handheldsound

MAD - v1.0

Produced by Eitan Teomi

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INTRODUCTION

In an ever-growing sea of drum kit libraries out there, can there possibly be something new and exciting?

Absolutely! Welcome to our **MAD** world...

MAD is a new drum kit series with a fresh concept: a versatile and forward-sounding kit that aims to bring back the joy and simplicity when working with sampled drums.

And it does that while packing new concepts like an extended dynamic range of pure raw attitude that will fit virtually any mix!

Our feeling was that although there are lots of nice sounding kits out there, most of them suffer from a poorly translated dynamic range which ends up as a hindrance to a realistic and raw character. The kind that comes out when a live drummer simply rocks out!

Our purpose with this first installment is to deliver *that* pure authenticity and making it easy and fun to use.

MAD sports an integrated hi-end environment for creating Uber realistic grooves with maximum impact, while retaining a very focused and direct tonal quality.

It sounds raw, dynamic, direct, and beautifully loud!

HANDHELDSOUND PHILOSOPHY

HandHeldSound's vision is to create ultra usable sample library products for composers, sound designers, and music producers. The kind of products that fuse real innovative quality with simplicity of design and ease of use.

HandHeldSound instruments are a product of love and dedication! Using our products should feel as close as using a real instrument with an organic sound.

The entire production cycle from selecting the instruments, the engineering, processing, and implementation is done with a non-compromising attention to detail.
HandHeldSound uses cutting edge technology for musical implementation and superior noise reduction techniques.

Finally, HandHeldSound is committed to release ground-breaking, hair-raising, arm flailing, and eye-popping sample libraries and virtual instruments!

INSTALLATION

STEP 1

Download and install our custom download manager. The download manager ensures a proper and reliable download of all contents.

Next, run the download manager and paste your activation code/s to begin the download.

Most often, the content is divided into compressed parts using the RAR compression method.

By the way, we have E-mailed you with links and codes to start this process.

STEP 2

After you have completed the download, it's time to un-compress the RAR files. The download manager can do this for you, but you can uncompress manually as well.
Both Mac and PC platform have free utilities to successfully do this.

For Mac we recommend: UnRARX
For PC we recommend: WinRAR

**NOTE: you only need to un-compress the 1st RAR part.
Consecutive parts are un-compressed automatically.**

STEP 3

MAD is a sample library that requires a full retail copy of Kontakt version 5.2 and above.

In order to add it to your existing Kontakt libraries simply move the entire un-compressed contents to the hard disk of your choice.

When launching Kontakt you can find MAD by using the Kontakt file browser and load any instrument.

NOTE: this product doesn't use the "Add Library" feature in Kontakt, nor is available through the Library Tab. It can be accessed using the browser's Files Tab.

THE INSTRUMENT

MAD includes *one* instrument - the kit.
A single patch loads the entire kit with all of its features.

Future updates will include variance patches and kit expansions!

The kit we used here is a **REMO®** custom 5-piece Rock kit.
Smaller in size and known for its tight sound.

Kick – 16X24 Kick Drum.

Snare – Golden Crown Snare

Hats – Zildjian Hi-Hat

Toms – 7X10 and 8X12 Rack Toms

Floor Tom – 12X14 Floor Tom

Crashes – 2X Zildjian Crashes

Ride – Paiste Ride Cymbal

Sticks – Cooperman Custom Persimmon Drum Sticks
(…lots of pairs…)

RECORDING / SAMPLING / TECH

In order to achieve the desired extended dynamic range and a truly responsive sound, we combined a strict playing style with a unique recording environment.

The kit was miked and recorded along with a small PA system (semi-isolated) which naturally blended with the direct microphone signals, especially on the higher velocities.
The kit sound is powerful with lots of impact. The tone gradually becomes squelchy with a bit of saturation towards the top of the dynamic range, combining the generally aggressive playing style with the natural feedback infused by the live PA.

When sampling the kit, it was crucial for us to capture realistic dynamics without needing to process it much using velocity based attenuation.

(Volume modulation via Velocity DOES extend the dynamic range but it works by attenuating samples, which is counter productive as it produces a weaker sound!)

The outcome with MAD is that the velocity-switched samples translate very realistically and are playable at all dynamic levels. The loudness is naturally nonlinear and very low dynamics are still musical and defined!

MAD's kit was recorded from 9 perspectives:

- **Kick** (1 channel, Kick in / AKG D112)
- **Snare Top/Bottom** (2 channels, SM57 / AKG C414)
- **Hi-Hat** (1 channel, Royer R122)
- **3x Toms** (3 channels, Neumann TLM 103 / Sennheiser MD421)
- **Stereo Overheads.** (2 channels, Earthworks Omnis)

The raw samples were minimally processed and they retain a lot of the original rawness of the live recording.

On the other hand, as with all our products - Noise Reduction was uncompromised and we are proud to say our samples are totally noiseless with no artifacts or phase issues.

MAD sports robust sampling implementation and programming utilizing custom scripting and an easy to use interface.

In addition to including traditional mixing tools such as a full mixer, EQ, compression etc., MAD takes a unique approach to microphone blending and bleed control, allowing flexible sonic design that's otherwise impossible to achieve with a traditional mixing console!

MAD is sampled to the extreme incorporating various articulation, multiple drum zones, lots of velocity layers, 4x round Robin, and separate Right/Left hand articulations on Snare and Toms.

It also makes extensive use of release triggers to ensure smooth transitions on various drum elements.

Samples integration and playability is further controlled via MAD's custom script featuring several key elements that greatly improve realistic reproduction:

- **Variable velocity sensitivity –**
  MAD follows velocity responses that are true to the instrument with a realistic extended dynamic range. The velocity response is variable from Convex thru Linear to Concave curves.

- **Legato grace notes –**
  Snare grace notes can be played on the fly with legato transitions that help with unnecessary mapping bloat.

- **Hi Hat engine with modulation** -
  An extensive Hi-Hat engine that incorporates 6 degrees of close-to-open states, auto foot stomp, and layer transition technology.

- **Auto cymbal chokes –**
  Multi velocity Cymbals choke from a single key.

To round it off, MAD comes loaded with over 350 integrated MIDI loops with matching alternates and fills within an easy to use Groove Engine.

ARTICULATIONS

There are numerous articulations in MAD representing all you'd expect when playing a real drum kit with sticks.
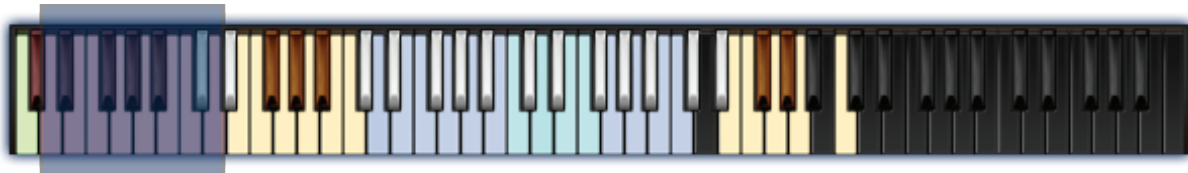

The note mapping is logical and color coded for easy orientation:

Green = Kick Drum;   **Red** = Snare Drum;   **Yellow** = Hi-Hat;
White = Cymbals;   **Blue/Cyan** = Toms;   **Black** = Unused.

MAD's concept is to simulate a real world drumming experience with a smooth and idiomatic articulation.
Every key uses multi samples, numerous velocities, and Round Robin so there are lots of nuances to be unleashed.

Kick -

The Kick Drum is mapped to **C0** with an alternate at **B-1** for fast double Kick hits.

Snare -

The Snare features multiple articulations, drum zones, and separate Left/Right hand samples. The Left/Right hand spread is mirrored (Left hand on the Left - Right hand on the Right) for fast trills and easy triggering between drum zones:
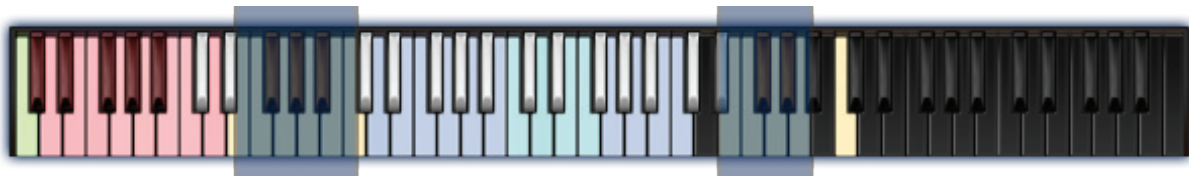
- **D0, E0, F0, G0** - Left hand moving from <u>Center to Rim.</u>
- **A0, B0, C1, D1** - Right hand moving from <u>Rim to Center.</u>
- **C#0, D#0** - Cross Stick / Side Stick.
- **F#0, G#0, A#0** - Grace rolls / Buzz Roll Loop.

The Snare articulations feature other extended features:

- Legato Grace notes.
- "Same Hand Guard".

* Read the special features section in the manual for more info.

Hi-Hat -

MAD includes a robust Hi-Hat engine that maximizes realistic playback by following various logical mechanics of using Hi-Hats.

The mapping features several Hi-Hat articulations:

- **E1 (Duplicated on E4) -** Tight near the tip

- **F1 - (Duplicated on F4) -** Center

- **F#1 -** Foot Stomp

- **G1 (Duplicated on G4) -** Edge (normal playing position)

- **G#1 -** Open

- **A1 - (Duplicated on A4) -** Rods (normal playing position)

- **A#1 - (Duplicated on A#4) -** Half Open

- **B1 (Duplicated on F#4, G#4, B4) Modulation** - Close-To-Open (via the mod wheel)

- **C2 -** Performance: Open-Close (Great for Funk breaks!)

In addition to the typical monophonic-like functionality between open and closed Hi-Hat sounds, MAD's Hi-Hat engine includes an intelligent note stealing mechanism and a comprehensive modulation system with 6 degrees of Close-To-Open layers with Legato layer transitions.

Finally, MAD automatically adds foot pedal stomps When playing open-closed patterns for super realistic grooves!

* Read the special features section in the manual for more info.

Toms -

The 3 Toms (2x rack & Floor) are mapped from high to low.
They feature separate Left/Right hand samples and multiple articula-tions. The Left/Right spread is mirrored for fast trills and easy move between drum zones:

- **Tom 1: G3, A3** - Left hand Rim / Center
         B3, C4 - Right hand Center / Rim

- **Tom 2: C3, D3** - Left hand Rim / Center
         E3, F3 - Right hand Center / Rim

- **Floor Tom: D2, E2, F2** - Left hand Rim / Edge / Center
            G2, A2, B2 - Right hand Center / Edge / Rim

Just like the Snare, the Toms utilize the "same-hand" guard feature.
* Read the special features section in the manual for more info.

Cymbals -

The Cymbals articulations are spread across the mapping and move between the Crashes and Ride cymbal.

- **Crash 1: C#1, D#1, F#2, A#2** - Center/Mallets/Rods/Ring/Bell
- **Crash 2: C#2, D#2, C#3, D#3** - Center/Ring/Rods/Mallets
- **Ride: F#3, G#3, A#3, C#4, D#4** - Bell/Ring/Rods(bell)/Rods(ring)/ Edge

A "Cymbal Choke" control is mapped to **C5**.
Triggering the Choke key after any Cymbal hit will initiate an automatic Cymbal Choke respective to the present Cymbal articulation.
* The Cymbal choke includes velocity switches and Round Robin samples as well (!)

SPECIAL FEATURES
Grace Notes

The Snare articulations in MAD have a 'hidden' feature for grace notes. Instead of bloating the mapping with different grace note articulations, ghost notes etc., we have implemented a Legato-like feature that automatically triggers appropriate Snare grace notes.

When playing the Snare, hold the key down and play an adjacent Snare articulation. A grace note sample will then play respective to the Snare articulation of the destination key!
Think of this as melodic interval Legato, just with Percussion.

Experiment by holding a starting key while playing different target keys to hear the different grace notes.

Important - Grace notes will <u>not</u> play if the legato interval crosses Left to Right hand articulations or vice versa (drummers tend to play Snare graces with the same dominant hand.)

The Grace note feature won't mess with your flams & rolls even if you have note overlaps. Try it :)

Hi-Hat Modulation

MAD's Hi-Hat implementation includes 6 degrees of Close-To-Open layers controlled via the modulation wheel. The modulation works only with the **B1** key (and duplicated at **B4**).

When the mod wheel is fully closed, so is the Hi-Hat. Opening the mod wheel is simulating releasing pressure from the foot pedal and opening the Hat. The 6 layers include custom transition layer technology that greatly improves the realistic sound of Hi-Hat action.

For instance - play a closed Hi-Hat and then quickly open the Hi-Hat. If you're fast enough, the Hi Hat will resonate and turning the mod wheel will still produce some open Hat sound!

Alternatively, when fully closing the mod wheel, a foot pedal sound is triggered. It's even velocity sensitive based on the speed of the wheel movement...

Finally, the Hi-Hat engine blends a pedal stomp sample whenever a closed Hi-Hat articulation is played *just* after an open articulation!

Same-Hand Guard

MAD includes a feature that helps eliminating double and/or erroneous note duplication when playing live or when sequencing.

It does that by minimizing impossible 'same-hand' maneuvers.

For example - when trying to perform a Snare Flam between 2 articulations of the left hand...

Additionally, the same-hand guard helps to clean up the MIDI data whenever 2 notes are played together and produce an impossible hit combination.

 For instance, hitting the 2 Kick Drum notes together.

This feature allows you to still rock out on your keyboard and have less mess to clean up later on!

(No more fat fingers excuses!)

USER INTERFACE
EASY

MAD's easy page gives you access to the most essential features of the kit.

Appropriate kit elements will flash as you trigger keys, clearly orienting you with all that the kit has to offer.

Additionally, the main window area includes a master channel and a **'Flip'** button that switches the panning perspective of the kit.

The control panel at the bottom brings several macro controls that can be used to quickly modify the mix and tonality of the kit.

(These controls can be further controlled within the Mix page)

- **OH** - Controls the level of the Overhead Stereo channel. *

- **Room** - Controls the level of the Room impulse stereo channel.

- **Bleed** - Controls the amount of global microphone bleed. *

- **HH.Att** - Softens the Hi-Hat attack. *(Map to MIDI CC for automating Hi-Hat attacks - great for realistic 16 beat patterns!)*

- **Pitch** - Global pitch control.

- **Decay** - Custom decay envelopes scaled individually for Kick, Snare and Toms.

- **Vel** - Variable velocity curve thru Covex-linear-cocave curves.

* In the Easy page these controls are global based on the controls' settings within the Mix page!

MIX

MAD's mixer page gives access to serious mixing opportunities that exceed what's' possible with a traditional mixing console.

The main page area is equipped with long-throw style faders, mute/solo/pan controls, and bussing capabilities.

The Mix page is where you access the EQ, Compressor, and snapshots.

The mixing console in MAD is straightforward and includes standard controls. Each channel has a Solo, Mute and Output fader, an EQ indicator and Buss assignments.

By default, no EQ is inserted on any channel so the EQ indicator is disabled. As soon as an EQ is engaged, the indicator will turn Green. Then it's possible to bypass the EQ by pressing the indicator which will turn Red.

The Room channel includes a custom made True Stereo impulse. Notice that the Pan knob is disabled for this channel.

At the bottom of each channel strip are the Buss assignments. By default, MAD is internally bussed, however, it's possible to utilize Kontakt's multi-output architecture and route each channel to those outputs. To do this, you will need to first make sure that Kontakt's output section is properly configured (you may need to restart Kontakt after configuring it). The next step is to make sure that your host is utilizing multiple outputs coming from Kontakt.

Please refer to your Host application's documentation to properly set it up to utilize Plug-ins with multiple outputs.

At the bottom of the mixer page there is a control panel that extends the one found within the Easy page with more precise control over various sound parameters.

- **O. Head** - Traditionally, with a stereo Overheads channel it's impossible to individually balance kit elements.
  In MAD, by using the **HH** and **CYM** knobs you can control the levels of the Hi-Hat and Cymbals *independently* within the Stereo Overheads mixer channel.

  By default, moving the Overheads mixer channel moves the HH and CYM knobs in unity. Changing the knobs' position to either boost or attenuate the level will override this behavior.
  Now, Moving the Overheads channel again will retain the new balance between the knobs and the fader allowing you to re-level the balance inside the Stereo Overheads.

  To quickly go back to unity - move the Overheads fader all the way down and back up again!

- **Bleed** - MAD features a comprehensive microphone bleed control. The 2 designated knobs are multifunctional. Pressing the inner area cycles between all mic bleed perspectives.
  The outer ring adjusts the level of the bleed. Max level is unity gain.

The following table illustrates each knob's setting and it's properties:

Knob Label	Source	Thru Microphone	Notes
K -> SD	Kick	Snare Bottom	Adds Snare rattle
T1 -> SDT/B	Tom 1	Snare Top+Bottom	Adds Snare rattle and fullness
T2 - SDT/B	Tom 2	Snare Top+Bottom	Adds Snare rattle and fullness
FT -> SDT/B	Floor Tom	Snare Top+Bottom	Adds Snare rattle
FT -> T2	Floor Tom	Tom 2	Adds power and fullness
SD -> TT	Snare	Toms	Add character and punch

- **Pitch, Decay** and **Vel** are exactly the same as in the Easy page.

EQ. Compression. Snapshots.

The mixer page gives access to the EQ, Compression, and Snapshots tabs.

The signal flow is straightforward. Each channel has an EQ insert point and the Master output has Buss Compression.

By default, channels are routed internally but they can be routed to external Busses via the Buss assignments at the

bottom of the strip.

- **The EQ Tab** -
  Each channel in the mixer (minus the Room and Master output) have an EQ insert point. Clicking on the EQ tab on the left brings the EQ module where each channel can be accessed and the EQ can be assigned. To go back to the main Mixer page, simply click the EQ tab again.
  The EQ module features standard Parametric EQ controls including Low and High Shelving/Bell bands and 2 Bell shaped Mid bands.

  To use the EQ all you have to do is to select a channel from the list on the right, and start adjusting knobs. As soon as you begin tweaking, the EQ is automatically inserted and activated!

- **The Buss Compressor** -
  The compressor tab brings the Buss Compressor module. The Compressor is internally routed to the Mixer's Master output and functions much like a classic Buss Compressor.
  The Compressor features standard controls such as Threshold, Ra-

tio, Attack, and Release. Additionally, it also features Makeup gain and Mix knob for parallel compression!

When the channels are bussed to external outputs – the EQ and Compressor have no effect on the signal!

- **The Snapshots** -
  MAD includes a snapshot system that allows users to save and recall presets and complete kit configurations.

  MAD has 6 factory Kit presets that demonstrate some of the possibilities to shape to the tone of the kit.

  Snapshots can either write all the kit parameters or, using the selectors on the right, you can specify which segments are going to be written to the snapshot slot.

GROOVE

MAD's Groove page sports a useful collection of Rock and Funk Core loops with corresponding alternates and fills.

Easily audition loops by double clicking on any groove and by using the transport controls.

The left column is the Master Groove sections, the middle exposes Core grooves, and the right, exposes Alts

and Fills. Each Core Groove has 5 corresponding alternates that range from light to heavy alternation.
Similarly, each Core Groove has 5 corresponding fill-ins that range from sparse to dense.

Core Groove names correspond with Alternate and Fill loop names!

ALL grooves are 2-bars and 4/4 time signature!

The Groove engine include additional useful features:
The top right section of the main window includes on/off buttons for each element (Kick, Snare, Hats, Toms, Cymbals). Additionally, the Snare and Hats have a 'cycle' toggle button. Pressing the cycle button switches the Snare articulations to side-stick and the Hi-Hat through all available articulations.

Below the Grooves browser, there is a metronome-like area with indicators that cycle through each beat within the loop. Dragging from this area to your host will add a MIDI track with the MIDI Groove straight to your project!

Dragged loops will reflect any muted or cycled elements reflected in the top control buttons!

SPECS

- 3GB and 5,400+ individual samples.

- Plenty of velocity layers and 4x Round Robin.

- Extended dynamic range and realistic velocity curves suitable for drumming.

- Unique recording concept.

- Totally noiseless with no artifacts!

- Extensive Hi Hat engine with 6 degrees of Close-To-Open modulation with automatic foot pedal and Legato transitions.

- Separate Left/Right hand samples for Snare and Toms with multiple drum zones articulations.

- Intelligent Legato Snare Grace notes, Cymbal Chokes, and Automatic 'same hand guard' helps to keep your programming or live triggering realistic.

- Integrated user interface with a full mixer, EQ and Compression, Bussing, and a sophisticated control panel.

- Optimized for studio production and live triggering.

- Automatic Cymbal Chokes.

- User friendly and includes an integrated groove engine with over 350 Rock and Funk grooves.

- Complete with Core grooves and matching Alternates and Fills.

SUPPORT

We are here for you, so feel free to contact us for questions, comments, praises, complaints, confessions, and if you just want to say hi!

info@handheldsound.com

The best way to keep in touch and hear about special promotions, discounts, offers and news, is by joining our mailing list and checking the site often.

Visit our site at handheldsound.com

Best regards,

HandHeldSound

THANKS & CREDITS

Thanks to my family, friends, and colleagues for their support, good comments, and positive feedback!

More thanks...
REMO and especially Mike and Jerry, Chrys Berri for the help and tech.

Produced, performed, recorded and programmed by **Eitan Teomi**

Scripting and additional programming by **Andreas Lemke**

UI by **Eitan Teomi**

EULA

END-USER LICENSE AGREEMENT

INTRODUCTION

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EULA (CONT.)

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EPILOGUE

FlyingHand Percussion is how HandHeldSound started.
For me, it has a lot of symbolism. A lot of work was put in its production and it involved quite a bit of magic to be released.
In its original revision it featured a unique packaging which was kind of revolutionary in this industry. I believe this helped its original success.

In 2008, after a successful debut and some crazy years with ZenDrum performances at the NAMM show, it received the coveted **Editors Choice Award** from Electronic Musician magazine.

Everyone expected the next thing from HandHeldSound and we respectfully responded by going underground :)

We spent the next few years recording, acquiring, developing, deleting, performing, coding, designing, and coming up with some interesting ideas for the future.

This 1.5 release of FlyingHand Percussion marks our 'cork popper' followed with some exciting releases.

HandHeldSound is proud to be extreme... **Extremely Sampled!**

Eitan Teomi, 2013