HEAVYOCITY

DAMAGE MACHINA

SURVIVAL GUIDE

THE NATURAL RHYTHM OF THE MECHANICAL WORLD

Dive into Damage Machina! From the intricate ticking of analog clocks, to the relentless churn of industrial gears and massive machines, this groundbreaking collection captures the raw, unpredictable pulse of the mechanical world. Heavyocity, in collaboration with world reknowned sound designer Robert Dudzic, have assembled a one of a kind percussion suite that creates a mechanically percussive landscape that feels perfectly timed, yet oddly untamed, as if the machines themselves are playing in sync through your fingertips.

With over 700 unique sources captured (comprised of playable sounds and tempo-synced loops), this mechanical beast will become your go-to tool for crafting visceral grooves and evocative cinematic rhythms with just the right amount of texture and grit!

This guide should serve as a starting point to familiarize you with the feature sets of the Machina and its instrument types. For more helpful videos, including a Content Overview, Preset Playthrough, Demos, and other tips and tricks, visit the Machina product page on the Heavyocity website at www.heavyocity.com/Machine.

- The Heavyocity Team

INTRODUCTION: MACHINA INSTRUMENT TYPES

Machina consists of an **Ensemble Designer** and a **Loop Designer**. Each NKI type comes stock with a variety of snapshots to get you started (more than 75 in all). The Machina Ensemble and Loop Designers have 43 and 34 snapshots respectively; they're great starting places to inspire your creative options with this unique treasure trove of gritty mechanical percussion, all derived exclusively from a wide variety of machines small and large. Now, let's take a brief look into each NKI type.

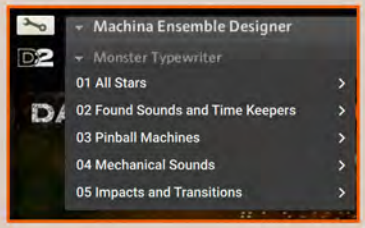
The **MACHINA Ensemble Designer** provides both menu and performance style preset options with a vast range of mechanical percussion. Browse five categories of for various source options. Dial in the perfect mix of five discrete global mic channels (Close, Overhead, Room, Hall, and LFE). Use the stage for fine tuning the positioning and depth of the individual sources. Assign convincingly realistic performances to any source for assisted rhythmic composing. Finally, don't forget to subject your sound to the various effects, including PUNISH, now with three distinct intensities. 43 custom curated snapshots provide a wealth of options for maximizing creativity while streamlining your productivity!

The **MACHINA Loop Designer** comes loaded with 288 tempo-synced loops covering Organic, Hybrid, and Experimental rhythmic timbres in both straight and triplet meters. By combining low, mid, and high loop stems, generating distinctively original rhythmic beds is quick and effortless. Massive impacts and transitional reverses provide polish and accents to the looped material. In addition, recomposing loops by changing the start times and loop points is a breeze. Machina Loop Designer even features both a stutter feature and a powerful per-loop effect send matrix, allowing for radical FX tweaking on the fly using the mod wheel. When you're under a massive time crunch with looming deadlines, this platform offers creative ease, inspiration, and 34 diverse snapshots to get your compositional ideas off the ground quickly!

MACHINA SNAPSHOT AND KEY-MAPPING STRUCTURES

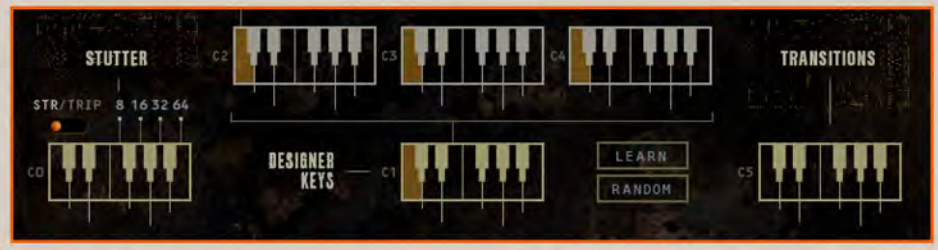
Machina snapshots are organized categorically to maximize efficiency and deliver what you need quickly. Each NKI instrument type incorporates an intuitive key-mapping structure. Both the **MACHINA Ensemble Designer** and **MACHINA Loop Designer** utilize banks (each bank being a single octave) of sources/loops. A bit more info on each instrument's snapshot types:

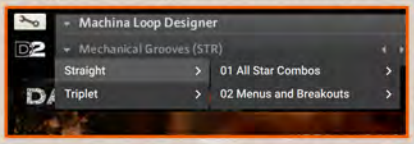
MACHINA Ensemble Designer snapshots are represented in 5 categories. Each snapshot is either a **MENU** or **PERFORMANCE** preset. It's easy to differentiate them by name, and the number of sources is denoted (in parentheses at the end).



Menu snapshots come mapped with large numbers of discreet sources (many have 18 or even up to 36). Performance snapshots (with a suffix lablel of either - STR or - TRP indicating Straight or Triplet) are mapped with performance settings engaged. Each source can be assigned one of the multiple useful performance articulations tools for highly realistic, and time-saving beat building.

MACHINA Loop Designer snapshots are organized by straight and triplet meters, and each consists of two main categories of presets: **01 All Star Combos**, and **02 Menus and Breakouts**. Loops in the menu breakouts are broken into Organic, Hybrid and Experimental types. The All Star category is an interesting combination of the three types. Banks of loops are mapped from C2 to B4 (three banks in total). An additional bank of transitions and hits is mapped from C5 to B5. The designer keys (C1 to B1) allow loops to be stacked from the three individual loop banks (C2-B4). A set of five keys on the bottom of the preset (F0, G0, A0, B0) create tempo-synced stutter effects of loops playing back in real time (in either straight or triplet meter).





Now that we have a bit more familiarity with the Machina instrument types and preset structures, let's dive into the individual interfaces and their corresponding featuresets.

MACHINA ENSEMBLE DESIGNER
STAGE OVERVIEW

Click on the **STAGE** button to engage it; you'll see a single octave of sounds on the **STAGE** corresponding to **BANKS** (**I**, **II**, **III**), depending on which source/bank is selected. **FOLLOW MIDI** changes the current **BANK** displayed on the **STAGE** to the last MIDI key/bank played. Turning off the stage centers the depth of all sources uniformly, but retains panning of individual sources in the stereo field. **STAGE DEPTH** "handles" (on the right side) quickly change the wet/dry depth dimensions of the stage (allowing you to shift sounds further forward or back quickly). Beneath the stage are quick-access controls for both individual **DRUM** settings and global **MIX** microphone channel levels.

***HELPFUL* CLICK/DRAG OPTIONS FOR STAGE:**
Option-Click(Mac)/Alt-Click(PC) on an empty stage spot to randomize all sources in that **BANK**
Command-Click(Mac)/Control-Click(PC) on individual source to return it to center stage
Option+Command-Click(Mac)/Control+Alt-Click(PC): Returns all sources of **BANK** to center stage
Option-Click(Mac)/Shift+Control-Click(PC): Moves all sources of displayed **BANK** together on stage

SNAPSHOT MENU
Select a desired snapshot preset (automatic load)

CURRENT SELECTED SOURCE

STAGE
Power On/Off

STAGE DEPTH
Click+Drag handles adjust depth of stage

SOURCES
Click+Drag move sources around stage

FOLLOW MIDI
Source selection via MIDI keyboard

BANKS (I/II/III) C2-B4:
Display each individual set of sources on stage when selected.

DRUM SETTINGS ← Click on boxes to toggle between parameter sets → **MIX SETTINGS**

INDIVIDUAL SOURCE PARAMETERS
VOLUME: Individual source level
TUNE: Individual tuning of source
TONE LOW: Low-end EQ of individual source
TONE HI: High-end EQ of individual source
ATTACK: Attack time of individaul source
RELEASE: Decay time after note release

GLOBAL MICROPHONE CHANNELS
CLOSE: Close microphone channel level
OVERHEAD: Near overhead channel level
ROOM: Room microphone channel level
HALL: Hall microphone channel level
LFE: Sub-Frequency channel level
Orange power buttons toggle channels on/off

NOTE: Single sources mapped to multiple locations utilize the **SAME DRUM SETTINGS between them.**

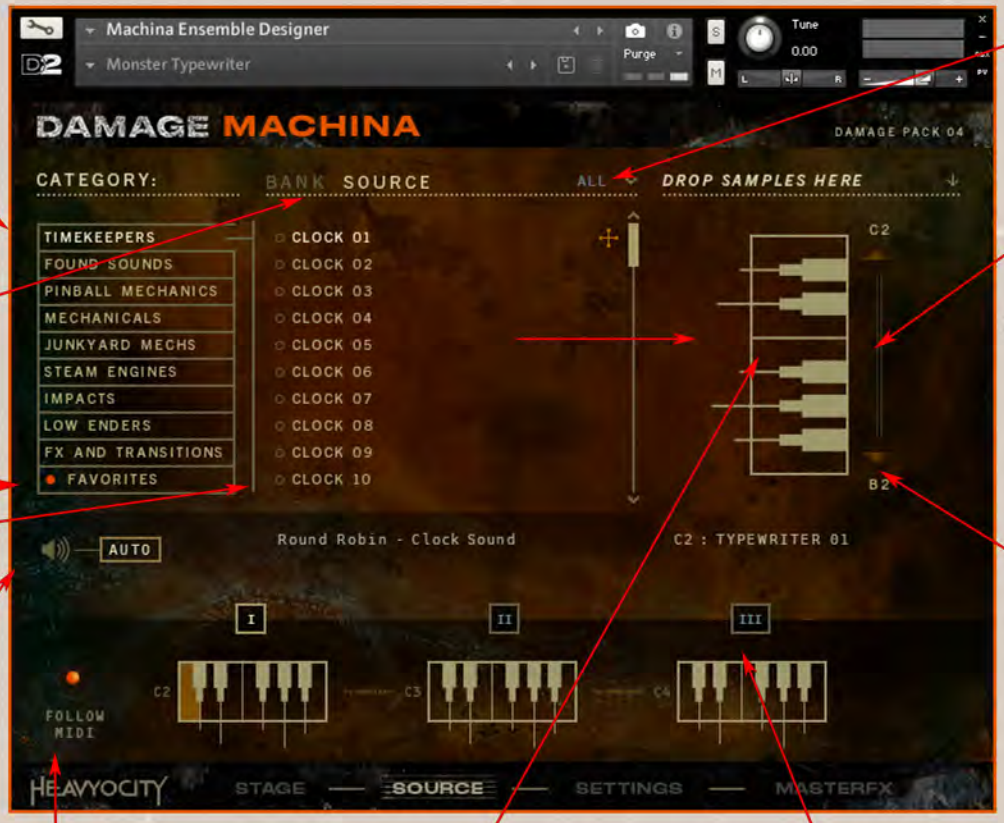
MACHINA ENSEMBLE DESIGNER

SOURCE OVERVIEW

Heavyocity has set up pre-made **BANKS** for easy loading. Select up to 36 sources loading by either **BANKS** of 12 sources on an octave, or map individual **DRUM** sources to single keys. To start, Click on a desired **CATEGORY** (there are nine) and then select **BANK** (pre-made 12 source sets) or **SOURCE** (a single source). Banks/sources appear in the center. Scroll down the list for audition and selection, then load by dragging to the vertical keybed on the right (”**DROP SAMPLES HERE**”). A blue pull-down menu in the upper right of the center list refines the sources within a category. Clicking on a source reveals its description beneath the list. **BANK** selections populate an entire octave, while **SOURCE** selections load onto a single key slot. If you like a source, click the hollow dot directly to the its left (it will turn red) and add it to your **FAVORITES**.

HELPFUL CLICK/DRAG LOADING OPTION FOR SOURCE LOADING:

Command-drag/drop(Mac)/Control(PC)-drag/drop populates an entire bank with a single source with MIDI performance keys enabled



CATEGORY
Click desired source type

BANK/DRUM
Banks load 12, Drums load 1

FAVORITES
Click on **HOLLOW DOT** to add source to favorites list

PREVIEW
Plays sample of selected source

DRUM MENU
Click the menu pull-dovn for refined listings

MIDI BANK (I/II/III)
Drag and drop sources on desired keyslots

Bank I (C2-B2)
Bank II (C3-B3)
Bank III (C4-B4)

ARROWS
Top and bottom change current **BANK** for loading

CURRENT SOURCE
Top and bottom change current **BANK** for loading

FOLLOW MIDI
Source selection via MIDI keyboard

CLICK KEY TO REVEAL SOURCE LOCATION

BANKS (I/II/III):
Toggles current bank active for source loading

MACHINA ENSEMBLE DESIGNER SOURCE CATEGORIES:

TIMEKEEPERS: From analog clocks to metallic and paper ticky tack high end sounds.
FOUND SOUNDS: Obscure sounds from farm machinery to adding machines and metallic clanks etc etc.
PINBALL MECHS: Flipper coils, pop bumpers, spinners, and various other mechanical sources.
MECHANICALS: Typewriters, clanking/cranking machines, rattling oddites, wooden machines and more!
JUNYARD MECHS: A variety of metallic hits and clangs that are right at home in a junkyard.
STEAM ENGINES: Steam bursts, pumps and cranks; a unique variety of hissing percussive goodness.
IMPACTS: A more simple set of basic metal impacts that are great for layering.
LOW ENDERS: Sub hit types of sources, useful when more low end is desired.
FX AND TRANSITIONS: Mechanical gears and ratchets, with a variety of reversed element to round it out.
• **FAVORITES:** Mark your favorite sources, and they’ll show up in this category!

MACHINA ENSEMBLE DESIGNER
SETTINGS OVERVIEW

Global and per-source parameters provide efficient snapshot and source tweaking here. Straight-forward global options include a central **VELOCITY CURVE** graph for fine tuning MIDI controller performance, **ROUND ROBIN** (on/off), **VELOCITY RANDOMIZATION** (on/off), **VOICE CANCELLING** (on/off), and CC assignable **MIDI VELOCITY** (for using an external source to control MIDI dynamics). The indivudual source options consist of the **PER-DRUM CONTROL** (this mirrors the **DRUM** parameters on the **STAGE** page) and the **PERFORMANCE** section.

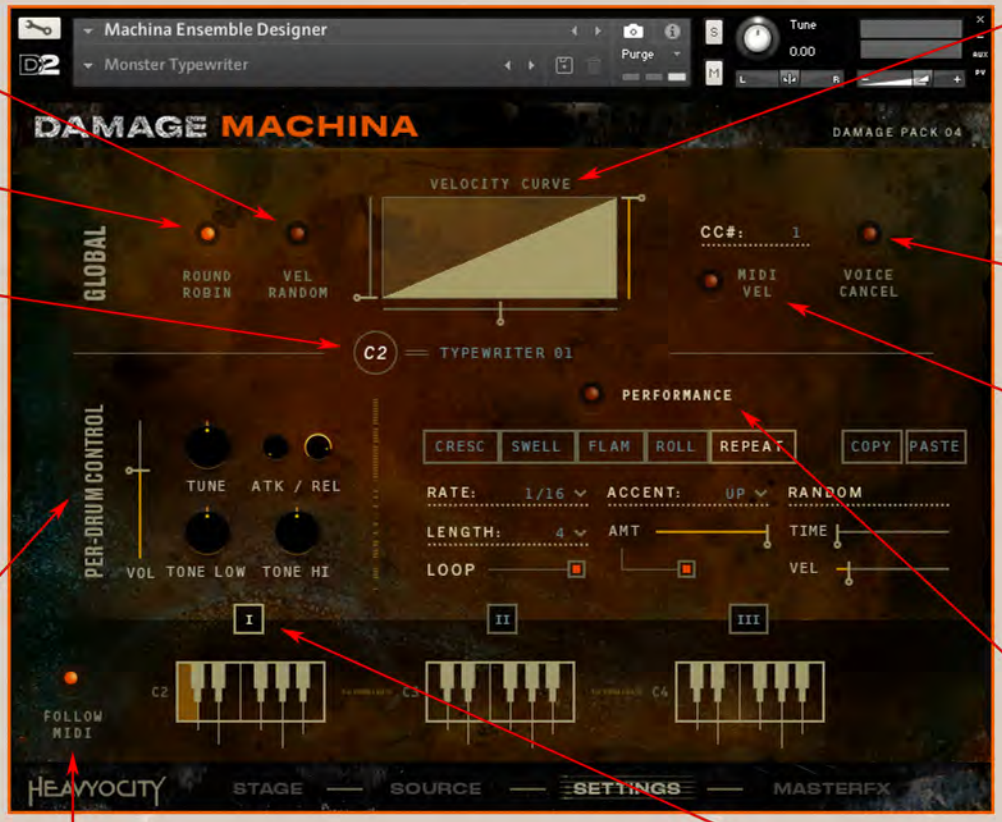
The **PERFORMANCE** section features highly-customizable flams, patterns, flourishes, crescendos, swells, and rolls that save the valuable time and effort it takes to perform and edit them manually. More information on each performance type is provided on the following page.

VELOCITY RANDOMIZATION
On/Off

ROUND ROBIN
On/Off

CURRENT SOURCE
Indicates source currently being edited with **PER-DRUM CONTROL** and **PERFORMANCE**

PER-DRUM CONTROLS
Identical to the **DRUM** controls on **STAGE** page



VELOCITY CURVE
Set min/max MIDI velocity (vertical sliders) and curve slope (horizontal slider)

VOICE CANCEL
Cuts down MIDI polyphony

MIDI VELOCITY
Select MIDI CC and engage MIDI VEL to control velocity dynamics

PERFORMANCE
(On/Off)
Assignable per-key MIDI performances

FOLLOW MIDI
Source selection via MIDI keyboard

BANKS (I/II/III):
Selected current bank and source being edited

Refer to the following page for more detail on each specific **PERFORMANCE** type.

MACHINA ENSEMBLE DESIGNER

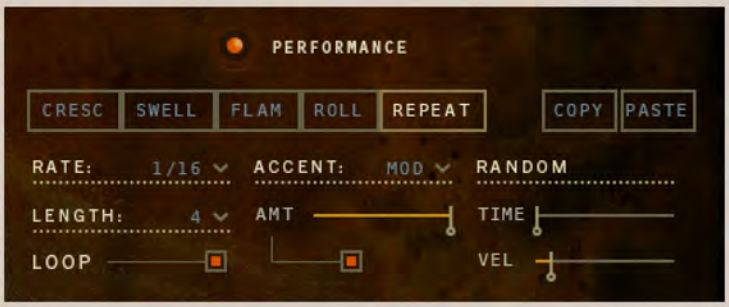
SETTINGS - PERFORMANCE TYPES

Per-key flams, patterns, flourishes, swells, and rolls are effortless thanks to five **PERFORMANCE** types. Use uniformly-similar control sets to easily dial in your desired performances. Use **COPY/PASTE** to apply **PERFORMANCE** settings to multiple sources/keys. Alt/Apple Click **PASTE** to assign the current copied performance onto ALL sources in that bank. The per-source power button turns on each **PERFORMANCE**.

FLAM

FLAM - Dial in that perfect grace note
AMOUNT: Strength of the flam (bipolar)
RATE: How tight the flam is played
RANDOM (TIME): Tightness of performance
RANDOM (VELOCITY): Consistency of hits

REPEATER

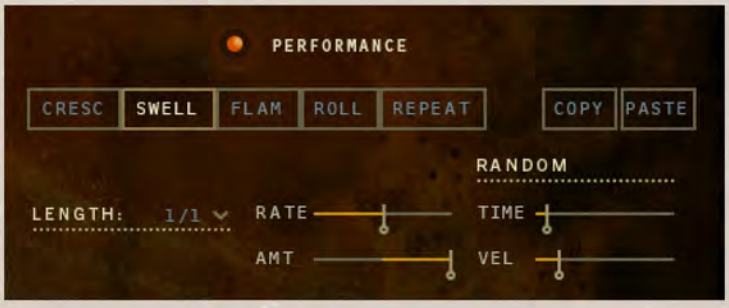


REPEATER - Patterns, Flourishes and MUCH! MORE!
RATE: Selects straight/triplet note value
LENGTH: Selects number of hits (2-9)
LOOP: Loops playback of hits/accents
ACCENT: Up/Down/First/Last/Modwheel
AMOUNT: How much accent type there is
RANDOM (TIME): Tightness of performance
RANDOM (VELOCITY): Consistency of hits

CRESCENDO

CRESCENDO - Usher in that perfect downbeat
LENGTH: 1/8, 1/4, 1/2, 1/1, 2/1
RATE: Speed of the drum hits
AMOUNT: How much it swells (bipolar)
RANDOM (TIME): Tightness of performance
RANDOM (VELOCITY): Consistency of hits

SWELL



SWELL - Great transitional tools or FX
LENGTH: 1/8, 1/4, 1/2, 1/1, 2/1
RATE: Speed of drum hits
AMOUNT: How much it swells (bipolar)
RANDOM (TIME): Tightness of performance
RANDOM (VELOCITY): Consistency of hits

ROLL

ROLL - Simple control options for dynamic rolls
Select **VELOCITY/MODWHEEL/EXPRESSION** preference to control drum roll dynamics
RATE: How fast the roll strokes are played
RANDOM (TIME): Tightness of performance
RANDOM (VELOCITY): Consistency of hits

MACHINA ENSEMBLE DESIGNER

MASTER FX OVERVIEW

The **MASTER FX** provides global mastering and polishing with seven timbral/spatial effects. **FX MODULES** run chained together in a sequence (like a channel strip), and can be arranged in any order to suit your taste (simply click and drag on individual effects to re-order them). Each **FX MODULE** can be turned on or off with the power button directly above its respective slot. The highlight of the effects chain is the central **PUNISH** knob. Combining compression and saturation, **PUNISH** adds either a subtle warmth and punch when used modestly, or it can completely decimate, producing highly-aggressive tones when pushed to the limit. Choose from three intensity levels of **PUNISH,** and adjust the **RESPONSE** and **TONE** to dial in your sound. The **MASTER FX** page is identical across the three instrument types in Machina; please refer back to this page for the Machina Loop Designer.

PUNISH KNOB
Compression and saturation

TONE
Adds or subtracts top-end sheen to the sound

RESPONSE
Adjusts the release of **PUNISH** compression

FX MODULES
Click and drag to reorder individual FX in the chain

PUNISH TYPES
Choose one of 3 options; from warm punch to MELT YOUR FACE OFF!!

PUNISH POWER
On/Off

FX MODULE POWER
On/Off

Click on individual **FX MODULES** (**PUNISH** controls are above) to reveal their respective parameters on the lower third for editing/tweaking.

FX MODULES included in the signal chain:

EQ: Fine-tune and add desired color with three selectable **FREQUENCY** bands, each with individual **GAIN**

FILTER: Select one of eight discrete types (LP, HP, etc.), and dial in appropriate **FREQUENCY** and **RESONANCE**

COMPRESSION: **FEEDBACK** or **BUS** compression with controls for **THRESHOLD**, **RATIO**, **ATTACK**, **DECAY**, and **MAKEUP**

SATURATION: Add subtle grit or distortion by adjusting the **DRIVE**, **WARMTH**, **ROLLOFF,** and **OUTPUT**

DELAY: **MODERN** or **VINTAGE** types with controls for **TIME**, **FEEDBACK**, **TONE**, **QUALITY,** and **LEVEL**

REVERB: **PLATE**, **ROOM**, or **HALL** types with controls to adjust **PRE-DELAY**, **SIZE**, **TONE LO**, **TONE HI,** and **MIX**

****THE MASTER FX PAGE IS IDENTICAL ACROSS BOTH INSTRUMENT TYPES****

MACHINA LOOP DESIGNER

LOOP OVERVIEW

The **LOOP** page displays the loops playing back in both the waveform display up top and down below on the keybeds. Thirty-six loops are mapped from C2 to B4 (each octave represents a BANK of 12 individual loop sources, similar to the format in the Drum Ensemble Designer). The current loop displayed has edit controls beneath the waveform display (**VOLUME**, **PAN**, **TUNE**, **SPEED**, **SEND**). In addition, controls for **LOOP START**, **LOOP START SLICE,** and **LOOP END SLICE** for that loop can be adjusted to re-compose the playback. Twelve **DESIGNER** keys (C1-B1) allow multiple loop playback from the three banks (explained below in more detail). **STUTTER** keys (F0, G0, A0, B0) correspond to 1/8th, 1/16th, 32nd, and 64th note slice-stuttering on playback when triggered; releasing the stutter keys will resume playback of the loop without losing sync. Single-shot impacts and tempo-synced reverses (in different beat increments) can be mapped from C5 to B5 and are good for accenting parts of loops on the fly.

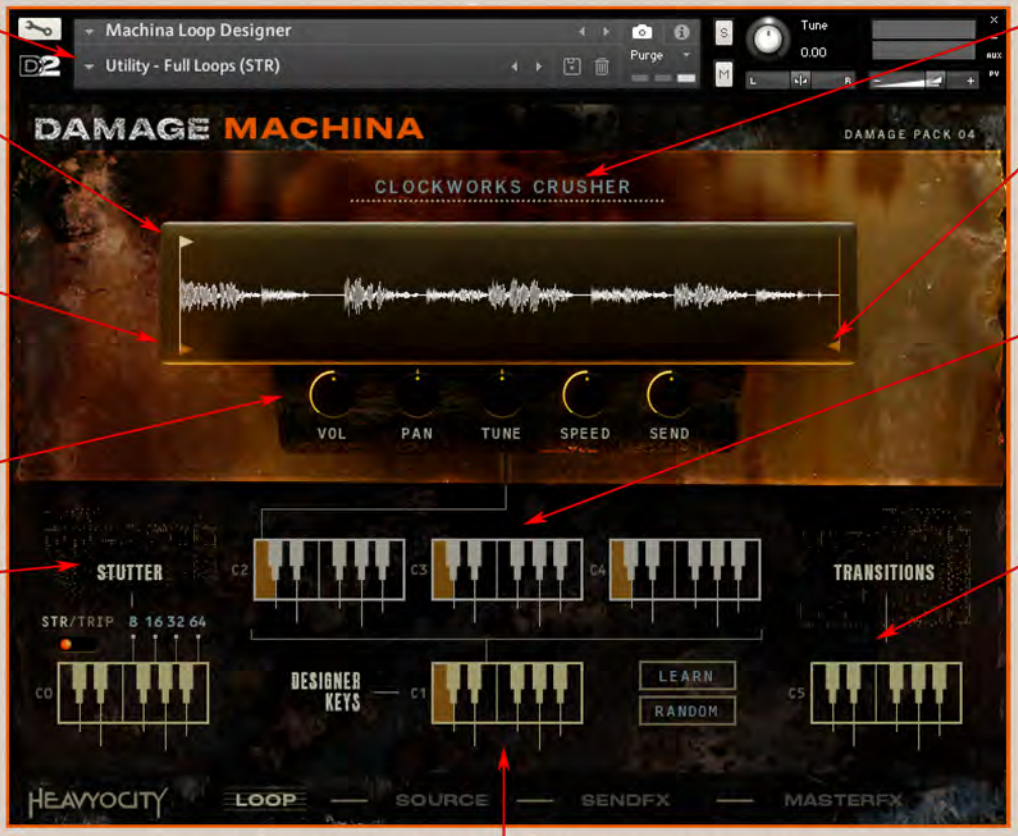
SNAPSHOT PRESETS

LOOP START
Click and drag to change start of loop playback

LOOP START SLICE
Click and drag to move beginning of loop cycle

LOOP SETTINGS
Explained below

STUTTER KEYS (F0, G0, A0, B0)
Tempo-synced stutters in realtime
STR/TRP
toggles meter



CURRENT SELECTED LOOP

LOOP END SLICE
Click and drag to adjust the ending loop point

LOOP BANKS (C2-B4)
Bank 1 (C2-B2)
Bank 2 (C3-B3)
Bank 3 (C4-B4)

TRANSITIONS
(C5-B5)
Hits and swells to add more drama!

DESIGNER KEYS: BUILDING CUSTOM LOOP STACKS

MIDI trigger or manually click on a desired **DESIGNER KEY** (C1-B1). The highlighted keys above represent which loops are stacked for playback. Loops can be added and removed from the stacks by clicking on the keys manually, or clicking **LEARN** enables loops to assign via MIDI controller. Once you are happy with the stacks, be sure to disable **LEARN** to prevent changing the assigned loops. One loop per bank can be assigned per designer key. **RANDOM** will roll the dice and assign random loops to the currently-selected **DESIGNER KEY**.

LOOP SETTING PARAMETERS

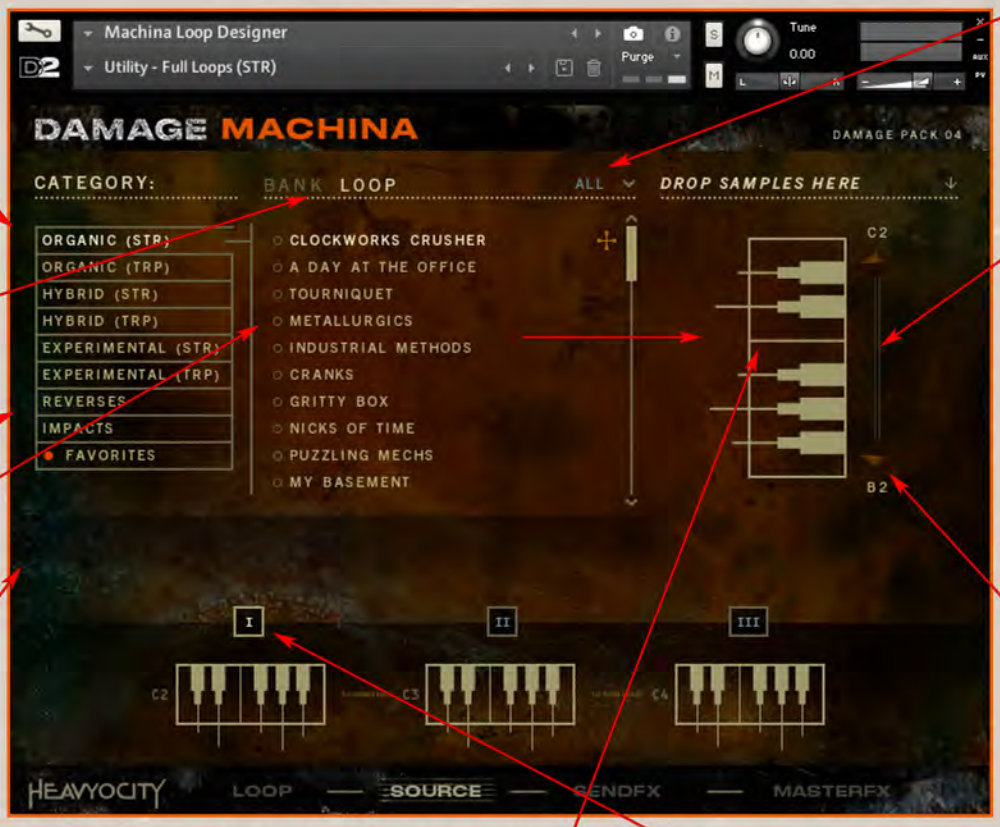
VOLUME: Adjust individual loop level to sit better amongst other loops
PAN: Place the loop in a specific spot in the stereo field
TUNE: Individual loop tuning (+/- 24 semi-tones)
SPEED: Alter individual loop playback speed to half time or double time and more
SEND: Amount of signal sent from an individual loop to the **SEND FX**

MACHINA LOOP DESIGNER

SOURCE OVERVIEW

A total of 36 loops can be loaded individually or by bank (from C2 to B4; each bank represents a single octave). Click on a desired **CATEGORY** and either **BANK** (sets of 12 organized loops) or **LOOP** (single loops). Available banks/loops appear in the central, scrolling list for selection and loading onto the vertical key-bed on the right ("**DROP SAMPLES HERE**"). The blue pull-down menu on the top right side of the center list refines searchable loops within each category. Clicking on a loop reveals its description beneath the list. A preview can be heard by clicking on the speaker directly below the categories.

In addition to the three octaves of loops (C2-B4), **TRANSITIONS** (the final category) can be loaded on the top octave (C5-B5). Clicking on the hollow dot directly to the left of a loop turns it red and adds it to the **FAVORITES** category.



CATEGORY MENU
Click the menu pull-dovn for refined listings

CATEGORY
Click desired loop type or transitions/hits

BANK/LOOP
BANK loads 12
LOOP loads 1

FAVORITES
Click on **HOLLOW DOT** to add loop to **FAVORITES** list

PREVIEW
Plays sample of selected loop

MIDI BANK (I/II/III) TRANSITIONS
Drag and drop loops on desired keys

Bank I (C2-B2)
Bank II (C3-B3)
Bank III (C4-B4)
Transitions (C5-B5)

ARROWS
Top and bottom change **BANK** for loading

Click on the keys to reveal loop source locations

BANKS (I/II/III/TRANS):
Toggles current bank active for Loop loading

MACHINA LOOP DESIGNER CATEGORIES:

Machina offers three distinct loop categories, detailed below. Each style delivers 12 full loops, wtih breakouts of the loops into 4 stems (full mix, low stem, mid stem, high stem). This allows for an almost endless host of combinations for mixing and matching looped elements to create unique rhythmic beds..

ORGANIC (Straight/Triplet): Derived more from the pure sources, with little to no processing.
HYBRID (Straight/Triplet): More sound design driven, effectual rhythms well-suited for modern scoring.
EXPERIMENTAL (Straight/Triplet): A style mashup combining organic, effectual and avant-garde elements.
TRANSITIONS: Massive hits, and tempo-synced elements in different beat increments.
• **FAVORITES:** Select your favorite loops and they'll show up here for you to find more easily.

MACHINA LOOP DESIGNER

SEND FX OVERVIEW

The **SEND FX** page is home to a 4-slot effect chain for real-time effect modulation of the loops. Timbral and spatial effects, outlined below, allow for interesting results, depending how the effects are combined - from spacey to aggressive and distorted, almost anything is possible. The center **MASTER SEND FX KNOB** determines how much overall signal is being fed to the effect chain (this is directly dependent on how much **SEND** is assigned from individual loops (REMEMBER: **SEND** is last parameter under the loop waveform display found on the **LOOP** page). For more interesting results the **MASTER FX KNOB** can be automated. Click the **OPEN MOD** button to bring up an advanced page (outlined on following page). Not all the loops need or should be sent to the **SEND FX.** For example, all the low loops could have no send for a drier playback, but mid and high loops could have send effects turned up to give upper register frequency ranges a more spatial/ambient quality.

MASTER SEND FX KNOB
Turn this up to feed individual loop sends to the effect chain

SEND FX POWER
Turns effect chain On/Off

TIMBRAL EFFECTS
Drag and drop to any of the four center FX slots

OPEN SEND FX MODULATION CONTROLS

POWER
On/Off

SPATIAL EFFECTS
Drag and drop to any of the four center FX slots

LOADING UP THE SEND FX CHAIN

Drag and drop any of the **TIMBRAL** or **SPATIAL** effect modules onto any of the four center effect slots. Clicking on any of the four slots will bring up that effect's parameters to edit. The four slots can be clicked and dragged to rearrange in any order. The individual effects can be toggled on and off by the orange power buttons directly above the effect slots.

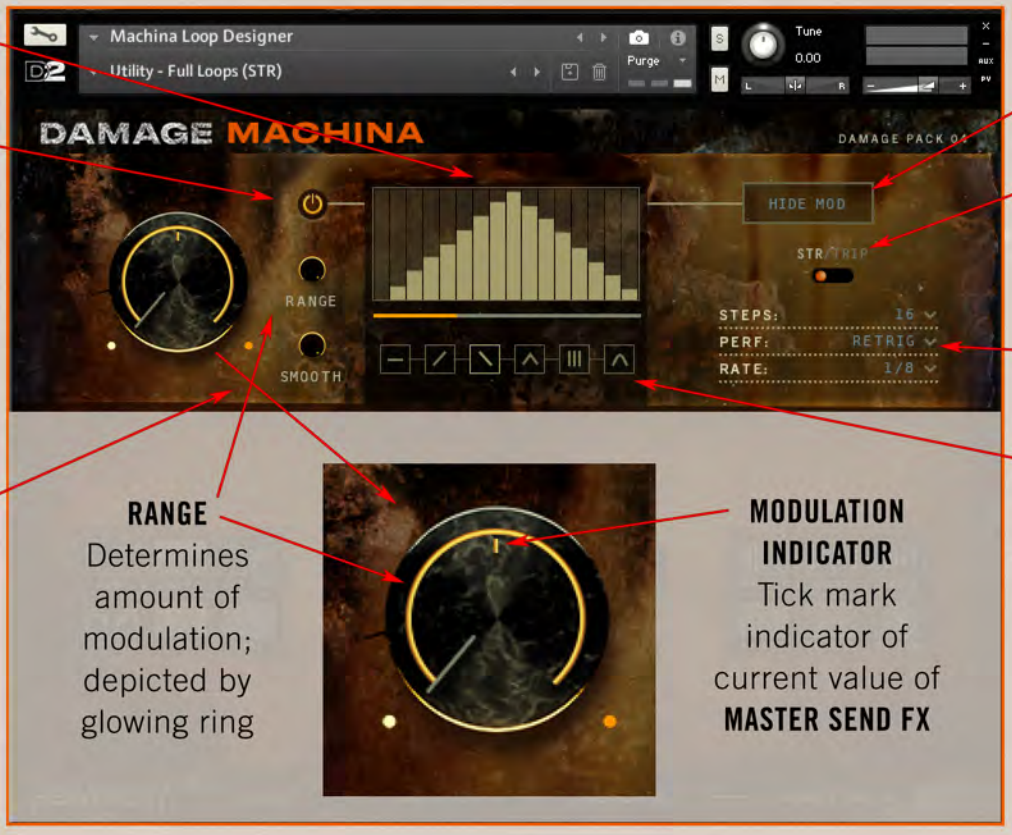
TIMBRAL EFFECTS:
COMPRESSOR (threshold, ratio, attack, makeup)
LO-FI (bits, sample rate, drive, tone)
FILTER CLEAN (HP cut, HP reso, LP cut, LP reso)
FILTER DIRTY (cutoff, resonance, LP/HP, drive)
MODULATOR (rate, depth, character, mix)
DISTORTION (drive, tone low, tone high, out)

SPATIAL EFFECTS:
TEMPO-SYNCED DELAY (time, feedback, tone, mix)
DELAY (MS) (time, feedback, tone, mix)
GATER (rate, depth, shape, width)
REVERB PLATE (pre-delay, size, color, mix)
REVERB HALL (pre-delay, size, color, mix)
REVERSE REVERB (pre-delay, size, color, mix)

MACHINA LOOP DESIGNER

SEND FX ADV MODULATION OVERVIEW

The **SEND FX** advanced page introduces controls to automate the send level of the **MASTER SEND FX** knob in realtime. Think of it as a way to choreograph your effects rhythmically. To do this, turn on the center **STEP SEQUENCE TABLE**. To the right of the table determine meter (**STR/TRP**), the number of **STEPS**, the **PERFORMANCE** type, and **RATE** of playback. To the left of the table set a desired **RANGE** (the amount of modulation, which will be indicated by a yellow glowing ring that appears inside the **MASTER SEND FX** knob when turned up, see below). Then determine the **SMOOTHING** amount (a higher value irons out jumps between steps for smoother knob automation). Next, create a pattern in the sequence table by selecting one of five wave types directly below or drawing your own. Depending on the **SEND FX** level of the individual loops, the automation will adjust the send according to the step sequence values as they playback.



SEQUENCE TABLE

POWER
Turns table On/Off

CLOSE ADV PAGE

STR/TRIP
Toggles between straight or triplet note values

TABLE SETTINGS

TABLE WAVEFORMS
Menus to quickly draw preset waves into the sequence table

SMOOTHING
Amount of smoothing between steps

RANGE
Determines amount of modulation; depicted by glowing ring

MODULATION INDICATOR
Tick mark indicator of current value of **MASTER SEND FX**