap, and Addictive Drums. These mappings can be selected from the **PRESET** drop-down menu in the **MIDI MAPPING** area. If you want to make changes to these mappings, you can always do so and save the mapping preset under a different name.



Please keep in mind that every e-drum setup is different, and almost every drum kit has some particularities to it. Therefore the mapping presets will not fully match your e-drum setup without any adjustments. These mapping presets have been included to provide you with the best possible starting point. You can make additional changes to these mappings and save a new preset to fit your e-drum needs.

3.4.3 KIT VIEW Settings

The **KIT VIEW** area holds the properties of the **Kit** page:

- **TRIGGER ON MOUSE CLICK:** This option defines if the sound of an instrument is played back when the instrument's image on the **Kit** page is clicked on with the mouse.
- **SHOW TRIGGER STATES:** This option defines whether the drum kit view on the **Kit** page displays a real-time animation when instruments are triggered (played) during song or MIDI groove playback.



It is recommended to deactivate the **SHOW TRIGGER STATES** option when computing power is scarce, e.g. when working on projects with high track counts. Switching off the user interface animations may considerably reduce the CPU load.

3.4.4 RANDOMIZE Settings

The controls in the **RANDOMIZE** area add custom levels of humanization and variation in the sound output. The higher the value of a knob, the higher the range of randomization for the relevant control. The randomized parameters are:

- **VOLUME:** The volume level of the played drum increases or decreases by a random amount with each hit.

- **VELOCITY:** The velocity of the played drum will increase or decrease slightly, which can trigger different samples above or below the one at the original velocity.
- **TIME:** This will add a slight random amount of delay to each hit.
- **PITCH:** The pitch of the played drum will be higher or lower by a slight amount with each hit.
- **TONE:** This will slightly change the frequency curve of each hit. Different drums have different frequency ranges, specific to the sound of each drum.



A good way to add even more subtle variation to the sounds in the kit is to change the randomization parameters just slightly, especially the **PITCH**, **TONE** and **VOLUME** knobs. For all knobs, turning them a maximum of a quarter of the way up will allow the effect to remain subtle. Turning these knobs up to a high value can be used for a more experimental sound.

4 Kit Selection

There are three main kits included in STUDIO DRUMMER, called the “Full” kits. Each of the kits has two additional versions, “Lite” and “Template”. All of these kits are explained below.

Full Kits

- Studio Drummer - Session Kit Full
- Studio Drummer - Stadium Kit Full
- Studio Drummer - Garage Kit Full

The Full versions of the kits have all samples and microphones included.

Lite Kits

- Studio Drummer - Session Kit Lite
- Studio Drummer - Stadium Kit Lite
- Studio Drummer - Garage Kit Lite

The Lite versions of the kits include all velocity layers, but have no sound variations for same-velocity hits. This kit has a smaller memory footprint than the Full kits, at the cost of losing some realism.

Template Kits

- Studio Drummer - Session Kit Template
- Studio Drummer - Stadium Kit Template
- Studio Drummer - Garage Kit Template

The Template versions of the kits start with all of the kit pieces unloaded from memory. They are based on the Full versions of the kits, and you can add the kit pieces you wish to include by using the Load/Unload menu at the bottom left of the Kit page (above the name of the selected instrument).



For the default drum mapping of these kits, please refer to the separate documents “The Session Kit - Default Mapping”, “The Stadium Kit - Default Mapping” and “The Garage Kit - Default Mapping”, included with the STUDIO DRUMMER documentation (via the Info button of the Instrument's Library tab in KONTAKT).

5 Drum Articulations

Here is a comprehensive list of all drums and articulations included with each kit.



For the default drum mapping of these kits, please refer to the separate documents “The Session Kit - Default Mapping”, “The Stadium Kit - Default Mapping” and “The Garage Kit - Default Mapping”, included with the STUDIO DRUMMER documentation (via the Info button of the Instrument's [Library](#) tab in KONTAKT).

5.1 Session Kit

Drum	Articulation
Kick Drum	Dampened Open
Snare Drum 1 & 2	Center Right/Left Alternating * Center Left Hand Center Right Hand Halfway Right/Left Alternating * Halfway Left Hand Halfway Right Hand Rimshot Sidestick Flam Roll Wires Off Rim Only

Drum	Articulation
Hi-hat	Closed Tight Tip Right/Left Alternating * Closed Tight Tip Right Hand Closed Tight Tip Left Hand Closed Tip Right/Left Alternating* Closed Tip Right Hand Closed Tip Left Hand Closed Shank Right/Left Alternating * Closed Shank Right Hand Closed Shank Left Hand Closed Pedal Open Controller** Open Pedal Open Quarter Open Half Open Three-Quarters Open Loose Open Full
Tom 1	Center Right/Left Alternating * Center Right Hand Center Left Hand Rimshot Rim Only
Tom 2	Center Right/Left Alternating * Center Right Hand Center Left Hand Rimshot Rim Only

Drum	Articulation
Tom 3	Center Right/Left Alternating * Center Right Hand Center Left Hand Rimshot Rim Only
Tom 4	Center Right/Left Alternating * Center Right Hand Center Left Hand Rimshot Rim Only
High Crash	Edge Tip Bell Choke ***
Low Crash	Edge Tip Bell Choke ***
Ride	Tip Bell Edge Choke ***
China	Edge Tip Choke ***

Drum	Articulation
Splash	Edge Choke ***
Tambourine	Tap Shake
Clap	Solo Multi
Stick Hit	Hit
Cowbell	Open Muted

5.2 Stadium Kit

Drum	Articulation
Kick Drum	Dampened Open
Snare Drum 1 & 2	Center Right/Left Alternating * Center Left Hand Center Right Hand Halfway Right/Left Alternating * Halfway Left Hand Halfway Right Hand Rimshot Sidestick Flam Roll Wires Off Rim Only

Drum	Articulation
Hi-hat	Closed Tight Tip Right/Left Alternating * Closed Tight Tip Right Hand Closed Tight Tip Left Hand Closed Tip Right/Left Alternating* Closed Tip Right Hand Closed Tip Left Hand Closed Shank Right/Left Alternating * Closed Shank Right Hand Closed Shank Left Hand Closed Pedal Open Controller** Open Pedal Open Quarter Open Half Open Three-Quarters Open Loose Open Full
Tom 1	Center Right/Left Alternating * Center Right Hand Center Left Hand Rimshot Rim Only
Tom 2	Center Right/Left Alternating * Center Right Hand Center Left Hand Rimshot Rim Only

Drum	Articulation
Tom 3	Center Right/Left Alternating * Center Right Hand Center Left Hand Rimshot Rim Only
Tom 4	Center Right/Left Alternating * Center Right Hand Center Left Hand Rimshot Rim Only
High Crash	Edge Tip Bell Choke ***
Low Crash	Edge Tip Bell Choke ***
Ride	Tip Bell Edge Choke ***
China	Edge Tip Choke ***

Drum	Articulation
Splash	Edge Choke ***
Tambourine	Tap Shake
Clap	Solo Multi
Stick Hit	Hit
High Woodblock	Hit
Low Woodblock	Hit

5.3 Garage Kit

Drum	Articulation
Kick Drum	Dampened Open
Snare Drum 1 & 2	Center Right/Left Alternating * Center Left Hand Center Right Hand Halfway Right/Left Alternating * Halfway Left Hand Halfway Right Hand Rimshot Sidestick Flam Roll Wires Off Rim Only

Drum	Articulation
Hi-hat	Closed Tight Tip Right/Left Alternating * Closed Tight Tip Right Hand Closed Tight Tip Left Hand Closed Tip Right/Left Alternating* Closed Tip Right Hand Closed Tip Left Hand Closed Shank Right/Left Alternating * Closed Shank Right Hand Closed Shank Left Hand Closed Pedal Open Controller** Open Pedal Open Quarter Open Half Open Three-Quarters Open Loose Open Full
Tom 1	Center Right/Left Alternating * Center Right Hand Center Left Hand Rimshot Rim Only
Tom 2	Center Right/Left Alternating * Center Right Hand Center Left Hand Rimshot Rim Only

Drum	Articulation
Tom 3	Center Right/Left Alternating * Center Right Hand Center Left Hand Rimshot Rim Only
High Crash	Edge Tip Bell Choke ***
Low Crash	Edge Tip Bell Choke ***
Ride	Tip Bell Edge Choke ***
China	Edge Tip Choke ***
Splash	Edge Choke ***
Tambourine	Tap Shake
Clap	Solo Multi

Drum	Articulation
Stick Hit	Hit
High Cowbell	Open Muted
Low Cowbell	Open Muted

* There is a separate note assignment that alternates between the left and right hand samples of the center and halfway snare, center tom, and closed hi-hat articulations when playing faster than a certain speed. This adds a realistic sound to faster playing, as a drummer would also switch to using both hands at fast speeds.

** There is a separate note assignment for the open hi-hat that controls the amount of hi-hat openness depending on the position of the Modwheel controller (CC1) or a hi-hat foot controller (CC4). At the 0 position of the controller, the open hi-hat control key plays the fully open hi-hat. As the controller sends higher values, playing the open Hi-hat control key will trigger Hi-hat samples that gradually become more closed.

*** Cymbal choke samples are triggered by specific note assignments which play release samples. When playing a cymbal sound, triggering the choke sample will play the sound of a choked cymbal which relates to the current volume of the played cymbal. If no cymbal sound is currently active, then the cymbal choke notes will do nothing. Choke samples can also be triggered with electronic drum pads which support the choking feature.

6 Credits

Product Concept: Paul Maurer

Product Design: Dinos Vallianatos, Frank Elting

Sound Design: Paul Maurer, Julian Laping, Adam Hanley, Dinos Vallianatos, Ema Jolly, Fabian Kalker, Justin Myracks

Graphic Design: Max Mondon, Efflam le Bivic, Gösta Wellmer

KONTAKT Scripting: Dinos Vallianatos, Adam Hanley, Nicki Marinic

QA for Instruments powered by KONTAKT: Bymski, Achim Siebert, Christian Wachsmuth

Project Management: Gerald Zollner

Teldex Engineer: Tobias Lehmann

Teldex Assistant Engineer: Tom Rußbüldt

Drummer: Simon Baumann

Drum Sound Specialist: Udo Masshoff

Photography: Frauke Fischer

MIDI Grooves: Julian Laping, Simon Baumann, Ludger Kleff, John Emrich, Marios Ioannou, Lizzy Scharnofske

All Drums Provided by:

TBS Backline: <http://www.tbs-backline.de/>

Udo Masshoff: <http://www.masshoffdrums.com/>