# Twisted Tools

# ULTRALOOP | LABEL CREDITS

A GIANT THANK YOU GOES OUT TO THE FOLLOWING LABELS WHO CONTRIBUTED TO PROVIDING THE ULTRALOOP SAMPLE MAPS. ULTRALOOP DEFAULT MAP WAS CREATED BY ENIG'MATIK RECORDS ARTISTS:

The default ULTRALOOP sample map was created by:



Enig'matik Records Artists | http://enigmatikrecords.com/

The ULTRALOOP bonus sample maps were created by the following labels:



Loopmasters | http://www.loopmasters.com/



Sounds of Revolution | http://www.sounds-of-revolution.com/



The included ULTRALOOP library is free to use for commercial or non-commercial music, film and multi-media works by individuals (single users). You may not redistribute these samples in any way, shape or form or claim credit for the material in its raw unaltered form or outside of a greater body of work. You may not use this material to make other sample libraries. Click <u>here</u> to view the complete End User License Agreement online for this product online.

# ULTRALOOP | ARTIST CREDITS

A GIANT THANK YOU GOES OUT TO THE FOLLOWING ARTISTS WHO CONTRIBUTED TO MAKING THE ULTRALOOP FACTORY SAMPLE MAP IN COLLABORATION WITH ENIG'MATIK RECORDS. PLEASE CHECK OUT THEIR WORK AND SUPPORT THEIR ART.



# ULTRALOOP features additonal sound design and sample content by:

# ANTONIO BLANCA | HTTP://WWW.ANTONIOBLANCA.COM/

# JOSH HINDEN | HTTP://TWISTEDTOOLS.COM

# SONICTWIST | HTTP://TWISTEDTOOLS.COM

The included ULTRALOOP library is free to use for commercial or non-commercial music, film and multi-media works by individuals (single users). You may not redistribute these samples in any way, shape or form or claim credit for the material in its raw unaltered form or outside of a greater body of work. You may not use this material to make other sample libraries. Click <u>here</u> to view the complete End User License Agreement online for this product online.

# LEGAL

All software discussed in this manual is issued as is and the software described in this manual comes with no warranty. We are not be responsible for any lost data, hardware problems or financial loss incurred as a result of using this software. If you are unsure as to how to use this software, don't use it. Any information in this manual is subject to change without notice and nothing in this document represents a commitment on the part of Twisted Tools, LLC. All the software described by this document is copyright Twisted Tools. All product names and company names mentioned herein are ™ or registered trademarks of their respective owners. The software described by this document is subject to a License Agreement and may not be copied to other media. Click here to view the complete End User License Agreement online for this product online and read before using the included software or sample content. You may not alter this document in any form or distribute it for any purpose other than press related purposes. You may not share this software with anyone or any entity, such as torrent sites without violating the terms of use. Should you share this software, your karma will be plentiful.

If you somehow magically obtained this software, buy it...at our site. We need your support to keep bringing you more twisted tools.

Twisted Tools™ San Francisco, CA USA

# **TABLE OF CONTENTS**

# **ULTRALOOP USER GUIDE**

1.	Welcome		7
	1.	Manual Conventions	7
	2.	System Requirements	8
	3.	Installation	9
2.	What is UI	TRALOOP	10
	1.	How is it designed to work?	10
	2.	ULTRALOOP Feature Highlights	11
3.	Getting St	arted with ULTRALOOP	12
	1.	How to Open ULTRALOOP	12
	2.	Exploring Snapshots and Scenes	13
	3.	Saving Snapshots using the Sidepane	17
	4.	Copy and Paste Scenes Between Snapshots	18
	5.	Snapshot Banks Described	19
	6.	Loading the factory Bonus Banks and your own Snapshots	20
	7.	Using your own samples	20
4.	Overview	of ULTRALOOP	23
	1.	The Interface	23
	2.	Understanding the Basics	24
	3.	Loop Selection	24
	4.	Sequencing and FX Processing	25
	5.	Preset Grids	26
	6.	The Parameter Cells	27
	7.	Working with the Parameter Cells	27
	8.	The Sequencer and FX Controls Parameter Cells Defined	30
	9.	The Sampler Controls Parameter Cells Defined	31
5.	The ULTR	ALOOP Sequencer Area	33

	1.	The Track Sequencer	33
	2.	The FX Sequencer	34
	3.	The FX Mixer	34
	4.	The Mini-Cells Basics	35
	5.	The Mini-Cell Details	36
6.	Working w	vith Scenes	38
	1.	The Master Area	39
7.	Advanced	Topics	40
7.	Advanced	<b>Topics</b> Understanding Time Stretching	<b>40</b> 40
7.			
7.	1.	Understanding Time Stretching	40
7.	1. 2. 3.	Understanding Time Stretching Using ULTRALOOP's Multi-Outs	40 40
	1. 2. 3.	Understanding Time Stretching Using ULTRALOOP's Multi-Outs Using Reaktor's Recorder	40 40 42

# **TWISTED TOOLS | ULTRALOOP**

# **USER GUIDE**

#### **Welcome** 1.

Thanks for purchasing ULTRALOOP. We hope you enjoying using this tool as much as we enjoyed making it.

ULTRALOOP is a loop remixing sampler, designed to layer and composite rhythmic loops using the included factory library or your your own samples. Because you can load your own samples, ULTRALOOP is well suited to any style of music production or sound design task.

At the heart of the ULTRALOOP interface is a fast and intuitive sequencer that allows you to visually layer and comp loops. While you can easily just hit random and drag some sliders around until you hear something you like, there are hundreds of different parameters and controls to work with should you choose to edit your loops with absolute precision.

Have fun!

Twisted Tools

#### 1.1. Manual Conventions

This manual uses formatting conventions to point out facts, teach you tips and warn you of things.

# The following icons are found throughout this guide:



Important warnings. Always read these!



Notes: Useful notes and relevant additional information.





Tips: Tips and advanced techniques.



Videos: Links to relevant videos.



Audio: Links to relevant audio.

Links: Links to other content/websites with relevant info.

 $\Rightarrow$  Single step instructions will be indicated with an arrow like the one on the left.

#### The following text formatting is used throughout this guide:

- Text appearing in menus (New, Save, etc.) and file paths and file names will be *Italic*.
- Text appearing somewhere on the interface, but not in a main Reaktor menu will be highlighted in BLUE.
- Important names, ideas and topic headings will be **bold**.
- Key commands will be in brackets (e.g., "Press [Control]")
- Section links (e.g., links to other sections within the manual) will be indicated like this.

# 1.2. System Requirements

- Mac or PC running the latest full version of Native Instruments Reaktor 5 (Reaktor Player is **NOT** supported)
- Intel Core 2 Duo Processor or better recommended
- 600MB of available RAM
- iPad with the Liine Lemur application installed if you plan to use the included OSC template by Antonio Blanca
- Approx. 1.25 GB of drive space
- Internet connection for download
- If you'd like to test your system before buying ULTRALOOP to see if it is fast enough, try the FM4 Dual ensemble (with all FX activated) included with your Reaktor default library. If you're able to run the FM4 Dual ensemble comfortably and have at least 500MB of RAM, ULTRALOOP should run smoothly for most basic presets, keeping in mind that fast scene switching will require additional CPU as hundreds of controls will be recalled with each scene.

# 1.3. Installation



ULTRALOOP is a Reaktor ensemble. There is no need to install a Reaktor ensemble. They are like Word documents, you can put them anywhere and doubleclick them to open them or drag them to the Reaktor interface to open them.

That said, it is good practice to put them somewhere in your default Reaktor USER CONTENT location, which you can set in *Reaktor > Preferences*, within the DIRECTORIES tab.

Files that say .ENS should be put in the Ensembles sub-folder in your user library. Then you can easily browse for them from within the Reaktor browser window's user tab.

# 2. What is ULTRALOOP

ULTRALOOP, a first-of-its-kind loop remixing sampler with a fast and intuitive visual workflow for Native Instruments \*Reaktor. ULTRALOOP combines advanced loop layering, comping, effect processing and automation techniques to generate new grooves, riffs and song ideas. You can use ULTRALOOP with the included factory sample library or to remix your own samples, injecting new life into any existing loop library.

ULTRALOOP comes bundled with a ton of additional content, including an iPad \*Lemur template by Antonio Blanca and a factory loop library by Enig'matik Records, Loopmasters and Sounds of Revolution. A series of Ultraloop Expansion Packs are available separately and feature presets and loops by artists such as Si Begg, Dusty Fungus and Chris Carter.



\*Reaktor Player is NOT Supported.

# 2.1. How is it designed to work?

ULTRALOOP is a sampler that plays back pre-recorded loops (called samples) or loops that you load. It runs inside the full version of Reaktor in either plugin mode or standalone mode.

Each time you hit play in Reaktor, ULTRALOOP will begin playing back various samples from the sample map and you can use a unique Track sequencer to determine which steps of the underlying loops are to be heard.

At the core of ULTRALOOP is an advanced loop layering engine and sequencer, capable of both layering and comping - a production technique that allows you to flip between layered tracks that are playing back simultaneously, by muting and un-muting slices of each layer. Up to eight tracks with loops of any BPM can be layered or comped together in real-time and can be further processed using an all-new Gestural FX engine. The Gestural FX engine automatically generates dynamic effect movements that ramp and modulate over time, using a suite of creative effects designed to produce endless fills, articulations and variations.

To create additional loops and variations, ULTRALOOP features and endless supply of randomization functions, connected to a unique Preset Grid system for each main parameter group sliders. A Preset Grid allows you to store, recall and automate settings by using a dynamic memory grid made up of 17 slots that can be played on-the-fly. The settings for the entire instrument, including all the parameter Preset Grids can be stored and recalled in one of eight Global Scenes, allowing you to create infinite loop variations. All the relevant instrument features can be played with live, without skipping a beat, by using a mouse, MIDI or OSC.

# 2.2. ULTRALOOP Feature Highlights

- Loop Remixing Sampler
- Advanced layered sampler engine with intuitive interface
- Visual loop compositing
- Generative Gestural FX to create fills, articulations and variations
- FX Sequencer
- Specialized track sequencer with mono and poly draw modes
- Layered playback and editing of up to eight tracks simultaneously
- Independent controls per layer, organized into parameter cells with sliders
- Automatable Preset Grids per parameter group, with 17 memory slots each
- 8 Global Scenes per snapshot
- Preset Grids and Scenes are playable via mouse, MIDI or OSC
- Extensive randomization options
- Flexible multi-output routing per layer
- Master Punch control
- Swing
- iPad Lemur OSC Template by Antonio Blanca
- 3+ banks of presets
- 2224 Sound Variations
- Over 800mb of included factory sample content by from Enig'matik Records Artists, Loopmasters and Sounds of Revolution.
- Sample content and sound design by: Antonio Blanca, Apparition, Chris Komus, Dusty Fungus, Fine Cut Bodies, Flint Kids, Josh Hinden, Ion Driver, Itsu, Kilowatts, Loopmasters, Oliver Schmitt, Sounds of Revolution, Sonictwist, Sun in Aquarius and Whitebear
- Optional Expansion Packs by cutting edge artists such as Dusty Fungus, Chris Carter and Si Begg

# 3. Getting Started with ULTRALOOP

The following sections will give you a very quick overview of how to get going with ULTRALOOP. We will explain how to open ULTRALOOP and how to explore and use the default factory Snapshots (presets) and Scenes (sub-presets). Lastly, we'll look at randomizing.

No doubt that ULTRALOOP is a deep instrument, but the central idea behind it is quite simple.

ULTRALOOP works something like this:

- When you hit play, ULTRALOOP begins playing back up to eight loops that are constantly running together in sync, following the current playhead position.
- Drawing steps in the Track Sequencer allows you to visually choose which step of each loop should playback.
- Drawing steps in the FX Sequencer applies effects movements, called GESTURES, to all tracks that have FXON activated.
- All the main parameters can be stored into one of 17 memory Slots using Preset Grids, which you can think of as single parameter Scenes that allow you to dynamically recall and modulate parameters.

# 3.1. How to Open ULTRALOOP

# To open ULTRALOOP:

- 1. Start Reaktor in standalone mode or plug-in mode.
- 2. In Reaktor's file browser (*View > Show Browser*), click on the USER tab.



If you didn't install ULTRALOOP into your Reaktor User Library (<u>Section 1.3</u>), you can navigate to ULTRALOOP.ens using the 'Disks' tab or simply drag and drop ULTRALOOP.ens onto the main Reaktor window from its location on the hard drive.



- 3. Double-click (or drag) *ULTRALOOP.ens* from the lower section of the browser onto the main Reaktor screen area and ULTRALOOP will be loaded and ready to play.
- If you are in standalone mode, you may need to go to *File > Audio & MIDI Settings* to setup your audio and MIDI. If you are in plug-in mode, be sure your track is armed and your audio driver is setup.

# 3.2. Exploring Snapshots and Scenes

#### **Snapshots**

A Snapshot is basically a preset. You can change a snapshot by using the snapshot drop down in the Main Bar . You can hit play near the top of the interface or press [Spacebar] to start playing back a Snapshot.

-	001	Energy Py	ramid*	÷	140.	<b>0</b> BPM	Η	Þ	
Panel →	Ultral	oop							
ULT		LOOP	RND					L16	



Be sure to turn on EDIT mode by clicking the structure icon next to the main snapshot menubar before beginning to work with ULTRALOOP if you plan on using your own samples and snapshots. Otherwise, you won't be able to create snapshots and add your own samples. When in standalone mode, the BPM that was stored with the snapshot is automatically recalled. This ensures that the Snapshots playback at the right tempo they were created at.

If you'd like to browse through a set of Snapshots using a different BPM, simply turn off *SET BPM BY SNAPSHOT* in the Reaktor Settings or run Reaktor inside your host.

▼ = 001	BASIC*	100.0
File ► Edit ►	aloop	
Settings 🕨	Sample Rate	•
Options 🕨	Control Rate	- <b>F</b>
View 🕨	Store Panelset	•
Help 🕨	Recall Panelset	- <b>- -</b>
	<ul> <li>Automatic Panel Layout</li> </ul>	
+shareharment	Sync to External Clock	-AV
WAAAZ	Send Clock to MIDI Output	penta
MAAAAAA	<ul> <li>Set BPM by Snapshot</li> </ul>	
1444-1405-1408	Turn off Reaktor 4 Legacy Mode	
ablematikkky	Protected	

If things are playing at the wrong pitch, it's like because your DAW is set to a different BPM than that of the sample content. ULTRALOOP snapshots default to using 'Pitch Stretching', which changes the pitch of the samples to slow down or speed up to match the tempo. You can turn this feature off by using the PITCH mini-cell. When off, ULTRALOOP uses a grid to slice the samples and retime the sliced positions to the current BPM.

#### **Selecting and Playing Scenes**

Each ULTRALOOP Snapshot has eight **Scenes**. You can think of the Scenes as subpresets contained within each Snapshot that store and recall most of the controls, with the exception of the Global Controls found in the ULTRALOOP header. The Scenes can be changed using MIDI, OSC or by selecting a Scene with your mouse.

#### MIDI IN PLAYS: SLOTS | SCENES C3 INIT COPY PASTE DUP 1 2 3 4 5 6 7 8

#### To select a Scene with your mouse:



Select a Scene by clicking the number buttons with your mouse.



The Scenes change and the settings and sounds associated with each Scene are recalled.

### To select and play a Scene with your keyboard:

Play notes C3 - G3 to select and play the **Scenes** on-the-fly.



The Scenes change and the settings and sounds associated with each Scene are recalled via MIDI



In Reaktor standalone mode, you can use your QWERTY keyboard to simulate playing a MIDI keyboard.

You can change the default root note for scene playback from c3 to any other octave, by dragging the value next to the keyboard icon, but this will affect QWERTY keyboard playback which is centered around C3.

### **Randomizing Scenes**

Clicking the Master RND button will randomize certain aspects of your Scene. Which aspects it randomizes depends on which areas are set to **Master Random Receive**. Throughout the interface you'll find small green dots. These green dots are Master Random Receive toggles and determine whether that area is setup to receive randomization when using the Master RND button.

You can toggle all areas on and off by clicking the green **Master Random Receive Flip** button in the master area shown below.



#### To randomize various aspects of your Scene:

- 1. Select the **BASIC** Snapshot in the **BASICS** bank.
- 2. Click the Master RND button in the master section.

Notice how the sound changes and the effects change. This is because the LOOPS Cell and the FX GESTURES Cell have **Master Random Receive** on, as indicated by the green dot.

FX GESTURES	0	LOOPS		0
			_	ľ
GENERATE	٠	RND		•

The Sampler parameters for each layer are laid out in a horizontal row as sliders and are grouped into cells by parameter type. You can think of each row as an independent sample layer with its own settings. The Loops sliders determine which samples are playing back for their respective tracks (1-8).



The FX GESTURES squares are **Memory Slots** that store automatic effect movement patterns that are created each time you click GENERATE button. The gestures are applied everywhere there is an active FX SEQUENCER step (yellow) at the top of **The Sequencer area** and for each track that has FX ON active.

3. Next, click the Master Random Receive toggle button located beneath the TRACK SEQ Cell.



The Track Sequencer determines when the samples playing back should be un-muted. You can see the waveform below the Sequencer steps and choose which steps you'd like to listen to.

4. Click the Master RND button at the top of the interface.

Notice how the TRACK SEQUENCE, FX GESTURES AND LOOPS Parameter Groups are flashing, indicating that the parameters are being randomized when clicking the Master RND button.



You can still use the individual Parameter Cell 'Rnd' buttons regardless of the Master Random Receive state.



The horizontal axis of the RND buttons determines the strength of randomization. If you click to far to the left of the randomization button you'll get very few steps in the resulting sequence.

# 3.2.1. Saving Snapshots using the Sidepane

As you work, you'll make modifications and changes to the Snapshots. Naturally, you'll want to save these. In order to save Snapshots, you'll need to be familiar with the Reaktor Sidepane area. Be sure to turn on EDIT mode by clicking the structure icon next to the main snapshot menubar before beginning.

For more detailed information on working with Reaktor snapshots, please read the Application Reference manual that comes with your Reaktor application.



Fig. 3.1 ULTRALOOP interface with Snapshot list in the Sidepane.

- [1] Sidepane Button
- [2] Snapshot drop-down menu
- [3] Snapshot Banks
- [4] Snapshots area

#### First, let's look at how to select snapshots using the Sidepane:

- 1. Be sure the Sidepane is open, by clicking the Sidepane Button (1).
- 2. Next, be sure to select ENS ULTRALOOP from the Snapshot drop-down menu (2) if it isn't already selected.
- 3. Choose a bank of Snapshots that you'd like to listen to from the Snapshot Banks (3).
- 4. Choose presets from the Snapshots area (4) below.
- The Snaphot drop-down menu you set in step two above, allows you to choose ULTRALOOP's Snapshots, or additional Snapshots for other instruments/effects you may be running inside of Reaktor alongside ULTRALOOP. For example, you may choose to load some other ensembles to process ULTRALOOP. If you do, those ensembles have Snapshots as well and you will want to take note of which snapshots you're actually editing, by keeping an eye on the Snapshot drop-down.

#### Next, let's look at the save options.

At the bottom of the Snapshots area, you will see three buttons: APPEND, STORE and INSERT.

APPEND: Creates a Snapshot in the next available free slot.

STORE: Stores Snapshots by overwriting the current Snapshot.

**INSERT**: Inserts Snapshots in between other Snapshots, in a slot within any bank that you choose.



Be sure you have 'Ens - ULTRALOOP' selected in the Snapshot drop-down menu. We recommend turning 'Linked' off to avoid confusion. Linked will automatically select the Snapshot drop-down menu to be set to the last instrument you clicked.

# 3.2.2. Copy and Paste Scenes Between Snapshots

You can easily copy a Scene to another Scene by clicking the COPY and PASTE buttons, but did you realize that it's also possible to copy Scenes in between Snapshots?

For example, if you want to copy a sound from a specific Scene to another Scene in a different snapshot bank all you need to do is use Copy and Paste.

#### To copy and paste a Scene from one Snapshot to another Snapshot:

- 1. Select a Snapshot and choose a Scene to copy.
- 2. Click COPY.

- 3. Change to a new Snapshot or a new Bank, such as the User bank.
- 4. Select a Scene that you'd like to use for the copied scene form Step 1.
- 5. Hit PASTE and then STORE your snapshot.



# 3.2.3. Snapshot Banks Described

There are plenty of Snapshots to help get you started with ULTRALOOP. Almost all Snapshots include eight Scenes as well, so don't forget to check those out by switching Scenes as described <u>earlier</u>.



If you'd like to initialize a Scene within a Snapshot, you can simply use the Scene INIT button found in the footer section to initialize any Scene.

# ULTRALOOP's Default Snapshot Banks are organized into the following categories:

- BASICS Default snapshots and basics to help learn about ULTRALOOP.
- ULTRALOOP 140 BPM This is the Default Factory snapshot bank, featuring futuristic and highly detailed samples by various artists from <u>Enig'matik Records</u>. The samples were all recorded at 140BPM.
- USER We created this bank for your Snapshots. It is empty now, but hopefully it won't be for too long! Go ahead, make some custom snaps - it's easy! You can even copy/paste Scenes from our Snapshots to your own, using the Scene COPY, PASTE and STORE buttons to store your Snapshots.

# ULTRALOOP comes with following two bonus banks, from Loopmasters and Sounds of Revolution sample library makers.

- LOOPMASTERS 128BPM This is a collection of 75 EDM, dubstep and breakbeat inspired Snapshots and 128 royalty-free samples from <u>Loopmasters</u> at 128BPM.
- SOUNDS OF REVOLUTION 127BPM This is a collection of 75 house, techno and tribal inspired Snapshots using 128 royalty-free samples from Oliver Schmitt's Sounds of Revolution at 127PM.

# 3.2.4. Loading the factory Bonus Banks and your own Snapshots

The Bonus banks use both Snapshots and Sample maps and are located in your *ULTRALOOP* product download, inside the *BONUS BANKS* folder. You must load both the sample map and the Snapshot bank to properly playback the Snapshots!

To import the Snapshots, simply click the *EDIT* menu in the Snapshots Banks area and create a new bank. Then, choose *LOAD BANK*.

To import the sample maps associated with the Snapshots, simply drag them to the sample map or Choose Sample Map > Import (Replace)... from the Sample Map Editor.



Be sure to backup your Snapshots and/or the entire ULTRALOOP ensemble before importing over an existing Snapshot bank!



Be sure to turn on EDIT mode by clicking the structure icon (three squares) near the main menu bar before trying to create and edit Snapshots.



Additional Loop Expansion packs are available for sale at the Twisted Tools site. Loop Expansions are sample libraries of 128 loops, made by world class musicians and sound designers and can be used used with any program that accepts WAVs, such as Twisted Tools ULTRALOOP, VORTEX or ROLODECKS.

# 3.3. Using your own samples

While the default sample map and presets should keep you busy for a long time, ULTRALOOP is a sampler that generates new loops using any sample content. Whether you're using the included Bonus Banks, Ultraloop Expansion Packs or your own samples, at some point, you'll want to load up your own sounds up and see what can be done. The more variety you put in, the more variety it will spit out.



You can throw in loops of any tempo, but for the best quality we recommend using Loops of the same BPM and KEY.



Be sure to turn on EDIT mode by clicking the structure icon near the main menu bar before proceeding.

# **Opening the Sample Map Editor:**

1. Click the wave icon located in the Reaktor Menu bar or go to Vlew>Show Sample Map Editor [F9]

140.0 BPM H 🕨 🕨

The Sample Map Editor area will open which shows a list of all the samples what is called a Reaktor Sample Map. You can replace single sounds one at a time, add multiple sounds or replace the entire default sample map.

# To replace a single sound:

- 1. Select the sound you'd like to replace.
- 2. Choose *Replace* from the Sample Map Editor.
- 3. When prompted, locate the sound you'd like to replace it with and click Open.



You can also drag from the file browser directly to the 'Reaktor Sample Map Editor'. A red line will appear allowing you to insert the sample into the map at a specified position.

# To replace multiple sounds at once:

- 1. Click the 'L' header in the Sample Map Editor so that the samples are displayed chromatically starting at sample 0.
- 2. Shift-select a group sounds you'd like to replace.
- 3. Choose *Remove* from the Sample Map Editor.
- 4. Drag the replacement sounds to the Sample Map Editor until you see a red insertion line appear at the desired position.

#### To replace the entire sample map:

- 1. Shift-select all the samples in the map.
- 2. Choose *Remove* from the Sample Map Editor.
- 3. Drag up to 128 samples to the sample map area.



Sometimes samples have loop points written into the actual file and looping turned on. This will cause problems with most Twisted Tools Reaktor samplers. Make sure Loop is off.

### To save entire sample maps:

You may want to save Reaktor map files to use later or to load in other Reaktor instruments.

- 1. Choose Sample Map > Export including Audio Data... from the Sample Map Editor.
- 2. Save and name the document when prompted.

A file appears on your desktop called YOUR\_NAME.MAP which contains all the samples. You can use a .map Reaktor file in nearly any Reaktor sampler capable of loading multiple sounds.

### To load your sample map into Reaktor:



Choose Sample Map > Import (Replace)... from the Sample Map Editor or drag and drop your map onto the editor.

### To create a sample map from a folder of samples:

Download the Reaktor Sample Map Generator by Choronzon using the following link.

http://relivethefuture.com/choronzon/2008/01/15/reaktor-sample-map-generator/

This handy application will allow you to instantly create sample maps based on folders of samples.

#### To use your samples within ULTRALOOP:

1. Make sure the ULTRALOOP LOOPS sliders are visible by clicking the Slider View button.



2. Drag the sliders around to select different samples from your map (0-127).



Use the numeric indicator in the upper right corner of the cell to see the sample number that corresponds to the sample number on the keyboard and list in the Sample Map editor.

# 4. Overview of ULTRALOOP

In this section of the manual, we'll examine the interface, look at basic signal flow principles and explain all the ULTRALOOP controls.

There are two ways you can approach ULTRALOOP. You can hit random and drag sliders around until you hear something you like or you can spend time fine-tuning your sound combinations with precision. For starters, we recommend you begin exploring by looking at the <u>Getting Started section</u> to get familiar with Snapshots and Scenes.

# 4.1. The Interface



Fig. 4.1 ULTRALOOP User Interface.

**[1] The Reaktor Master Header area:** Contains Reaktor controls for selecting snapshots, turning on EDIT mode, setting BPM and more. See the Reaktor manual for more details.

- [2] The Ultraloop Master Header area: Contains all the ULTRALOOP Master controls and toggles, which aren't specific to a Scene.
- [3] The Sequencer area: Features the Track, FX sequencers, FX Mixer and Mini-Cells that give you additional settings per track.
- [4] Sequencer and FX Controls area : Features Parameter Cells for the Track Sequencer, FX Sequencer and FX Gestures. Preset grids allow you to store and playback up to 17 sequencer patterns and FX Gestures in memory slots, to make longer arrangements. You can select or automate the presets using MIDI, OSC or your mouse.
- **[5] Sampler Controls area:** Features several pages of Parameter Cells that have both Sliders and Preset Grids that control the sampler parameters and playback parameters. Preset grids allow you to store and playback up to 17 Slider settings in memory slots, to make longer arrangements and patterns. You can select or automate the presets using MIDI, OSC or your mouse.
- [6] The Ultraloop Footer area: Contains the MIDI Mode selector and Scene controls. The Scenes controls are MIDI Root, Init Scene, Copy/Paste/Duplicate Scene and the Scene selectors.

# 4.2. Understanding the Basics

No doubt, ULTRALOOP is a deep instrument, but the central idea behind it is quite simple.

ULTRALOOP works something like this:

- When you hit play, ULTRALOOP begins playing back up to eight loops that are constantly running together in sync, following the current playhead position.
- Drawing steps in the Track Sequencer allows you to visually choose which step of each loop to playback.
- Drawing steps in the FX Sequencer applies effects movements, called GESTURES, to all tracks that have FX ON activated.
- All the main parameters can can stored into one of 17 memory Slots using Preset Grids, which you can think of as single parameter Scenes that allow you to dynamically recall and modulate parameters.

# 4.2.1. Loop Selection

When you click the play button in the Reaktor Master Header area (or in your DAW), all the ULTRALOOP settings are loaded and the sampler engine starts to playback up to eight layered samples that loop repeatedly.

The loops selected for playback are determined by the Slider positions set inside the LOOPS **Parameter Cell,** found within in the **Sampler Controls** area. The values of each slider determine which samples in the Reaktor Sample Map to playback.

LOOPS	0

See the getting started <u>section</u> for more details on working with Reaktor sample maps.

Of course there are many additional **Sampler Controls** that alter the sound of each layer and they can be accessed using the other **Parameter Cells** found in one of four **Parameter Cell Pages**, by clicking the tabs for TIME, SPACE, FILT and ENV controls.

SAMPLER

TIME | SPACE | FILT | ENV

We'll look at the details that describe each Parameter Cell later in the manual.

# 4.2.2. Sequencing and FX Processing

The the layers that are played back in ULTRALOOP can be sequenced and processed using the **Track Sequencer**, **FX Sequencer** and **FX Gestures** before reaching the output.

The cyan colored sequencer in ULTRALOOP is the Track Sequencer, and it **is not** your typical sequencer!

			W//~~					M~~~~	 	
Mananan	analony	lmm	WILL	,	ng 4					
								hillium		
DRAW: MONO WAVES: ON	LEN: 16			м			РМ РІТС			FXON

It doesn't re-trigger samples, the samples are always playing back, regardless of whether or not you draw any steps. You can visualize the waveforms that are playing back underneath each step and then select sections of the loops that you'd like to be audible, allowing you to comp together a performance when using MONO draw mode or stack slices on top of one another using POLY draw mode.

Using the FX SEQUENCER, you can then determine which steps will have have effects active and which tracks will be routed to the effects. The effects are generated automatically by using the FX GESTURE cell's GENERATE button. FX Gestures are automatically generated dynamic effect movements which are stored in **Memory Slots** inside what's called a **Preset Grid**.

# 4.2.3. Preset Grids

If you click on the **Slider View** toggle you will see the **Preset Grid** which represents the 17 memory Slots. These slots are similar to Scenes, but store memory for only a single parameter.



Each Parameter Cell has **Preset Grids.** In the case of the **Sampler Controls area** Parameter Cells, the Memory Slots store slider positions. In the case of the Sequencer and FX Controls area, the Memory Slots store active Sequencer steps for the Track and FX Sequencers and FX Gestures (you won't see these anywhere, as they're automatically generated). The grey numeric readout in the upper right corner of the Parameter Cell indicates which Memory Slot you're currently editing and you can drag it to change the slots. When you release the mouse, it snaps back to the center slot which you can think of as your custom default slot.

# 4.3. The Parameter Cells

In this section we'll look at the controls you'll find in the **Sequencer and FX Controls** area and the **Sampler Controls area**.

The Sequencer and FX Controls area has Parameter Cells that only contain Preset Grids and related controls, while the Sampler Controls area has Parameter Cells that are made up of Sliders, Presets Grids and additional controls that can be used to adjust various settings for your loops.

# 4.3.1. Working with the Parameter Cells

The Parameter Cells found in the **Sequencer and FX Controls area** have Preset Grids that store Sequences and FX Gestures into one of 17 Memory Slots. These Memory Slots can be selected, played, automated and randomized.

The Parameter Cells found in the the **Sampler Controls area** also have Preset Grids. These Preset Grids store Sliders values into one of 17 Memory Slots and determine the settings for each sample layer. These Memory Slots can also be selected, played, automated and randomized.

Let's look at some examples to see what makes up a Parameter Cell.



Fig. 4.3.1 Parameter Cells

- [1] Cell Label: Each cell parameter has a name that identifies it. Most cell labels can be right-clicked to reset the sliders to their default state.

- The ENV page has cell labels that can be clicked to change the cell you're viewing and working with, though they are entirely independent cells and controls. Right-click these labels to reset the cell.
- [2] Slider View Toggle: This button toggles between Slider View and Preset Grid view.
- [3] Slot Selector/Numeric Readout: Grey numbers represent the currently selected memory Slot # that you're editing. Drag this number up/down to change memory Slot #. When dragging a slider in Slider View, this area will also double as a Numeric Readout that displays the current Slider or Slider Range values.
- [4] Cell Slider: Sets the value for the Cell Parameter for that layer. Cell sliders 1-8 correspond to Layers 1-8 (top to bottom).
- Cell Slider mouse behaviors: Click and drag from left/right to adjust the values. Double-click to isolate the slider from being affected by randomization or modulation. A purple indicator line indicates that it is isolated. Right-click to set to default and MIDI learn.
- [5] Cell Range Slider: Sets the minimum and maximum values for the Cell sliders.
- [6] Cell Randomizer: Randomizes the Sliders for all Memory Slots, unless Single mode is on.
- Cell Randomizer mouse behaviors: Clicking on the left side of the randomizer randomizes less than clicking towards the right side which randomizes more.
- [7] Master Random Receive Toggle: If on, clicking the Master RND button in the Master area will randomize this cell. If off, this cell won't receive randomization when clicking the RND button in the Master area.
- [8] Single Edit Mode: When Single Edit Mode is ON, the Random and Edit Functions will be applied only to the currently selected Slot, otherwise the Random and Edit functions will be applied to all 17 Memory Slots.
- When Single Edit Mode is OFF, you can isolate a Memory Slot from being edited by controlclicking it. Use the Pin Mode button to select a slot to be isolated and then control-click it.
  - [9] Edit Functions: COPY, PASTE and RESET for either all slots or a single slot, if Single Mode is active.

- You can COPY a single slot by using Single Edit Mode, then deactivate Single Edit Mode and PASTE to populate all Memory Slots with the same settings. This way you can quickly setup all Memory Slots to contain the same data, then make modifications to each slot to create variations.
- [10] Pin Mode: If Pin Mode is on, then the Memory Slots won't snap back to the middle position when dragging around the Preset Grid and will stick to the last selected slot, even if there is Preset Grid automation taking place.
- Pin Mode is activated automatically when switching between Preset Grid view and Slider View so that you can edit a Slot without the Sliders jumping around. Once in Slider View, you can turn it off if you prefer to edit the Sliders as they automate.
- [11] Record Mode: Activates automation recording of the Preset Grid Memory Slot positions. Simply turn on Record and drag the Memory Slots around the Preset Grid and the movements are recorded. You'll need to press the small Play button as well for the recorded Slot automation to play back.
- [12] Play Mode: Activates playback of the stored Preset Grid Memory Slot automation. Playback quantization will be determined by the global SYNC setting set in the Ultraloop Master Header area.
- [13] Preset Grid Automation Length: Determines the length of the Preset Grid automation. An indicator above the Cell indicates the length of the automated recording and shows the current playback position. Drag the value to adjust the length of the automation pattern in 1/16th note increments. L32 = 32 1/16th notes or two bars.
- [14] Preset Grid MIDI Root: Sets the Root Note setting for MIDI input to the Preset Grid. You can select, play and automate the Memory Slots via MIDI note by using a MIDI keyboard or your QWERTY keyboard. The Center Slot is the Root Note slot and the rest of the Slots increase chromatically from the lower left to upper right corner. Drag to adjust the Root note by octave and be sure that MIDI IN PLAYS: SLOTS is selected in the Ultraloop Footer area and that the Preset Grid MIDI IN is on by pressing the keyboard icon for each Preset Grid you want to respond to MIDI.
- [15] Preset Grid MIDI IN: Activates MIDI in for any Parameter Cell's Preset Grid.
   Works in conjunction with the MIDI Root setting and MIDI IN PLAYS: SLOTS must be active in the Ultraloop Footer area.

[16] Preset Grid: The default view for most Parameter Cells is the Preset Grid. The Preset Grid has 17 Memory Slots that store a single set of Parameters for that particular Parameter Cell. The slots can be manually selected, played back or automated. A Preset Grid is like a Scene for one parameter group of settings.

# 4.3.2. The Sequencer and FX Controls Parameter Cells Defined

There are three Parameter Cells in the Sequencer and FX Controls area. They are the TRACK SEQUENCER, The FX SEQUENCER and the FX GESTURE Parameter Cells.



TRACK SEQUENCER CELL - Stores the Track Sequencer steps into one of 17 Preset Grid Memory Slots that can be selected, played, automated and randomized. The Track Sequencer is the blue eight track sequencer found in the Sequencer area at the top of the ULTRALOOP interface. Each track represents a layer.

Only the active sequencer steps are stored into a Memory Slot. None of the additional sequencer controls or Mini-Cell settings are stored in the Track Sequencer Cell. The additional settings are however stored in a Scene.

**FX SEQUENCER CELL** - Stores the FX Sequencer steps into one of 17 Preset Grid Memory Slots that can be selected, played, automated and randomized. The FX Sequencer is the thin single row sequencer above the Track Sequencer and is made up of yellow horizontal steps that determine when the FX GESTURES will be applied.

**FX GESTURE CELL** - Stores FX Gestures, generated with each click of the **GENERATE** button, into 17 Preset Grid Memory Slots. The FX Gestures are automatically generated dynamic effect movements that ramp and modulate over time, using a suite of creative effects. The FX Sequencer determines when those effects take place and the FXON mini-

cell determines which tracks to send to the effect, while the FX MIX controls determine the balance of the effects. The effects that make up a gesture are STUTTER, FILTER, REV, GRAIN, TAPE and GATER effects.

While you can't edit the gestures or the FX parameters themselves, you can generate infinite new gestures by clicking the **GENERATE** button and you can adjust the FX MIX by using the small yellow mixer icon, located in the upper right of the Sequencer area. The mix settings are not stored with the Memory Slots, but are stored with the Scene.



When you click GENERATE, 17 new effect combinations with unique signal flow ordering are created, along with automated movements of essential parameters. Sometimes an effect may be generated that features more of one effect and less of another. As such, if you adjust the MIX levels to something other than 100%, it's possible that you may end up with a a GESTURE that is silent on occasion. The effects also depend on transients, so if you load a quiet pad sound it may not get picked up by the effect engine.

# 4.3.3. The Sampler Controls Parameter Cells Defined

Undoubtedly the most import Parameter Cell is the LOOPS Cell as it determines which loops are playing back in ULTRALOOP. For that reason the LOOPS Cell remains constant regardless of the page you select.

There are four **Parameter Pages** with Sampler Parameter Cells that shape the sound of each layer. In this section we will define each page and its controls.

4

Right-click the Parameter Page labels to reset the entire page's Parameter Cells to their default.

# The TIME Page - The sampler's timing parameter cells

**START:** Adjust the loop start playback position for each layer.

**LENGTH:** Adjusts the Length of each loop for each layer.

# The SPACE Page - The sampler's spatial parameter cells

PAN: Adjusts the panning of each layer.

**VOLUME:** Adjusts the volume of each layer.

#### The FILT Page - The sampler's filter parameter cells

**FILT:** Adjusts the filter frequency of each layer. To the right of center is a **HIGH PASS** filter and to the left of center is a **LOW PASS** filter.

**RES:** Adjusts the resonance of the filter for each layer.

#### The ENV Page - The sample's amplitude shape parameter cells



The Envelope settings are per-sequencer step. Each active sequencer step re-triggers the start of the envelope.

**ATK:** Adjusts the attack time for each layer. The attack is the time it takes for volume to reach maximum amplitude per slice.

**HLD:** Adjusts the hold time for each layer. Hold time is the time the sound sustains after attack, before the decay stage begins. 100% = 1 sequencer step

**DEC:** Adjusts the decay time for each layer. The decay time is the time it takes for sound to reach the sustain level.

**REL:** Adjusts the release time for each layer. The release time is the time it takes for the sound to return to zero (off) once a note has been released or the Trig message ends.

# 5. The ULTRALOOP Sequencer Area

The ULTRALOOP Sequencer Area has a **Track Sequencer**, **FX Sequencer**, **FX Mixer** and **MINI-CELLS**.

# 5.1. The Track Sequencer

App							Mr			
ggf <sup>fi</sup> edddae <sub>d</sub> rafer gynewraegor achadau										t <sub>el</sub> fd <sub>el</sub> ftentandronera
kgr &				ypMaaga-lev.						y
Mariana and	hanna waaraha	┉┉								
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~										~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
MIII MANAAMAAA							hillinn			when wh
111111111111111111111111111111111111111										MMMMA
DRAW: MONO WA	VES: ON LEN: 16		MUTE SOL	.O LOCK	OUT BPM PI1	сн ѕмоо	TH TRIN	I MONO	PHASE	REVERSE

The Track Sequencer is the main ULTRALOOP sequencer. Unlike typical sequencers, ULTRALOOP's **Track Sequencer** allows you to choose which steps are active for a set of loops that are always already playing back (silently) regardless of whether or not a sequencer step is active. This distinguishes itself from most sequencers which usually send a message to the sampler to start playing back a particular sample with each gate message.

In some sense, you can think of the Track Sequencer as an effect, that works in a similar way to a gate effect or noise gate plugin. When a step is active, signal that is already playing back on a track passes through. When a step is inactive, the signal on that track is silenced. In this sense, the Track Sequencer is post-sampler in terms of signal flow. Each active step can be further shaped using the AHDSR Cells, found in the Sampler Controls area's ENV page.

# **Drawing in the Track Sequencer**

- Click and drag to activate Track Sequencer steps
- Control-click and drag to erase Track Sequencer Steps



When editing a Parameter Cell or drawing the in the Track Sequencer, a vertical blue line to the left of the Track Sequencer indicates which which track is currently selected and the corresponding Parameter Cell Slider will become outlined. This helps you to find the controls for each track and vice versa.

### The Track Sequencer Additional Controls

DRAW: Sets the draw mode to MONO or POLY. Mono mode allows you to draw steps on one track per division, preventing you from activating layered steps. POLY mode allows you to draw layered sequencer steps freely.

WAVES ON/OFF: Shows and hides the live waveform displays underneath the sequencer for the loops that are playing back.

LEN: Sets the Length in 1/16th note steps of the Track Sequencer pattern. It is important to understand that the length of the Track Sequencer pattern is not related to the length of the Loops that are playing back. The LEN setting only determines the length of the gate pattern sequence, but the Loops are always playing back at their full-length.

The one exception is when the TRIM Mini-Cell is on. When the TRIM Mini-Cell is on, the Loop length for all samples playing back is automatically clipped to the Track Sequencer Length.

# 5.2. The FX Sequencer

The **FX Sequencer** allows you to apply the **FX GESTURES** to a track or set of tracks, at a specific moment in time. Using the FX Sequencer, you can then determine which steps will have effects active and which tracks will be routed to the effects by using the yellow **FX ON** mini-cell.

The effects are generated automatically by using the FX GESTURE cell's GENERATE button. FX Gestures are automatically generated dynamic effect movements which are stored in Preset Grid Memory Slots. The effects that make up a gesture are the STUTTER, FILTER, REV, GRAIN, TAPE and GATER effects.

#### Drawing in the FX Sequencer

- Click and drag to activate FX Sequencer steps
- Control-click to reset the entire FX Sequencer

#### 5.3. The FX Mixer

STUTTER: 50 FILTER: 50 REV: 50 GRAIN: 50 TAPE: 100 GATER: 100 FX MIX: 100 ++++

The FX Mixer adjusts the dry/wet balance for the individual effects that make up an FX GESTURE and the overall dry/wet balance of the entire effect series. You can access the

FX Mixer by clicking the small yellow mixer icon, located in the upper right of the Sequencer area.



The mix settings are not stored with the Memory Slots, but are stored with the Scene.

STUTTER: Dry/Wet balance for the Stutter FX Gesture.

FILTER: Dry/Wet balance for the Filter FX Gesture.

**REV**: Dry/Wet balance for the Reverse FX Gesture.

GRAIN: Dry/Wet balance for the Grain FX Gesture.

TAPE: Dry/Wet balance for the Tape FX Gesture.

GATER: Dry/Wet balance for the Gater FX Gesture.

**FX MIX:** Dry/Wet balance for the entire Gesture FX mix.

# 5.4. The Mini-Cells Basics

To the right of the Track Sequencer, are the Mini-Cells, a set of controls that give you additional track specific settings. You can select the Mini-Cells using the tabs below the Sequencer. The Mini-Cells are color-coded to help logically understand their behavior.



- Blue Mini-Cells are Track Sequencer Mini-Cells.
- Yellow Mini-Cells are FX Sequencer Mini-Cells.
- Orange Mini-Cells are Loop playback Mini-Cells.

# 5.4.1. The Mini-Cell Details

MUTE MINI-CELL: Mutes Track Sequencer tracks.

SOLO MINI-CELL: Solos Track Sequencer tracks.

LOCK MINI-CELL: Protects Track Sequencer tracks so they aren't affected by randomization or drawing.

4

You can lock a track and then draw on top of it using DRAW: MONO sequences.

OUT MINI-CELL: Allows you to route individual tracks out their own unique set of outputs, so that you can process them independently using Reaktor effects or you Host DAW.

Please note that FX Gestures are only applied to tracks routed out the MAIN output setting. All other output settings have no FX Gestures applied.



/!\

Your host must support multi-out instances of Reaktor to take advantage of the multi-out functionality.

BPM MINI-CELL: Sets the playback speed of the track and also provides access to setting the BPM detection range.

NORM = Normal playback speed.

HALF = Half-time playback speed.

DBL = Double-time playback speed.

**BPM DETECTION RANGE** = Sets the BPM Detection Range for the sample map. If you load samples that are outside the range, samples will playback at the incorrect speed. You can adjust the **BPM DETECTION RANGE** to ensure that the samples

you playback are detected correctly. A numeric BPM indicator to the left of the BPM Mini-Cells shows the currently detected BPM.

PITCH MINI-CELL: Adjusts the sample playback pitch. If OFF, ULTRALOOP will timestretch your LOOPS to match the current tempo. If ON, ULTRALOOP will adjust the pitch to match the current tempo.

SMOOTH MINI-CELL: Applies smoothing to the Loop engine playback. More smoothing may be good when using non-percussive material like pads. The default is LOW and should be good for percussive material, however for staccato percussion (like High Hats) that has transients that need to cut through perfectly, you may wish to try to use OFF.

TRIM MINI-CELL: Trims the length of a Loop to match the sequencer length.

Imagine that you have three loops playing back. Loop #1 is 4 bars long. Loop #2 is 2 bars long and another Loop #3 is 1 bar long.

If TRIM is off, each loop will playback in its entirety, regardless of the Track Sequencer LEN setting, provided that you haven't shortened it using the Sampler Controls area LENGTH Parameter Cell. This means that loop #1 will repeat every 4 bars, Loop #2 will repeat every 2 bars and Loop #3 will repeat every 1 bar, despite the fact that the Track Sequencer gate pattern is cycling every 1/16th.

If TRIM is on and LEN is set to 16, each loop will repeat every 16 steps (1 bar). If LEN is set to 8, each loop will cycle every 8 steps, etc.

MONO MINI-CELL: Sums track to mono.

PHASE: Inverts the phase (polarity) of the signal.

**REVERSE:** Reverses playback.

FX ON: Sends a particular track to the FX GESTURE engine for processing.

# 6. Working with Scenes

Each ULTRALOOP Snapshot has eight **Scenes**, found in the ULTRALOOP footer area. You can think of the Scenes as sub-presets contained within each Snapshot. A Scene contains all the Parameter Cell settings, Preset Grids, Sequencer controls and additional settings. The only settings that aren't a part of a Scene are the controls found in the Master Controls area. Scenes can be played using MIDI, OSC or by selecting a Scene with your mouse.



Be sure to select MIDI IN PLAYS: SCENES if you'd like to use MIDI notes to control your Scenes.



In Reaktor standalone mode, you can use your QWERTY keyboard to simulate playing a MIDI keyboard.



Fig. 6.0 Scenes

- [1] MIDI Mode Selector: When set to MIDI IN PLAYS: SCENES, MIDI input will be sent to the Scenes. When set to MIDI IN PLAYS: SLOTS, MIDI in will be sent to the a MIDI activated Parameter Cell's Preset Grid to control the Memory Slots.
- [2] Scene Root: Sets the root note (by octave) for MIDI playback of the Scenes. By default c3-g3 will playback scenes 1-8.
- [3] Scene Init: Initializes the entire Scene so you can start sound design completely from scratch.
- [4] Scene Copy: Copies the entire Scene.
- [5] Scene Paste: Pastes the last copied Scene into the currently selected Scene.
- [6] Scene Duplicate: Duplicates the currently selected Scene to any other Scene you select thereafter without the need to click Paste. To use, simply press Duplicate once to activate Duplication. A red light flashes to indicate that you will immediately write over any other Scene with the scene you had selected when activating duplicate. Select one or more Scenes to duplicate to and then deactivate Duplicate to disable. This is a quick way to duplicate Scenes without disrupting your workflow.
- [7] Scene Selectors: Selects a Scene to playback.

# 6.1. The Master Area

The **Master Area** Contains universal controls which are not stored with the individual Scenes, but are stored with Snapshots.



#### Fig. 6.1 Master Area

- [1] Rnd: When the Master RND button is triggered, the current Scene is Randomized. Clicking the Master Rnd button will only randomize certain aspects of your Scene. Which aspects it randomizes depends on which areas are set to
   Master Random Receive. Throughout the interface you'll find small green dots. These green dots are Master Random Receive toggles and determine whether that area is setup to receive randomization when using the Master Rnd button.
- [2] Master Random Receive Toggle: Toggles all the Master Random Receive toggles on or off when clicked.
- [3] Single Edit Mode Toggle: Toggles all the Single Edit Mode buttons on/off.
- [4] Slider View Toggle: Toggles Slider View on/off for all Sampler Controls Parameter Cells.
- [5] Len Adjust: Adjusts the Length of all LEN controls throughout the Scene.
- [6] Pin Toggle: Toggles the Pin on/off throughout the Scene.
- [7] **Record Toggle:** Toggles record on/off throughout the Scene.
- [8] Play Toggle: Toggles play on/off throughout the Scene.
- [9] Root Adjust: Adjusts the Root value for all Root controls throughout the Scene.
- [10] MIDI In Toggle: Toggles MIDI IN on/off throughout the Scene.
- [11] Swing: Swings the sequencer readout.
- [12] Sync: Syncs Preset Grid Memory Slot playback to quantized value.
- [13] Punch: Applies compression and limiting to the master output to glue the signal and keep things from clipping. A setting of zero will bypass the effect entirely.
- [14] Vol: Master Volume control

If you'd like to turn the Limiter off or on for all presets, you can set it to Snap Isolate. To do so, simply right-click the Limiter icon (while in Edit mode), choose 'Properties' and check the Snap Isolate checkbox in the Functions tab in the Sidepane. Save ULTRALOOP and now the Limiter setting is not stored with your Snapshots.

# 7. Advanced Topics

In this section we'll look at some more advanced topics, such as BPM mode, working with external effects and using Reaktor's built-in recording functions.

# 7.1. Understanding Time Stretching

When PITCH mode Mini-Cell buttons are active, the layers will stretch to fit the current BPM by using Pitch stretching. When PITCH mode Mini-Cell buttons are off, the tracks will use slice based time-stretching. Different tracks can be set to different stretching methods.

# **Pitch Stretching:**

When PITCH mode Mini-Cells are ON for a given layer, the sample will stretch to fit the current BPM by automatically changing the pitch.

# Slice-Based Time Stretching:

When PITCH mode Mini Cells are OFF for a given layer, the sample will stretch to fit the current BPM by using slice-based time-stretching while preserving the pitch of the original sample. While these works well if you're using melodic material and want to keep things in key, if you slow down you may here gaps and artifacts.

# 7.2. Using ULTRALOOP's Multi-Outs

You may want to setup ULTRALOOP with your DAW or hardware effects so you can process each layer independently. To process ULTRALOOP layers independently directly in your DAW, you'll need to setup a Multi-Out instance of Reaktor in a DAW that supports up to eight stereo software instrument outputs (Ableton Live or Logic Pro). You'll then need to turn on OUT Mini-Cells and route your signal accordingly.



Only the AU version of Reaktor supports all 8 outputs. VST instances will only support 3 stereo outputs.

To process ULTRALOOP layers independently using hardware, you'll need an audio interface that supports 8 stereo outputs.

Lastly, if you don't have a Multi-Out capable host or simply prefer to use Reaktor in standalone mode, you can route signal between applications using something like Soundflower by Cycling74 for the Mac or JackAudio for Windows.

http://cycling74.com/soundflower-landing-page/

http://jackaudio.org/download

### To use ULTRALOOP's Multi-Outs with your host:

- 1. Open ULTRALOOP's OUT Mini-Cell tab.
- 2. Choose a setup of unique outputs in the OUT Mini-Cell for each layer.
- 3. In your host software, create a 8 x Stereo multi-out instance of Reaktor.



4. In your host, create auxes or audio channels to receive outputs you selected in the OUT Mini-Cell.

#### To use ULTRALOOP's Multi-Outs with your hardware:

- 1. Open Reaktor in standalone mode or in your DAW as an 8 x Stereo multi-out instrument.
- 2. Open ULTRALOOP's OUT Mini-Cell tab.
- 3. Choose a setup of unique outputs in the OUT Mini-Cell for each layer.



If you're using a DAW, create auxes or eight stereo audio channels to receive outputs from Reaktor and route their outputs to your desired to the desired hardware effects.

#### To use ULTRALOOP's Multi-Outs with Soundflower:

- 1. Open Reaktor in Standalone mode.
- 2. Open ULTRALOOP's OUT Mini-Cell tab.
- 3. Choose a setup of unique outputs in the OUT Mini-Cell for each layer.

- 4. Go to Reaktor's *File > Audio & MIDI Settings* and choose Soundflower 16 Channels from the main device.
- 5. Go to your host software and setup Soundflower or JackAudio as the input device.
- 6. Setup Audio channels in your host to record inputs from Soundflower.

# 7.3. Using Reaktor's Recorder

While ULTRALOOP can be played live inside a host, it is more CPU efficient and often times more practical to simply create sounds in ULTRALOOP and record them as audio to use in your host.

Reaktor has an amazing built-in tape recorder that allows you to instantly create recordings of your loops and drag & drop audio them from Reaktor directly to other hosts such as Ableton or Maschine. You can even drag & drop audio from Reaktor while it is running in plug-in mode!

We highly recommend that you check this out, as it is a great way to make kits.

### To record ULTRALOOP sounds as audio and drag and drop them into your host:

- 1. Open up ULTRALOOP and find a sound you like.
- 2. From within Reaktor, *File>View > Show Player and Recorder.*
- 3. Click where it says 'Untitled Audiofile' and name it something relevant (ULTRALOOP 01).



4. Click the Settings icon on the far right and choose 'Record Start by: Clock Start' and

'Record Stop by: Loop Length' and set the Loop Length.



- 5. Click OK.
- 6. Hit the record button on the Recorder.
- 7. Hit Play in Reaktor (or your host).
- 8. Drag the Audio file to your host by using the drag icon.



9. Rinse and repeat.

# 8. Using Controller Templates

ULTRALOOP comes with an OSC template for iPad's Lemur designed by Lemur expert Antonio Blanca. This is by far the best way to control ULTRALOOP.

Additional documentation on how to setup the template can be found in the *Documentation* folder in the *Reaktor and Lemur OSC Setup Guide.pdf*.



To use the OSC template for Lemur, you'll need to get the Lemur application for your iPad and the Lemur editor for your Mac or PC which is sold separately.

http://liine.net/en/

http://liine.net/en/support/lemur

# 8.1. MIDI Mapping

If you prefer to use standard MIDI mappings and your own controller, you can easily setup MIDI mappings yourself as we've left those controls free.

ULTRALOOP has several hundred controls. Unfortunately, it is impossible to map all of them due to restrictions with Reaktor and MIDI, which is why we recommend you use OSC and the included Lemur template by Antonio Blanca. However, many controls can be mapped to MIDI.

# Making your own MIDI Assignments Using MIDI Learn

Many parameters like the Sliders in ULTRALOOP can be right-clicked to activate MIDI learn. Move a controller and it should learn it automatically, provided that your Audio&MIDI settings are setup correctly.



This kind of assignment will be saved with the Reaktor ensemble, so save a backup in case you'd like to revert to the original!

# 9. Troubleshooting and FAQ

Sometimes you might run into trouble when using ULTRALOOP. In this section we'll go over some of the common issues you might encounter and how to resolve them.

### Can I use the Reaktor Player with ULTRALOOP

 No, ULTRALOOP requires the full version of Reaktor and won't run with Reaktor Player.

#### Can I use my own samples?

 Of course you can. Just open the Reaktor Sample Map Editor while in Edit mode. Click the structure icon next to the main snapshot menu to turn on Edit mode. Check out the <u>Using your own samples</u> section of this guide for more information.

#### Why can't I add my own samples and click the folder to edit my map?

• You'll need to turn on Edit mode in order to edit ensembles like ULTRALOOP. Click the structure icon next to the main snapshot menu to turn on Edit mode.

#### I can't hear anything.

- Is Reaktor setup as an instrument (plug-in mode only)?
- Have you setup your Audio & MIDI Settings under File>Audio & MIDI Settings (standalone mode only)?
- Have you turned the Reaktor Volume knob down by accident?
- Have you accidentally randomized the Volume cell or your Envelope Cells?

#### All my loops are playing at the wrong speed in BPM mode.

 Sometimes the BPM detection interprets slow loops or fast loops incorrectly as being half-speed or double speed. If this is the case, click the BPM Mini-Cell and adjust the speed factor for the layer that is playing at the wrong speed or set the BPM Detection Range appropriately.

#### No matter what, all I hear is one layer.

• Is SOLO mode on?

### I'm trying to activate a step in the sequencer, but it won't let me!

 Is the track Locked? If there is a Lock icon, it means you've protected the track using the LOCK Mini-Cell.

#### I can't see the detected BPM!

 Adjust the sequencer length to be the full 16 steps as it affects the display of the BPM.