

# **RYK MODULAR TIME SLICE USER MANUAL V1**

## **1. OVERVIEW**

Time Slice has four Tracks each with a separate audio input and output. Audio is recorded to individual buffers, which can be manipulated and played back at the outputs.

Additionally the Tracks can be mixed to the Stereo Mix output via the Stereo Mix Output.

Tracks can also receive audio from other track outputs, or the Mix Output, for resampling or recording a live performance based on the other tracks.

Each track has its own FX Chain that includes a low latency Pitch Shifter, Tilt Filter, Delay, Wave Folder, Decimator and Reverb.

Tracks can be recorded looped and manipulated using CV and Trigger inputs, or a track can be used live as an audio FX processor.

Time Slice can use Internal Clock sync (recommended), External Clock sync, or MIDI Clock sync.

The Loop lengths and Delay times can be

set to Tempo based times (bars, beats) or absolute time (milliseconds).

When using Tempo related time scales Loop activations are quantised to the nearest 1/8th beat.

Each track has Trigger Inputs/Output and CV Modulation inputs that can be routed to a choice of destinations such as Filter, Delay-time, Pitch Shift, Loop Slice, Record, Reverse, etc etc.

MIDI CC can also be used as a modulation source, and MIDI NOTE data can be used as means to play loops as 1-shot samples, with a variety of options for Pitch/Speed or multi-sample Slices.

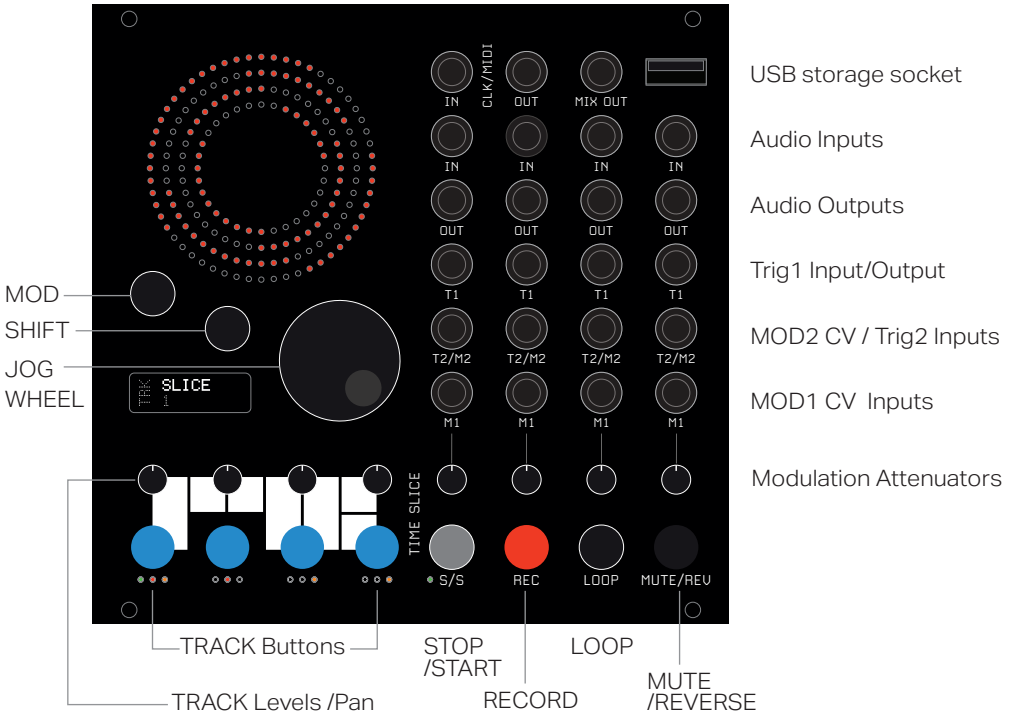
Audio files, tracks, and whole projects can be saved and loaded to and from internal storage or an external USB flash drive.

Time Slice comes with an eclectic selection of samples and loops stored in it's internal memory to get you started looping!

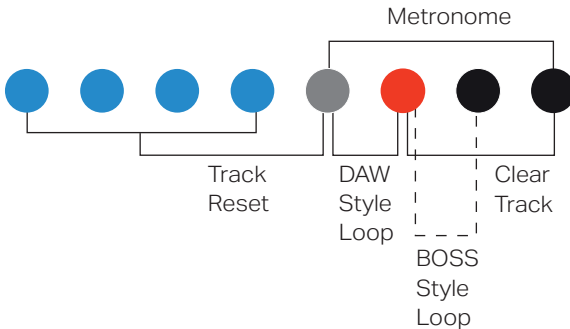


## 2. LAYOUT

Clock / Midi Input  
 Clock / Midi Output  
 Stereo Mix Output

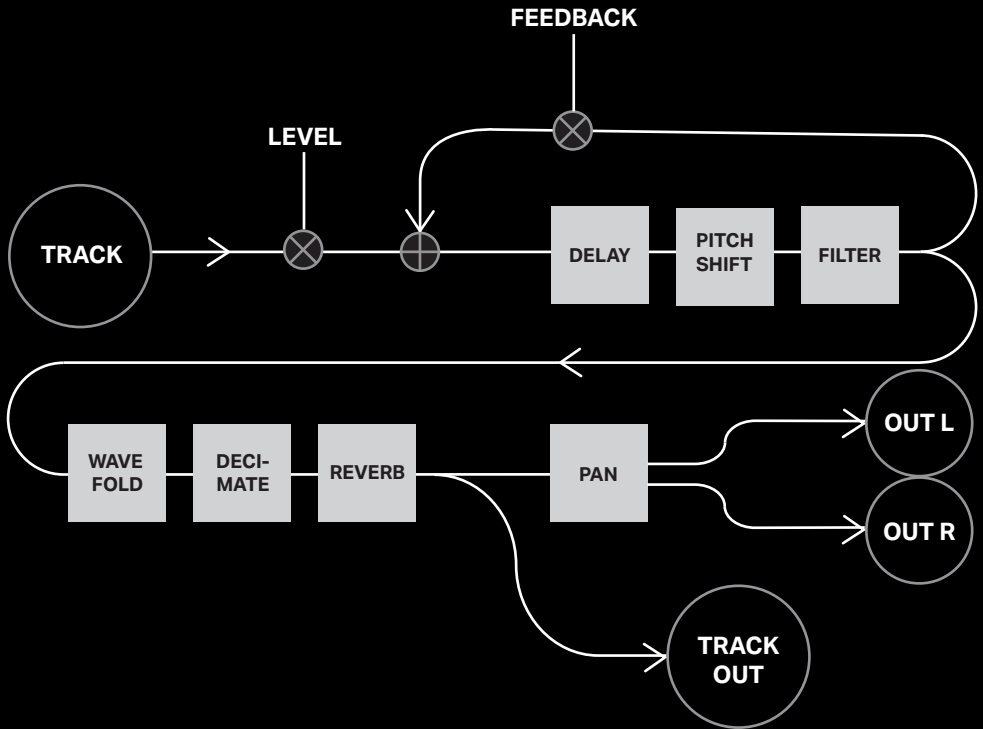


### 2.1 BUTTON COMBOS



### 2.2 TRACK LEDS

- Green: Active for Editing
- Red: Recording
- Orange: Looped



**DIAGRAM: ARCHITECTURE**




### 3. CONTROLS





**- TRACK Buttons** ●●●● These are used to select a track for editing any settings, such as Loop Length, Modulation, Reverb, etc. The active track is indicated with a Green LED ● under the Track Button.

Two tracks can be Grouped to form a pair (eg. for stereo) by holding the SHIFT Button, and pressing two TRACK Buttons. To remove a track pair, hold the SHIFT Button and press one of the paired TRACK Buttons.




**- S/S Button** ● - Use this button to Start/Stop the internal clock. Loop-based (except DAW style looping) functions require the clock to be running.


*Alternative functions:*  
 The S/S Button can be used to restart a Track playback by holding a TRACK Button ● then pressing the S/S Button ●. This is useful for retriggering 1-Shot Loop mode samples.  
 The S/S Button can be used to toggle the the Metronome function On/OFF by holding the MUTE Button ● and pressing the S/S Button ●.

The S/S Button  is also used for starting a DAW Style Loop recording by holding the REC Button  and pressing the S/S Button . (See 4.LOOPING)



**- REC Button**  – Pressing the REC Button momentarily engages recording for the active Track. Hold a TRACK Button  and press the REC Button  to lock the recording on. A track that is recording is indicated with a Red LED  under the TRACK Button.

*Alternative functions:*

The REC Button  can be also be used to clear the current track by holding the MUTE Button , and pressing the REC Button .

**- LOOP Button**  – Whilst the clock is running, the active Track can be looped by pressing the LOOP Button. To disengage the loop, press the LOOP button for longer than a second. See the 4.LOOPING section for more details on looping. If using tempo based loop lengths, the start and end points are quantised to the nearest 1/8th beat.





*Alternative functions:*


The LOOP Button can also used to initiate BOSS Style Loop recording by holding the REC Button , and then pressing the LOOP Button . (See 4.LOOPING section)

**- MUTE / REV Button**  – Tracks can be muted by pressing the MUTE Button.

*Alternative functions:*

It can also be used to Reverse Playback by holding the SHIFT Button, then pressing MUTE.


**- LEVEL / PAN Trimmers** (above the TRACK Buttons ) – These controls adjust the Output Level of the tracks, they can also be used to adjust the

Pan position if using the Stereo Mix Output. To adjust the Pan position, hold a TRACK Button  whilst turning the Trimmer.


**- SHIFT Button**  ←

Press this button to toggle the menu between the TRACK Menu (Loop Time, Slice, Speed etc) and the FX Menu (Pitch, Filter, Delay, Reverb, etc)

*Alternative functions:*

Hold the SHIFT Button and turn the Jog Wheel for finer adjustments of some parameters, such as Pitch in Cent values or fine Speed values, and alternate parameters such as Reverb Size etc. Hold the SHIFT Button , and press the Jog Wheel to toggle certain functions such as Loop Time Scale (Bars / ms), Delay Time (Bars / ms), Loop Mode (1-Shot, Live), Filter On/Off, & Pitch Lock etc (see individual sections)

**- MOD Button**  ←

Press this button to toggle the menu between the MODULATION Menu (CV, Trig, & MIDI etc) or the SETTINGS Menu (Tempo, Input Sources, Clock, MIDI etc). Hold the MOD Button  and turn the JOG Wheel to adjust additional parameters such as Pitch Shift Mix, Delay Mix, Reverb Mix etc (see individual sections)

**- JOG Wheel** – The JOG Wheel is used to edit all the settings within the menu system. When the top-level menu is displayed in bold, turning the wheel scrolls through the menu items. Press the JOG Wheel to toggle between the top level menu item, and it's parameter value. With the parameter value displayed in bold, turning the wheel adjusts the value. See SHIFT and MOD Buttons above for alternate functions of the JOG Wheel. *NB. Please note the JOG Wheel has a*

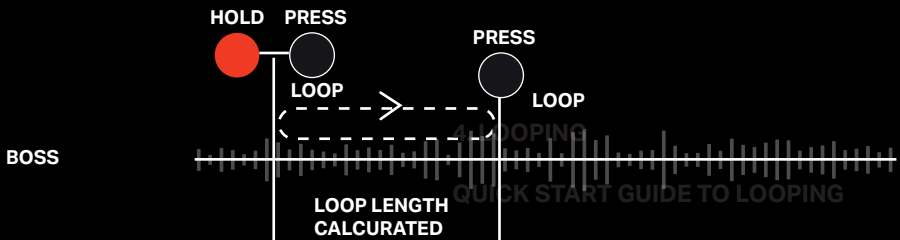
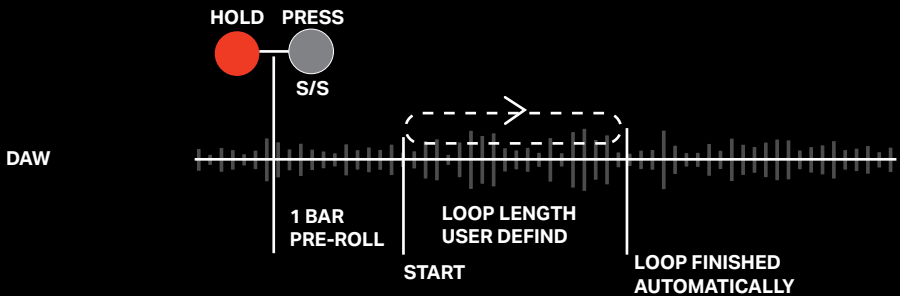
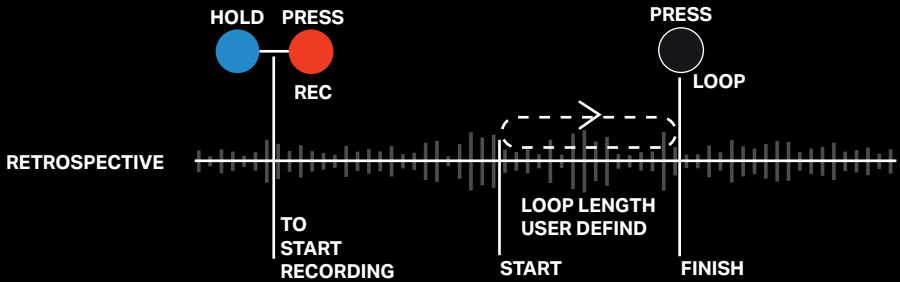
unique soft touch press switch, be aware that it does require much force to activate, and should be pressed in the centre NOT at the edge.

**- Modulation Attenuators** ( Below the M1 inputs ) – These controls adjust the attenuation of the M1 CV inputs.

If there is no jack inserted into an M1 Input, it can be used as modulation control. (see MOD1 Modulation menu)

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## THREE LOOP STYLES



## 4. LOOPING

### 4.1 LOOP STYLES

There are three ways of enabling Loops on Time Slice, The default Loop style is RETROSPECTIVE, DAW, and BOSS style. (see the diagram on page 5)

Familiarize yourself with the menus, and press the SHIFT Button to activate the TRACK Menu (TRK)

#### - RETROSPECTIVE

With this style, the Loop length is set first. The endpoint of the loop is defined by when the LOOP Button ● is pressed, the start point is the moment back in time defined by the Loop Length.

The Loop time scales can be set to Tempo based times (bars, beats) or finite time (milliseconds), this can be toggled by holding the SHIFT Button and pressing the JOG Wheel.

When using Tempo based times Loop activations are always quantised to the nearest 1/8 beat.

If not running, Press the S/S Button ● to start the internal clock (recommended), or use a running external Clock.

In the Track menu set the length of the Loop, then engage recording by holding the desired TRACK Button ● and pressing the REC Button ●, the red LED ● under the TRACK Button will stay lit.

Perform some music or sound, then press the LOOP Button ● to engage the Loop.

The Retrospective Loop style allows the user to record repeated phrases continuously, when happy with a phrase, Loop can be engaged to capture the last phrase played.

Don't worry about being super accurate with your button press because the loop point is quantized, if using tempo based loop units. But be aware of the Loop length and when to hit the LOOP Button.

Try engaging the Metronome (hold the MUTE Button ● and press the S/S Button ●) to get a feel for the Bar divisions for bar based loops.

The Metronome plays every 1/4 beat, so 1 bar is represented by 4 Metronome blips.

For setting a 1 bar loop, hit the LOOP Button on the 5th Metronome blip, after playing 1 bar of music or audio.

#### - DAW

With DAW Loop style, the Loop length is set first, and a timed recording is made for the length of the Loop.

Stop the clock by pressing the S/S Button ●. Then set the desired Loop length.

To start the recording press and hold the REC Button ●, then press once the S/S button ●.

The clock will preroll 1 bar of 4 blips of the Metronome, then start recording for the duration of the Loop length.

Once the length of the loop has been recorded the Loop will automatically set and recording will turn off.

#### - BOSS

With BOSS Loop style the Loop length is defined by the time between starting recording and pressing the Loop Button. Press and hold the REC Button ●, then press once the LOOP button ● to start the loop recording.

Perform some music or sound, then press only the LOOP Button ● to set.

## 4.2 SLICES

A Slice is a smaller section of a recorded or Loaded audio Loop.

Once a length of audio has been recorded or Loaded, the Loop Length can be adjusted to a shorter length for playing smaller sections of the audio, called SLICES.

The menu parameter SLICE sets the particular Slice that will play from the longer loop.

For example, record a 4 Bar length Loop then adjust the Loop Length to 1/2 Bar, the Slice range will be 1-8, allowing you to select 1 of 8 Slices from the original loop. Slice number 1 is is the first slice of the looped audio, and represents the beginning of the original loop.

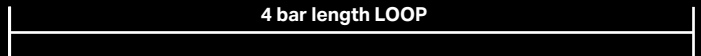
Selecting negative Loop slices -1, -2, -3, etc., will jump back in time. This is great if you want to play several variations of the same phrase and after setting the Loop, you can go back in time and jump to these different versions of the phrases.



DIAGRAM : EXAMPLE OF USING LOOP & SLICES

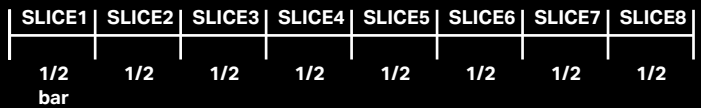
**RECORD A 4 BAR LENGTH LOOP**

TRK LOOP  
4 Bars



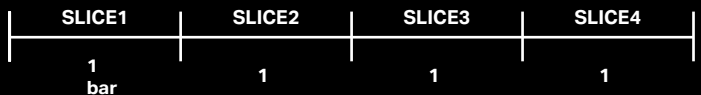
**THEN CHANGE LOOP LENGTH TO 1/2 BAR TO CREATE 8 SLICES**

TRK LOOP  
1/2



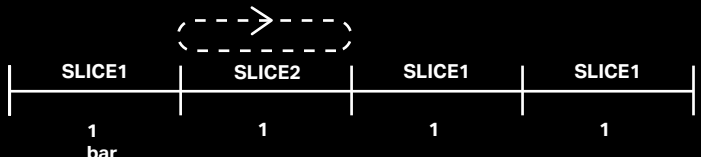
**OR LOOP LENGTH TO 1 BAR CREATING 4 SLICES**

TRK LOOP  
1



**THEN CHOOSE WHICH SLICE TO PLAY**

TRK SLICE  
2



Or you can go macro, and scan through the looped audio in very small loop sizes, as used in Granular synthesis.

Try this with a piece of longer looped audio (2 bars or more) then set the Loop length to a short value, such as 1/32 or 100ms, then scroll through the SLICE numbers to hear this Granular scanning technique.

Adjust the XFADE value to soften the fade between slices.

You can also use a CV to scan through the slices. (see EXAMPLE USES FOR MODULATION INPUTS)

If you have a tempo synced break beat loop of 2 bars or so, you can set your loop length to something shorter like 1/4 or even 1/8 bar, and use the SLICE number to jump around to different parts in the break beat, much like the way drum-and-bass music is made.

Try this, LOAD TRACK "jazz\_breaks.wav" from the internal memory and adjusting the Loop length to 1/4 bar. Adjust the SLICE number to jump to different parts of the break beats.

Slices can also be modulated with CV or MIDI, for highly creative restructuring of audio loops. (see Modulation Menu)

### 4.3 LOOP MODES

In addition to the normal Loop Mode, there are two extra types of Loop Modes; 1-SHOT and LIVE.

With LOOP selected in the Track Menu, hold the MOD Button and press the JOG Wheel to toggle between the three modes.

#### - 1-SHOT

This mode acts more like a traditional sampler, where the Loop plays just once then stops. To use this mode either LOAD a

WAV sample or record a loop in the normal way.

Playback is triggered by a RESET trigger via a TRIG input, or MIDI CC, or MIDI NOTE (see Modulation Menu)

You can also manually trigger playback by holding the TRACK Button ●, and pressing the S/S Button ●.

The XFADE value acts as a decay amount fading the level of the playback towards the end of the sample. (0 – no fade, 50% - the sample fades from halfway to the end)

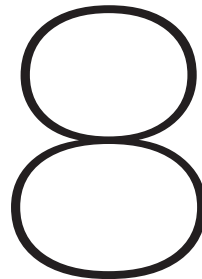
#### - LIVE

This mode creates a looping buffer behind the record head of the main buffer, much like a live single-grain granular effect.

With the clock running, press the LOOP Button to engage looping, then activate Record by pressing the TRACK Button and REC Button.

The contents of the loop are only updated by a SLICE value change, or RESET trigger via a TRIG input, or MIDI CC, or MIDI NOTE. You can also manually trigger the loop update by holding the TRACK Button ●, and pressing the S/S Button ●.

It is a great tool to create glitch or stutter effects from live audio input. (See EXAMPLE USES FOR MODULATION INPUTS)



## 5. MENU

### 5.1 TRACK MENU



The Track Menu is where all the Loop orientated settings of a track can be adjusted. The settings apply to the currently active track, indicated by the the Green LED ● under the TRACK Buttons.

**- START** – This is the Start position of a looped track, intended for fine-tuning loop start points such as drum breaks or when using 1-Shot sample playback, but can also be used for scanning through a longer piece of audio whilst using a short Loop length.

When the clock is stopped, use the JOG Wheel to scrub the START value of the looped audio to find start positions of beats and notes etc

**- LOOP** – This is the Loop length for a loop before and after it has been looped. Before making a RETRO or DAW style loop, this should be set first.

Alternative settings:

Hold the SHIFT Button ● and press the JOG Wheel to toggle the units of the Loop length. (bar based / ms)

Hold the MOD Button ● and press the JOG Wheel to toggle 1-SHOT or LOOP LIVE mode. ( see LOOPING above )

**- SLICE** – Indicates which Slice will be played back from an active loop. Slice #1 is the start point or first slice in the Loop.

Positive numbers are forward in time, using shorter than original loop-lengths allows for scanning through the looped audio.

Negative numbers go back in time to before the loop was created. (see LOOPING above)

**- SLICE MARKER MODE** – Hold the MOD Button and press the JOG Wheel to toggle between Slice Marker mode and normal mode.

If there are no markers defined, then Slice will default to normal mode.

(If a WAV file with "markers" is Loaded, Slice Marker mode will be activated)

**- SPEED** – This is the playback speed of a Looped track. The values are quantised to 25%, 50%, 100%, 200%, 400% for quick access to useful speed changes.

For non-quantised speed values, right down to 0% , hold the SHIFT Button whilst adjusting the JOG Wheel.

NB for performance friendly speed changes, the quantised values can be restricted to updated only on bar boundaries (see PARAMETER SYNC in the Settings Menu)

**- XFADE** – This value controls the amount of cross-fading from the end of the loop to the beginning. The value is based on the percentage of the total loop time.

This is useful for creating softer looping.

NB Please note that XFADE uses audio ahead of the loop start point, so unexpected results may occur if unwanted audio exists before the loop start point.

**- SOS MIX** – This sets the mix amount when re-recording over a loop with the REC Button.

0%=Dry only - 100% Dry + Looped audio  
Once a Loop is created or a sample is Loaded it can be overdubbed with new audio material, this is called Sound on Sound (SOS)

**- L-TEMPO** – Is the Tempo of a loop when it was created, or the stored Tempo of a Track that is has been Loaded.

It can be adjusted after creating a loop to fine tune the loop timing, which can be useful for getting a break-beat to loop more precisely.

When using a drum track or beat based music as an input for a loop it is usually best to set the BPM to match the source music. (see Settings Menu)

You can S/S the clock, and use the internal Metronome to get a good idea if the BPM matches the tempo of the audio, before you proceed to record and loop.

**- LOAD / SAVE** – You can Load and Save audio Buffers, Tracks, and Projects to and from the internal memory or to a USB Flash drive. (See STORAGE in the Settings Menu) Hold the SHIFT Button and press the JOG Wheel to toggle between BUF, TRK, or PRJ.

BUF - Loads or Saves just the audio for a track.

TRK - Loads or Saves the audio and all Track, FX, and Modulation settings.

PRJ - Loads or Saves all four tracks, audio and all settings.

Select the file name, and press and hold the JOG Wheel for 1 second to activate a LOAD or SAVE.

*NB Loading and Saving of files can take some time, especially stereo files, whilst Loading and Saving the LED display will freeze. This is normal behaviour.*

File format is 16bit 48khz Mono or Stereo. If a non grouped track is selected only the Left channel of a Stereo file is loaded. If loading a Stereo file, and a grouped track is selected, the Left channel is loaded to the left most track, and the Right channel is loaded to the right most track.

WAV files that include Marker data can be loaded, this enables the SLICE Marker option which uses the markers as slice points in the loop. This can be useful for making multi-sample instruments in one WAV file, where each note or hit is aligned with a marker in the file. Use a CV or MIDI NOTE source to modulate and select the SLICE\_Q number, to "play" a different sample for each note etc. (see Modulation Menu)

If using a DAW software such as Reaper to export markers, please select the option "markers only" on export.

The following directory structure is used for storing files:  
[USB DISK]:/RYK/

To import a WAV file into Time Slice, it should be placed in the "RYK" folder.

Audio files Saved from Time Slice are named "sample\_A.wav" , "sample\_B.wav" and so on.

Project files are named "project\_A.tsprj", "project\_B.tsprj" etc.

Files on a USB drive can be renamed, but the files have to keep their extension suffix ".wav" or ".tsprj".

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## 5.2 FX MENU



Here you can edit the chain of Effects that are applied to each track.

**P-SHIFT** – The PITCH SHIFT effect can be used to create harmonies, re-tune samples, or create time-stretch style effects. It can be tuned up 12 semitones, or down 24 semitones.

Hold the SHIFT Button to fine-adjust the pitch in cents.

Hold the MOD Button to adjust the dry/wet MIX of the Pitch Shift. (NB only when DELAY time is 0)

Hold the SHIFT Button and press the JOG Wheel to toggle the PITCH LOCK mode. PITCH LOCK retains the pitch of the track even when the Tempo or Speed of the Loop are adjusted, this can be used to create a time-stretch effect.

For a classic harmonised effect on instrument sounds, set the pitch to musical intervals such as -3, -5, -7 etc and set the Mix value to 50%

For a chorus type effect set the pitch to a small value such as -0.100 and set the Mix value to 50%;

Using a Pitch Shift of 1 or 2 semitones with a short DELAY with 50% feedback, can create amazing downwards spiralling effects on drum tracks or short percussive sounds.

**- DELAY** – This is the delay time of the delay effect, a value of "0" turns off the delay effect.

Hold the SHIFT Button and press the JOG Wheel to toggle between Bar or ms time scales.

Hold the SHIFT Button to adjust the Delay FEEDBACK amount.

Hold the MOD Button to adjust the dry/wet MIX of the Delay.

Use with the PITH SHIFT effect and set musical intervals such as +2 or -3 and longer delay times and 50% Feedback, to create ascending or descending scales from single note sounds.

**- REVERB** – This is the send level to the REVERB effect..

Hold the SHIFT Button to adjust the Size of the reverb effect, values below 10 create the effect of a smaller room space, values above 60 create the effect of large hall like spaces.

Hold the MOD Button to adjust the dry/wet MIX of the Reverb.

**- FILTER** – This is the cutoff frequency of the HP/LP tilt filter.

This is a classic DJ style title filter, where adjusting the cutoff frequency cahnges the mode from Low Pass to High Pass mode. Hold the SHIFT Button and press the JOG Wheel to toggle the filter On/Off.

Hold the SHIIFT Button to adjust the resonance amount. (NB high settings of resonance may create saturation-distortion when used with the DELAY effect)

To reduce muddiness in DELAY or REVERB effects, try setting the FILTER HP frequency to a low value such as 100-200, eliminating some of the lower frequencies for a cleaner effect.

For increasingly warmer DELAY repeats, try setting to a LP frequency value such as 6khz to reduce the high frequencies in the delay feedback path.



- **WAVE FOLD** – This applies a Wave Folder effect to the audio.

Larger values create an unusual distortion effect. Sounds good on bass drums, and simple pitched sounds.

- **DECIMATE** – This is a digital degrade effect that reduces the audio quality using a combination of interpolation styles, bit depth reduction, and sample rate reduction.

### 5.3 SETTINGS MENU

This menu is used for adjusting the Global settings of the Time Slice module, as well as some Track based settings such as Input Source etc.

- **BPM** – When using the internal Clock, this allows the tempo to be adjusted. When using an external clock source, the detected tempo is displayed here.

- **TAP BPM** – When using the internal Clock, the tempo can be set by tapping the MOD Button to a consistent 1/4 beat for 4 beats or more.

If recording from a beat based source such as a drum break, it can be useful to use the Tap Tempo to get the tempo matched before recording. Set the Metronome on (press Mute and S/S) and start tapping, using the S/S button to restart the clock to see if the Metronome blips match the beat of the music.

- **INPUT** – Here you can choose the audio input Level or Source, for the currently selected track.

For the Audio Input jack, the level can be chosen from LINE Level, EURO-rack level, or HOT EURO level. (HOT EURO is for signals that are greater than a +/- 6V range)

Please make sure to select the correct level to avoid a CLIP ! overload of the signal. (NB Persistent CLIP ! overloading can result in damage to the Time Slice)

Alternatively the audio input can be taken from the output of another track, or the Mix Output, enabling resampling of tracks. This is similar to the four-track tape technique known as track bouncing, where existing tracks are mixed and recorded to

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another track.

**- RSET TRK** – Use this to option to reset the currently selected track parameters to the default settings. This resets all the track, modulation and FX parameters. Select “YES” and press the JOG Wheel for a 1sec.

**- INPT MON** – The Input Monitor option toggles On/Off the preview of the audio input, which is mixed to the currently selected track.

**- STORAGE** – Here you can choose where to Save and Load Tracks and Projects. It can be either to the Internal memory or to a USB flash drive if you have one. NB when inserting a USB flash drive the display will freeze for an instant whilst the device is recognised, please do not pull out the USB drive whilst this is happening. Do not pull out the USB drive whilst Loading or Saving.

**- CLCK SRC** – The Clock Input can be set to Internal, External Clock, or MIDI Clock. Internal Clock is recommended for the best audio fidelity.

**- CLCK OUT** – The Clock Output can be set to Clock, or MIDI Clock.

**- CLCK DIV** – The (PPQN) clock division when using an External Clock source. It is recommended to use a value of 4 for use with other RYK products or as a standalone module. This equates to 4 pulses per quarter note (PPQN) which is the equivalent to 16th beats.

**- MIDI CH** – The MIDI Channel number for MIDI input of MIDI CC or MIDI note data.

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**- BEAT SNC** – This toggles the Beat Sync function.

Beat Sync checks for timing of Bar based loops, and locks them to the tempo rigidly. This can be useful if you are using a shifting clock tempo input, or occasionally reversing a loop and wanting it to lock back in time with the beat.

If using loops that are not tempo-based and do not require strict beat based sync, then turn this option Off.

**- PRAM SNC** – This toggles the Parameter Sync function.

Parameter Sync quantises changes of certain parameters to bar boundaries. For example if you want to drop the speed of a break beat to 50%, and later back up to 100%, setting Parameter Sync ON will restrict the speed changes to only occur on the 1st beat of bar retaining the timing of the break beat.

## 5.4 MODULATION MENU



This Modulation Menu is where you can assign modulation CVs from the M1, M2 inputs, & MIDI CCs to destinations such as Speed, Pitch Shift, Slice, Feedback etc. Also the T1, T2 trigger inputs and MIDI CCs can be assigned to events such as Reset, Record, Reverse, Mute etc. The T1 jack can also be used as a trigger output for End of Loop Pulse, and transient detect pulse.

The Clock IN jack can be used as a MIDI INPUT for modulation if not using External Clock.

Press the MOD Button to access the Modulation Menu, use the JOG Wheel to select a Modulation Source such as MOD1 (the top menu item in bold). Then press the JOG Wheel to toggle to the parameter edit, and select a modulation destination. NB The destination will ONLY become active when you press the JOG Wheel again to escape to the top level of the Modulation Menu. (MOD1, MOD2 etc in bold)

**MOD1, MOD2** – Here you can route a CV from the M1 or M2 inputs to a destination parameter for the selected track. The trimmer below the M1 socket is an attenuator for the M1 CV. If MOD1 is selected, and no Jack is inserted into the M1 socket, the attenuator acts as a control knob for this parameter. This can be useful for setting up manual controls for certain parameters.

Some modulation destinations are marked "Q", such as P-SHIFT\_Q, SPEED\_Q, SLICE\_Q. The

"Q" option indicates the CV values are quantised to  $V/OCT$  semitones. So for example a CV used to modulate SPEED\_Q will always quantise to the nearest semitone.

**TRIG1 IN, TRIG2** – Here you can route a trigger/gate signal from the T1 or T2 inputs to a destination event.

Destinations options that are marked "TOG" such as REC\_TOG indicate that a low-to-high pulse will toggle the function On, and another low-to-high pulse will toggle the function Off.

Other destinations such as MUTE are continuous, and switch On when the trig input goes high, and switch Off when the trig input goes low.

THE LOOP options activates the default RETRO style loop, and LOOP BOSS activates the two stage BOSS style loop.

**TRIG1 OUT** – The T1 jacks can also be used as trigger outputs for some options such as EOP end-of-loop pulse, and TRANS transient detection pulse. EOP will send a brief pulse out each time the track loop reaches its end and restarts. The TRANS80 and TRANS50 options send a brief pulse out when the audio level of the track exceeds 80% or 50% of its average value.

**MIDI NOTE** – This allows the use of MIDI NOTES to trigger the Reset of the Loop for 1-Shot style sample playback, and use the NOTE value to control the pitch of the loop via Speed, or Pitch Shift .

Alternatively the NOTE value can be used to select Slices within the loop. This can be used for playing multi-samples within a WAV file, where each note or hit is aligned with a marker in the file, or aligned to BPM time divisions such as 1/2 bar intervals. (see EXAMPLES USES FOR MODULATION INPUTS below)

**MIDI CC a-d** – There are four assignable MIDI CC modulation slots for each track. Hold the SHIFT Button, and press the Jog Wheel to enable MIDI Learn for the selected MIDI CC modulation slot. The number of the CC will flash on the top right corner whilst the MIDI Learn is active. You can also choose the CC number by holding the SHIFT Button and dialling the JOG Wheel.

## EXAMPLES USES FOR MODULATION INPUTS

### Granular Scanning

in the Track Menu, set a loop length to 1 Bar or longer. Record some audio and press the Loop Button to make a loop. Now set the Loop length to a small fraction such as 1/32.

In the Modulation menu, set the MOD1 destination parameter to SLICE, and remember to toggle back to the MOD1 option to make the setting active.

Use the M1 Trimmer or apply a CV to scan through the audio buffer creating a granular style effect. Adjust the Xfade value to soften the windowing of the grain.

### Pitch Shifted Sample Player

Record a section of audio, and press the LOOP Button to make a loop. Adjust the Start parameter so that the playback starts at a preferred point ( you can preview this by using the S/S Button to start and stop the playback )

In the Track Menu with Loop selected, press and hold the MOD Button and press the JOG Wheel to toggle to 1-SHOT mode.

In the FX Menu set P-SHIFT to -24, P-SHIFT MIX to 100%, and make sure Pitch Lock is not active.

In the Modulation menu, set M1 to modulate P-SHIFT\_Q, and set T1 to the RESET destination.

Connect a keyboard or sequencer CV to the M1 input (with the attenuator to max) and connect the Gate signal to the T1 jack. When notes are played the keyboard or sequencer, the sample will be retriggered and it's pitch controlled by the CV.

Add an envelope to the setup. Patch the envelope output to M2, and set the MOD2 destination to Level, then turn the level Trimmer to minimum.

Connect the envelope gate to your keyboard or sequencer gate.

For a more traditional approach change the MOD1 destination to SPEED\_Q instead of P-SHIFT.

In the FX Menu set P-SHIFT back to 0. In the Track Menu set SPEED to 25%. Now when you play the keyboard or sequencer, the speed AND pitch of sound changes.

### Multi-Sampled Drums

In the Track menu, find LOAD and toggle to TRK for track loading. (hold the SHIFT Button and press the JOG Wheel). Find the file "drums\_1shot.wav" from the internal memory. Press the JOG Wheel for 1 sec to load the file.

In the modulation menu, find TRIG1 and select the RESET option, and remember to toggle back to the TRIG1 option to make the setting active.

Then find MOD1 and select SLICE\_Q, again toggle the menu back to MOD1 to activate the setting.

Connect a sequencer CV to the M1 input

for the track, and the Gate output to the T1 input for the track.

Use the pitch values of your sequencer to select the different SLICES to play back different drum samples, the Gate will trigger when the drum samples play.

(NB make sure the clock is running, otherwise the loops will not play)

### **Multi-sampled Sample Player**

In an audio editor app, such as Reaper add individual sample sounds at regular spacing such as  $\frac{1}{4}$  or  $\frac{1}{2}$  Bar spacing.

These could be drum hits, or individually sampled notes of piano etc.

Export the file, using basic WAV settings of 16bit 48khz, and remember the Tempo of the project.

Alternatively add markers to the start point of each sound, and export the WAV file with "markers only" selected in the marker settings option. Save the file onto a USB Flash drive, then insert the drive into the Time Slice.

In the Track Menu, find LOAD and toggle to LOAD TRK, find the file you saved and press the JOG Wheel for 1sec to load the file.

If you are not using markers:

Set the Loop Tempo value ( L-Tempo ) in the Track Menu to the Tempo you used in your DAW project for exporting the WAV file.

Set Loop length to  $\frac{1}{4}$  or  $\frac{1}{2}$  Bar, depending on the spacing you placed the samples in your audio editor app.

If you are using markers you will need to adjust the Loop length to a short enough value to play just the section of audio you prefer, or toggle the LOOP units to "ms" in order to play only the slice length.

In the Modulation Menu, find MIDI NOTE,

and set this to SLICE + RESET.

This maps the keyboard note values to the slice values in the multisample.

Slice 1 is mapped to C2 on the MIDI keyboard, you can adjust the Slice parameter to offset this value if required.

MB make sure you have set the MIDI CH setting to the correct MIDI Channel for your keyboard or sequencer.

If you prefer to use CV and Gate, connect a keyboard or sequencer CV to the M1 input ( with the attenuator to max ) and connect the Gate signal to the T1 jack.

In the Modulation menu, set M1 to modulate Slice Q, and set T1 to the Reset destination.

You can find examples of files of this type of patch in the internal memory to Load into a track.

The files "1-shot\_drums" and "1-shot\_piano" are example multisample files can be Loaded from internal memory as Tracks.

### **Live Granular Buffer (Live Loop)**

In the Track Menu menu set the Loop Mode to Live (select the Loop option. Hold the SHIFT Button and press the Jog Wheel to toggle the mode)

Set the Loop length to a short value such as  $\frac{1}{32}$  or  $\frac{1}{16}$  etc.

Press the LOOP Button to activate the loop, then hold the TRACK Button and press the REC Button to activate recording.

In the Modulation Menu, select TRIG1 and set the destination to Reset.

Connect a random or periodic pulse signal to the T1 input of the selected track.

Each time the track receives a high pulse on the T1 input, the Loop will be updated with the incoming audio.

Adjust the XFADE value to make the loop c You can even create a live reversed audio effect, by reversing the loop (hold the SHIFT Button and press the MUTE Button)

# MENU MAP

## ALTERNATIVE FUCTIONS

