



KINETIC METAL

Manual



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Software version: 1.0 (09/2013)

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

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1 Welcome to KINETIC METAL

Thank you for buying KINETIC METAL! You are in for an inspiring sonic journey.

The focus of KINETIC METAL lies on high-quality metallic sounds and textures that can be modulated and played dynamically. Despite its relatively simple interface, this collection of instruments for KONTAKT and KONTAKT 5 PLAYER provides vast sonic possibilities by morphing your sounds in two dimensions.

1.1 About this Manual

In this manual you will find particular formatting to point out special facts or to warn you of potential issues. The icons introducing the following notes let you see what kind of information is to be expected:



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



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

Furthermore, the following formatting is used:

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

→ Results of actions are introduced by this smaller arrow.

2 Installation and Activation



KONTAKT 5 or KONTAKT 5 PLAYER is required to play KINETIC METAL Instruments. You can download the free KONTAKT 5 PLAYER from the Native Instruments website (www.native-instruments.com).

2.1 Downloading and Installing KONTAKT 5 PLAYER

If you already have KONTAKT 5 or the current version of KONTAKT 5 PLAYER installed on your system, you can skip this step and carry on with section [↑2.2, Installing KINETIC METAL](#).

To download KONTAKT 5 PLAYER:

1. Open the website of Native Instruments KONTAKT 5 PLAYER (<http://www.native-instruments.com/en/products/komplete/synths-samplers/kontakt-5-player/>).
 2. Click on the button [FREE DOWNLOAD](#).
 3. On the download page, click on the download button for KONTAKT 5 PLAYER.
 4. On the download dialog, fill in the required information and select the desired version of KONTAKT 5 PLAYER (Mac or PC).
 5. Click on the [SEND](#) button.
- A download link will be sent to the email address you provided.
1. Use the link in the email to download your copy of KONTAKT 5 PLAYER.
 2. Install and activate KONTAKT 5 PLAYER by double-clicking the installer you just downloaded and following the instructions.
- You are ready to install KINETIC METAL.

2.2 Installing KINETIC METAL

The following section explains how to install and activate KINETIC METAL. Although this process is straightforward, please take a minute to read these instructions, as doing so might prevent some common problems.

- To install KINETIC METAL, double-click the installer application and follow the instructions on the screen. The installer application automatically places the new files into the documents directory on your hard disk. Alternatively, during the installation process, select the directory where you would like to have KINETIC METAL installed.

2.3 Activating KINETIC METAL

When installation is finished, start the Service Center application, which was installed with KINETIC METAL or already was located on your system. It will connect your computer to the Internet and activate your KINETIC METAL installation. In order to activate your copy of KINETIC METAL, you have to perform the following steps within the Service Center:

1. **Log in:** Enter your Native Instruments user account name and password on the initial page. This is the same account information you used in the Native Instruments Online Shop, where you bought KINETIC METAL, and for other Native Instruments product activations.
2. **Select products:** The Service Center detects all products that have not yet been activated and lists them. You can activate multiple products at once.
3. **Activate:** After proceeding to the next page, the Service Center connects to the Native Instruments server and activates your products.
4. **Download updates :** When the server has confirmed the activation, the Service Center automatically displays the Update Manager with a list of all available updates for your installed products. Please make sure that you always use the latest version of your Native Instruments products to ensure they function correctly.



Downloading updates is optional. After activation is complete, you can always quit the Service Center.

3 About KINETIC METAL

KINETIC METAL is a powerful yet intuitive instrument that will provide you with an endless stream of fresh and inspiring metallic atmospheres, percussive lines and complex, liquid metal textures.

With KINETIC METAL you get a large set of instruments based on recordings of diverse metal objects that have been carefully transformed into playable sounds. Those are accompanied by a host of textural sounds that are either synthetic in nature or also have been derived from sampled metal objects by various means.

The underlying sounds of a KINETIC METAL instrument are organized in eight layers that can be mixed individually into four freely programmable presets. Each layer is derived from different sampled or synthetic sources - the [METALS](#) and the [WAVES](#).

The resulting sound is piped through a series of powerful effects, each of them specially tailored to fit the respective instruments. Use the effects to affect your sounds in the domains of their frequency spectrum, harmonic content, sonic movement and spatial characteristics. The [FX](#) section also offers four programmable presets similar to the [Forge](#) presets.

Where KINETIC METAL really shines is its dynamic interface. Putting the aforementioned sound engine under intuitive control, it offers quick and easy ways to morph the instruments two-dimensionally. Use the [Forge](#) and [FX](#) morph knobs to morph seamlessly through four presets for the sound and FX, respectively. The variations on the [Forge](#) side control the eight sonic aspects of the [METALS](#) and [WAVES](#) sections of the instrument. For the [FX](#) they control eight parameters for the aspects [COLOR](#), [DISTORTION](#), [MOVEMENT](#) and [SPACE](#). Combine these features to open up endless sound possibilities using only two simple morph knobs.

On top of this you have the [Motion](#) features. Located in their own panel they provide the means for setting the [Forge](#) and [FX](#) knobs in automatic motion via various LFO shapes or by recording your own knob twisting. Thus KINETIC METAL never sounds static or repetitious. It offers ever-moving metallic, textural or percussive tones always under your sonic direction.

The KINETIC METAL library is divided into two parts. The base-list of instruments contains the core instruments. They have the Motion features switched off and are for you to explore the vast array of possible sounds by manually playing the [Forge](#) and [FX](#) morph knobs. Feel free to add your own Motion and make your own presets.

You find the second part of the library in the [Motion Enabled](#) folder on the library list. Open it and you have a large set of instruments - all based on the core instruments but with different [Forge](#) and [FX presets](#). Furthermore, they all have [Motion](#) activated to showcase the dynamic possibilities of automatically animating the [Forge](#) and [FX](#) knobs. These instruments are also a great starting point for your own expeditions into the sound of KINETIC METAL.

3.1 About the Instruments

The instruments of KINETIC METAL are a labor of love and have been meticulously crafted in countless sampling, recording and sound design sessions. Custom software was used to make sure they compliment each other well in forming unique and unheard compound instruments for you to explore.

Among the sources used were antique swords, vintage gramophones, old pocket watches, sheets of metal, military gas tanks, piano strings and resonances, shovels, music box gears, tin garbage cans, cymbals, iron tea pots, fireplace grates, silverware, magnets, pipes, hammers, nails, chains, barrels, keys, chimes, scissors, old boilers, tines, springs, telegraph keys, antique typewriters, old phones, kettles, old door hinges, old sewing machine wheels and many odd metal pieces that were collected and turned into sounds.

Beyond the metal sounds, synthesized sounds based on various synthesis techniques were developed, adding to the diversity in the library. Wind and breath were recorded as sound sources as well.

For a detailed review of the sound sources for most of the base library instruments of KINETIC METAL, have a look at section [↑6, Appendix - Instrument Descriptions](#) at the end of this manual.

4 Quick Start

4.1 How to Open KINETIC METAL

KINETIC METAL is a large collection of instruments that is used with KONTAKT 5 or the free KONTAKT 5 PLAYER. In the text that follows KONTAKT and KONTAKT 5 PLAYER are used as synonyms. Most of the times, the name KONTAKT is used.

It runs either as a **plug-in** in your favorite DAW, sequencer or groove production studio (like Native Instruments MASCHINE) or as a **stand-alone** program that interfaces via MIDI to a hardware keyboard or any other MIDI hardware or software.



Your sequencer/DAW has to support one of the following plug-in formats to run KINETIC METAL as a plug-in: VST, Audio Unit (Mac only), RTAS, AAX.

4.1.1 KONTAKT as a Plug-in

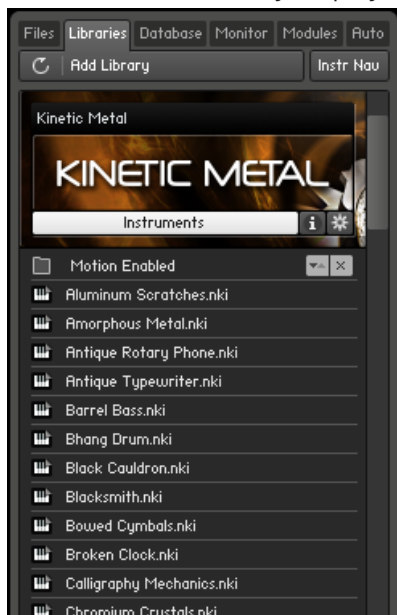
Do the following to open KINETIC METAL in your plug-in host:

1. Open the KONTAKT plug-in via the workflow your host uses to open plug-ins.
2. Open the KONTAKT plug-in interface.
3. If it is hidden, open the **Browser** of KONTAKT with a click on the [Browse](#) button on the **Main Control panel** of KONTAKT.



4. Switch to the tab called [Libraries](#).
5. Open the KINETIC METAL **Library** with a click on the [Instruments](#) button.

6. The Instrument Library displays a list of the instruments of KINETIC METAL.



7. Double-click an entry on the list to load the respective instrument into KONTAKT.
→ Now play the loaded instruments using the workflow provided by your plug-in host.



Please read the documentation that came with your plug-in host to learn more about the actions necessary for loading a plug-in and playing it.



Make sure you also use the large set of instruments sitting in the **Motion Enabled** folder of the library for examples of the Forge and FX morph knobs set into motion.

4.1.2 KONTAKT as Stand-Alone Software

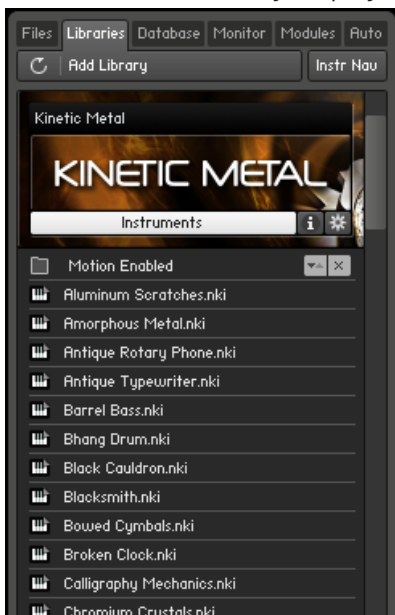
Do the following to start KINETIC METAL using KONTAKT as stand-alone software:

1. Open KONTAKT via one of the shortcuts placed on your system during installation.

2. If it is hidden, open the **Library** browser of KONTAKT with a click on the [Browse](#) button on the **Main Control panel** of KONTAKT.



3. Switch to the tab called [Libraries](#).
4. Open the KINETIC METAL Library with a click on the [Instruments](#) button.
5. The Instrument Library displays a list of the instruments of KINETIC METAL.



6. Double-click an entry on the list to load the respective instrument into KONTAKT.
- Now play the loaded instruments via MIDI.



Make sure you also use the large set of instruments sitting in the **Motion Enabled** folder of the library for examples of the Forge and FX morph knobs set into motion.

5 Reference

5.1 KINETIC METAL's Interface

This chapter of the KINETIC METAL manual provides an in-depth look at the user interface. Here you will find descriptions of every interface element.

KINETIC METAL's design gives you intuitive control over its power. You don't have to be a synthesizer wizard to produce inspiring sounds with KINETIC METAL as everything is right at your fingertips to be tweaked by a minimal number of knobs, switches and faders.

5.1.1 Overview

The interface of KINETIC METAL has three parts:



The three main parts of KINETIC METAL's interface.

- (1) **The Main control Panel** of KONTAKT providing control over global KONTAKT presets, MIDI, voices and volume.
- (2) **The main interface** displaying the [Forge](#) and [FX](#) knobs
- (3) **The panel area** that displays the [Forge](#)-, [FX](#)- and [Motion](#) panels, respectively.



Please read the documentation for KONTAKT or KONTAKT 5 PLAYER to learn more about the various controls in the Main Control panel of KONTAKT.

The main interface is always visible, while the [Forge](#), [Motion](#) and [FX](#) panels can be accessed by their respective buttons. Only one of those three panels is visible at any time. The three panels are described in chapters [↑5.1.2, The Forge Panel](#), [↑5.1.3, The FX Panel](#) and [↑5.1.4, The Motion Panel](#) of this text.

In the center of the interface there are the [Forge](#) and [FX morph knobs](#) for seamlessly morphing the different **sound layers** or the **FX settings**, respectively. Both have four **Preset buttons** labeled [A-D](#) for the Forge presets and [1-4](#) for the FX.



There is always one Forge and one FX preset button selected. They don't have an off-stage. When you tweak the [METALS](#) and [WAVES](#) Volume faders on the Forge panel or the FX knobs on the FX panel you are always changing the currently selected Forge or FX preset, respectively.

The [LINK](#) switch is for **linking the rotation** of the two morph knobs.

With an active **Voice Handling (V.H.)** switch, only the layers with **volume fader** settings higher than zero (see chapter [↑5.1.2, The Forge Panel](#)) will be triggered when a note is pressed.

The [Forge](#) and [FX](#) panel buttons open the **Forge** and **FX panels** below the main interface, respectively.

A click on the [Motion](#) panel button sitting below the [LINK](#) button in the lower part of the main interface opens the **Motion panel**. The [Motion On](#) switch placed within the [Motion](#) panel button activates the animation of the morph knobs according to the settings defined on the Motion panel. Please read chapter [↑5.1.4, The Motion Panel](#) for details on the Motion panel. The two [LEDs](#) sitting right below the morph knobs are the **Forge/FX Motion On/Off switches** that activate/deactivate the motion for the [Forge](#) and [FX](#) knobs, respectively. Read more about the Motion controls in chapter [↑5.1.4, The Motion Panel](#) and [↑5.2.3, Recording Motion](#).

The following graphical overview deals with the main interface while the three panels are described in the subsequent sections:



This is the main interface of KINETIC METAL.

- (1) **Main control Panel:** Contains the standard controls of a KONTAKT instance.
- (2) **Forge morph knob:** Turn this knob to modulate the volume of the eight different layers by morphing between the four different preset settings.
- (3) **FX morph knob:** Turn this knob to modulate the effects settings of the eight different FX adjustments by morphing between the four different preset settings.

- (4) **Forge preset button:** Click to directly select the respective Forge preset (A-D). The morph knob will jump to the corresponding position.
- (5) **FX preset button:** Click to directly select the respective FX preset (1-4). The morph knob will jump to the corresponding position.
- (6) **Link:** Enables a link between the movement of the Forge and FX morph knobs. The motion is always relative to the current position of the knobs. Not their absolute values that are linked but the initial positional relationship is preserved.
- (7) **Forge panel button:** Click to view the Forge panel and its settings (see below).
- (8) **FX panel button:** Click to view the Forge panel and its settings (see below).
- (9) **Motion panel button and Motion On switch:** Click to view the Motion panel and its settings (see below). Activate the Motion On switch to enable the Motion and animate the Morph knobs according to the settings on the Motion panel.
- (10) **Forge Motion On/Off switch:** Activates/deactivates motion for the Forge morph knob.
- (11) **FX Motion On/Off switch:** Activates/deactivates motion for the FX morph knob.
- (12) **Voice Handling switch:** Enabling this will trigger only the layers whose volume fader is higher than zero at the time a note is pressed, thus saving CPU cycles. Disabling it will yield better morphing results as all layers are active with each note on. This also means that you sometimes won't hear all sound layers, although you morph into a preset where they are actually active.



Please read the documentation of KONTAKT to learn how to populate the Quick-Load menu of KONTAKT with the KINETIC METAL instruments. This enables convenient in-place-switching of KINETIC METAL instruments in the respective slot of the KONTAKT rack.

5.1.2 The Forge Panel

The **Forge** panel is accessed with a click on the **Forge** panel button sitting right below the **Forge** morph knob.

It holds two sets of four **volume faders** for the **METALS** and **WAVES sound layers**, respectively. The faders control the relative volume of each of the eight sound layers for the four **Forge presets A-D**.



There is always one Forge preset button selected. They don't have an off-stage. When you tweak the **METALS** and **WAVES** Volume faders on the Forge panel you are always changing the currently selected Forge preset.

The **METALS** section controls the sound layers containing the metal samples of the currently selected Forge preset. With some exceptions, these are often percussive in nature. The **WAVES** section is for mixing the synthetic, textural aspects of the currently selected Forge preset.

While the faders control the values stored in the presets, the **white lines** underneath them depict the actual values as determined by the position of the **Forge** morph knob. When rotating the **Forge** morph knob, the fader values of the two presets adjacent to the knob position are **morphed** (interpolated) according to the preset settings. This leads to endless sonic possibilities even before the sound reaches the **FX** section of KINETIC METAL.

Directly below the faders you see the **Solo buttons** of the **METALS** and **WAVES** volume faders. The state of the Solo buttons is depicted by glowing orange colored **LEDs**. If one or more Solo buttons are active, only the soloed layers can be heard. Note that this also depends on the setting of the respective volume fader. If the fader is all the way down to zero, you won't hear anything despite an active Solo button.

The **MASTER** volume knob between the **METALS** and **WAVES** fader sections controls the overall level of the **currently selected preset**. Note that this knob also gets morphed when you use the **Forge** morph knob. Use it to **balance** the relative levels of the four Forge presets the instrument holds.

Below you find a graphical review of the [Forge](#) panel:



The interface of KINETIC METAL with the Forge panel opened.

- (1) **Forge panel button:** Click to view the Forge panel.
- (2) **Metals faders:** Adjust the volume of the respective layer sound for the selected preset. White lines depict the location of the faders while modulated by the Forge knob.
- (3) **Metals solo buttons:** Enable to preview each of the layers.
- (4) **Waves faders:** Adjust the volume of the respective layer sound for the selected preset. White lines depict the location of the faders while modulated by the Forge knob.

(5) **Waves solo buttons:** Enable to preview each of the layers.

(6) **Master volume knob:** Adjusts the overall level of the selected preset.



[Alt]-clicking any of the **METALS** and **WAVES** faders or **MASTER** volume knob will copy the control's value to ALL Forge presets. This is very useful if you need to copy the value of a certain sound to all presets or make all presets softer or louder.

5.1.3 The FX Panel

The **FX** panel is accessed with a click on the **FX panel button** sitting right below the **FX** morph knob.

The effects of KINETIC METAL are based on Native Instruments large pool of high-end effect algorithms. For each of the instruments of KINETIC METAL the **effects chain** has been specially tailored to enhance and transform the sound layers. So while the parameters on the FX panel always seem to stay the same, depending on the currently used instrument they may actually act as macro dials controlling **different effect parameters**. However, the general gist of the processing always stays inside of the effect genre depicted on the interface. On a similar note, depending on the instrument, some of the effects parameters may only affect some of the sonic layers but have no effect on others.

The knobs control the effects settings of the four **FX presets 1-4**.



Note, that there is always one FX preset button selected. They don't have an off-stage. When you tweak the FX knobs on the FX panel you are always changing the currently selected FX preset.

The parameters are grouped into four sections, namely the **COLOR**, **DISTORTION**, **MOVEMENT** and **SPACE** sections.

The **COLOR** section with its **Spectrals** and **Sweep** knobs deals with processing the **frequency spectrum** of the instrument.

The **DISTORTION** section with its **Shaper** and **Freq** controls produces effects ranging from subtle addition of **harmonics** to harsh **distortion**.

The **MOVEMENT** section with its **Modify** and **Speed** knobs change either pitch or amplitude dynamics over time. The **Modify** knob, using modulators, adjusts settings such as LFO intensity or attack of the overall envelope. The **Speed** knob changes the speed of that modification, represented by either the LFO speed or the decay time of an envelope, depending on which modulator was best suited to a particular instrument.

The **SPACE** section offers complex effects mostly dealing with **reverb, delay and panning** and offers the knobs **Mix** and **Circulate**.

The following table gives an overview of the effects used in the instruments of KINETIC METAL. As already mentioned, their actual use in any specific instrument may vary.

FX section	Possible effects used
Color	Three Equalizers, several Filters
Distortion	LoFi, Distortion, Tape Saturation
Movement	Chorus, Delay, Phaser, Flanger
Space	Convolution, Reverb, Delay, Rotary Speaker

Below you find a graphical review of the [FX](#) panel:



The interface of KINETIC METAL with the FX panel opened.

(1) **FX panel button:** Click to view the FX panel.

(2) **FX knobs:** Adjust the different effect parameters for the selected FX preset.



[Alt]-clicking any of the FX knobs will copy the control's value to ALL FX presets. This is very useful if you need to copy the sound of a certain FX to all presets.

5.1.4 The Motion Panel

The **Motion panel** can be opened with a click on the **Motion** panel button sitting under the **LINK** switch in the middle of KINETIC METAL's interface.

On the **Motion** panel you define the parameters that govern the automatic movements of the **Forge** and **FX** morph knobs when the **Motion On** switch is activated. Please bear in mind that the **Motion On/Off switches** directly below the morph knobs (the small LEDs) also have to be active for any motion to affect the morph knobs.



The Motion On/OFF switches on the main interface highlighted in red.

The leftmost section of controls on the Motion panel deals with the **SHAPE** of the movement. Four of the buttons (**Sine**, **Saw**, **Square** and **Random**) are for choosing the waveform of the internal LFO that **animates** the morph knobs when no recording of knob movements is running.

Use the **REC** button with its accompanying red LED to **record your own morph knob movements** for subsequent playback. After activating the **REC** button (and while pressing a note on the keyboard) an LED will glow to indicate the ongoing recording process. The recording will stop when the currently played note is stopped. Hold the **[Alt] key** (Mac [Option] key) and click on the **REC** button to clear the last recording.

No matter if you are using the four predefined shapes or your own recording of knob movements, the motion is always relative to the current position of the morph knob, which can be altered at any time.

The **SPEED** knob controls the **frequency** of the LFO or the **playback speed** of the recorded knob motion, respectively. When in **Sync mode** (see below) it will be quantized to the current tempo.

The **STRENGTH** knob controls the **intensity** with which the LFO and the recorded movements set the morph knobs in motion. Small values lead to small motions while full **STRENGTH** will animate the knobs over their complete range.

The **Loop** button switches between **one-shot or looped motion**. In loop mode legato or held notes will continue the motion **endlessly**. In one shot mode every note will retrigger the motion and the motion will also only run through **one cycle** if a note is held for a longer time.

With active [Sync](#), the frequency of the LFO and the playback speed of the recorded morph knob movements are **quantized** to the current tempo of the **plug-in host** or the **KONTAKT instance**, respectively. This means that the [SPEED](#) knob only can be set to values that are **rhythmically related** to the main tempo to produce rhythmically fitting modulations.

Please read the chapters [↑5.2.2, Animating the Morph Knobs](#) and [↑5.2.3, Recording Motion](#) to learn more about setting KINETIC METAL in motion.

Below you find a graphical review of the [Motion](#) panel:



The interface of KINETIC METAL with the Motion panel opened.

- (1) **Motion panel button and Motion switch:** Click to view the Motion panel. Turn on the Motion switch to enable animation of the morph knobs according to the selected shapes and settings.
- (2) **Motion shape and REC buttons:** Choose between different LFO shapes that govern the animation of the morph knobs (Sine, Saw, Square and Random). Select **REC** and move one of the morph knobs to record your knob twisting. Recording stops when all sounding notes are switched off. [Alt]-click to clear the previous recording.
- (3) **Speed knob:** Controls the frequency of the LFO. In Sync mode this knob will loop one full cycle in the duration of two beats to eight bars.
- (4) **Strength knob:** Use this knob to decrease or increase the range of the motion. This equals the modulation intensity of the LFO.
- (5) **Loop button:** Switches between one shot or looped motion.
- (6) **Reverse button:** Reverses the direction of the animated morph knobs.
- (7) **Sync button:** When active, the speed will be rhythmically synchronized to the tempo of the host. It still can be controlled in a quantized manner via the Speed knob if sync is enabled.



To see the Motion features of KINETIC METAL in action, have a look at the large set of instruments that have been specially programmed to showcase Motion. You find them in the **MOTION** folder on the library list of your KINETIC METAL library.

5.2 Using the Instruments

KINETIC METAL comes as a large **library of instruments** for Native Instruments flagship sampler KONTAKT and its free sibling KONTAKT 5 PLAYER.

KINETIC METAL can be used either as a **plug-in** in a host software like your sequencer, DAW or groove production software or as **stand-alone** software. Please read chapter [↑4, Quick Start](#) of this manual and the documentation of your plug-in host to learn how to open KINETIC METAL and load an instrument from its library

Once you have KINETIC METAL up and running, route some **MIDI note data** from your MIDI keyboard into the program so that you can play the instrument.

5.2.1 Playing the Morph Knobs



The Forge and FX morph knobs.

The **Forge** and **FX morph knobs** are the heart and soul of KINETIC METAL. They seamlessly morph through the four **Forge presets** or the four **FX presets**, respectively. Use them to explore the sonic range of the loaded instrument. The basis of the ever-varying sound differs for both of the morph knobs.

The **Forge** section represents the sound source of KINETIC METAL and is based of eight sound layers. Four of them (the **METALS**, see chapters [↑5.1.2, The Forge Panel](#) and [↑5.2.5, Making Your Own Presets](#)) are derived from a wide range of **metal samples** and the second set of four layers are taken from **synthetic sources** (the **WAVES**, see chapters [↑5.1.3, The FX Panel](#) and [↑5.2.5, Making Your Own Presets](#)). Every instrument in the library of KINETIC METAL brings a different carefully matched set of **METALS** and **WAVES** to the table, resulting in a vast array of sounds.

The **FX morph knob** on the other hand controls the **effects** section of KINETIC METAL. Located downstream of the **Forge** section in terms of signal flow, the effects also are different for every library instrument of KINETIC METAL. They are roughly grouped into the categories **COLOR**, **DISTORTION MOVEMENT** and **SPACE** and add another dimension to your sound sculpting repertoire in KINETIC METAL.

In chapter [↑5.1.3, The FX Panel](#) you find an overview of the effects algorithms used in KINETIC METAL.



When running KINETIC METAL as a plug-in, bear in mind that the [Forge](#) and [FX](#) knobs can be automated via the standard workflow your plug-in host offers for parameter automation. Note however that it is not possible to record host automation by clicking and dragging the morph knobs. Please read chapter [↑5.2.4, Automating KINETIC METAL in a Host](#) and the documentation of your host software to learn more about automation.

When an instrument is loaded, the two knobs can be moved **independently** from another. This is your basic mode where you dial in a sound you like and play it while turning one of the two morph knobs for dynamic results.

Do the following to link them:

1. Move the knobs into any position you want.
2. Click the [LINK](#) switch.



3. Move any of the two knobs.

→ Both the [Forge](#) and the [FX](#) morph knobs move together.



The Forge and FX morph knobs in linked mode.

The **positional relationship** of the [Forge](#) and [FX](#) morph knobs has a big influence on the resulting sounds. As the [Forge](#) morph knob can sound very different when moved to another position, the result after being processed by one of the [FX](#) presets will vary dramatically.

To change the relation of their position for linked movement:

1. Switch off **linked mode** with a click on the **LINK** switch.
 2. Move one or both of the **morph knobs** to a different position.
 3. Re-engage linked mode with the **LINK** switch.
- The two morph knobs **move together** but are out of phase resulting in a new palette of sounds.



KINETIC METAL in linked mode with changed morph positions.

5.2.2 Animating the Morph Knobs

While moving the **Forge** and **FX** morph knobs manually is a great way to direct the sonic powers of KINETIC METAL, **automatic modulation** of the morphing action leads to different results that can be very rewarding.

KINETIC METAL provides a flexible **Motion** section including an **LFO** with four different **wave-forms** and a **recording feature** for you to define your own movements to be applied automatically to the morph knobs. The recording functionality is described in the next chapter.

The following steps will set the wheels in motion:

1. Open the **Motion panel** with a click on the **Motion** panel button.



- Make sure that both the **Forge** and the **FX Motion On/Off switches** are activated (the LEDs should glow).



- On the Motion panel, switch to the **sawtooth** waveform by clicking its button.



- Now dial in an LFO frequency somewhere in the middle range by turning the **SPEED** knob.
- Use the **STRENGTH** knob to determine the **intensity of modulation**. At full strength the morph knobs will move through their complete range.



- Switch on the **Loop** button and make sure the **Reverse** and **Sync** buttons are off.



→ Now play a long note and you see that with **STRENGTH** all the way up the sawtooth modulation makes the morph knobs continuously and seamlessly **spin** through their **complete range**.

The picture below shows the settings you just made at a glance:



KINETIC METAL with active Motion and a sawtooth wave modulating both morph knobs.

1. Now click on the [Loop](#) button to turn it off.
2. Play the same note and hold it.

→ The waveform of the LFO is only **played once** and the modulation stops afterwards.

The two **Motion On/Off buttons** (the LEDs under the morph knobs) switch the modulation of the respective morph knob on or off, respectively. So you can decide if you want Motion **in either one or in both morph knobs**.

► Click the [Reverse](#) knob on the Motion panel to reverse the direction of the modulation.

If you switch on the [Sync](#) button the frequency of the LFO will be **quantized** to values that are **rhythmically related** to the host tempo or the tempo of your stand-alone KONTAKT instance, respectively. Use this if you need your Motion tightly on the beat.

Play around with the **sine, saw, pulse and random waveforms** of the LFO to get a feeling for their character.

Note that the moment in time you switch on the motion for one of the morph knobs via their respective **Motion On/Off switches** (the small LED'S under the knobs) also matters. The motion will always start from the **current position** of the knobs so with stopping motion and restarting it later on you have control over the **phase relationship** between the two knob movements.



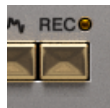
The library of KINETIC METAL contains a lot of instruments that use the automatic animation of the Forge and FX morph knobs to great effect. You find them in the **Motion Enabled** folder of your library.

5.2.3 Recording Motion

Apart from using the LFO for setting the **Forge** and **FX** morph knobs into motion you can use the Recording functionality of the **Motion panel** to **record your own knob movements**. This provides you with complete freedom in animating the morph knob movements.

To do this:

1. Click on the **REC** button on the Motion panel.



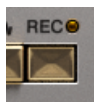
2. Play and hold a note.
 3. Start turning the **Forge morph knob** to record some motion.
- The Record **LED** lights up.



The Motion panel of KINETIC METAL during a motion recording.

1. Stop the note by letting the key on your MIDI keyboard go.

→ The Record **LED** switches off and the recording ends.



1. Now play a long note again.

→ Your **recorded motion** is played back.

If you don't like your motion recording, [Alt]-click (Mac: [Option]-click) the **REC** button to delete your previous recording and start over again.

- Dial in the **SPEED** and **STRENGTH** of your recorded motion just as you would do it with the LFO waveforms.

Note that the **Loop**, **Reverse** and **Sync** buttons work in the **same manner** as with the LFO, when a recorded motion is being played back.

You can use the recording function to record motions for both the **Forge** and **FX** morph knobs simultaneously.

5.2.4 Automating KINETIC METAL in a Host

When working with KINETIC METAL as a plug-in, sooner or later you will want to **automate** your morph knob tweaking in the host software.

To do **parameter automation** of KINETIC METAL in a sequencer or DAW, use one of the following approaches:

- Use the facilities of your host software to **draw the desired parameter automation** in the automation track.
- Control KINETIC METAL's knobs via MIDI (e.g. via the modulation wheel of your MIDI controller) and **record the controller data** in the host.



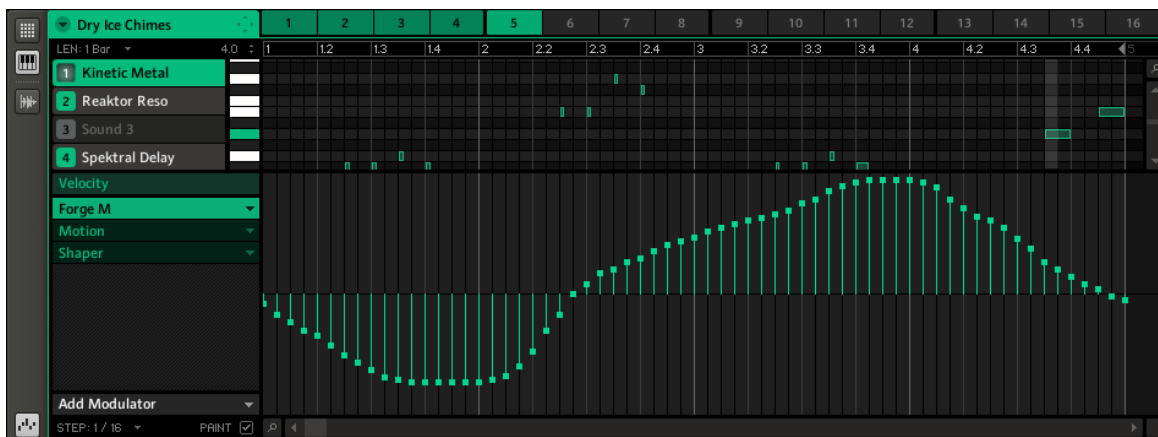
This does not only apply to the morph knobs, but to most of KINETIC METAL's parameters. So if you want to automate the Motion On switch in your sequencer, you can do that, too.



The [Forge](#) morph knob and the [FX](#) morph knob are preassigned to the MIDI CC numbers 11 (Expression) and 1 (Modulation Wheel), respectively.

As there are many sequencers and DAWs on the market, the exact procedure to create automation curves or to connect MIDI controllers to KINETIC METAL's parameters is beyond the scope of this manual.

Please read the documentation of your host software to learn more about automating plug-in parameters and the use of MIDI controller hardware.



This is a manually drawn automation curve for KINETIC METAL's Forge morph knob running in MASCHINE.

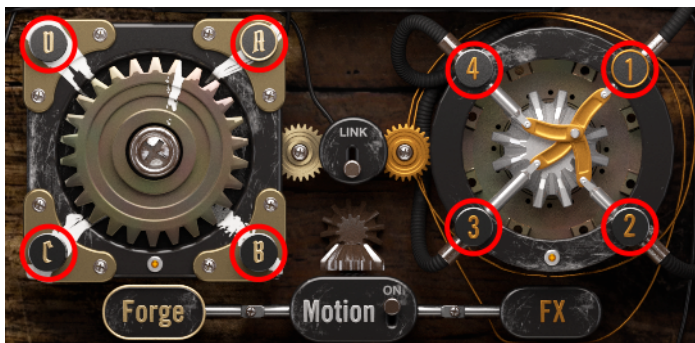
5.2.5 Making Your Own Presets

Out of the box the instruments of KINETIC METAL already provide countless sounds for you to explore.

But sometimes a preset may be not exactly suited for your needs or you simply want to make your own experiments with the samples and effects of an instrument. And of course you will want to **save your work for later use**.

Changing the Forge and FX presets

Here the [Forge](#) and [FX presets](#) of KINETIC METAL come into play. You are free to program the presets to develop your own instruments based on the sounds and effects of a library instrument of KINETIC METAL.



The Forge (A-D) and FX (1-4) preset buttons of an instrument.

The procedure for doing this is straightforward.

To save a new preset into slot **A** of the Forge presets:

1. Click on **preset button A** in the top right corner of the **Forge** morph knob.



→ The **Forge** morph knob jumps to preset **A** and the **preset button is highlighted** by a golden ring.

1. Click on the **Forge panel button** to display the Forge panel below the main interface.



2. Use the **Volume faders** to dial in your own mix of the four **METALS** and four **WAVES** on the Forge panel.
 3. Tweak the **MASTER** volume knob to the desired volume.
- The new preset is finished.

When dialing in new presets with the **METALS** and **WAVES** faders of the Forge panel, the **Solo buttons** can come handy. Click one of them and only the respective **METALS** or **WAVES** layer will be heard. You can also activate several Solo buttons at the same time to hear several layers in parallel. Note, that you will only hear a soloed layer if its volume fader is above zero.



The eight Solo buttons on the Forge panel.

The procedure for the **FX presets** is the same except that it takes place on the **FX panel**, you use the **FX preset buttons 1-4** and dial in the new sound via the eight **FX knobs**.



There is always one Forge and one FX preset button selected. They don't have an off-stage. When you tweak the **METALS** and **WAVES** Volume faders on the Forge panel or the FX knobs on the FX panel you are always changing the currently selected Forge or FX preset, respectively.

Saving Your Work

If you forge your own sounds by altering KINETIC METAL's **Forge and FX presets** you can also **save** them on your hard disk for use in other projects. This doesn't actually save multiple presets within an instrument but **saves the complete instrument** under a new name.

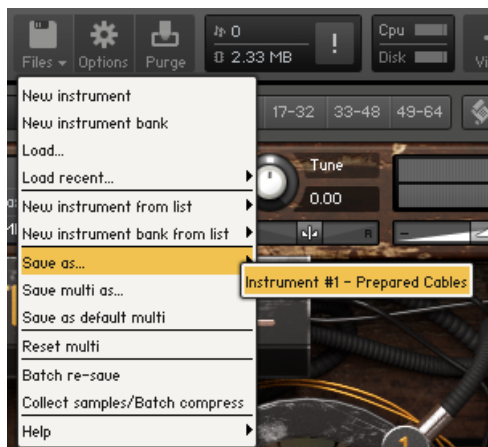
This functionality is provided by KONTAKT (or KONTAKT 5 PLAYER, respectively).

To save an altered KINETIC METAL instrument to your hard disk, do the following:

1. Locate the **Files** menu on the **Main Control** panel of KONTAKT.



2. Click on the **Files** menu and choose **Save as....**



3. Type in a new name for the instrument in the **file save dialog**.
 4. Choose **a location on your hard disk** where the new instrument will be saved.
 5. Click **OK**.
- Your new KINETIC METAL instrument has been saved.

If you save the new instrument into the **default library folder** of KINETIC METAL it will automatically show up on the Instruments list the next time you start a new instance of KONTAKT.

6 Appendix - Instrument Descriptions

Aluminum Scratches

With this sound a simple piece of aluminum and various tools were used to create different vibrating resonances along with various scraping and scratching sounds. Metal files with different patterns, violin bows and various other pieces of metal were applied to scrape and scratch what might otherwise be a perfectly useful piece of aluminum. The sound can morph into other playing dynamics as well. For example, there are samples of the aluminum being struck so you can morph from a textural pad sound to a tonally percussive instrument.

Amorphous Metal

This sound was developed to give the impression of metal in a different state of matter. This is similar to phases that can change to one or the other side - from a solid piece of metal to a melted liquid state. Various sample material was used to achieve this starting with a swirling sound of a scraped metal bowl to the liquid sounds of water bubbling down a metal drain. The wave files were specifically made from a program designed in SuperCollider to fit with each instrument by complimenting the tonalities of the sampled material.

Antique Rotary Phone

This sound was inspired by and made from a couple of old antique phones. One was a really old phone whose only mode of calling was to talk to an operator first (no rotary). The ringing bell samples were derived from it. Other samples were from a vintage rotary phone. The sound morphs into other bell dynamics as well to get interesting variations that make these antique objects come alive in ways you don't expect.

Antique Typewriter

Another instrument inspired by an antique item. An old Underwood typewriter was acquired and many aspects of it were sampled to turn the old typewriter into something new. To morph from one characteristic of a static object to another is something that pushes the limits of what is possible in sound design. At the heart of the idea for many of the instruments is the notion of creating new uses from otherwise old and useless (albeit interesting) metal objects. This is very similar to the concepts of steampunk - steampunk for music instruments.

Barrel Bass

Even from an ordinary object like an oil barrel you can coax many different dynamic sounds. As a sound designer you really appreciate even the most mundane objects that have the potential to host a wide variety of sounds. Everything is an instrument especially when they interact with other objects. The Barrel Bass instrument is a good example of that. A simple oil barrel is a great resonator with nice acoustics and subtle dynamics. Its interactions with other objects were recorded as well. Those elements come forward when playing the sounds. On their own these elements are interesting but combined into one playable instrument they become something else entirely.

Bhang Drum

Occasionally ideas for sounds may seem obvious but then turn into something else entirely. Sometimes your imagination starts asking questions in the process - what would it sound like if you put this together with that? Bhang Drum is an instrument created from a tin metal garbage can. Different aspects of it were sampled and put together. After making some waves and adding them to the garbage can samples it became a tonal percussive instrument. Think of it as a cross between a hang drum and a garbage can with its own unique elements. That's where the name was derived from.

Black Cauldron

For this sound a big black iron cauldron with boiling water over a camp fire was used. Different hits on its chamber and rattling lid were recorded. Sometimes when making an instrument it's a good challenge to put the user of the sound in a different place. It brings not only the sound elements to your ear but an emotion or a synaesthetic interpretation. When this sound is played you may imagine the black pot set over a camp fire in a secluded part of a forest surrounded by the dark night and natural silence, with thousands of brilliant stars hanging above. What other situations come to your mind when you play the instrument?

Blacksmith

This was the first sound created for Kinetic Metal. You could say this sound was the inspiration that "forged" the rest of the ideas. It conjures images of a dark and dank blacksmith's shop with glowing red iron set atop anvils being pounded with hammers. The instrument is percussive, tonal and textural and can easily be combined with other layers for a full environmental ambiance or morph between its individual elements for a more focused sound.

Bowed Cymbals

A Cymbal being bowed with a violin bow is a really nice sound. Tonally it is not very flexible. Unless you have many different sized cymbals tuned to specific pitches. By themselves they are beautiful as a texture. But to make them playable across the entire keyboard range is where their usefulness goes to another level. Various dynamics and elements were recorded to allow for more organic subtlety and playability. The waves were designed to fit nicely into the harmonic structure.

Broken Clock

With this sound several different mechanical clocks were broken open to reveal their unique inner workings – a thing of beauty. It's kind of like a vintage/acoustic form of circuit bending playing and interacting with the different parts. Rotating gears, striking bells, the ticking of the pendulum, and the wind up sound of an antique pocket watch... There is a cacophony of sound in the intricately placed metal parts and a perfect candidate to bring to life in Kinetic Metal.

Calligraphy Mechanics

This is another sound where a mechanical device was taken apart. The pieces that made up the device were used to make sounds that resemble and also depart from what you would expect from the object. Many different types of pens were used for this sound. Ballpoint pens, spring loaded pen, etc. A fountain pen was put into action to record the sound of actually writing. Somehow that sound of writing brings you closer to the over all instrument through its subtle mesmerizing texture.

Chromium Crystals

Taking metal elements and delving into their deeper structures is an intriguing idea. Of course there really is no sound that we can hear in the atomic or molecular structure of elements. But it is a nice exercise to imagine elements of the more obvious and familiar sound of the metal chrome combined with sounds that are left come from our imagination. Chrome metal was sampled and shiny synthetic waves were designed to compliment it. These ideas lend themselves well to the in-between stages of morphing one sound to another.

Crash Harmonics

This sound sprung from the idea of delving inside a cacophony of metal crashes and highlights different harmonics in an attempt to make sense of the chaos of colliding metal. As if the crash was happening in slow motion so that the different elements and harmonics are easier to pick out and focus on.

Cylinder Music Box

Several aspects of a music box were recorded for this instrument such as comb tines, a windup key, a spring motor, cylinder movements, etc. To make the music box more flexible it was necessary to subtract the natural tones from the comb tines and carefully replace them with waves of varying tones designed to fit the different harmonic structures. This allows for more playable sounds and diverse tones that can be morphed along side the characteristic sounds of the music box.

Dirt Shovel

Sometimes people say "all the sounds that could ever be made have been made... What's left?" In truth, we haven't even scratched the surface. This leads to the next sound. Metal shovels and pitchforks slicing and scraping through the ground dropping pieces of dirt. These types of worldly sound characteristics entwined with the envelope of morphing tones are fascinating and create a whole new level of what is possible for musical sounds.

Door Creaking

The creaking sound of old doors and their stressed hinges was the inspiration for this instrument. It furthermore uses other metal elements of doors such as latches, locks, keys and keyholes, etc. The combination of these elements with the eerie creaks creates a haunting instrument that might belong in a horror movie and can give your music a devilish edge.

Draw Bridge

Another eerie and haunting instrument created by sampling different variations of chains and rolling metal pipes to simulate the sound of a medieval draw bridge crankshaft. As with all these instruments morphing the layers and tones using the FX controls allows you to explore deeper to create your own unique tones that resemble nothing else.

Dry Ice Chimes

At first glance you might wonder what dry ice has to do with metal. Unless of course your passion for sound or scientific experiments has opened your eyes and/or ears to what dry ice does with metal. Metal is a good conductor of heat. Warm metal causes the dry ice to sublime. The gas that is released creates a cyclic phenomenon very similar to how reeds work, when the surfaces are pushed apart and back together continuously and quickly. When this happens it can create eerie sounds depending on what metal surfaces are used. To get useful sounds you really have to experiment as the heat from the metal leaves fairly quickly once it comes in contact with dry ice.

Electric Chimes

Speaking of conductive metal: Metal is also a good conductor of electricity. The samples recorded for this sound came from many sources, like Pipes, metal rods, wires and various pieces of metal. The goal wasn't a typical "chime" sound, more a sort of junkyard chime of random elements. A lot of pieces like that were layered to create the endless random clanking of metal sounds for that "chime" effect. The random tones and electric buzz were created from specially designed waves and processed within KONTAKT.

Electrified Piano

For this sound a piano with electric wires for strings and metal hammers that create an electric and metallic tone when striking the electrified wires or "strings" was imagined. Piano attack sounds were derived from abusing real piano strings. The recordings of electric voltages in combination with flexible synthesis create a unique and rich piano instrument like nothing you've heard before.

Exo-Planetary Metal

A sound from the imagination based on wondering about how sound might interact with different objects or environments. It's fun to experiment with sounds you know you'll never hear. Or objects you can speculate on but don't have any proof of existence. Justify it by saying the universe is vast and anything is possible. This sound is an interpretation of how metal might sound on another world interacting with strange environments. We definitely need more telescopes for sound in the universe and more sound recorders on other worlds. For now the imagination must suffice.

Flare Stack Pipe

Many experiments were set up with propane gas lit inside of metal tubes. The tones are interesting. But it is difficult to use those static elements in music unless all you want is a soundscape. The results of some of those experiments were taken and combined with tones that emulate the bendy harmonics and airiness that gas/fire and metal tubes create. A dynamic and flexible instrument emerged that you can play without the risk of being burned or blown up!

Furnace Grates

Several parts of a fire furnace were used to achieve the atmosphere and tonal elements of this sound, e.g. grates and a furnace damper. Some particularly interesting samples were from a day with hurricane strength winds. It caused a lot of damage and even knocked over two very large trees. The recorder was placed inside the furnace because all the metal parts of the chimney flute were making noisy, rattling and vibrating metal sounds due to the wind.

Gallium

Inspired by the chemical element of the same name this is another sound based on the idea to take something elementary and use the microscope of your imagination to delve down to the microscopic level to hear what's going on. This sound is created and inspired based on descriptions of the element - a liberal interpretation. The metal is soft, brittle and easily breaks down at a temperature slightly above room temperature. Based on this behavior the sound reflects a sort of transition state between its brittle solid to its more liquefied state. There are some effects such as the shaper that almost seems to harden the sound again.

Gamelan Cutlery

Some of the sounds recorded of silverware resembled harmonically rich and abrasive metallic sounds of Gamelan instruments. So the two elements were combined to make something new. Replicating the sort of bendy unison-like pitches that can be heard when several of them are played at once. Combining those tones and other layered content with the samples works to give a unique type of metal instrument while harkening to the familiar sound of the Gamelan.

Gas Tank

For this sound various interesting gas tank dynamics were recorded. Mainly old military gas tanks found at a junk yard. Some still with gas inside that swirled around when hit. Little things like that provide a sense of the instrument's unique characters. The convolution effects tie all the parts together allowing for the natural richness to breathe and the flexibility of the layers and FX to morph the instrument into other forms.

Grammophone Tin

The plan with this sound was to bring out the patina of the metal aspects of an old antique gramophone. From the cutting of the relatively thick metal tins in the old records over the scraping of the turntable to the winding up of the crank handle. It was about bringing out the nostalgia of the device without hearing the music on the records. This is a sound that you can play like any other instrument with all its unique subtleties and play with other music elements with its old and wrinkled character.

Hammered Kettles

Kettles make good metal resonators. There are quite a lot of kettles used in music ensembles such as in Gamelan music and other eastern music cultures. They have beautifully rich metallic harmonics and tones. The sounds recorded here are from kettles of different shapes and sizes. But ultimately they are the junkyard variety. But that doesn't mean they are any less interesting. To the contrary - they have character. This sound features different harmonics, unexpected tones and a variety of sample dynamics. There are limits to solid kettles. They don't change pitch easily and they definitely don't morph easily. But with careful structuring them into KINETIC METAL's unique interface we can elevate the usefulness and flexibility of these kettles.

Hooke's Law

This sound is all about springs and the creaking sound that occurs when stretched. Hooke's Law obviously was the inspiration here, taking into account the force and its proportional distance as well as the stiffness. With sounds like this it's interesting to hone in on certain aspects - such as the tonal harmonics. Otherwise this sound and many other sounds in KINETIC METAL would be static and textural, only. But there are tones and harmonics that are pushed to the fore so that they can be played musically. This one can be played like a pad and/or a texture.

Humming Top

This sound gives a sense of movement using various samples to create the effect. Tops, spinning bowls and coins, and especially the Euler's disc which is a fun toy that can spin for long periods of time and create very interesting sounds as it winds down. Combined with nice tones that subtly evolve over time with the spinning samples, it creates a dizzying effect as you circle through the morphs.

Iron Oxide

This sound is about the sound of oxidation of iron. As if viewed through a microscope or heard through microphones over a longer, sped-up time scale - as it takes rust a relatively long time to degrade metal. Microphones can do that to an extent but imagination plays a more important role in sounds like this. Specific sounds were recorded that convey this process such as crumbled leaves, scraping metal, creaking metal, etc.

Junkyard

There aren't many tonal sounds you can find at a junkyard but that doesn't mean one can't create tonality out of sounds of metal junk being recorded in arbitrary ways. Big rumbling samples combined with scrap junk chaos and some metal hits and bangs. In a junkyard there is a lot of stuff from different eras. It's overwhelming to see different technologies over the years and a bit eerie when all this stuff is abandoned in a sort of graveyard of things that were once useful. Maybe that's why the eerie tones from the programmed wave units work well with the noises acquired from the junkyard.

Knife Attack Piano

This is a piano sound with a harsh metal attack. The manipulation of piano sounds has really taken off in the past few years and many of the sounds that have been made are intriguing and beautiful. So this was about bringing the sound of the "prepared piano" into KINETIC METAL. But of course in ways that are not really possible without the technology of KONTAKT to help push these sounds to uncharted areas. There are many recordings of manipulated piano strings in various ways as well as metallic hits that give the instrument its edgy knife-like attack. There are convolution effects recorded from inside the piano's resonant chamber. All these sounds can morph into something else. Taking large instruments such as a piano and making them malleable is good fun.

Leaky Pipes

This is about pipe sounds that are more interesting than the obvious. These pipes leak and do so only when you hit them and then stop leaking when you let go of the note. There's no mess and it's very convenient musically. While sonically this is not possible in reality that's the whole point, really. Samples of banging water pipes with steam and other boiling sounds give you the sense of being underground surrounded by the water lines of the city. And all these various pipes are your orchestra.

Magnetic Balls

Throwing two magnetic balls up in the air while they pull towards each other and eventually hold together produces a lovely sound. In between those stages is a sort of fast bouncing ball effect that is interesting and almost unnatural sounding with many interesting. Several stages of this effect were recorded. When morphed together it definitely becomes something almost alien sounding while alluding to familiar tones - pleasing yet strange.

Mars Rover

Mars Rovers probably have quite a lot of metal parts, gears, drills, grinders, chambers, antennas, robotic arms, etc. With this instrument many of those things just mentioned were to be replicated through sampling various tools. Along with those samples synthetic waves were programmed with somewhat alien tones and noises because things must sound different on mars having such differences in its atmosphere than earth. Sitting at the controls of this instruments interface almost feels like being at the controls of one of the mars rovers at NASA. Ok – almost. But at least with these controls you can get instant gratification - much smaller time latencies.

Mechanized Insects

Maybe you have heard about these flying insect-like robots that a company was making and this instrument is about them. It gives the sense of not just a robotic insect but a robotic insect flying through a fantastic mechanized jungle or otherworldly environment of some kind. Even though there may be a jungle of sounds you can add and subtract as you deem necessary.

Mercury Fountain

Mercury was on the list from the beginning of the recordings for KINETIC METAL. After doing some research to get ideas, a real mercury fountain in Spain was discovered. Of course it was sealed off due to its extremely toxic nature and there is no chance of getting in there to record it. So this fountain had to be recreated with some magic from the sound designer's bag of tricks. One major theme with KINETIC METAL is going beyond the obvious metal sounds. There's so much variety out there that range from extremely hard and harsh metallic resonances to – as with mercury – liquid and softer tones.

Morning Bells

This instrument is about bells, with an emphasis on church bells. With each note you hear the samples of the ringer wheel, the bell clapper hitting the bell and various tonal dynamics. The layers of harmonics can be added and removed on the fly to move organically into different tones.

Nails

Normally the sound of a hammer hitting a nail doesn't sound too fantastic. But even mundane things such as this can be unique and interesting with a bit of manipulating and layering of other sounds. The most important aspects of different sound sources like this are their unique characters. When combined with tones whose harmonics sympathize with those characters you actually get some fantastic results that give a musician more choices of tone for similar sounding traditional instruments.

Nightmarish Chains

This is another sound that might be something out of an old horror movie. It is similar to the sound of dragging chains around somewhere outside in the night. It produces cold, eerie and somewhat ghostly choral-like tones which are appropriately dissonant. This instrument combines those sinister tones with samples of dangling chains and scrapes that can entice fear when used.

Plucked Idiophone

The samples from this instrument came from a self-made instrument. It is a sort of thumb piano from the tines of a rake screwed into a device found at a hardware store. The great thing about this device is that it is easily removed and fastened to any resonator box of choice. And

that's what happened for this sound. The plucked attack is nice. The feel from playing on the keyboard resembles the sensation of actually playing a real thumb piano. There are other dynamics and tones you can morph to as well, such as a strumming of the tines. It's interesting to go back and forth between these dynamics as it really makes the playing feel organic.

Prepared Cables

This sound has some different elements that complete the effect of a prepared instrument. There are elements of guitar and piano string manipulation combined with other types of heavier metal cables that interact with various objects affecting the sound in an experimental yet musical way. You can easily go deeper into the experimental aspects of prepared instruments without having to put a lot of effort into finding the right effect that works musically or texturally.

Ringling Metal Tree

This instrument was inspired by a wind powered sound sculpture created by architects Mike Tonkin and Anna Liu of Tonkin in Lancaster England called the 'Singing Ringing Tree'. The sculpture is a 3 meter tall construction of different length pipes that resembles a tree. The pipes are made of galvanized steel and harness the energy of the wind to create a discordant choral sound. After listening to various samples of this sculpture it was decided that a careful reconstruction would make a good addition to KINETIC METAL. This is for anyone who is fascinated by the sounds of the sculpture but frustrated by the fact that there is only one in the world and its way too heavy to take on tour to play live.

Rusty Wires

This instrument is about creating the sound of hot, tangled, old rusting wires that have electricity running and buzzing through them. It is done by layering various samples of wires mutilated with diverging dynamics along with programming waves and processing them into tonal and electrical noises. Mixing those layers in and out presents the effect of supplying electricity through wires of different tones and noises as if turning them on and off. Using the FX is like changing the nature of the electricity itself. Almost like applying more or less voltage.

Samulnori Percussion

The Korean Samulnori percussion ensemble plays with unique metallic sounds. The four instruments fit perfectly in the concept for KINETIC METAL. The instrument is something similar with more flexibility in tone and effect. Interestingly, the combination of the components

can either be morphed together individually or layered for interesting effects. There are many creative possibilities in playing a small ensemble like these via the interface of KINETIC METAL.

Sewer Manhole

This instrument reflects an environment through the creation of elements that make up that environment including the room space. It contains the sliding shut of the heavy metal sewer lid, the claustrophobic and reflective cement room in the ground, the dripping of sewer water, etc. Like many other instruments in KINETIC METAL this sound has a sort of synaesthetic effect in that you can almost see and, in this case, smell the foul odors of the dark and musty spaces of the underground.

Ship Breaking

There exists a documentary on breaking up ships that depicts the harsh working conditions of a 3rd world shantytown that has few environmental and safety regulations to protect the extremely impoverished villagers who risk their lives dismantling large ships for ridiculously low wages. These are extremely large ships that have run aground in what appears to be a ship graveyard. The workers are shown as they dismantle them by ripping, tearing and cutting into large sections using very modest tools, as huge portions of the ships bend and break off, creating incredibly large and gnarly sounds. Some of the disturbing aspects of this dark and unsettling occupation can be found in this instrument.

Steel Hand Drum

This instrument was made from various steel pans being played and hit in many ways to get different sounds like hand slaps, knuckle hits, etc.. This is a good example of a tonal percussive instrument where subtle hits can change the sound in a way similar to the tone of a real acoustic instrument might change based on how it is played. By using the morph controls and/or mixing in and out certain dynamics a similar effect can be achieved. Tonal elements can be changed subtly or drastically to great effect using the FX as well.

Switchblade Scissors

This instrument tries to exaggerate a very familiar sound into an interesting, extraordinary instrument. Many different types of metal scissors cutting into various materials were recorded so the character can be changed and tones can evolve into many interesting possibilities.

Sword Glissade

For this instrument different sonic aspects of an old sword were recorded. Drawing the sword from its sheath with its scraping ring; swooshing noises from cutting through the air, etc. The inspiration from this sound came from the exaggerated sound design from movies like Crouching Tiger, Hidden Dragon. It's definitely a musical sound not dissimilar to tonal percussive instruments but with its own unique attributes that cannot be duplicated by traditional instruments.

Tailpipe

Metal is an extremely versatile material. Which is why KINETIC METAL came to life – but to use these properties in ways you don't expect. In ways that interact with other forms of energy or matter that aren't necessarily metal by themselves. This sound is a good example of non-traditional or unexpected sounds of metal. But it still sounds somewhat familiar when focusing on specific metal layers. Various recordings of vehicle tailpipes and especially the rumbling sound of a motorcycle tailpipe were made for this instrument.

Teapot

This instrument captures not just a teapot but a teapot being used and poured with its boiling water, steam and clanky excited lid. It is a good example of an instrument with a familiar character that can be used for many different ideas. Pushing the limits of these objects may end up sounding like something out of this world. And therefore can add to, accent and even bring to life many forms of music or soundscapes in a unique way.

Telegraph Key

This instrument is about catching the essence of a telegraph key combined with a wide range of tones as well as atmospheres. As the sound is heard when pushing down a note on the keyboard the sensation of actually pushing a telegraph key pad is very natural as the metal click and even the after release sounds create a very tactile sensation. When a tone is held down radio airwaves and noisy squeals recorded from a shortwave radio come into play. It's fun to focus on specific elements of the sound, by mixing in and out the different elements.

Tin Man Locomotion

This sound was inspired by the tin man in The Wizard of Oz – listening deep into the mechanics that made him work; gear wheels that create movement, exhaust chuffs and whistles; oil cans; his empty tin chambers, and even the allusion of a heart beat which seemed to propel him forward or at least inspire him to his destination because of his own realization that he lacks one. In the movie, you don't get a sense of those things and this is about bringing him to life through sound.

Tornado Chimes

For this sound I wanted to capture the sort of calm before a storm. Where you can hear and see off in the distance the dark almost leviathan wall of clouds pushing slowly across the plains closer to your position. With the swirling wind lightly playing the random melody of musical chimes like a virtuoso, with the somewhat percussive and rumbling accompaniment of the thunder's menacing sounds that complete the ensemble.

Underground Ventilation

This instrument is about recreating the effect of a large industrial underground fan – something you may see in sci-fi or steam punk type films. Different elements were recorded to create more of a scene than a replication of just the fan. Among them were a large metal fan as well as metal doors and wind. Some convolution samples were added to give it a specific gritty, underground feel.

Vibrating Coils

This instrument has a viola-like tone to it. Metal coils, large and small were used to create an exaggerated bowed string-like instrument with a definite metallic overtone flavor. The samples of the different coils are mostly from the friction interaction of other bow-like objects that give the different string tone character and color. There are also percussive elements useful for morphing into different playing dynamics.

Windmill

The parts of a windmill are fascinating. All those huge gears, shafts and rotor blades readily welcome the wind as if it is its life blood. It is a perfect symbiosis of nature and machine. While sampling some metal windmills, many parts were recreated to give a sense of larger, older windmills. The gear wheels, break wheels, wind shafts, fantails, and of course the wind itself, paint an image of a real three dimensional object in sound.

Zube Tube

This sound was made from a toy called a Zube Tube which is a tube that has a long spring inside that you can pluck and create some interesting sounds with. But most of the sounds were created from a similar tube especially created for KINETIC METAL. One modification of the original was the use of tubes probably about 10 feet in length combined with springs and hooks. This instrument is the result of that experiment. It's a fun toy to play with.

7 Credits

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