BeatMaker 3 User Manual

Revision: 3.0.10



What's new in version 3.0.10 of this manual

- Updated section Quick Start Guide: <u>1.3 Transport toolbar</u>
- Added section *Performance View*: <u>2.7 Select mode</u>
- Updated section Editor View: 2. Sample and Layer editor
- Update section Sequencer View: 2.1 Overview
- Updated section *Mixer View*: <u>1. Overview</u>
- Updated section *Mixer View*: <u>3. Setting audio inputs and outputs</u>
- Updated section *Macro Panel*: <u>2. How to control several parameters with one Macro</u><u>knob</u>
- Updated section Advanced Settings: 2. Audio & MIDI devices
- Updated section Advanced Settings: <u>3.1 Engine</u>
- Updated section *Basic tutorials*: <u>1.4 How to obtain new sounds and samples packs</u>
- Updated section Intermediate tutorials: 2.1 How to slice/chop a sample
- Updated section Intermediate tutorials: <u>2.2 How to control an Audio Units plugin or</u> <u>external application</u>
- Added section Advanced tutorials: 3.7 How to use MIDI Audio Units plugins

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1. Quick Start Guide

BeatMaker 3 is a deep and complete music production app. This chapter covers its most basic concepts and workflows: make sure to refer to the rest of the manual and tutorials for more detailed information.

In any case, it should be pretty easy to figure out how to produce music with BeatMaker as you go. And as you dig deeper, you might be surprised by all the interesting features it offers.

1. Main concepts

1.1 Navigation

BeatMaker is divided into 4 main views:



The <u>Browser and File management</u> panel is automatically opened when starting BeatMaker. You can close it by pressing the *X* icon at the top left corner of the app. To open it, tap the *menu* icon located at the same position:



To display the keyboard interface for the currently selected pad or instrument at any time, press the following icon from the left toolbar:



The text displayed above the icon indicates the currently selected *Bank* (*A1* in this example), and the bottom text represents the current pad number.

The *FX and Macro* panels can be opened at anytime by pressing their corresponding icon:



1.2 Session, banks and patterns

When opening BeatMaker, you can either create a new *session* or load an existing one. A **session** represents a project or song: it contains everything such as song tempo, banks, patterns, sequences, effects, references to audio samples, etc.

A **bank** is a collection of pads (instruments) that are arranged together and controlled by a corresponding track. Up to 128 banks can be created. They are organized in 16 *bank groups*, each group containing up to 8 banks (i.e first group goes from bank A1 to H1, second group from A2 to H2, etc).

Although each bank can contain up to 128 instruments, you will usually use one bank to represent one instrument (for example *Bank A1* is a drum machine, *Bank B1* a bass synthesizer, *Bank C1* a piano, etc...).

A **pattern** is a group of notes and automated parameters which you can easily arrange within a song. For example, a pattern can be a drum beat, a bass line, a set of chords, a melody...

To sum up, you first create an empty *session* which represent your song. This session contains *banks*, which in turn have *patterns* that can trigger their sounds.

1.3 Transport toolbar

The *Transport* is visible at the top of the application, when the *Browser* is closed:



It is used to control playback, recording and other global actions. Let's take a quick look at its content, from left to right:



The *Track Helper* displays the state of the currently selected track: either playing the song or looping a single pattern. It also serves as a menu which provides functions for controlling the playback and editing patterns. For more information, please read <u>Sequencer basics</u>.



Displays the current playback position within the song, in *BARS:BEATS* format. Tap to change the display to time (*MM:SS:MS*) or SPMTE format.



Displays the current tempo (BPM) and time signature for the current session. Pressing it brings a menu where you can change the tempo manually or using a Tap Tempo button.



Enables or disables the metronome (click) during playback. Long-press to bring a menu to change the metronome volume, tuning and activation during recording.



Displays the automatic quantization used when recording patterns. By default, autoquantize is *ON* and set to 1/16th of a bar. Tap to bring a menu where you can change the auto-quantize parameters and pre-roll duration.



Enables or disables automation recording.



These are the classic playback controls: stop, play, record, rewind, forward and loop mode.



You can at any time, and for any action, *undo* or *redo* it. If you make any unwanted change, remember these buttons are here to help you!

2. Making your first beat

2.1 Loading an instrument

BeatMaker comes preloaded with several instruments and kits. You can also <u>import your</u> <u>own sounds</u> as well as download new instruments directly from the app using the <u>Sound</u> <u>Store</u>.

To load an instrument:

- Open the Browser by tapping on the menu icon located at the top-left corner



- Tap on the "BANKS" button to show a list of all available instruments



- Choose an instrument from the list, and tap the *"LOAD BANK"* button located at the bottom of the *Browser*.

GoSplat Synth Misc > Classic Synth		
Gothic Voices		
Hi Strings & Voice		\$
HR–16 Drums > Analog Drum Kit		
Labyrinth		\$
Lite Nite Synth Misc > Classic Synth		5
Loner Bass Synth Misc > Classic Synth		5
Magellan Year 306	62	5
Mantosaur Split Synth Misc > Classic Synth		5
No Fret Synth Misc > Classic Synth		53
Obtuse Puppets Synth Misc > Classic Synth		
	Load Bank	

- The instrument is now loaded on the currently selected Pads bank, ready to be played

To load a sound (sample) onto a pad:

- Open the Browser by tapping on the menu icon located at the top-left corner
- Tap on the "SAMPLES" button to show a list of all available individual sounds
- Select a sample to automatically preview it

- Drag and drop the desired sample from the browser onto any pad from the *Performance* view

- Make sure to close the *browser* using the "X" icon at the top left corner to fully go back to the *Performance* view.

For a deeper understanding of the *Browser*, please read this <u>article</u>.

2.2 Playing with pads

Once you have an instrument or samples loaded onto a bank, you can play them live from the *Performance* view. Each pad is a full instrument: it can be a collection of samples and/or an <u>external Audio Units plugin or application.</u>

When hitting a pad, it also becomes selected (the *currently selected pad*). You can control the playback pitch of the selected pad by entering the *KEYS* mode (located on the right-side toolbar):

KEYS

Within this mode, the pad interface changes to semi-tones: your sample is automatically pitched accordingly.

If you prefer a keyboard interface for controlling the pitch of the selected pad, press the *keyboard* icon from the bottom toolbar:

The *Performance view* contains many more interesting features: for more information please follow this <u>article.</u>

2.3 Recording a pattern

Now that you know how to use the performance view, let's record a pattern:

1. Make sure the tempo (BPM) of your project is of your liking, or change it using the Transport

2. We enable *Loop* mode so that our pattern repeats over and over, by tapping the following icon from the Transport:

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3. By default the loop is set to one bar, so the pattern we're about to record will have a duration of one bar. Changing the length of the loop is explained in the next section

4. Press the *record* button from the Transport to start recording. The metronome is automatically enabled and a count-down (pre-roll) of one bar starts playing

5. When the count-down is over, play the desired rhythm using the pads. The pattern loops automatically after one bar, so you can record in various takes (for example, play the kick drums first, then the snare drums and finally the hi-hats)

6. When you are done, press the *stop* button from the Transport. You've now created your first pattern! You can listen to it by pressing the *play* button, or keep recording into it by pressing the *record* button again.

2.4 Basic sequencing and looping

The *Song sequencer* is where you can arrange your patterns into a song. To open it, press the following icon from the left toolbar:



Tracks are arranged vertically: there's one track for each created bank, as well as two AUX and MAIN OUT tracks:



On the right side is the song timeline. You can see that your recorded pattern is set at bar 1 just below the loop position, on the Bank A1 track:



Let's record a second pattern of a 2-bar duration next to our first pattern, so you can learn some features of the sequencer:

1. First we will set the loop from bar 2 to bar 4. To do so, drag your finger over the song timeline header by starting at bar 2 and stopping at bar 4:



2. Record a new pattern as explained before and press stop when you are done

Now, we're going to further expand our song by placing more patterns over the timeline:

1. Tap the *Track helper* button to display a list of the patterns available in the currently selected bank:



2. We will use the pattern drag & drop feature to add more copies of our patterns to the song timeline: simply tap and hold a pattern from the list (such as *"Pattern 1"*) and drag it over the desired position onto the song timeline:



3. Repeat this operation until you created a small pattern sequence. Now disable *loop* mode from the *Transport*, and press *play* to listen to your first song!

Some more basic operations:

- *Moving a pattern*: select the pattern you want to move by tapping it. Now drag and drop the pattern to the desired position

- *Removing a pattern*: select the pattern you want to remove, and press the *"Remove"* button located at bottom of the sequencer. This only removes the pattern from the song timeline, the pattern is still available from the *Track helper*

- Editing a pattern: double-tap on any pattern to open it in the Pattern Editor

For a more in-depth overview of the sequencer, please read this article.

2.5 Saving your work

Now that you have made your first beat, you need to save your *session*. To do so, open the *browser*, and tap the *"SAVE"* button located at the top-right corner of the app.



You will be asked to enter a name for your session. For more information about loading and saving sessions, please read the following <u>article</u>.

2. Browsing and files organization

This article explains how BeatMaker deals with your songs, sounds and files. It is important to understand the different file types BeatMaker uses.

Quick links :

- How to load/save a session
- How to load/save a bank
- How to load a sample
- How to obtain new sounds and samples packs
- How to convert your song into an audio file

1. BeatMaker file types

BeatMaker uses several file formats to store or group information:

Session :a session compiles most of the information contained in the application at a given time: the song (sequences), banks, patterns, effects, macro controls... When you are working on a full project or song, you should <u>save your session</u>.

Bank (preset): a bank is a group of sounds and patterns. It usually represents a coherent instrument, such as a drum kit, bass, guitar, synthesizer...

Sample : a sample represents one audio file or sound.

Pack : Packs are a set of banks and samples, easily downloadable from within the application to expand your sound palette. See <u>"How to obtain new sounds and samples packs"</u>

2. Using the Browser

The *Browser* is the central place where you can access all your sessions, banks, samples, packs and files in general. To open it, tap the following button on the top-left corner:

You can browse through all your sessions, banks and samples by using the default *Find* mode, represented by this icon:



Using the *Library* mode, BeatMaker shows either your Sessions, Banks, Samples or Plugins. You can change which file type you want to browse by tapping the corresponding text in the toolbar:



The displayed sessions, banks and samples can also be filtered by Pack or Category/Sub-category (such as "Drums", "Guitar", ...) by toggling their respective button:



HINT: You can also browse through all your files and folders within the BeatMaker application by tapping this icon:

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For more information on using the browser, please refer to the following articles:

- How to load/save a session
- How to load/save a bank
- How to load a sample
- How to obtain new sounds and samples packs
- How to convert your song into an audio file

3. Performance view

The Performance view is the main interface between you and your instruments. It is composed of:

- a Pad-like interface, displaying either 16 or 64 trigger pads
- a Keyboard-like interface to play melodies and chords
- Realtime controls for velocity and rolls
- Pitch/Modulation wheels and Sustain pedal
- Chord and scales settings to facilitate the playing of harmonies
- Live Mute and Solo controls for banks and pads
- Scene playback control from the Pad interface
- Bank selector and bank management

Quick links :

- How to load/save a bank
- How to load a sample
- How to record a pattern
- How to use an external MIDI controller

1. Main interface

Each pad in the interface represents one instrument. An instrument can be one or a group of audio samples (layers), or an <u>Audio Unit instrument plugin/external</u> <u>applications</u>.

By default, the interface displays the first 16 pads/instruments of the currently selected Bank:



You can scroll to access further pads using the *"PADS PAGE"* arrows located on the rightside toolbar:



To switch the pad interface between 16 or 64 visible pads, tap on the "16" or "64" buttons located at the bottom of the screen:

16 64

When triggering a pad, it also becomes selected (you can also use the "SELECT" tool).

By tapping the *"KEYS"* button located on the right-side toolbar, you can toggle between normal pad mode and key pad mode. The key pad mode is useful when the sample loaded on a pad represents an instrument (such as a piano or bass note) or a plugin instrument: the interface switches to a 128 notes controller for the currently selected pad. When activated, triggering a pad automatically pitches its samples to a specific semi-tone.

To scroll between note ranges, use the "KEY PAD" arrows from the right-side toolbar:



If you prefer to have a piano-like interface to work with instrument samples and Audio Units, you can switch to *Keyboard* mode, accessible from the bottom-screen toolbar:



This view also provides easy access to *Macro* controls, Chords and Scales settings, as well as a Double-keyboard mode.

Remember you can also display the keyboard view for the currently selected pad by pressing the following icon from the main left toolbar:



Most of the Pad view features can also be controlled by <u>external MIDI controllers.</u>

2. Performance controls

Several performance related features are available on the left side of the performance screen.

2.1 Velocity control



Controls the velocity (volume) parameter of the currently selected pad.

The "FIXED VEL" slider sets the velocity value used when tapping this pad.

Two extra settings are available by tapping the gear icon:

- FIXED MIDI VEL: If set to ON, the fixed velocity is also applied to incoming MIDI notes received by the pad.

- PADS Y VELOCITY: if set to ON, the velocity will depend of the vertical position of your finger while tapping on a pad.

2.2 Rolls



Move your finger across the X/Y screen to trigger a drumroll sequence of the selected pad. The X axis controls the roll speed, while the Y axis sets its velocity. The speed is divided into 6 quantized zone. Tap on the blue arrows to change their values.

2.3 Wheels



The interface represents the classic controls found in MIDI keyboard controllers:

- MOD: Modulation wheel. Sends a modulation message to the pad/instrument.

- *PITCH*: Pitch bend wheel. Alters the global pitch of the pad/instrument.

- SUSTAIN PEDAL: When ON, the pad/instrument sustains incoming notes until set to OFF.

2.4 Repeat Mode

To enable repeat mode, tap on any of the 6 repeat values:



Any pad is now automatically triggered repeatedly as you hold it, following the selected time interval. Press the down arrow above any repeat value to configure its synchronization and swing.

To disable repeat mode, tap on the currently selected repeat value.

2.5 Scales & Chords

Tap the "SCALES" or "CHORDS" button at the bottom-center of the pad view to display their respective settings:

VEL. ROLL WHEELS SCALES CHORDS
<no scale=""></no>
Major
Major Pentatonic
Minor Pentatonic
Major Blues
Minor Blues
Natural Minor
Harmonic Minor
Melodic Minor
Japanese
Lydian
• • • • • •
1/4 1/8 1/8 T 1/16 1/16 T 1/32 REPEAT

When choosing a chord or a scale, the pads behavior changes:

- *Chord:* Tapping on a pad also triggers the corresponding pads (notes) defined by the chord setting.

- Scale: Pads will only trigger notes which are part of the scale setting.

2.6 Mute and Solo

Tap the "*MUTE*" or "*SOLO*" button from the right toolbar to enable the corresponding mode. When active, tapping on a pad or bank mutes or solos its audio output. These modes are especially useful to create variations during a live performance.

2.7 Select mode

Tap the "SELECT" button from the right toolbar to enter pad selection mode. Pressing a pad will now selects it instead of reproducing a sound. You can use the "Copy Pad", "Paste Pad", "Cut Pad" and "Clear Pad" buttons from the bottom toolbar to copy, move and clear the selected pad.

2.8 Scenes

Tap the "SCENE" button from the right toolbar to enable PAD SCENE mode. This mode converts the pad view into a scene selector: when tapping a pad, the corresponding Scene number is triggered. Scene management options are available from the bottom toolbar: copy, paste and delete scenes, as well as the scene trigger synchronization value.



4. Editor View

Each pad is a full-fledged instrument: a multi-layer sampler, which can also load and control Audio Units plugins as well as external applications. The Editor view allows you to configure every aspect of these instruments.

Quick links :

- <u>How to slice/chop a sample onto several pads</u>

- How to record a sample onto a pad

- How to control an Audio Units plugin or external application

To open the Editor, tap on the following icon from the left-toolbar:



1. Global pad parameters

The left side of the Editor displays a pad selector and global parameters for the selected pad:



Use the pad selector at the top to select the pad you wish to edit.

You can copy a pad configuration to another by pressing the 3-dots button next to the pad name and choosing *"Copy"* from the menu. Next, select another pad using the pad selector, press the 3-dots button again and choose *"Paste"*.

1.1 Channel configuration

This "CHANNEL" tab presents the following parameters:

VOLUME: Sets the volume for the pad output

PAN: Sets the panning of the pad output

SEND 1 and 2: Sets the amount of output signal the pad sends to aux track 1 and 2

CHOKE GROUP: Choke groups are used to stop the playback of a pad when another one is triggered. If two pads are part of the same choke group, each time one pad is triggered, the other one is silenced. For example it can be especially useful when working with open hi-hats and closed hi-hats samples.

LINK GROUP: When two (or more) pads are in the same *Link group*, triggering one pad will also automatically triggers all other pads belonging to the same group.

PAD NOTE: Sets the note to be triggered when pressing the pad. C3 is the default, original note.

1.2 Samples and layers

Press the *"SAMPLES"* button to display layers and sample information for the currently edited pad:



A pad can play more than one sample at a time. It can contain several *layers*, which in turn can contain several samples. When editing a layer parameter, it will affect all the samples contained in this layer.

You can easily add more samples/layers by tapping and dragging an audio file from the Browser to the Editor view.

Select any layer or sample from the list to <u>edit it</u>.

By pressing the 3-dots button next to a layer or sample name, you can delete it or move a sample from a layer to another.

To mute a sample, press the "M" button located next to its name.

1.3 Pad & Bank MIDI setup

Banks and pads can be configured to receive and send MIDI events from/to an external controller or instrument. For more information on configuring MIDI inputs for a Bank, see <u>this section</u>.

Pads react differently to incoming MIDI messages depending if their associated Bank is set to *Single Channel* or *Multi Channel* mode. This mode can be set by tapping the 3-dots button located next to the current Bank name and then on *"MIDI Setup"*:



SINGLE CHANNEL MODE: the incoming MIDI note is associated to the destination pad. For example, if you press C3 (MIDI note 60) on your controller, then pad 61 will be triggered (MIDI note 0 triggers pad 1). The pad *"Base Key"* setting is used. However, if you set the Bank in *KEYS* mode then the selected pad will play chromatically (and regardless of the pad *"Base Key"* value).

MULTI CHANNEL MODE: the incoming MIDI channel is used to route MIDI events to the destination pad. For example, MIDI messages received from channel 3 will be directed to pad #3. In this mode, the Bank listens on all channels.

To access the specific MIDI settings for the selected pad, press the 3-dots button located next to the pad name, and then tap *"MIDI Setup"*:

BBP1_BD

Within the *MIDI Setup* menu, you can change the *MIDI Input* port and channel the pad reads incoming events from (if *Multi Channel Mode* is enabled, the *channel* parameter is not taken into account). To output a MIDI note event each time the pad is triggered, change the *MIDI Output* port and channel to fit your external MIDI configuration.

By default, empty pads send a MIDI note message to the channel associated with the Pad number. For example, if Pad 3 is empty, a note message is sent to channel 3, using the Bank output port setting. If the pad number is greater than 16, the channel number is rolled over from the beginning (i.e. pad 18 sends to channel 2).

For more information and schematics about how BeatMaker handles incoming MIDI events routing internally, see <u>Appendix 2</u>.

2. Sample and Layer editor

A *layer* is a group of parameters applied to all the samples it contains. Select a pad from the Pad selector or a sample from the layer list to edit it. There are 5 different editing tabs: *SAMPLER, LAYER FX, MODULATIONS, MAPPING* and *PLUGIN*. Let's first discuss the *SAMPLER* page:



At the top of the editor, you can find a *"REC"* button. See <u>How to record a sample onto a</u> <u>pad</u> for more information.

The filename of the currently edited sample is also displayed. By pressing the 3-dots button next to it, you can quickly make a copy of this sample.

Right next to it, you can find the *"SLICE MODE"* toggle. For more information, see <u>How</u> to slice/chop a sample.

<u>Tips:</u>

- Double tap the "START/END" or "LOOP" buttons to focus and re-center the wave view on start, end and loop markers respectively

- Long-press the [-] button to zoom out and show the complete waveform

- Long-press the [+] button to zoom in to maximum level. In slice mode, it will zoom in to the currently selected slice

2.1 Sampler page

The waveform of the selected sample is displayed, where you can change its start/end and loop positions. Press the *"EDIT"* button to open the <u>Audio Editor</u> and access to more parameters.

Several parameters can be set for each layer/sample on this page:

SAMPLE LOOP: Set if the sample should automatically loop when playing. FORWARD mode playbacks the sample from the beginning over and over, whereas ALTERNATE playbacks the sample back and forth.

CROSSFADE: When loop mode is *ON*, define if a crossfade should be applied during the loop transition. This is useful to avoid audio clicks when the sample is looping.

BPM, SIGN: Set the tempo, time signature and duration of the sample. This is useful when using the *LIVE STRETCH* feature described later.

DURATION: Tap to set the sample length in bars and beats. An extra option is available in the displayed menu called "*AUTO SCALE*". Use it to automatically pitch the sample to a beat duration (I.e the sample is played back slower or faster to the matched a new duration).

LAYER TRIGGER: Defines the layer behavior when triggering a pad. ONE SHOT plays the sample once. HOLD plays the sample until the pad is released. ON RELEASE starts playing the sample only when the pad is released.

DISK STREAMING: Tells the application whereas it should load the sample into memory or read it directly from the hard drive. Setting *DISK STREAMING* to *ON* can be useful when using large samples, as they can overload the RAM memory.

LIVE STRETCH: If set to *ON*, the sample is automatically time-stretched to fit the Session tempo. This is useful when working with audio loops having different BPMs than your song BPM.

REVERSE: If set to *ON*, the sample is played backward.

POLYPHONY: Sets how many instances of the sample can be played at the same time. You can also set it to *LEGATO* mode: the sample playback continues at its current position even when playing different notes. *GLIDE TIME*: When *LEGATO* mode is *ON*, defines the time it takes for the sample to be pitched correctly to the new playing note.

TUNE: Changes the pitch (playback speed). From -36 to +36 semitones.

FINE TUNE: Changes the pitch, in percentage of a semitone.

GAIN: Sets the original sample volume.

PAN: Sets the original stereo position.

SATURATE: Create a distortion effect on the sample.

AMPLITUDE ENVELOPE: If enabled, envelope defines how the volume of the sample is affected while playing. Two modes can be chosen by tapping the 3-dots button: *AHD* (Attack, Hold and Decay) and *AHDSR* (Attack, Hold, Decay, Sustain and Release).

FILTER TYPE: If enabled, applies a frequency filtering effect to the sample. You can choose between many types of filter by pressing the 3-dots button.

If you double-tap on any *SAMPLER* knob, a menu pops up letting you set its precise value, reset it, or even add a <u>modulation</u> or <u>macro</u> control. Use the *"SET VALUE ON ALL LAYERS"* option to apply the current parameter value to other layers. This option is also available for knobs displayed in the *LAYER FX* and *MODULATIONS* pages.

2.2 Audio Editor

By pressing the *"EDIT"* from the *SAMPLER* page, the audio editor is displayed full screen and offers several options:

SNAP ON: If enabled, any selection or position set in the audio editor is automatically moved to the closest zero-crossing value.

SELECT, START/END & LOOP: When SELECT mode is enabled, dragging cursors over the waveform creates a selection, which can then be used for actions such as *Delete*, *Trim, Copy, Process...* When disabled, the waveform is used to change playback start and end positions. If *SAMPLE LOOP* mode is active, the loop playback points can also be set by pressing the *LOOP* button.

Several audio editing options are available. When using these options, BeatMaker automatically creates a copy of your sample on disk, and leaves the original sample untouched.

Delete: Deletes the selected portion of the audio file

Trim: Deletes everything but the selected portion of the audio file

Copy: Copies the selected audio portion to the clipboard

Paste: Inserts the copied audio portion to the selected position

Process: Applies a processing to the selected audio portion, such as normalizing, fading, time-stretching, pitch-shifting, etc...

2.3 Layer FX page

When pressing the "LAYER FX" tab in the editor, you can add up to 4 realtime effects to each *layer*.

Tap on any "NEW LAYER FX" zone to display the effect selection menu.

Use the layer list from the SAMPLES tab to select the currently edited layer.

2.4 Modulations page

Most of the sampler parameters can be controlled and modified by modulators, such as: envelopes, LFOs, step sequences, MIDI parameters and controllers.

To create a new modulation for a parameter, double-tap on its knob or value from the *SAMPLER* page. After the parameter menu pops up, select *MODULATE*. In the following example, we double-tapped the filter *Cutoff* parameter:

< CUTOFF	
ENVELOPE	
LFO	
STEP MODULATOR	
RANDOM S&H	
MIDI	
CLEAR ALL	

For each type of modulator, you can either use an existing one (for example there is already an *Amplitude Envelope* for the *AHDSR* modulator), or create a new one from scratch.

The *MODULATIONS* page within the editor displays all the currently assigned modulations:



The following actions are available for each parameter:

- Delete the modulation
- Set the default value of the parameters

- Set the modulation ratio (the amount of modulation that should be applied to the parameter)

- Bypass or activate the modulation.

When you select a modulation from the list, more parameters are displayed depending on the assigned modulator. In the example above, the LFO parameters are displayed. You can also save this specific modulator configuration as a preset for later reuse, by tapping the 3-dots button located at the top-right corner of the modulator.

Some modulators (such as *LFO* and *Step Modulator*) have a "*MODE*" parameter: if you want the modulation to reset each time a new note comes in, set it to "*MONO*". If set to "*POLY*", the current modulator's state is used.

2.5 Mapping page

Distinct samples can be triggered depending on the MIDI note and velocity received by a pad. The *Mapping* page allows you to define how your samples are spread along a keyboard and key velocities.

Sample mapping can help you create realistic instruments (for example a piano, synthesizer or guitar) by recording each note with different key pressure, and then assigning them accordingly within BeatMaker:


Have the samples list opened on the left for easier navigation within the *Mapping* page. When you select a sample from the list, the keyboard and velocity zone where this sample is currently assigned becomes highlighted in blue.

You can change the range of the zone by dragging its edges either horizontally (key range) or vertically (velocity range). You can also use the top menu for a more precise control:

PITCH	ROOT KEY	LEARN	LOW KEY	LEARN	HIGH KEY	LEARN	LOW VEL	HIGH VEL
ON	A2		G2		A2		0	67

PITCH: If *ON*, the sample is automatically pitched by semi-tones along the range of the keyboard.

ROOT KEY: Sets the base key where your original sample is located. When this key is received, the sample is played using its original pitch.

LOW KEY: Sets the lowest key your sample plays from.

HIGH KEY: Sets is the highest key your sample plays from.

LOW VEL: Sets the lowest velocity your sample plays from.

HIGH VEL: Sets the highest velocity your sample plays from.

You can use the *LEARN* buttons next to any key parameter to automatically set it using an external MIDI controller.

The *"KEYBOARD VELOCITY"* button lets you set the velocity of the mini-keyboard at the bottom of the screen (useful for testing your velocity mappings within the app).

To learn more about what you can do using the *Editor*, please refer to the following articles:

- How to slice/chop a sample onto several pads

- How to record a sample onto a pad

- How to control an Audio Units plugin or external application

- How to record a pattern from a plugin or app

- How to record audio from a plugin or app into BeatMaker

- How to record automations from an Audio Units plugin into BeatMaker

5. Sequencer View

To open the Sequencer view, tap on the following icon from the left-toolbar:



This interface provides three different views, *SONG, SCENE* and *PATTERN*, which can be toggled by tapping the corresponding button from the top left corner:



Quick links :

- How to record a pattern
- How to create and record an audio track
- How to automatically quantize live pattern recordings
- How to record parameter changes (automations)

1. Sequencer basics

BeatMaker's sequencer is divided into two modes which can be used together or individually:

- *Song view*: A classic sequencer where you can compose and arrange your patterns and recordings into a complete song, ready to be exported to an audio file

- *Scene view*: A performance-oriented sequencer, where you can organize groups of patterns or track arrangements, such as introductions, verses and choruses. It is especially useful as a live performance tool and to improvise and try out patterns and sequences as you go.

Both views share the **same tracks and patterns**: they are just two different ways of arranging and playing them.

Each bank or audio track can have patterns on the song and scene views, but only **one pattern per track can be played at the same time**: each track is either playing the content from the *song view*, or the one from the *scene view*.

It is possible to switch the sequencer modes for each track by *taking-over* the playback, which is explained later in this article.

Two important concepts are the *Working track* and *Working pattern*. The *working track* is set by selecting any bank or track within the *Performance, Sequencer* and *Mixer* views. When recording on a track or pattern, the current *working track* or *working pattern* is used.

A key element in BeatMaker's workflow is the *Track helper* button:



It is used to control the sequencer mode and set the *working pattern* for the currently selected track (the *working track*). Tap on it to display the *Track helper menu*:



This menu contains a list of all available patterns for the current track. If you tap on a pattern, it is set as the current *working pattern*. It is also *taking over* any pattern currently playing in the song sequencer on the same track: the pattern now loops indefinitely, until you switch to another pattern or go back to *song mode*.

You can quickly add a pattern to your track timeline by drag and dropping the pattern name from the pattern list onto the desired position.

It is also possible to add audio files to your Audio tracks by drag & dropping a sample file from the *Browser* onto an audio track timeline.

Patterns can be edited, duplicated, renamed or deleted by pressing the 3-dots icon next to their name.

3 more options are available at the bottom of the menu:

- *PLAY SONG*: Tap to set the track to *Song mode*: the content of the song is now played (*Song mode is* now *taking over* the playback control for this track)

- *STOP TRACK*: Tap to stop the playback content from the song or scene for this track. You can go back to playing the song content at any time by tapping the *"PLAY SONG"* button from the same menu

- CREATE PATTERN: Creates a new pattern and sets it as the working pattern

The *track helper* button is also used to display several information:

- At the top left corner, it displays the bank letter or track number of the current *working track*

- If the *working track* is in *Song* mode, it displays a preview of the whole song. It also displays either *"PLAYING SONG"* (meaning this track is currently playing content from the song) or *"STOPPED TRACK"* (meaning *Scene mode* may be *taking over* the playback)

- If a working pattern is set, it displays a preview of the pattern and the pattern length.

Further explanation on *taking over* track playback is available in the following chapters.

2. Song mode

2.1 Overview

The sequencer is arranged vertically into *tracks*, displaying every *Bank*, *Audio track* and *Aux track* created within the current session:



You can mute or solo each track by pressing their corresponding "*M*" and "*S*" buttons. To enable or disable recording for specific tracks, press their corresponding circle button: recording is activated when the button is red.

To create a new *Bank, Audio* or *AUX* track, press the "+" button located at the bottom of the track list.

Double-tapping on a bank track header automatically selects the track and opens the corresponding bank in the *Performance View*. Double-tapping on an audio, FX or output track jumps to the *Mixer View*.

At the top of the sequencer, the *Song preview* lets you visualize the entire content of the song. You can also use it as a scrollbar, to quickly jump to any other part of the song:



The button located on its far right is used to define how the sequencer grid is divided (*GRID DIVISION* button). By default, it is set to one bar: any action made on the

sequencer is quantized to one bar. You can change it to another value, as well as use the *AUTO* mode: the quantized value is automatically set depending on the current zoom.

Next, we can find the timeline header:

Tap on any bar to set the current play position at this location. By dragging your finger over it, you can also set the loop start and end positions (in that case make sure to enable the *LOOP* mode from within the *Transport*).

Located on its left side is the "AUTO FOLLOW" button:

By enabling it, the sequencer automatically scrolls the timeline, following the current play position.

On its ride side, you can find the "*Play song*" take-over button:

►

Each track also has an individual take-over button.

You can zoom in and out at anytime within the interface by pinching outward or inward.

At the bottom of the Sequencer view is located the Pattern menu:



It displays the *currently selected* pattern within the sequencer. Tapping it brings a menu allowing to modify properties of this pattern, such as its duration or name.

2.2 Tools for editing and arranging

Several tools are available to help you arrange and edit your MIDI and Audio patterns within the song sequencer:



The first tool with the hand icon can be used to do most actions for editing and arranging patterns:

- Drag your finger over the sequencer to scroll the current display

- Tap on any pattern to select it
- Double-tap on a pattern to open it within the Pattern Editor

- Double-tap on an empty zone within the timeline to add the current *working* pattern at the tapped position

When a pattern is selected, the following actions are possible:

- Move a pattern along the song timeline by dragging over it, or by dragging the leftside arrows:



- Resize a pattern by dragging the right-side arrow to the left (shorten pattern) or to the right (widen pattern):



The second button is the selection tool. When activated, you can make multiple selections at the same time by dragging your finger over the timeline. You can also manually add a pattern to the current selection by tapping on it. Dragging over a selection also moves it along the song timeline.

The third and last tool is the split tool. By tapping on a pattern, it splits it into two patterns, from the tapped position. This tool follows the settings of the *GRID DIVISION* button.

When one or more patterns are selected, the following toolbar is displayed below the timeline:



Edit: Opens the selected pattern into the Pattern Editor

Repeat: The selected patterns are repeated once along the timeline

Duplicate: Same as Repeat, but instead a new pattern is created for each selection

Set loop: Sets the sequencer loop start and end positions to the current selection

Remove: Removes the selection from the song timeline. Patterns are not deleted, you can still find and use them within the *Pattern menu*

When multiple patterns are selected, the *Edit* option is replaced by *Merge*: the selected patterns are merged into a single pattern.

2.3 Track Automations

Automations are used to control a parameter value (such as track volume) along the song timeline. For example, you can create fade ins and fade outs within your song by automating the volume, or apply different amount of an effect through different parts of your song.

To open the automation editor, tap the *"TRACK AUTOMATIONS"* button located at the bottom-right corner of the song sequencer. The display is now divided into two zones: the classic song sequencer at the top and the automation editor at the bottom.

Tap on the *"Create Automation"* button to display the list of all available automations for the selected track:

	Select parameter
1	VOLUME AUDIO 1
1	PAN AUDIO 1
1	MUTE AUDIO 1
1	SOLO AUDIO 1
1	SEND 1 AUDIO 1
1	SEND 2 AUDIO 1
1	SEND 3 AUDIO 1
1	SEND 4 AUDIO 1
1	SEND 5 AUDIO 1
1	SEND 6 AUDIO 1
1	SEND 7 AUDIO 1
1	SEND 8 AUDIO 1
1	SV Filter 6 >



- Volume, Pan and 8 Send parameters for all types of tracks

- If one or more effect is loaded on this track, they are listed with all their available control parameters

- If the selected track is a Bank, all active pads and layers parameters are also available

Once you select a parameter to automate, it is added to the *Automation editor*. Any number of parameters can be added this way. To remove a parameter automation, tap the *"X"* button next to its name.

You can draw and edit automations for the currently selected parameter using the tools from the bottom toolbar:



- *Hand tool*: Moves the current selection by dragging vertically (changes its value) or horizontally (changes its position). If there's no selection, scrolls within the song timeline.

- Selection tool: Drag along the timeline to select a group of parameter values

- *Free draw tool*: By dragging your finger along the timeline, it creates automation points following your finger movement

- *Line draw tool*: Creates a linear automation between two points, following your finger movement

Note that the drawing tools follow the quantize value set by the "GRID DIVISION" button.

On the right side of the *Automation editor*, the value range of the currently selected parameter is displayed. Use it as a reference to know the value represented by each automation point.

When one or more automation points are selected, the following options are available in the bottom right toolbar of the *Automation editor*:

- Duplicate: The selected automations points are copied next to the selection
- Delete: Removes the selected automation points

Automation can also be edited within any MIDI or Audio pattern. Patterns created within the *AUX* and *MAIN OUT* tracks can solely be used for automations. For more information on creating automations within patterns, refer to the <u>Pattern Editor</u> section.

For more specific information using the sequencer's features, please refer to the following articles:

- How to record a pattern

- How to create and record an audio track
- How to automatically quantize live pattern recordings
- How to record parameter changes (automations)

3. Scene mode

Scene mode allows you to quickly arrange and play patterns on-the-go, while keeping them synchronized and looped at any time. Press the *"SCENES"* button from the *Sequencer view* to open it:

S	ONG	SCENES	s							_			\bigcirc	(+)	1/16
<					₩	Intro 001:0	•	Verse 1 110:0	Chorus 001:0	s	Break 110:0	►		+	
Α	Beat 1			М		1 Pattern 1 		1 Pattern 1 	2 Pattern	n 2	3 Pattern 3				
В	Piano			М				1 Pattern 1	2 Pattern	n 2	1 Pattern 1				
С	Bass			М		3 Pattern 3		2 Pattern 2			1 Pattern 1				
1	Voices			М				10 voice 1			11 voice 2				
FX	AUX 1			М			-					-			
FX	AUX 2			М							-				
0	MAIN O	UT						1 Pattern 1			1 Pattern 1				

As in the *Song sequencer*, tracks are arranged vertically, while *scenes* are displayed horizontally. A *scene* is like a snapshot of your song at a given moment: for each track, one pattern can be added onto a scene. *Scenes* can represent parts of your song, such as *intro*, *verse*, *break*, *chorus*...

3.1 Creating and arranging scenes

To create a new empty *scene*, press the "+" button located on the top-right corner:

(+)

Patterns can easily by arranged along your *scenes* by drag & dropping them from the *Track helper* menu:

- Select any track or bank from the Scene view
- Tap the Track helper button to show the list of available patterns for this track
- Drag & drop any pattern onto an empty scene slot for this track:

A	STC	PPED			001 : 1	90.00 4:4		Q 1/16	A OFF
	Α	ASR-Machine K Scene 1	М	S	SONG		SCENES		PATTERN
	1	Pattern 1 001:0:0		•	< 5		►	Scene 2 000:0	►
	2	Pattern 2 001:0:0		•	A	⊻			
					1				

Alternatively, you can add a pattern to a *scene* by selecting an empty slot, and by tapping on the pattern's name from the *Track helper* pattern list.

If you are working with audio tracks, you can directly drag and drop any audio file from the *Browser* to an empty slot.

When a *scene* is selected, a bottom-toolbar is displayed, providing the following options:

Duplicate	Clear	Paste song	Rename	<	>	Delete
-----------	-------	------------	--------	---	---	--------

Duplicate: creates a copy of the selected scene

Clear: removes all patterns set on the selected scene (it does not delete them)

Paste song: copies the current scene content to the *Song sequencer* timeline. Patterns are added to the current playback position

Rename: prompts to enter a new name for the current scene

< : moves the current scene one step left within the Scene view

> : moves the current scene one step right within the *Scene view*

Delete: deletes the selected scene

3.2 Playing live with scenes

To trigger the playback of a *scene*, tap on the any scene header button:

Intro	Verse 1	Chorus	Break	
001:0	110:0	001:0	110:0	

The *scene* is launched whether the *song sequencer* is playing or not. You can switch to playing a different *scene* at any moment by tapping on another scene header button.

Scenes and *patterns* will keep looping indefinitely until you manually stop the playback. There are several ways to stop the playback of a scene or track:

- Pressing the *stop* icon from the *Transport toolbar* stops of the playback of everything, from the song timeline and scenes

- Pressing the *stop* icon from the top-right corner of the *Scene view* stops all scene *patterns*

- Pressing the small *stop* icon at the right end side of each track stops the currently playing pattern on this track

Switching playback between *scenes* is not necessarily done at the same time: the triggering of *scenes* and *patterns* are synchronized to a beat division, in order to keep the playback in time.

By default, the synchronization value is set to 1 bar, meaning a scene or pattern switch will only be effective once the next bar is reached. You can change the synchronization value by tapping the *quantize sync* button located at the top-right corner of the Scene view:

1 BAR

It is possible to trigger individual patterns within scenes by tapping on their slot: any combination of *scenes* and *patterns* are possible in realtime. However, **only one pattern per track can be played at the same time**: if *Pattern 1* from *Bank A* is playing from *Scene 1*, and you trigger *Pattern 2* from the same bank, it will *take over* the playback (*Pattern 1* will stop playing).

The same behavior happens for tracks and banks playing from the *Song sequencer*: if the song timeline contains patterns, playing a *scene* or *pattern* from the *Scene view* will take over the playback for these tracks from the *Song sequencer*.

You can switch between the playback of a track from *Scene mode* or *Song mode* by doing the following:

- To give back complete control to the *Song mode* (meaning all patterns placed on the song timeline will play again), open the *Song view* and press the *play* icon at the top-right corner:



- To play back the content of an individual track from the song timeline, press the small *play* icon located at its right end side. When the content of a track from the timeline is not playing, you can see on the interface that patterns are displayed as *disabled*:

4	5	►
1 Pattern 1	3 Pattern 3	
		►

- Triggering a scene or pattern from the Scene view will take over playback from their respective tracks within the Song sequencer

It is possible to define the *take over* behavior for any track within a scene. For example, you can decide that when triggering a particular scene, a specific track should keep playing its content from the song sequencer or to stop it. To do so, select a pattern slot on the desired track and scene from the *Scene view*, and open the *Track helper* menu:



If you want this track to continue playing its content from the song timeline when this scene is triggered, choose *"PLAY SONG"*. On the contrary, if you want it to stop the playback from the song timeline, choose *"STOP TRACK"*. By default, all empty slots within the *Scene view* are set to *"STOP TRACK"*.

Doing a long press on a scene cell displays a panel to select its pattern or playback behavior.

4. Pattern Editor

The *Pattern Editor* is used to modify the content of any MIDI or Audio pattern from your current session. Select a pattern from the *Song view, Scenes view* or *Track helper* menu and press the *"PATTERN"* button from the *Sequencer view* to open it:



A list of all pads from the current bank as well as their corresponding recorded notes are displayed. In the above example, we can see that pad number 11 is triggered every 1/8th of a bar. You can manually add, move, resize and delete notes by using the tools provided on the bottom toolbar:



Hand tool: This tool works similarly as the within the Song sequencer:

- Drag your finger over the editor to scroll the display
- Tap on any note to select it
- Double-tap on any note to remove it

- Double-tap on an empty zone within the editor to add a new note at the tapped position

When one or several notes are selected, the following actions are possible:

- Move a note along the editor timeline by dragging over it, or by dragging the left-side arrows

- Resize a note by dragging the right-side arrow to the left (shorten note) or to the right (widen note)

- Move the current selection by dragging it vertically or horizontally

- It can also be used to scroll within the editor. Doing a long press on the grid temporarily zooms in and adds a new note at the location where you release your finger

Selection tool: Drag along the timeline to select a group of notes. After selecting one or several notes, the bottom toolbar displays further options to *Quantize, Duplicate, Delete* or *Copy & Paste* them.

Draw note length tool: Creates a new note with its length set by dragging your finger over the timeline

Draw multiple notes tool: Creates new notes by dragging your finger over the timeline. The duration of each note is set by the *quantize value*, which can be changed at the topright corner of the editor

A long press over the piano roll or timeline header enables the selection of several note rows/columns at once.

When a selection is made, tap the "Quantize" button located at the bottom right of the screen to open the Quantize panel:



The SYNC parameter is used to automatically move the selected notes to the nearest chosen bar division. You can also apply a *swing* percentage to slightly alter the notes position, thus affecting the perceived groove or feeling. Press the *"APPLY"* button to effectively move the notes within the *Pattern Editor*.

MIDI parameters (such as *note velocity, pitch bend, modulation...*) as well as automations specific to this pattern can also be edited within the editor by tapping their respective buttons:

PATTERN MIDI | PATTERN AUTOMATIONS

These two editors works similarly as for the <u>Track Automations</u>.

When editing a pattern which uses *KEYS* mode (i.e. a full instrument is loaded on an individual pad), make sure to switch the *Pattern Editor* to keyboard mode by pressing the following button at the top-right corner:

This switches the editing of individual notes for the currently selected pad within the *Pattern Editor*.

When editing an audio pattern, the *Pattern Editor* displays its waveform. You can further edit the audio file by pressing the *"EDIT SAMPLE"* button. Another interesting feature is the ability to *LIVE STRETCH* the sample to a specific tempo (BPM) and time signature.

6. Mixer View

This view provides a global interface to control all banks, pads and auxiliary tracks at the same time. The parameters that can be set within the *Mixer view* are:

- Volume
- Panning (stereo image)
- Mute and Solo
- Send amount to auxiliary tracks
- Audio inputs and outputs

Quick links :

- How to use Sends and AUX tracks to share effects between different tracks/pads

1. Overview

Tap the *Mixer* icon from the main left toolbar to open it:



By default, the mixer displays the *main output* track, as well banks, audio and auxiliary tracks:



VU-meters provides information on the volume of the signal coming out from each track. It also indicates *peak* levels: the maximum volume that has reached the track output so far. If the *peak* value becomes red, it means the output signal is too loud: you may want to lower the volume of this track by moving down its colored fader. You can then tap the red peak value to reset it.

You can add new bank, audio and auxiliary tracks by pressing the *"Add Track"* button from the bottom toolbar.

Press the 3-dots icon at the bottom-right corner of the *Mixer View* to change mixer display options:

USE CLASSIC COLORS: Set to ON to use green and red for the VU-meters display instead of the Bank colors

METERING MOE: Set the VU-meters to either PEAK or RMS mode

CHANNEL SIZE: choose between small and large sizes for mixer channel strips

2. Controlling individual bank pads

Each pad/instrument from a Bank can be controlled within the *Mixer view*: double-tap on the Bank name at the top of the mixer, or select a bank track and press the *"Pads"* button located at the bottom toolbar. The Bank mixer unfolds, displaying controls for every pad in use:



<u>*Tip:*</u> You can double-tap on any pad name to trigger a note from within the *Mixer view*.

To go back to the global mixer view, press the *"Pads"* button or double-tap on the Bank name.

3. Setting audio inputs and outputs

Tap the *"I/O"* button from the bottom toolbar to display the input and output configuration for each track.

If you connected an external sound card which supports multiple outputs, you can direct the signal coming out from each track to these outputs. To do so, press the *"Output"* button from any track to display the *"Select output"* menu:



Audio tracks have the ability to record from an internal or external source. To select where you want to record from, tap the *"Input" button* on an audio track. The *"Select input"* menu is displayed:

<none> Input Speaker 1+2 Output</none>	Select input	
Send 1	Hardware input	
	Internal	
Send 2	<none></none>	
Mute Solo Mon.	Mute Solo Mute Solo	

Audio inputs can be of two types:

HARDWARE INPUT: Displays all the available hardware inputs for your `device (microphones, external sound card inputs...)

INTERNAL: Select this if you want to resample audio coming from within BeatMaker. This can be any specific bank, audio track, auxiliary track or pad.

Tip: Double-tap an audio track name to enable recording on this track

7. Effects Panel

A combination of effects can be applied on individual banks, tracks and pads. While BeatMaker provides dozens of built-in effects, it is also possible to load your own external Audio Units plugins and IAA/Audiobus applications.

Quick links :

<u>- How to load an effect onto a pad</u> <u>- How to use the MVerb reverb effect</u>

1. Overview

To open the *FX panel*, press the following button from the main left toolbar:



The FX panel displays the effects loaded on the current track or pad. To select another source, press the *Bank selector* button at the top of the panel. Two options are available to control the behavior of the currently displayed effect chain:



Pads icon: If activated, triggering a pad also also automatically displays its effect chain. Deactivate it by pressing this icon if you do not want the effect panel to follow pad triggers.

Lock icon: Lock the display of the *FX panel* to the currently selected track or pad. If activated, selecting another track or pad within BeatMaker will not change the content of the *FX panel*.

To add a new effect, press the "ADD EFFECT" button. A menu lets you select which effect you want to load: you can choose between one of the many built-in effects or an external Audio Units/IAA/Audiobus.

Any effect can be *bypassed*: you can deactivate and reactivate it at any time. To do so, press the *power* button (green is enabled, red is disabled):



By pressing the 3-dots button on any effect title bar, a menu displays more options for changing the order of the effect, saving a preset or to delete it:

SV Filter 6							
MOVE UP	MOVE DOWN						
SAVE PRESET	DELETE FX						

The effect panel can be scrolled vertically to navigate through your effect chain.

Note: The *"Reverb"* effect is the same reverb found in *BeatMaker 2*. An improved reverb is also available: *"MVerb"*.

For further information on using effects, please read the following articles:

- How to load an effect onto a pad

8. Macros Panel

Macros offers a simple way to control multiple parameters with a single knob. It is especially useful for drastically modifying a sound during a live performance. Instruments available on the Sound Store usually have several macros configured: you can learn useful parameter combinations by exploring them.

Quick links :

- How to control several parameters with one Macro knob

1. Overview

To open the *Macros panel*, tap the following icon from the left toolbar:

 \bigcirc

The *Macros panel* is visible until this button is pressed again. There are up to 16 macro controls available. You can switch between the display of macro knobs 1 to 8 and 9 to 16 by pressing their corresponding button:

MACROS 1-8 MACROS 9-16

Macros can also be displayed as an X/Y touch controller for a more convenient performance use: the horizontal axis controls one macro and the vertical axis another. They are arranged into pairs (first controller controls Macros 1 and 2, the second Macros 3-4, and so on). Press the corresponding "X/Y" button at the bottom of the panel to change the display:



2. How to control several parameters with one Macro knob

Most parameters available within BeatMaker can be assigned to a Macro knob, including:

- Editor, sampler and modulation parameters
- Plugins parameters (by using the "Show AU Knobs" mode from the plugin view)
- Mixer controls
- Any effect parameter

When you see a parameter you would like to assign to a Macro, simply double-tap on its knob control. A menu similar to this one appears:



Press the "MACRO CONTROLS" item from the menu to display the macros list, then press the macro control you'd like to assign the parameter to:

< DRY/WET
MACRO 1: DRIVE
MACRO 2: GLOBAL TUNE
MACRO 3: PUMP
MACRO 4: PANOMATION
MACRO 5: LENGTH
MACRO 6: FEEDBACK
MACRO 7: ECHO
MACRO 8: REVERB
MACRO 9
MACRO 10

The text displayed next to a macro name is the first parameter that was assigned to it.

You can repeat the same procedure for any number of parameters and assign them to one or several macro controls. Assigned parameters are now turned into *Macro* controls themselves: changing their value has the same effect as moving their respective macro control from the *Macros panel*.

To remove a parameter from a Macro knob, double-tap on the parameter and choose *"UNBIND MACRO"* from the menu.

3. Editing existing Macro controls

By default, a macro controls the full value of a parameter (for example, from 0% to 100%). You can restrict the *control range* of each parameter by tapping the 3-dots button next to the macro knob:



The macro editor panel is displayed:



This panel contains a list of all assigned parameters for this particular macro. For each one, you can configure the *control range* by moving the *"MIN"* and *"MAX"* knobs to the desired position: the macro control will never set this parameter to a smaller (*MIN*) or greater (*MAX*) value.

Press the X icon next to any parameter to unbind it from the Macro control.

9. Using external MIDI controllers and instruments

BeatMaker can be controlled by MIDI controllers and is capable of sending MIDI events to external software and hardware instruments.

By default, all incoming MIDI messages are sent to the currently selected pad of the current bank (*OMNI* mode). However, this behavior can be changed by setting up <u>Focus</u> <u>Actions</u> or <u>controlling individual banks</u>. *OMNI* mode can also be disabled manually from the Settings, "SETTINGS & BEHAVIORS" page.

For more information and schematics about how BeatMaker handles incoming MIDI events routing internally, see <u>Appendix 2</u>.

Quick links :

<u>- How to use an external MIDI controller</u> <u>- MIDI Controllers Routing</u> <u>- How to send and receive audio & MIDI between BeatMaker 3 and your macOS</u> <u>computer</u>

1. MIDI Focus Actions

If you are planning to use only one MIDI controller with BeatMaker, the *Focus Actions* mode is the most effective way of setting it up: you can control most of BeatMaker parameters (such as pads, macro controls, bank selector and transport) within a single interface.

Depending on which *Bank* is currently selected within the *Performance view* (the current *focus*), BeatMaker will trigger its pads according to your MIDI controller pads/keys. Please refer to <u>Appendix 1</u> for a description of available *Focus Actions*.

To open the *Focus Actions Editor*, open the browser by tapping the top-left corner icon, and tap the *Settings icon*:



Now tap the "MIDI FOCUS ACTIONS" button to switch to the Focus Actions Editor:

A list of available *FOCUS ACTIONS* are displayed on the left side. By selecting an action, BeatMaker waits for a MIDI event from connected controllers. When an event is received

(such as when you press a pad or key from your MIDI controller), it is automatically assigned to this action.

A quick way to setup your MIDI controller is to press the "AUTO LEARN" button located below the focus actions list. A typical use would be as follow:

- Tap the first action from the list called "TRIGGER PAD 1"

- Tap the first pad or key from your MIDI controller: it is now automatically assigned to BeatMaker's first pad from the *Performance view*

- BeatMaker has selected the next action *"TRIGGER PAD 2"* automatically. Press the second pad or key from your controller to assign it

- Repeat the same procedure for all the pads/keys you want to assign to BeatMaker interface (if you want to assign more than 16 pads, tap the *"64 PADS DEVICE"* button above the focus actions list to extend the list to 64 pads)

- Assign any other external controls to BeatMaker actions (such as knobs or faders to the Macro controls, or buttons to Transport controls, etc).

You can use the *"SKIP"* button to go to the next focus action, leaving the current one without assignment. Make sure to press the *"STOP LEARN"* button when you are done.

You can then save your *Focus Actions* assignments to a preset file by tapping the 3-dots button located at the top-right corner of the page. By default, BeatMaker loads the last saved template when it is launched. You can also manually load any previously saved *Focus Actions* template from the same menu.

If the *OMNI* mode from the "*Settings* & *Behaviors*" page is *ON*, any unbound MIDI event to a *Focus Action* is forwarded to the currently selected pad.

2. Controlling individual BeatMaker instruments or banks

It may be desirable to control individual instruments or banks without depending on the currently selected bank within BeatMaker. You can do so by assigning a different MIDI controller (*MIDI input*) to a track:

1. First make sure MIDI *OMNI* mode is disabled. Open the *Browser* and press the *Settings* icon:



2. Press the "SETTINGS & BEHAVIOR" button and tap on "ROUTE ALL MIDI TO SELECTED PAD (OMNI)" to set it to OFF.

3. Now close the *Browser* and open the *Performance view*, then select the bank you want to configure by using the *bank selector* at the top

4. Press the 3-dots button next to the bank name:



5. Choose "MIDI Setup" from the menu

6. Press the "PORT" button below the "MIDI INPUT" label to show a list of your connected devices

7. Select your device from the list. Optionally, you can change the MIDI channel which the bank will listen to (or set it *"ALL"* if you want the Bank to react to any MIDI channel)

8. If you have an instrument loaded on your bank, it should now be controlled by the MIDI controller you previously selected

Troubleshooting: If you do not hear any sounds when playing on your controller, verify if:

- The MIDI channel your controller is using is the same as within the MIDI Setup

- The notes you are playing can actually be reproduced by the current instrument (are there any samples loaded for this note? Do you have a pad selected and *KEYS* mode enabled?)

- MIDI OMNI mode must be disabled for individual bank MIDI configuration to work. You can disable it within the Settings, "SETTINGS & BEHAVIOR" page.

You can also assign a specific MIDI controller and channel to any pad: please refer to the <u>Editor view article</u> for more information.

3. Sending MIDI events to an external hardware or software instrument

BeatMaker can be used to control external MIDI hardware and other iOS applications that have MIDI input support. You can use the pads/keys interfaces as well as the sequencer and patterns to send MIDI events to a connected device or app.

To configure a track or bank to send MIDI events, follow these steps:

1. Open the *Mixer view*, then tap and hold your track name for a second to display a menu:

	BANK A	(AUX 1	()	AUX 2				
			BANK A BANK A						
Load bank									
	Save Ba	nk							
	Rename								
	Set 64 p	bads	mode						
	Clear								
	MIDI Set	up							
1	Color								

2. Choose "MIDI Setup" from the menu

3. Press the "PORT" button below the "MIDI OUTPUT" label to show a list of your connected devices

4. Select your device or app from the list

5. Make sure the *MIDI Channel* you'll be using is the same as your device or app is expecting (by default it is set to MIDI channel 1)

6. Close the menu by taping anywhere on the screen. Starting from now, any event played from a pattern or pad within this track will also be forwarded to the selected device or app

You can also assign a specific output device and channel to any pad: please refer to the <u>Editor view article</u> for more information.

If at any time MIDI notes get stuck within your external devices or applications controlled by BeatMaker, press the *"MIDI Panic!"* button from the *Settings, "SETTINGS & BEHAVIOR" page.*
10. Importing, Exporting and Sharing Files

Several methods are available to transfer your files (such as samples, sessions, presets...) from and to BeatMaker:

<u>- Using iTunes on your computer (File Sharing mode)</u>
<u>- An iCloud account</u>
<u>- A Dropbox account</u>
<u>- From the Music Library of your device</u>
<u>- AirDrop and other iOS apps</u>
- Using the Files iOS app

1. Importing files from your computer using iTunes

You can transfer files from and to your computer using the iTunes application. To do so, follow these steps:

1. Connect your device to your computer and open iTunes

2. Click your device icon within iTunes



3. Now that your are on your device iTunes page, click the *"Apps"* item from the left menu, then scroll down until you see the *"File Sharing"* options

4. From the *Apps* list, click on *"BeatMaker 3"*. The right panel now displays the list of files from BeatMaker 3 on your device

5. Drag & drop the files and directories you'd like to import to the right-panel file list. Files are now transferred into BeatMaker

6. If you want to transfer files from your device to your computer, you can drag & drop them from the right-panel file list onto your computer desktop or file manager

2. Importing from your Music Library

Songs from your device's Music Library can be imported into BeatMaker and used in your session:

1. Open the Browser by tapping the button on the top-left corner



2. Press the Files icon:



3. At the bottom-right of the app, press the *"Music Library"* button:



4. You can now browse through your music library as usual (by Artists, Albums, Songs...). Tap on any number of songs to select then for importation. When you are done, press the *"OK"* button at the top-right corner of the screen

5. Your songs are now being imported into BeatMaker. A message will pop-up you when the import finishes: your songs are now available in the *"Samples"* directory, and can be used within BeatMaker as any other audio file

3. Using Dropbox

You can allow BeatMaker to access and store files from your Dropbox account easily:

1. Open the *Browser* by tapping the button on the top-left corner:



2. Press the Files icon:



3. Press the *"Dropbox"* button at the bottom-right of the app:



4. A Dropbox login screen appears. You will first need to allow BeatMaker to access your account by filling in your Dropbox login information

5. You can notice that the *Browser* now contains a second panel on the right, which displays the content of your Dropbox account. You can browser within your BeatMaker and Dropbox files as usual

6. To download a file from your Dropbox to BeatMaker, select a file from the right-panel and press the *"Download"* button at the bottom. Your file is now being transferred to the curren directory displayed within the left-panel 7. To upload a file to your Dropbox account, select any file from the left-panel and press the *"Upload"* button. This file is now transferred to the current directory displayed within the right-panel

4. Using iCloud

Files stored on your iCloud account can be download to BeatMaker:

1. Open the *Browser* by tapping the button on the top-left corner:



2. Press the *"iCloud"* button at the bottom-right of the app:



3. If you hadn't connected your iCloud account to your device before, you will be asked for your iCloud login details. On iOS 10, you also need to have *iCloud Drive* enabled.You can access iCloud's parameters from the *Settings* app on your device

4. Once you are connected, the content of your iCloud account is displayed. To download any file from your iCloud to BeatMaker, simply tap on it. When importing is done, the file is available within the *"Imports"* directory

5. To upload a file from BeatMaker to your iCloud, please follow the next chapter

5. Sharing files to other apps or using AirDrop

Sessions, banks, audio samples and any file from BeatMaker can be shared to compatible apps (such as *Mail* and *Notes*) or using *AirDrop*. You can also use this method to upload files to your *iCloud Drive* account:

1. Open the *Browser* by tapping the button on the top-left corner:



2. Select a file, session or preset from the list, then press the *"Share"* button from the bottom-right corner:



3. The iOS *sharing* panel appears, where you can choose to transfer your file using *AirDrop*, or add it to your *iCloud Drive* or to any app that supports file sharing

6. Using the Files iOS app

BeatMaker 3 supports the *Files* app available sin`ce iOS version 11. You can use it to manage, copy, share and edit all files located within BeatMaker the same way as with any other app supporting the *Files* app. For more information on using it, please refer to Apple's documentation: <u>https://support.apple.com/en-us/HT206481</u>

11. Advanced Settings

To access BeatMaker's advanced settings and configuration, open the *Browser* and press the *Settings* icon:



Settings are divided into three different pages: <u>MIDI Focus Actions</u>, <u>Audio & MIDI</u> <u>devices</u> and <u>Settings & Behaviors</u>.

MIDI FOCUS ACTIONS	AUDIO & MIDI DEVICES	SETTINGS & BEHAVIORS

At the bottom of the screen, you can access BeatMaker 3 online help, support and social media, as well as CPU and memory information:

CPU USAGE: Displays how much processing power BeatMaker is currently using. If the CPU usage is too high, you may be reaching your device hardware limit and may not be able to use more effects, tracks and samples in your session at the same time without incurring audio drops or app slowness

RAM USAGE: Displays how much random access memory BeatMaker is currently using on your device. This is not the storage (hard drive/SSD) usage, but the active memory that apps may use to run properly

1. MIDI Focus Actions

Please refer to <u>"Using external MIDI controllers and instruments"</u> for a complete overview of the MIDI Focus Actions page.

2. Audio & MIDI devices

The following audio settings can be configured on the left side of the page, below the *"AUDIO" section*:

OUTPUT SAMPLE RATE: defines the sample rate used by your device or external sound-card. A minimum of 44100 Hz is more than recommended

LATENCY: The latency is the time needed for a sound played from BeatMaker to actually reach your speaker or headphones. A low latency is better in most situations, although it might also increase the *CPU usage* of your device

RECORDING BIT DEPTH: Defines the bit-depth your audio recordings are encoded to. A value of 24 or 16 bits is recommended

HIGH-QUALITY (MEASUREMENT MODE): Set to ON to minimize the amount of systemsupplied signal processing to input and output signals

The right side of the page displays the currently connected MIDI input and output devices. Make sure your controller is enabled within the *INPUT DEVICES* list. You can also connect a Bluetooth-enabled MIDI device by tapping the Bluetooth icon at the top-right corner of the page:



3. Settings & Behaviors

This page gives access to several configuration parameters:

3.1 Engine

SEQUENCER STOP BEHAVIOR: When set to "REWIND TO BEGINNING", pressing the stop button moves the current play position to the beginning of the song (or start of the loop if LOOP MODE is activated). If set to "REWIND TO LAST POSITION", pressing stop moves to the last set play position within the Song View

SESSION CURRENT GLOBAL TUNE: Sets the master tuning of the main audio output. You can use this setting to adjust the pitch of the audio signal coming out from BeatMaker

MIXER MUTE TRACK BEHAVIOR: If set to "*MUTE AUDIO & MIDI*", a muted track will neither output audio nor MIDI events. If set to "*MUTE AUDIO ONLY*", MIDI events from this track will still be sent out

PADS PERFORM MUTE BEHAVIOR: If set to "MUTE AUDIO & MIDI", a pad muted within the *Performance view* will neither output audio nor MIDI events. If set to "MUTE MIDI ONLY", audio output from this pad is not muted

PAD/LAYER DEFAULT TRIGGER MODE: defines the default behavior when loading a sample onto a pad. It can be set to "ONE SHOT" (pressing a pad plays the full sample) or "HOLD" (the sample is played until you release your finger from the pad)

PAD/LAYER DEFAULT POLYPHONY: loaded samples have a default polyphony of 1 - if you trigger a sample and trigger it again while it is playing, the first playing instance is stopped. You can change how much polyphony a layer has by default by changing this value (for example, a value of 3 will let you play the same sample up to 3 times altogether). Individual layer polyphony can also be changed from the *Editor View*

PAD/LAYER DEFAULT GAIN: Sets the default gain value for all newly created layers. The default value is -6.0dB (any sample loaded onto a pad layer gets its volume attenuated by 6 decibels)

SLICE EDITOR AUTO L/R SLICE SNAP: Used for the *"SLICE MODE"* in the Editor. If enabled, created slices are always resized to match the previous and next slices positions (I.e there cannot be an empty gap between two slices). This behavior can also be override from the full-screen *Sample Editor*

3.2 Audio & MIDI

ROUTE ALL MIDI TO SELECTED PAD (OMNI): If set to *ON*, all incoming MIDI messages are sent to the currently selected pad of the current bank. You may want to turn *OFF* this behavior if you want to control several banks using distinct MIDI controllers

MIDI Panic!: Sends a "All Notes OFF" and "All Controllers OFF" message to MIDI output devices. Use it if at any time MIDI notes get stuck within your external devices or applications controlled by BeatMaker

MIDI Restart: Resets the MIDI input and output device lists and relaunches the MIDI engine

3.3 Browser & Database

AUDIO PREVIEWS VOLUME: sets the volume when previewing samples from the Browser, Sample Editor and Audio Recorder. Enter a negative value to lower the default playback volume.

BROWSER DOUBLE-TAP: defines the behavior when double-tapping a file from the Browser. "DO NOTHING" just selects the file, while "LOAD FILE" will automatically load a session, preset or audio sample

DATABASE RE-SCAN: BeatMaker uses an internal database to manage your projects, presets and samples. In the rare circumstances in which the database becomes out of date, press this button to perform a new automatic scan of all your files.

DATABASE HARD RESET: Deletes the current internal database and rebuilds it by performing a scan of all your files. This should only be used if the internal database has been corrupted for some unlikely reason. This option is also available from the iOS Settings app within the BeatMaker 3 section.

12. Tutorials & HOW-TOs

1. Basic tutorials

1.1 How to load/save a session

To **load** a session, select its name from the *Browser* list and press the *"Load Session"* button.

To **save** a session, open the Browser and tap on the *"SAVE*" icon located at the top-right corner of the app. If you haven't saved this session yet, you will be prompted to enter its name. Otherwise a menu appears displaying the following options:

- Quick Save: save the session to the same original file

- Save...: Displays a panel with further saving options:

- Copy samples: include a copy of all the samples used within this session
- Save banks separately: Save a copy of each bank within the session folder

- Save patterns within banks: Include patterns relative to each bank preset created with the above option

When switching between applications or quitting BeatMaker 3, your session is automatically saved to another file: if your session had been saved before, the term *"(Auto-saved)"* is appended to the original filename. If your session had not been saved yet, it is automatically named to the current date.

1.2 How to load/save a bank

To **load** a bank, select its name from the *Browser* list and press the *"Load Bank"* button.

This bank will be loaded on the currently selected Bank within your session. You can set the current Bank by using the *Bank Selector* at the top of the *Performance view*, or by selecting a Bank Track within the *Scene* or *Song view*.

A Bank may also contain patterns. By default, BeatMaker will only load the sound samples included in the Bank. If you want to load the Bank's patterns, make sure the *"Load Patterns"* button is set to *ON*. This feature is located next to the *"Load Bank"* button at the bottom of the Browser.

To **save** a bank, open the *Performance view* or *Editor view*, and tap on the 3-dots button next to the track selector:

A BANK A

Next, tap on the *"Save Bank..."* from the menu. You can now choose a name for your Bank, as well as three additional options:

- Copy Samples: If checked, all the samples used in your Bank are also copied

- Save patterns: If checked, patterns associated with this Bank are also saved

- Save location: Choose where your bank preset should be saved to: "Same directory" saves to its current location (if the bank has already been saved before), and "Main preset directory" saves it to BeatMaker's "Bank Presets" folder

To import a BeatMaker 2 preset, please follow this article.

1.3 How to load a sample

The simplest way to load a sample is to open the *Performance view*, then tap and drag the sample from the *Browser* onto any pad.

You can also select a sample from the *Browser*, and use the *"Load Sample"* button located at the bottom.

An extra option is available next to the *"Load Sample"* button, where you can select how BeatMaker will load the sample to the selected pad:

- Replace any existing samples loaded on the pad
- Add it as a new *layer* over the pad
- Add it to the existing *layer*

Tap the "LOAD METHOD" button to switch between these three modes:



If you are working with audio tracks, you can also quickly add an audio file by drag & dropping it from *Browser* onto an audio track from the *Song view*, or an empty slot from the *Scene view*.

1.4 How to obtain new sounds and samples packs

BeatMaker includes its own *Sound Store*, a very convenient way to add high-quality sonic content ready to used in your projects, such as drums kits, instruments and synthesizers. To open the *Sound Store*, tap the following icon at the top of the *Browser*:



You can browse sound packs by Genre and Instruments. Some of this additional content is free, while other is available as in-app purchases. Once you select a sound pack (and possibly purchase it with your iTunes Store account), it will be downloaded and installed within the BeatMaker app, ready to be used in your sessions.

In case you reinstalled BeatMaker on your device, press the *"Restore Purchases"* button located at the bottom-right corner of the sound store to download all your previously purchased packs again.

1.5 How to convert your song into an audio file

You can export your song or tracks to a single audio file, playable in most devices such as a computer, mobile phone or portable media player. Open the *Browser* and tap the *"EXPORT"* button on the top-right corner to open the Export screen.

There are several options you can choose from to create an audio file from the current session:

Audio export: Select *MASTER* if you want to export all your tracks into an audio file. When choosing *TRACKS* mode, a track/pad selector appears. In this case only the selected tracks or pads will be exported to the audio file.

Export zone: Select the starting point within the song and the duration in bars to be exported. Use the *"SONG"* and *"LOOP"* buttons to set the values to the song and loop markers respectively.

File export options: Choose whether the resulting audio should be in WAVE format (uncompressed) or AAC format (compressed). You can also select the bit resolution and to *normalize* the audio file (i.e. the greatest audio peak will reach 0dB, or maximum volume). For your information, a CD quality audio file is WAVE and 16 bits.

When you are ready, tap the *"START EXPORT"* button. Once exporting is done, BeatMaker will let you know the location of your newly created audio file. Additionally, press the *"SHARE"* button to transfer your exported song to another device, app, etc...

1.6 How to record a sample onto a Pad

BeatMaker makes it easy to record samples on the fly and apply them onto pads. You can record from your device microphone or from the inputs of an external sound card. Resampling is also possible: you can record anything currently playing within the app: a bank, aux track or any pad.

To open the audio recorder, go to the *Editor* view and select a pad, then press the *REC* button:



The following dialog opens:

A	udio rec	corder		×
RECOF iPa	rding source Id Micro		+6 +3 +0 -2	
C DESTINATION PAD	>	MOVE TO NEXT PAD OFF	-6 -12	
RECORD MODE THRESHOLD		THRESHOLD -30.0dB	-20	
S	START		-30	
SEQUENCER CONTROL	PLAY	STOP	MONI	TOR

First tap on *"RECORDING SOURCE"* to select where the app is going to record audio from. A menu appears with two options:

HARDWARE INPUT: Displays all the available hardware inputs for your device (microphones, external sound card inputs...)

INTERNAL: Select this if you want to resample audio coming from within BeatMaker. This can be a specific bank, auxiliary track or pad.

Next we can define which pad we're going to record to by setting the DESTINATION PAD. By default, it is the currently selected pad. You can also set "MOVE TO NEXT PAD" to ON if you want to record onto severals pads in a row: when you are done recording on a pad, it will automatically set the DESTINATION PAD to the next one.

There are two "RECORD MODES" you can choose from:

THRESHOLD: when enabled, recording will only start whenever an audio signal with a volume greater than the *THRESHOLD* value is captured. The value meter on the right can help you know the current amount of signal being captured.

SYNC: Recording starts in sync when BeatMaker's sequencer reaches the next bar. The *LENGTH* parameter can be set to automatically stop the recording after a certain number of bars has been reached (or set it to *FREE* to stop the recording manually).

You can also control the sequencer playing in the background using the play and stop buttons (useful when recording in *SYNC* mode).

Finally to begin with your recording, press the "START" button.

Depending on the *RECORD MODE* you selected, BeatMaker will either display *WAITING* (the record awaits for the specified signal threshold or for the sequencer to reach the next bar) or *RECORDING*. Press this button again at any time to stop the recording.

After you are done, you can close the Audio recorder. Any recording you made is now available for you to further <u>edit</u> or <u>slice</u> it.

1.7 How to record a pattern

You can either record a pattern directly on the song timeline or on a scene.

First, let's take the example of recording a pattern on a scene, such as it automatically repeats itself during playback:

- From the *Performance view*, select the bank you want to record a pattern for, and tap the *Track helper button* located at the top-left corner of the app (make sure the *Browser* is closed, otherwise the *Track helper* button will not be visible)

- Tap the *"CREATE PATTERN"* button at the bottom of the menu to add a new empty pattern. This pattern is added to the list and is set as the *working pattern*, ready to be

recorded. The default pattern size is one bar, you can change it by pressing the 3-dots button next to its name and change the *DURATION* parameter

- Tap the record icon from the *Transport* toolbar to launch the recording. The metronome is activated and a *pre-roll* (countdown) of one bar is played before the recording begins. You can change the *pre-roll* value by tapping the *Quantize* (1/16) button from the *Transport* toolbar

- Once the pre-roll is over, you can start playing on the pads or keys from the *Performance view* to record events - or use your <u>external MIDI controllers</u>.

- The pattern is looped automatically, so you can record over it several times in a row. Once you are done recording, press the stop icon from the *Transport* toolbar. If you wish you can now open the *Sequencer* view and add it to a *Scene* or to the song timeline

You can also record a pattern directly onto the song timeline:

- Select a track from the *Song view*. Make sure your track is set to *Song mode (Track helper* is displaying *"PLAYING SONG"*). If not, open the *Track helper menu* and tap the *"PLAY SONG"* button, or press the small play icon at the right side of the track timeline.

- Place the playback cursor in the Song view to the desired position

- Press the record icon from the *Transport* toolbar to start the recording. Use the *Performance view* pad and keys interface or an external MIDI controller.

- Once you are done, tap the stop icon from the *Transport* toolbar. A pattern has been created and added to the song sequencer, with a duration equal to the one of your recording

1.8 How to automatically quantize live pattern recordings

BeatMaker can automatically quantize your MIDI pattern recordings so they are always synced to a beat division. By default, the *quantize on record* is synced to 1/16th of a beat. You can change this behavior to your liking by tapping the *quantize* (1/16) button from the *Transport toolbar*:



If you want to disable automatic quantize, set the "QUANTIZE ON RECORD" option to OFF. Otherwise, you can change the "QUANTIZE SYNC" a parameter to the desired value. Next time you make a recording, notes will be synced to this value.

1.9 How to load an effect onto a pad

Open the *FX panel* and make sure the *pads* icon is activated:

Open the *Performance view*, and touch the pad you'd like to add an effect to. The *FX panel* should now display the pad name. Press the *"ADD EFFECT"* button and choose an effect: it will only affect the selected pad.

2. Intermediate tutorials

2.1 How to slice/chop a sample

You can *chop* a sample into several *slices* easily within BeatMaker. Slicing is useful to automatically spread amongst pads an audio recording (such as vocals, beats and instruments).

Open the *Editor* view, select a pad and drop a sample from the Browser onto the *SAMPLER* screen.

Tap the "SLICE MODE" button located at the top-right corner to enter slice edition mode. You can now manually create slices by tapping on the timeline located above the wave view, or press the "AUTO-SLICE" button to display the following options:

- SPLIT: Automatically splits e`venly your sample by a number of pre-defined slices

- *GRID*: Automatically slices your samples by a beat division (such as 1/8th or 1/16th of a bar)

Once you are done slicing your sample, they are **automatically spread amongst the keys of the selected pad** (you can trigger each slice using the mini keyboard at the bottom of the screen). If you go back to the *PERFORMANCE* view and set the *KEYS* mode, you can instantly trigger any slices using the pads.

If you are experiencing audio clicks when triggering a slice, you can use the *"FADE IN"* and *"FADE OUT"* options to soften the beginning and end of the slice playback (this is actually a shortcut to the *"AMPLITUDE ENVELOPE"* modulator)

You can **save your slices to a bank** or layers by pressing the *"SAVE..."* button above the waveform. Two options are available:

SLICE TO PADS: All slices are spread amongst the pad of a bank. You can select the *DESTINATION BANK* (current or another bank), the *START PAD* (pad number from where the slices are spread), and an optional *CHOKE GROUP* number (triggering a pad will silence any other slice currently playing). If you set *CREATE PATTERN* to *ON*, a new pattern is also created with the slices sequence, ready to be used in your song

SLICE TO SINGLE LAYER: All slices are spread into a single layer on the current pad. You can also set the *START KEY* (the key number for the first slice) and create a matching pattern to be used later on within the sequencer

SLICE TO MULTIPLE LAYERS: All slices are spread into separate layers on the current pad. You can also set the *START KEY* (the key number for the first slice) and create a matching pattern to be used later on within the sequencer

SAVE AS APPLE LOOP: Creates a new Apple Loop audio file containing the slices information

SAVE AS SEPARATE SAMPLES: Creates a new audio file for each slices into a subdirectory

You can also <u>save your bank as a preset</u> to easily reuse your sliced sample within another song.

2.2 How to control an Audio Units plugin or external application

Each pad can control an Audio Units plugin, or an external iOS app which supports Inter-App Audio or Audiobus protocols.

To load a plugin or an app, go to the *Editor* view, select a pad and press the *PLUGIN* tab at the top-right corner of the editor. The plugin selection menu is displayed:



<u>*Tip:*</u> alternatively, you can also load a plugin from the *Browser's "PLUGINS"* page by drag & dropping it onto a pad within the *Performance view*.

Select which type of plugin or app you want to load: the menu is then automatically filled with compatible installed plugins and apps on your device. Tap on the *"Load"* button next to any plugin or app to load it.

Once the plugin or app is loaded, tap anywhere in the *PLUGIN* view to open the *Plugin Control View*:



Audio and MIDI connections are now made between BeatMaker and your plugin. If the plugin supports MIDI input, you can now control it using BeatMaker's virtual keyboard or Performance view. You can also manually configure the MIDI connection to IAA and Audiobus applications by pressing the *"MIDI SETUP"* located on the *Plugin* page and keyboard-split view.`

Audio Units plugins share their screen with BeatMaker, whereas IAA and AudioBus work as any other iOS applications. To open an IAA/Audiobus app screen from BeatMaker, tap on its icon located above the virtual keyboard.

For more information on using MIDI Audio Units plugins, please refer to this section.

Important note on saving plugins and external apps presets:

Audio Units parameters and presets are automatically saved within BeatMaker sessions and banks. However, IAA and Audiobus apps manage their configuration on their own. When saving your BeatMaker session, you also need to save within external apps any configuration/preset you've made. Likewise, when loading a BeatMaker session which uses external apps, make sure you recall their previous configuration manually.

2.3 How to import MIDI files

BeatMaker 3 can import MIDI files onto a Bank track within the *Song* or *Scene* views. To do so, follow theses steps:

- Open the Song or Scene view, then open the Browser
- Choose Files mode from the Browser toolbar:



- Look for the MIDI file you want to import, then drag & drop it from the *Browser* onto the desired Bank track within the *Song sequencer* timeline, or onto an empty slot in *Scene* mode

- You will be asked if you want to *transpose* notes contained in your MIDI file to a specific pad configuration. By default, the assigned pad number matches the MIDI note number (I.e note C-2 is assigned to Pad 1). You can change the default assignment by pressing the *TRANSPOSITION MAP* button and creating a new map. After entering a new map name, you will have access to the individual note-to-pad mappings. It is also possible to use the *General MIDI* classic mapping by pressing the *"GM"* button. These custom MIDI mappings are saved within the *"MIDI Import Map Templates"* folder.

- When importing a MIDI file containing multiple tracks, each track will be assigned to an individual pad

- If the currently selected pad is set to *Keys* mode, MIDI notes are only imported on this specific pad (only applies to single track MIDI files)

2.4 How to record a pattern from a plugin or app

From within the Plugin Control View:

- Tap the *Pattern preview* located at the top-left corner of BeatMaker to display the pattern menu

- Tap the "+" icon at the bottom to create a new pattern. You can also change the pattern duration by tapping the 3-dots icon located next to its name within the pattern list.

- Close the pattern list by tapping again on the Pattern preview
- Arm recording mode by pressing the REC button from the transport toolbar
- Wait for the record countdown to end, and play notes using the virtual keyboard

- Unarm recording by pressing the *REC* button again: a new pattern controlling your external plugin or app is now ready to be used within the sequencer.

2.5 How to create and record an audio track

You can record audio directly onto the song sequencer timeline. To do so, follow these steps:

- Open the Song Sequencer

- Press the "+" button at the bottom of the track list to add a new audio track (or select an existing audio track from the list):



- Tap and hold the track name to display the track menu



- Choose "Audio input", and select the input you want to record from (for example, if you want to record from your iPad microphone, choose "HARDWARE INPUT" and then "iPad Micro"

- Arm the recording by pressing the record icon next to your track name. The song sequencer will only record tracks which have been previously *armed*.



- Press the record icon from the Transport toolbar to start the recording

- Press stop from the *Transport* at any time to finish your recording. Your audio recording has been added as a new pattern on your audio track. Make sure to *unarm* your audio track if you do not want to further record to it.

2.6 How to control several parameters with one Macro knob

Most parameters available within BeatMaker can be assigned to a Macro knob, including:

- Editor, sampler and modulation parameters
- Plugins parameters (by using the "Show AU Knobs" mode from the plugin view)
- Mixer controls
- Any effect parameter

When you see a parameter you would like to assign to a Macro, simply double-tap on its knob control. A menu similar to this one appears:

	DRY/WET	
<	50%	
RESET		
MACRO CO	ONTROLS	

Press the "MACRO CONTROLS" item from the menu to display the macros list, then press the macro control you'd like to assign the parameter to:

< DRY/WET
MACRO 1: DRIVE
MACRO 2: GLOBAL TUNE
MACRO 3: PUMP
MACRO 4: PANOMATION
MACRO 5: LENGTH
MACRO 6: FEEDBACK
MACRO 7: ECHO
MACRO 8: REVERB
MACRO 9
MACRO 10

The text displayed next to a macro name is the first parameter that was assigned to it.

You can repeat this same procedure for any number of parameters and assign them to one or several macro controls. At any time open the *Macro panel* to try out how your macro is modifying your sound.

To remove a parameter from a Macro knob, double-tap on the parameter and choose *"UNBIND MACRO"* from the menu.

2.7 How to use an external MIDI controller

You can use an external MIDI device to control BeatMaker's instruments and interface. To do so, please follow these steps:

1. Close BeatMaker if it is already open

2. Connect your USB MIDI controller to your device using the *Apple Camera Connection Kit*. If your MIDI controller draws too much power, you may need to plug it to an external supply. You may also try to connect it first to a USB hub that has an external power supply, and then connect the hub to your device

3. Open the BeatMaker app

Now we need to configure which parts of the interface (such as pads, macro controls, bank selector and transport) are going to be controlled by your MIDI controller. These are called *focus actions*.

4. Open the *Browser* if needed and press the *Settings* button:



5. Press the *"MIDI FOCUS ACTIONS"* button from the *Settings panel*, then press *"Auto Learn"* at the bottom of the page:

Auto Learn

For each action in the *"FOCUS ACTION"* list, you can assign a key or control from your controller. We start with the first action, which is triggering the first pad from the current bank.

6. Tap the first pad or key from your MIDI controller: it is now automatically assigned to BeatMaker's first pad from the *Performance view*

7. BeatMaker has selected the next action *"TRIGGER PAD 2"* automatically. Press the second pad or key from your controller to assign it

8. Repeat the same procedure for all the pads/keys you want to assign to BeatMaker interface (if you want to assign more than 16 pads, tap the *"64 PADS DEVICE"* button at the top of the page to extend the list to 64 pads)

9. Assign any other external controls to BeatMaker actions (such as knobs or faders to the Macro controls, or buttons to Transport controls, etc)

Note: You can use the "SKIP" button to go to the next focus action, leaving the current one without assignment. Make sure to press the "STOP LEARN" button when you are done.

You can also setup your MIDI keyboard or controller without assigning each control individually. For more information on doing so, please refer to <u>this article</u>.

2.8 How to use the MVerb reverb effect

MVerb is a high quality reverb designed by Martin Eastwood. Four reverbs are used in series in a figure 8 feedback loop with modulated delays. This design is rumored to have been used on some of the high end Lexicon hardware units and it definitely has that "American" sound that is not only capable of lush and dense but also special effects reverbs.



Here is a description of the MVerb's parameters:

Damping:

Sets the amount of high frequencies that will be cut. You can set it depending on the kind of room you are trying to simulate:

- A soft room (a room full of people/obstructions/soft materials) will lose a lot of its high frequencies. - A hard room (a room with no people/obstructions/hard materials) will keep all of its high frequencies.

Following these principals, if we set the damping high then it will be a softer room. Damping affects the overall tone and setting it inversely to the source often works well: a lot of damping on a bright sound will be warmer, but low damping on a duller sound can add some air.

Bandwidth:

Sets the frequency range at which the damping will occur. You can think of it as an overall material control: the less bandwidth you use the softer the materials in the room will be, the warmer or less harsh the reverb will be as a whole.

Pre Delay:

This is the amount of time it takes for the sound to create its first reflection and is the first timed or rhythmic element in your reverb. For a free running reverb, it is common to set this between 100th to a 10th of the decay size, however you can also use large pre delay sizes if you are trying to replicate very large rooms or halls. For rhythmic reverb we will use a BPM of 120 as an example:

1/4 note is 500ms
1/8 note is 250ms
16th note is 125ms
32nd note is 63ms
64th note is 32ms

To create a rhythmic pre delay at 120 BPM you can use one of these values, in most circumstances a 32nd note or 64th note will give the reverb the feeling of still being connected to the source sound. You can notice that the above values have been rounded up: this can create a feeling of playing slightly ahead or after the beat ("in the pocket" effect). Adding or removing 1 or 2 milliseconds can push this effect deeper.

Density:

This is the space between the first reflection and all the following reflection: high density gives closer reflections and thicker reverberation. For sustained sounds like vocals, a lower density will give a much smoother reverb without becoming muddy. For a rhythmic or percussive source, a higher density will give a more defined reverb that removes bounciness.

Decay:

This determines how long it takes for the reflections in the room to fade away. You can think of this as a strength rather than a length control for the reverb tail: a longer decay will give a harder or denser reverb tail, and a shorter decay will soften or thin out the tail. It is common for decay time to be linked to room size, so a small room will be given a small decay and vice versa. However, this rule should not always be followed, especially if you are looking for a more peculiar reverb. On a large room a large decay can give a very dense reverb. On a small room a large decay may result in a very metallic sounding reverb. You can use the rhythmic calculations as described in the pre delay section to create a suitable stepped size for "in the pocket" set ups. A wider range of settings and results can be obtained by setting it in combination with the room size.

Room Size:

Sets the size of the room. A lower value simulates a small room while a higher value simulates a bigger room. Combined with a large pre delay, it is possible to create rooms as large as a hall or church. For rhythmic reverbs you can look at this as a tightness control: once you have set your pre delay to follow the BPM, you can use this value to control the tightness or space of the reverb between the notes.

Gain:

Sets the overall level of the output of the reverb.

Early Mix:

Sets the level of the very first reflections that occur when the sound hits the surfaces in the room. These reflections can sound a little like echo on a percussive or rhythmic source but can add depth on a sustained source like vocals. Adjusting the early mix and decay at the same time should give you some control over placement of sound from the front to back of the room.

Mix:

This is the dry/wet control. At 0%, no reverb effect is applied to the sound source.

At 100%, only the reverberated sound can be heard. You can use this parameter to mix in how much reverb you want to hear with the original source sound. When using reverb as a Send effect, this value would typically be set to 100%: the dry level is set by the source channel in the mixer, and the reverb level is set by the send control.

3. Advanced tutorials

3.1 How to import BeatMaker 2 projects and presets into BeatMaker 3

BeatMaker 3 can import BeatMaker 2 *projects & presets*. This article describes how to transfer your files from BeatMaker 2 to BeatMaker 3.

- Open the *BeatMaker 2* app. Load the project (or the project that contains the preset) you would like to import into *BeatMaker 3*

- **If you want to transfer a preset** and haven't saved it individually yet, make sure to do so by pressing the *"SAVE PRESET"* button from the Drum Machine or Keyboard Sampler view. When prompted for a location to save your preset, check the *"COPY SAMPLES"* option, then press *"SAVE"*.

- **If you want to transfer a project**, open the navigation pop-up view and tap on the *"CURRENT PROJECT"* button, then *"SAVE AS"*. When prompted for a location to save your project, check the *"COPY SAMPLES"* option, then press *"SAVE"*.

- From the navigation pop-up view, press the *File transfer* button:



- Press the *"FILE TRANSFER"* button to use a FTP software to transfer your project or preset to your computer. Alternatively, you can use your Dropbox account by pressing the *"DROPBOX"* button. Make sure to transfer both the *bm2/bmk2* file and the *samples* folder

- Close *BeatMaker 2* and open the *BeatMaker 3* app

- Transfer your *BeatMaker 2* preset from your computer or Dropbox account to *BeatMaker 3*. For more information on importing files into BeatMaker 3, please follow <u>this article</u>

- Open the *Browser* within *BeatMaker 3* and switch to *Files* mode by pressing this button:



- To open a preset, locate your *bmk2* preset file within the *Browser*, select it and press the *"Load Bank"* button. Your BeatMaker 2 preset file is now loaded to the currently selected bank - To open a project, locate your *bm2* project file within the *Browser*, select it and press the *"Load"* button

3.2 How to record audio from a plugin or app into BeatMaker

You can record the audio output from a plugin or app into a sample. It is then automatically loaded onto a pad, ready to be triggered, further processed or <u>sliced</u>.

From within the *Plugin Control View,* the audio recording parameters are located on the left side of the virtual keyboard:



DEST PAD: Defines the pad where the recorded sample will be loaded to. By default, it is set to the same pad where your plugin or app is loaded.

MOVE TO NEXT PAD: Set to *ON* if you want to record onto severals pads in a row: when you are done recording on a pad, it will automatically set the *DEST PAD* to the next one.

THRESHOLD: Recording will only start whenever an audio signal with a volume greater than the *THRESHOLD* value is captured. The value meter on the left can help you know the current amount of signal being captured.

To **begin recording**, press the *"START"* button. You can then use the virtual keyboard or open back your external app and play within it. Once you are done recording, press the *"RECORDING"* button again.

You can now close the *Plugin Control View*: your recording is now loaded onto the pad, set previously by the *DEST PAD* parameter.

3.3 How to record parameter changes (automations)

Most parameters within BeatMaker can be automated. For example, you can control the volume of a target track or pad at a specific location in your song. Usually, when you see a knob control anywhere within the interface, it can be *automated*.

- To enable the recording of automations, first press the following icon from the *transport toolbar*:



- Set *"RECORDING AUTOMATIONS"* to *ON* by tapping it in the displayed menu:



- Press the *record* icon from the *transport* to start recording. Now you can go and move any parameter from within the *Editor, Mixer* and *Effects* views: the parameter change values are recorded at the current playing position within the song sequencer

- Press the *stop* icon from the *transport* to quit recording. Make sure to set *"RECORDING AUTOMATIONS"* to *OFF* if you do not with to record further automations

When recording an automation by changing a parameter within the interface, it will disable the *playback* of any previously recorded automation for this specific parameter. When stopping the recording, the *playback* of said automation is resumed as normal. However, you can change this behavior when the sequencer is *looping* on a specific section by enabling or disabling the *"RE-ENABLE ON LOOP"* feature. When set to *ON*, automations playback are resumed after looping. If set to *OFF*, playback is not resumed and any previously recorded automation will be overwritten.

The "QUANTIZE SYNC" option from the automation menu allows you to quantize the recorded value-change events to a specific bar division. By default, it is set to 1/64th of a bar.

3.4 How to record automations from an Audio Units plugin into BeatMaker

You can record automation for Audio Units plugins the same way you would do for an internal BeatMaker parameter.

From within the *Plugin Control View*:

- Make sure the *"RECORDING AUTOMATIONS"* option is set to *ON* within the automation panel. To open the automation panel, press the *"A"* button from the *Transport* toolbar:



- Select the pattern you want to record the automation to by tapping the *Pattern preview* area

- Tap the *record* icon from the *Transport* toolbar to start the recording and playback of the sequencer

- From your plugin screen, move the parameters (knobs, faders...) for which you want to record automation

- Automation has now been recorded to your pattern, ready to be played back. To manually edit your automation, open your pattern within the *Pattern Editor*, then tap the *"PATTERN AUTOMATIONS"* button at the bottom-right corner of the screen.

3.5 How to use Sends and AUX tracks to share effects between different tracks/pads

Auxiliary tracks (*AUX*) are used to share effects between several tracks and pads. For example, you may want to use one *reverb* effect with a specific configuration, then share it amongst different instruments to create a coherent reverberation environment for your song.

To reproduce a similar approach, follow these steps:

- Select the AUX 1 track within the Mixer view

- Tap the FX icon located at the bottom of the main left toolbar

- Tap the "NEW TRACK FX" button from the FX panel, then choose the Reverb effect

- Set the "WET MIX" parameter to 100% and "DRY MIX" to 0% (this way the reverb effect only outputs reverberation and no dry/original audio signal)

- From the *Mixer view*, select the first track you want to apply reverb to, such as *Bank A*

- Move the *"Send 1"* knob up to some value. You can play a pattern from this track a the same time to hear what is happening: the higher the *Send* value is, the more reverberation can be heard

- Repeat the last step for any other track or pad you want to apply reverb to. By setting different *Send* values for each instrument, you can change their perceived *proximity* within the sound space created by the reverb

Each *Send* parameter basically controls the *amount* of signal (volume) that is sent to the auxiliary track. Up to 8 auxiliary tracks can be created within BeatMaker: *Send 1* controls *AUX 1*, *Send 2* controls *AUX 2*, etc.

To display the 8 *Send* control knobs at the same time, tap the *"All Sends"* button from the bottom toolbar.

You can decide if the audio signal sent to an auxiliary track should be first processed by the track's volume and panning parameters or if it should skip them. To change this behavior for the currently selected track, press the *"Post/Pre-Fader Sends"* button located at the bottom toolbar:

- *Post-Fader Sends* mode: The volume and panning set on the selected mixer track are applied to the audio signal before it reaches the auxiliary track

- *Pre-Fader Sends* mode: No volume or panning is applied to the audio signal before it reaches the auxiliary track

3.6 How to send and receive audio & MIDI between BeatMaker 3 and your macOS computer

BeatMaker 3 supports Inter-device Audio and MIDI (iDAM). This feature can be used to send and receive audio and MIDI between your device (iOS version 11 minimum) and Mac computer (macOS 10.11 *El Capitan* minimum), using a lightning cable.

First, you need to setup the connection between your device and your computer:

- Connect your device to your computer using a lightning cable

- From your computer, open the "Audio MIDI Setup" application found in the *Applications* folder, *Utilities* sub-folder

- For **macOS High Sierra** and later, your device is shown within the *Audio Devices* window. Click the *"Enable"* button below it to pair it with your computer

- For **previous macOS versions**, within the "Audio MIDI Setup" application, click on the "Window" menu, then on "iOS Device Browser". A new window appears which should display an icon of your iOS device. Click the "Enable" button to pair it with your computer

- Your computer should now have a new audio input device representing your iPhone/iPad. You can use it as you would with any other input device connected to your computer. For example, you can open your favorite DAW and choose "*iPad*" as the input device to record any audio coming out from your iPad

- Your iPad is also now available as a MIDI input and output device on your computer, to send and receive MIDI events to and from it. Within BeatMaker 3, your computer is represented as a new MIDI Input and Output device called *"IDAM MIDI HOST"*

Important note:

Using the iDAM feature disables your iOS device as a camera connected to your Mac. To enable Camera mode again, press the *"Disable"* button from the *"iOS Device Browser"* window within the "Audio MIDI Setup" application.

3.7 How to use MIDI Audio Units plugins

Some Audio Units plugins have the capability to generate MIDI information (notes, control changes...) that can be used to control BeatMaker 3 pads and instruments.

In the following example we will load a MIDI Audio Units plugin and use it to control a *Bank*:

- <u>Load a MIDI-capable Audio Units</u> onto any pad by drag & dropping it from the *Browser* or within the *Editor View*

- Go to the *Performance View* and create a new *Bank* by pressing the "+" button

- <u>Load a preset</u> onto the new bank (such as a synthesizer, piano, bass...)

- We now need to configure this bank to receive MIDI events from the plugin. Select the *Bank* from within the *Performance View* and press the 3-dots icon next to the bank name:



- Press "MIDI Setup" from the pop-up menu, then tap on "PORT <NONE>" just below MIDI INPUT. The previously loaded MIDI Audio Units plugin is now listed there - just tap on it to set it

- Select the pad where your MIDI Audio Units plugin is loaded and press the keyboard icon from the main toolbar to display it. Notes and events generated by this plugin will now be sent to the previously created bank

Appendix 1: Focus Actions list

This appendix describes the list of <u>Focus Actions</u> that can be controlled using an external MIDI controller within BeatMaker:

Focus Action name	Description
TRIGGER PAD (from 1 to 64)	Triggers the corresponding pad of the currently active bank within the <i>Performance view</i>
MODE: SELECT	Controls the state of the <i>"SELECT"</i> button located in the <i>Performance view</i> (enables or disables pad selection mode)
MODE: SCENE	Controls the state of the <i>"SCENE"</i> button located in the <i>Performance view</i> (enables or disables scene trigger mode)
MODE: MUTE	Controls the state of the <i>"MUTE"</i> button located in the <i>Performance view</i> (enables or disables pads mute mode)
MODE: SOLO	Controls the state of the <i>"SOLO"</i> button located in the <i>Performance view</i> (enables or disables pads solo mode)
TOGGLE PAD KEYS	Controls the state of the <i>"KEYS"</i> button located in the Performance view (switches the currently selected pad between keys and pad mode)
MACRO CONTROL (from 1 to 16)	Controls the corresponding Macro knob from the Macro Panel
SELECT BANK (from A to H)	Sets the selected bank of the currently displayed bank group in the <i>Performance view</i>
PREV. BANK	Switches the currently selected bank to the previous one (i.e. if <i>Bank B</i> is selected, <i>Bank A</i> now becomes selected)
NEXT BANK	Switches the currently selected bank to the next one (i.e. if <i>Bank A</i> is selected, <i>Bank B</i> now becomes selected)
SELECT BANK GROUP (from 1 to 16)	Sets the currently displayed bank group in the <i>Performance view</i>
PREV. BANK GROUP	Switches the currently displayed bank group to the previous one (i.e. if <i>Bank group 2</i> is displayed, <i>Bank group 1</i> is now displayed)
NEXT BANK GROUP	Switches the currently displayed bank group to the next one (i.e. if <i>Bank group 1</i> is displayed, <i>Bank group 2</i> is now displayed)

OCTAVE/PAGE DOWN	If <i>Keys</i> mode is enabled on the currently selected pad, switches the display of pads to one octave lower
OCTAVE/PAGE UP	If <i>Keys</i> mode is enabled on the currently selected pad, switches the display of pads to one octave up
REPEAT SLOT (from 1 to 6)	Controls the enabled/disabled state of the corresponding <i>"REPEAT"</i> button from the <i>Performance view</i>
TRANSPORT controls	Triggers the corresponding buttons from the <i>Transport toolbar</i> . <i>TEMPO</i> is used for the <i>TAP TEMPO</i> feature

Appendix 2: MIDI Controllers Routing

1. Controlling BeatMaker 3 with Focus Actions

A simple way to control banks, pads and various part of the app by using one or more MIDI device(s).

Pad triggers, modes (scene, mute, solo...), macros controls, etc. are always directed to the currently selected bank or track.




2. MIDI OMNI

In addition to using Focus Actions, you can quickly route all incoming MIDI data to the currently selected pad. This is a great way to use both a pad controller, which has Focus

Actions assigned to trigger pads, and a keyboard controller, to quickly play a melodic instrument.

This mode is enabled by default, see the Settings screen, "Settings & Behaviors" tab to disable it.



3. Single Channel Mode for Banks

This is the default mode for banks. Routing takes place if the incoming MIDI messages are not handled by existing Focus Actions. Routing is done using the selected input device (or all) and MIDI channel, regardless of the currently selected bank or track.

In this mode, the MIDI key is associated to the destination pad. For example, if you press C3 (MIDI note 60) on your controller, then pad 61 will be triggered (MIDI note 0 is pad 1). The bank listens to a single MIDI channel or all channels at once. The pad "Base Key" setting will be used.

If you set the bank in KEYS mode, then the selected pad will play chromatically (and regardless of the pad "Base Key" value).

NOTE: It is advised to disable the "Route All MIDI To selected Pad" (OMNI) option in this mode (in "Settings & Behaviors")



4. Multi Channel Mode for Banks

This is an alternative routing mode for banks if the incoming MIDI messages are not handled by Focus Actions. Routing is done using the selected input device (or all), regardless of the currently selected bank or track.

In this mode, the MIDI channel is used to route MIDI data to the destination pad. For example, MIDI messages sent on channel 3 will be directed to pad #3. In this mode, the Bank listens on all channels.

Each pad will play chromatically, regardless of KEYS mode. This is useful if you have multiple melodic instruments loaded across pads on the same bank, since the MIDI note on / off key will be left untouched.

NOTE: It is advised to disable the "Route All MIDI To selected Pad" (OMNI) option in this mode (in "Settings & Behaviors")



5. Routing Priorities

Incoming MIDI data is routed with different priorities.

Focus actions are always prioritized, so, if an action matches the Key or CC that it was assigned to, the message is "handled" and routed to the currently selected track / bank.

If not, the message is passed through all banks, matching their configuration, which consist of:

- An input device (<ALL>, or a specific MIDI device) - The bank mode: Single Channel or Multi Channel - The MIDI data (in single channel mode, note number routes to the specific pad, in multi channel mode, channel number routes to the specific pad)

