Scoring Mallets v1.0

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INTRODUCTION

Scoring Mallets features premium custom instruments from **Marimba One, Malletech** and **Yamaha**. For the purpose of the recording we chose custom Mallets that combine medium soft outer material with a harder more articulate inner core to bring out both warmth and resonance from the instruments.

Scoring Mallets offers an abundance of features, all targeting seamless composition and idiomatic writing that compliments modern scoring. The robust 38,000+ sample data and up to 5 microphone perspectives translate to ultra authentic and highly playable instruments. Additional powerful features such as the **Acoustic Positioner™** and numerous intuitive playing techniques, extend this library to boast unparalleled quality.

The recording process in the scoring room resulted in a lot of flexibility of tone. We captured the instruments from 5 Microphone perspectives: **Tight, Loose, Stage, and Wides/Surround**. The microphone placement was arranged in such a way to give maximum flexibility from intimate to an authentic Cinematic sound with a lot of body, air, and spatial detail.

Unique microphone arrays and placement were used in order to make our stage positioning engine possible! The positioning tool incorporates proprietary algorithmic design and is phase coherent and natural sounding.

PHILOSOPHY

Scoring Mallets makes effective use of its massive sample pool for a lot more than velocity layers, round robins, and release samples.

We have designed custom scripts for **Trills**, **Rolls**, and **Glissandi** with complete control over tempo and humanization.
You can apply Crescendo, Diminuendo, time shifting, and velocity drifts - all in real time.

With the built-in Step Sequencer you can design **polyrhythmic** and **polyphonic Ostinati** and change tonal structures on the fly by playing chords. With added features for time drifts and custom velocity maps, you can create evocative musical gestures and intricate polyphonic lines on the spot.

And finally, Scoring Mallets includes special **4-mallet playing techniques**, which bring authentic multi-mallet playing styles to the virtual instrument world. Choose between various types – **Basic**, **Independent**, and **Ripple Rolls** – each with special scripted algorithms to replicate proper timing and velocity relationships between inner and outer mallets voicings.

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

Scoring Mallets is a sample library that requires a full retail copy of Kontakt version 5 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 Scoring Mallets 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 INSTRUMENTS

Scoring Mallets includes 3 instruments – Marimba, Xylophone, and Vibraphone. Recorded in a beautiful large scoring room, the library's primary focus is for scoring applications, however, as a result of its full-featured mixer and microphone balance options, it fits virtually any musical style!

Marimba
Custom Marimba made by 'Marimba One'.
Features 5 Octaves with Basso resonators that enhance the fundamental pitch.

Xylophone
This Malletech Xylophone features a robust tone and strong attack. The mallets we used extend the rich sound and offer a nice balance between warmth and punch.

Vibraphone
This Yamaha Vibraphone is very special. It has a very direct sound with a lot of dynamics. There is some nonlinearity of harmonics throughout the tonal and dynamic ranges that makes it sound detailed and grainy, which works well within modern orchestral contexts.

TOUR OF THE INTERFACE

The interface is divided into 2 main areas. The **TOP** area includes **performance** and **Pattern generator** tabs. You can switch between them by clicking the appropriate tab on the left edge of the UI.

- These tabs are also switchable via the two permanent Key Switches: **C0** and **D0**

The **BOTTOM** area of the interface includes 3 main tabs – **Mixer**, **Stage**, and **Settings**. The Settings Tab has 2 additional sub-tabs.

The Mixer and Stage tabs represent the two main operation modes of the instruments. Mixer mode gives you access to every microphone position and channel. The mixer includes **Mono** and **Stereo** signal paths and **true Stereo pan** capabilities.

Using the horizontal slider it's possible to specify the width of the stereo field. The balance knob above it controls the symmetry of the stereo image. There are also **ON** and **OFF** channel buttons, and **Left/Flip/Right** switches.

The Stage tab exposes the **Acoustic positioner** tool.
Using this mode, it's possible to position the instruments freely around the Scoring Stage. The Acoustic positioner utilizes a set of proprietary algorithms that rely on the physical room dimension, miking techniques, and dynamic phase and time alignment.
It does not use Convolution and therefore does not impact CPU!

Since it's an algorithmic and time-based design, the sound quality is completely natural without phase issues. This mode allows you to change the spatial topology and create very realistic stage positioning.

It's important to note, that the Stage mode doesn't offer direct access to individual microphone channels. All audio streams work synergistically at all times. It's impossible to recreate the Stage sound within the mixer mode and vice versa.

The Mixer and Stage modes are mutually exclusive. This means that when you switch between them, the sound engine will sync with the setup of the active mode. You cannot combine their operation. Furthermore, for consistency of use, when you move to the Settings tab, the engine will remember the last active mode and will keep it active, so there is no break in your workflow.

The **settings tab** is where you can configure the instruments. It offers extensive control over **velocity curves**, **velocity compression**, and a **humanization engine**. It also controls the behavior of special performance articulations such as the Rolls, Trills, Glissandi, and Multi mallet playback types.

ARTICULATIONS OVERVIEW

Scoring Mallets can trigger single notes, Trills, Rolls, Glissandi, and for the first time, you gain access to multi-mallet playing techniques. These options allow complete freedom of idiomatic writing without the use of pre-recorded loops. Scoring Mallets includes a customized Logarithmic velocity control and extensive real-time performance, timing, and humanization options that ensure ultra realistic playback.

- Single Notes and Polyphony

Basic operation includes single notes and polyphonic operation without any limitation. All notes feature plenty of velocity layers and round robin samples. You play it much like any other keyboard instrument.

All the instruments were recorded with unique samples for the Left and Right hand, so depending on the range you are playing, appropriate samples will play back to simulate a realistic scenario. This concept is explored further when using any of the performance modes to play Trills or Rolls. In these cases, the samples will alternate between Left and Right hand samples automatically for maximum realism!

- Idiomatic Performance

Scoring Mallets is designed to give you easy control over idiomatic performances so creating realistic sequences is greatly simplified.
It includes the following performance options:

1. Rolls
2. Trills
3. Glissandi
4. Multi Mallet Roll options
5. Polyphonic/Polyrythmic Step Sequencer

USE OF THE SUSTAIN PEDAL

The Sustain Pedal is used extensively throughout Scoring Mallets but not always in the most conventional way.

While the Vibraphone patch, for example, utilizes the Sustain Pedal to sustain notes and simulate an actual Vibraphone pedal, all the instruments utilize the pedal *also* to activate the Multi Mallets engine, which gives you access to widely used yet overlooked articulations - playing multi Mallet Rolls.

By default, the Multi Mallets feature is turned ON in the Marimba and Xylophone patches and it's OFF in the Vibraphone Patch*.

* The Vibraphone uses the Sustain pedal to replicate the instrument's actual pedal mechanism to sustain notes. For consistency of operation across all instruments in the library, the Vibraphone patch loads with the pedal acting as Sustain.
Currently, using the 4-Mallet articulations work with Pedal Up samples only!

USING THE INSTRUMENTS

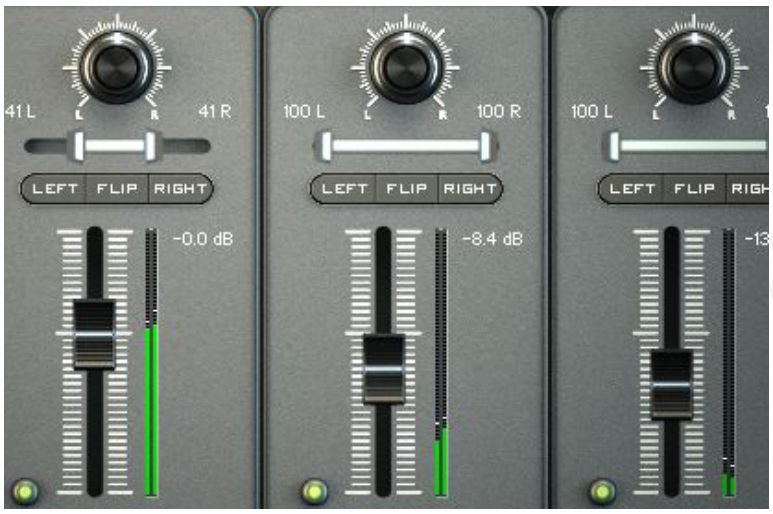
MIXER TAB

Inside the Mixer Tab you can control each microphone perspective's level, panning, Buss assignment, and channel audio output settings.
The mixer combines both mono and stereo signals. In case of a Mono signal, the Left/Flip/Right selectors are not available.

The mixer features 4 channel strips:

1. **Tight** - Mono / Stereo channel (depending on the instrument)
2. **Loose** - Stereo
3. **Stage** (Conductor's perspective) - Stereo
4. **Wides*** (Outriggers) – Stereo

** The Wides perspective is switchable between Outriggers or Surround in the Stage mode.*



Click and drag the width slider to change the Stereo width. Use it in conjunction with the **balance knob** to change the symmetry of the stereo signal. If you wish to only balance the stereo signal, you may leave the width slider at maximum and use the balance knob to create simple symmetrical stereo adjustments.

If you wish to **collapse the signal to Mono**, simply set the width to minimum. The **Left/Flip/Right selector** gives you the choice to break the Stereo signal path and use only the Left or Right channel if you wish. **The Flip button** inverts the Stereo image. Each channel can be routed to Kontakt's virtual Busses via the **buss assignment drop down menu** below each channel strip. Please note that you need to define your Busses in Kontakt's output settings and prepare your DAW to utilize them. You may need to restart Kontakt after you initially setup additional outputs before this takes effect.

* *When the channels are at Unity Gain they reflect the actual recording levels and thus maintain a realistic balance* between all microphones arrays.

USING THE INSTRUMENTS

STAGE TAB

Inside the Stage Tab you have access to the **Acoustic positioner**.

The positioner is a tool that allows you to place the instrument around the scoring room. It features a proprietary time-based algorithmic design and does not rely on convolution or any other additives. Because of this, it takes absolutely no additional CPU power!

This is *not* a glorified Panner nor a virtual room simulator! The stage represents the actual recording space. The engine relies on specific recording techniques that enabled us to create a detailed vector-based grid that is based on phase, physical dimensions and level interpolation, and Left/Right relationships to re-create the notion of moving the instrument. When you position the instrument, several algorithms work at once to generate appropriate phase/time balance between all signals relative to the actual space.

There are 3 sliders.
From top to bottom:

1. **Left to Right**
2. **Front to Back**
3. **Stereo width**

By **combining width and the Left/Right sliders** you control the contour of the direct signal. You can also create **non-symmetrical spatialization** by combining directional positioning and changes in width. Wherever you choose to position the instrument there will be an appropriate perception of space, direction, and spatial coherency.

Try to move the instrument around. And especially front to back.
It's VERY smooth! It's because you're moving it in the actual space.

POSITION

- **Original** - initializes the position.
- **Snap** - front to back positions will snap to ideal starter locations.
- **Custom** - your desired position.
- **Initialize** - reverts your custom settings back to the original setting

MIC TOPOLOGY

- **Wides/Surround** – The outrigger channels act as Surround or Wides.
- **L/R flip** - inverts the entire stereo image.
- **Width sync** - allows you to achieve full Mono output when moving the instrument front to back *and* when you set the width to minimum.

Turning on Width Sync produces an unnatural sonic behavior, but we chose to include it as it can prove useful under certain conditions - especially when working with an **external Reverb processor**.

SETTINGS TAB

In the Settings Tab you can find several performance optimizations options. There are 2 sub-tabs available: Velocity, and Performances.

The Velocity sub-tab features an in-depth **velocity setup** to fit any keyboard and playing style. It includes a fully customizable non-linear velocity graph and **Velocity Compressor**.

In the Global section you can define the mod wheel **volume modulation**, apply Velocity Compression, and add **Velocity deviation** to auto performances.

The Performances sub-tab includes setup for special articulations: **Glissando**, **Trills**, and **Rolls**. When **Auto** is **On**, the engine automatically triggers Glissandi and Trills based on a set **Threshold**. In order to play Glissandi or Trills you need to **play two notes in short succession, by holding one note and playing a second note.**

The **Threshold** knob setting determines how to activate these special articulations when Auto is **ON**.

1. When performing a **Trill**, the Threshold determines the **maximum** time gap that the engine recognizes two notes as a Trill. Anything above the threshold will be triggered as regular single notes played in succession.
2. When performing a **Glissando**, the Threshold determines the **minimum** time gap that must pass between the initial note held in order for the Glissando to be activated.

The engine can automatically recognize **unison voices** so when you're playing multiple notes at once, no special articulations will be triggered! The Trills section also includes a **4-Mallet option**, which activates the Multi Mallet mode. Trills and Glissandi can also be played Legato. This is particularly useful with Trills. You can play realistic performances of trills that change range by adding notes beyond the original target note and the Trill will automatically change.

TRILL PLAYING EXAMPLE:

Play the note **C3** and immediately add and hold **E3**.
C3-E3 upward trill will start playing as long as both notes are held.

Now, while still holding the two notes, add the note **G3** above.
The Trill will play **C3-G3**. At this point, you can release the E3 note.

When Auto is **OFF**, special articulations are available via the key switches. You can freely assign key switches and the UI will update accordingly. You can also use the **Learn** button to quickly assign switches by playing the desired key on the keyboard.

The top UI area (Performance tab) includes indicators for any special articulation that is currently active. Next to the indicators you can specify the timing of the performance – either to be free running or synced to host tempo.

Rolls are different from Trills since they are performed on a single note. In order to allow dynamic switching between single notes and Rolls, it's controlled via either After Touch (pressure) or a MIDI continuous controller (CC). In this case the Threshold controls the cutoff point when the Roll will be triggered.

The **Random** knob adds a certain humanization algorithm to each of the performance articulations.

4-MALLET OPERATION

The Trills articulation can be further extended with **4-Mallets** operation.

When the **4-Mallets** feature is **On**, Trills can utilize multi mallet techniques, which are common to Mallet instruments. To play 4-Mallet articulations you must use a Sustain pedal in combination with playing a 4-note chord. This initiates a special articulations that follows multi mallets playing techniques.

The easiest way to try this out is to **play a 4-note chord** where each hand plays two note combinations. It works best this way rather than playing 4 notes with one hand. Remember that in order to use this articulation, the Sustain Pedal must be held. Then, you can play any 4-note chord progression and the Trills will change smoothly.

You can perform **crescendo** and **diminuendo** when moving between chords (this is a common gesture that Mallet players use during performance or Roll passages).

There are several ways to achieve this:

1. **Dynamically** – when moving between chords, any changes in average velocity will interpolate so there is always going to be a gradual velocity adjustment between chord changes.
2. **Intentionally** – the **2 outer notes** of the chord control the general velocity of the Roll, and influence the crescendo/diminuendo engine. While holding a chord, **re-strike the outer notes**. This initiate a crescendo or diminuendo relative to the current played velocity.

With a bit of practice, you can perform expressive Trills with lots of musical nuance.

4-MALLET ARTICULATION TYPES

There are 4 separate modes to the 4-mallets operation. They are available from the top UI area: Basic, Independent, Ripple, and Simulate.

- **Basic Roll**: The voice grouping is: Lowest two voices / Upper two voices. This is the simplest way to perform a multi mallet Roll. Each hand follows the other playing a group of two notes.
- **Independent Roll**: inner voices are followed by outer voices. This produces a more homogenized sound.
- **Ripple Roll**: All voices are rolled one at a time with specific timing and velocity relationships. This is the smoothest sounding Roll.
- **Simulate**: if you are not happy with playing 4 voices at once, this mode allows you to play 3-note chords and still make use of the 4-mallet Roll. The 4th note is added automatically based on the chord played.

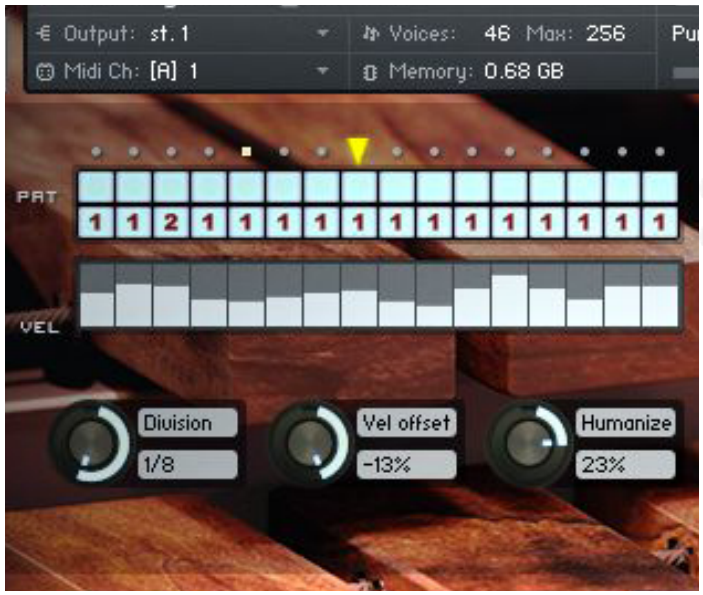
* In Simulate mode, the Roll follows the "Basic Roll" voice mechanism.

PATTERN SEQUENCER

Click on the **Pattern** Side Tab in the top UI area to activate the Pattern sequencer.
(Also via **C0** Key Switch). Using the pattern sequencer you can play complex Ostinati or arpeggio-like sequences. Clicking the Pattern Side Tab, is automatically enabling this mode.

There are 4 rows within the pattern sequencer.

From top to bottom:



1. **Step amount** – by moving the Yellow pointer, you can specify how many steps the sequence will have. It supports up to 16 steps.
2. **Cell on/off switch** – each cell can be enabled or disabled.
3. **Cell polyphony** – each cell can play 0-4 voices per step.
4. **Cell velocity** – each cell has its own velocity.

When playing the keyboard, the sequencer begins its cycle. Holding more notes will cycle all the held notes in the order they were played.

* Turning a cell Off does not produce the same result as setting a voice count to zero. **Cell Off** results in muting the Cell, continuing on to the next note in the sequence. **Voice set to zero** also mutes the Cell but won't skip to the next note in the cycle. It will shift the sequence to play the muted note on the next cell. This produces polyrythms.

The three knobs below the sequencer apply timing division, global velocity offset (positive and negative), and a humanization algorithm.

ADVANCED SETTINGS

VELOCITY DEVIATION

Velocity deviation adds a humanization algorithm to Velocity when any of the Performances are used - Glissando, Trills, and Rolls. The deviation **adds and subtracts** from velocities that are currently active so that the result is a fluctuation of velocity output, above and below the original triggered velocity. In small amounts it can add realism to a performance.

The more deviation you add, the bigger the range of velocity shift that will be introduced to the output.

RANDOM AND HUMANIZE

All performances have a dedicated **timing engine**. It's controlled via the Random knob located under each Performance row within the Performances Sub Tab. **Play a Trill or Roll** and move the knob to hear what it does.

The Random algorithm works on several aspects of the performance.

- **When playing Trills**, it adds a certain amount of timing shift both slowing down and accelerating the rate of playback.
- **When playing Glissandi**, it interacts with the slide speed and acceleration. Each time you initiate a Glissando articulation it will be slightly different.
- **When playing 4-Mallet** articulations it will shift the general timing of the Roll and also alter tightness of each of the 2-note groupings. Increasing the random amount will not only change the timing of the Roll but will also make it more sloppy.

SPECS / REQUIREMENTS

- Sample Library for Native Instruments' Kontakt.
  Requires the Full Retail version of Kontakt 5 and above.
- Premium Marimba, Xylophone, and Vibraphone multi samples
- 38,000+ samples
- 20GB (uncompressed), 3 patches
- Unique Left/Right hand samples
- Plenty of velocity layers, round robin, and release samples
- Extensive mixing options
- Innovative algorithmic Acoustic Positioner™
- Highly playable and detailed sound featuring up to 5 microphone perspectives. Designed to use in Professional scoring applications
- Intuitive UI and design
- Includes special articulations replicating multi mallet operations and 4-Mallet Roll techniques
- Polyphonic Step Sequencer
- This product is distributed as a digital download
- This product uses Watermarking copy protection technology

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!

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

Marimba and Vibraphone performed by **Ed Garcia**

Xylophone performed by **Eitan Teomi**

Scripting and additional programming by **Andreas Lemke**

UI concept by **Eitan Teomi,** designed by **Rok Uhan**

EULA

END-USER LICENSE AGREEMENT

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