

Thank you for purchasing Vortex, by Twisted Tools.

Please be sure that you are using the latest version of Reaktor (5.1.5.002) before beginning. Also note that if you are using this ensemble with Kore 2, you will need the latest version of Kore 2.

The guide on the next page is meant to be used in conjunction with the QuickGuide pictures included at the top of each page. For your convenience, we've also created instructional videos which can be found at our at www.twistedtools.com/video.

If you're working with Vortex, it hopefully means you paid for it. If somehow you managed to get a hold of this without paying, we would appreciate that you go to our site and do the right thing and pay for it. We are a very small company and we would like to stay in business and make more cool stuff. Plus, we've got tons of other great things for free at our site which you are welcome to take.... TwistedTools.com

Big **thank you** to the artists who contributed to the sample map! Go check out their sites!!!

The following artists contributed to the sound design for Vortex:

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INTRO

Vortex is a six-track, polyphonic granular sampler and sequencer for Native Instrument's Reaktor 5. Each track has 4 independent sequencer pages and a unique set of parameters and modulators. Below you will find explanations for all of Vortex's features along with graphics that indicate where on the interface each item is located.

1. Scene Sequencer area

A scene is like a preset for the entire instrument. In other words, a Scene stores **all** the sampler settings and patterns for all 6 tracks.

There are 8 scenes (A-H) and you can sequence the order of their playback by dragging a scene letter to assign a scene (A-H) to one of the 8 **Scene Assignment Slots**. The **Scene Sequencer Cycle Area** allows you to cycle through a particular group of Scenes. The speed at which the scene order progresses is determined by the **Scene Clock** and is set in rhythmic values. To reset the order of the scenes back to the default order (A to H), click the **Scene Reset** button.

1.1 Scene Sequencer Cycle Area

1.2 Scene Assignment Slots 1 - 8

1.3 Scene Clock

1.4 Scene Reset



2. Track Sequencer area

There are six independent tracks in the Track Sequencer area. Each track has 4 independent **Sequencer Pages**, accessed by clicking their respective tabs. You can draw steps into a page's sequencer with a simple **left click'n'drag** to draw the steps and their values. **Right click'n'drag** works like a ruler, applying the same value to all steps.

2.1 Sequencer Pages (Gate, Roll, Mod A, Mod B)

2.1.1 **Gate Sequencer Page** - Triggers a sample

2.1.2 **Roll Sequencer Page** - Creates roll or drill effect. Value controls speed of the drill.

2.1.3 **Mod A/B Sequencer Pages** - These are sequencers that are not set-up to do anything unless assigned to a parameter as a modulator as described in section 4 below.

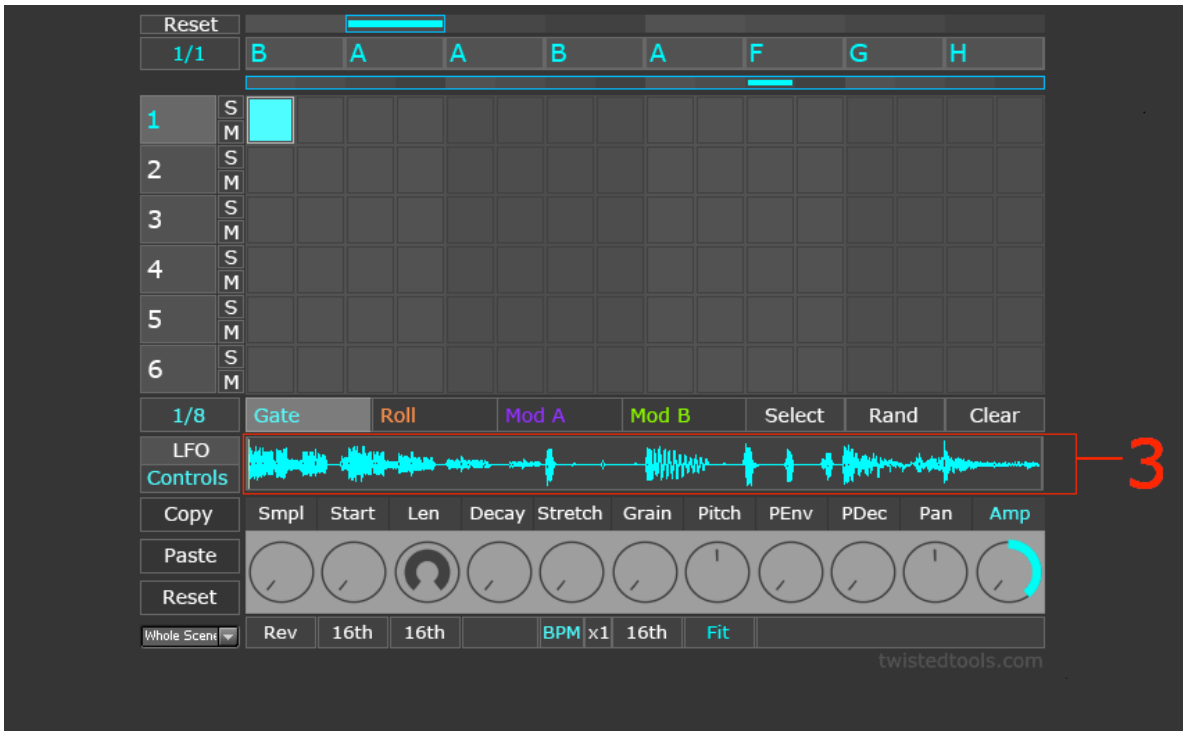
2.2 **Select Toggle** - When on, you can drag-select across a specific area of the Track Sequencer area to randomize, copy/paste or clear the selected area only (unless set to WHOLE SCENE, in which case clear clears everything in the scene, regardless of selection).

2.3 **Rand** - Randomizes the entire Sequencer Page (if Select Toggle is off). The x-axis position of your mouse-click on the button affects the amount of randomization.

2.4 **Clear** - clears the sequence.

2.5 **Track Sequencer Cycle area** - Allows you to set the track sequencer's cycle length and start/end position

2.6 **Track Sequencer Clock** - The rhythmic subdivision for a step within the track sequencer



3. Sampler Window

Right click or double-click to open the **Sample Map Editor** where you can load your own samples or sample map. The quickest way to add samples or sample maps is by drag&drop from your desktop to the Sample Map Editor..

3.1 **Sample Map Editor** - Drag and Drop here to load samples/maps and more by clicking the 'Edit Sample List drop-down menu.

(Note: A **Sample Map** stores the current layout of your samples across the keyboard and can be saved independently from the samples or with the samples included in the map file. Please see your Reaktor manual for more info on Sample Maps)



4. Parameter/Modulation knobs (MIDI Learn and Automate in B-View)

Each track's sampler has its own set of 11 parameter and modulation knobs. Left click'n'drag to control a **Parameter Knob**. Turn on and choose a modulator for any parameter, by left-click dragging a **Parameter Label**. Right click'n'drag to control **Modulation Amount**.

4.1 **Parameter Knobs** - Used to adjust the specified parameters absolute value.

Smpl - Selects the current sample being triggered on that track

Start - Select the start position (offset) that a sample is played back from when triggered

Len - Sets the length of the sample that is triggered. You can also think of this as 'hold'

Decay - Sets the time it takes for a sample's volume to decrease to zero after the sample has its entire length as set with the 'Len' knob.

Stretch - Quickly repeats tiny fractions of the sample, creating a 'stretching' or slowed-down effect.

Grain - Determines the size of the stretched repetitions

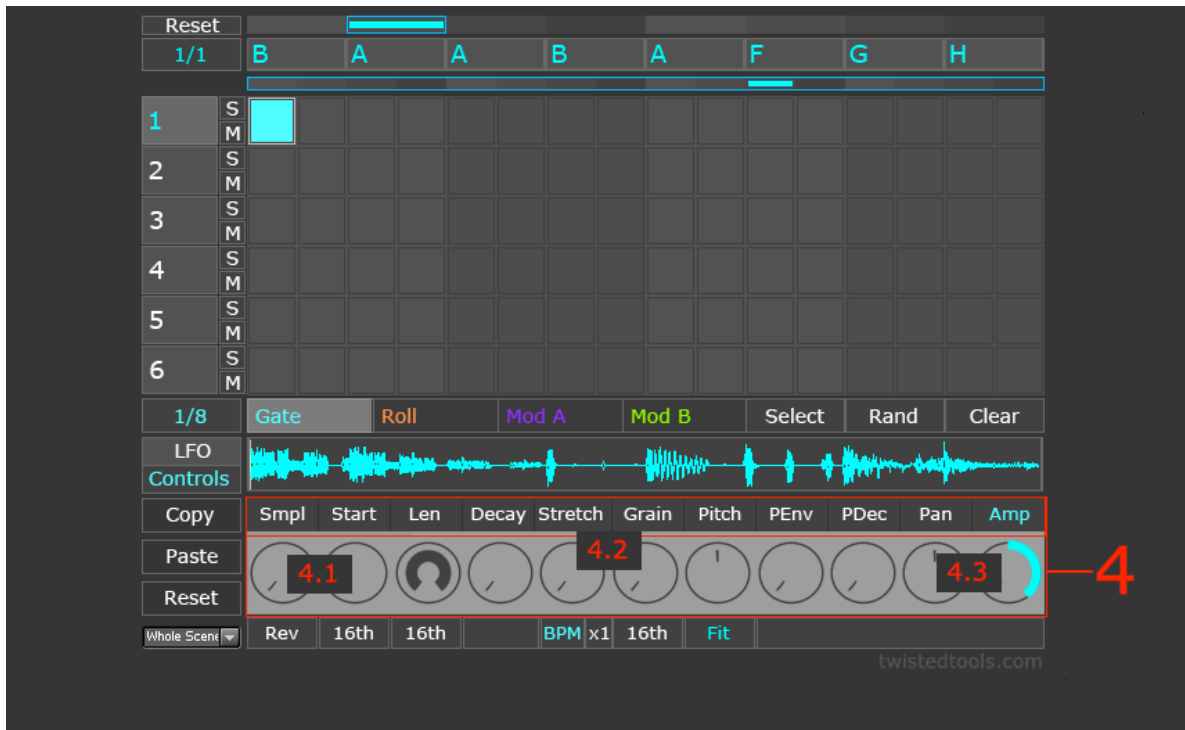
Pitch - Changes the pitch of the audio independently of the speed. Works in conjunction with Stretch and Grain

PEnv - Sets the attack amount of the samplers pitch envelope. This will cause the a triggered sample to pitch from above, down to the current pitch set with the Pitch parameter knob.

PDec - Sets the decay time of the pitch envelope. This is the time it takes for the pitch to return to the Pitch parameter knob's position based on the amount set with the PEnv knob.

Pan - Places the track in the stereo field

Amp - Determines the amplitude of the track's playback



4.2 **Parameter Labels** - Left click'n'drag a Parameter Label (name) vertically to turn on modulation and select the source of modulation for that parameter. The color corresponds to the source of modulation.

Modulation Source Color Guide:

White - no modulation.

Cyan = Gate sequencer controls selected parameter

Orange = Roll sequencer controls selected parameter

Purple = ModSeq A sequencer controls selected parameter

Green = ModSeq B sequencer controls selected parameter

Yellow = LFO A controls selected parameter

Blue = LFO B controls selected parameter

4.3 **Modulation Knobs** - Colored knobs that appear on the outer ring of the Parameter knob once selected. Right-click'n'drag to adjust their value in either a positive or negative direction. These knobs will allow the modulation source to offset the current Parameter Knob's position by a certain +/- amount.



5. Sampler Settings Buttons

Each track's Sampler has 6 **Settings Buttons** that are related to the parameter knobs directly above them. These settings buttons are :

5.1 **Sample Reverse** - Reverses playback of samples for that track

5.2 **Start Offset Quantize (16th)** - When on, the samples start position (offset) is quantized to the nearest 1/16th note, based on the current tempo and the samples detected length

5.3 **Sample Length Offset Quantize (16th)** - When on, the samples length is quantized to the nearest 1/16th note, based on the current tempo and the samples detected length

5.4 **BPM (x#)** Auto stretches sample to the current tempo. There is also an additional correction selector to multiply or divide the samples tempo by 2 in the event that the BPM was incorrectly detected.

5.5 **Grain Size Quantize (16th)** - Quantizes the grain length (size) to the nearest 1/16th note.

5.6 **Pitch** - Ties the samples pitch to the projects tempo. This functionality behaves more like a tape deck, whereby tempo changes affect pitch.



6. Global Functions

There are three types of global functions: **Global Edit Functions**, **Global View Functions** and **Global MIDI Functions**.

6.1 - **Global Edit Functions** - To copy/paste/reset the whole scene, particular parts of a scene or parts of the sequencer area when using the 'Select Toggle' button described earlier.

6.1.1 - **Global Edit Drop-Down Menu** - Use this menu to select what you'd like to copy/paste

Whole Scene - Copies the entire scene

Sequencer - All Pages - Copies all pages of the sequencer area from scene to scene

Sequencer - Current Page - Copies only the currently selected page in Sequencer area or selected area of the page, which can be pasted on any page in any scene, anywhere if using Select Toggle button.

Sampler Parameters - All Tracks - Copies every tracks' sampler parameters from scene to scene

Sampler Parameters - Current Track - Copies only the currently selected track's sampler parameters which can be pasted on any track in any scene.

Modulation - All Tracks - Copies every tracks' modulation from scene to scene

Modulation - Current - Copies only the currently selected track's modulation parameters which can be pasted on any track in any scene

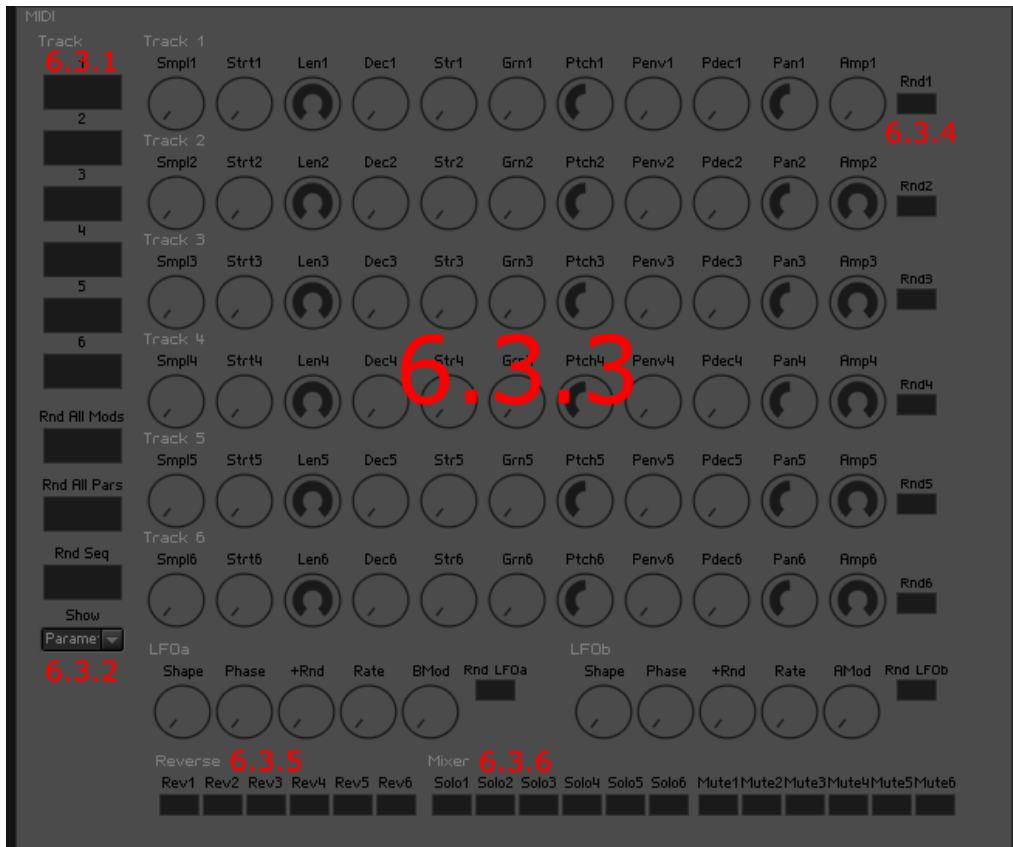


6.1.2 - **Track Solo/Mute** - Solo's/Mutes track playback

6.2 - **Global View Functions** - The following functions are display options

6.2.1 - **Toggle LFO/Control's View** - Toggles between the main sampler controls view and LFO view allowing you to make LFO adjustments

6.2.2 - **Track Selector Buttons** - Click on a track number to display the sampler parameter knobs and modulation knobs for that track



6.3 - Global MIDI Functions - Click on 'B' view in the upper left corner of the panel to enter MIDI view. Here you can MIDI learn knobs on your controller to every parameter of each track. If your host supports MIDI Out, you'll notice that any changes made by mouse movements, scene changes or snapshot changes will result in your hardware updating as well. This will prevent 'jumping' knobs by making sure that your controller always follows what is on screen. Just Right-Click to MIDI learn any knob/button in B-view.

- 6.3.1 - **Track Selector MIDI Learn** - Right-click to MIDI learn buttons on your controller to change the currently selected track.
- 6.3.2 - **Parameter and Modulation View** - Allows you to toggle between displaying Parameter and Modulation knobs for each track to MIDI learn to. Right-click to MIDI learn knobs to parameters and modulators.
- 6.3.3 - **Parameter and Modulation MIDI Learn Knobs** - MIDI learnable knobs for each track's parameter knobs and modulation knobs
- 6.3.4 - **Parameter and Modulation Randomizers MIDI Learn** - MIDI learn buttons to Randomize parameters or modulators for each track
- 6.3.5 - **Sampler Reverse MIDI Learn** - MIDI learn buttons for the reverse for each track
- 6.3.6 - **Track Solo/Mute MIDI Learn** - MIDI learn buttons for the Track Solo/Mute buttons



7. LFOs

7.1 - **Shape Morph Knob** - Morphs between different LFO shapes

7.1.1 - **Ramp Mode Switch** - If turned on, the shape morphs through triangle and saw (ramp) waveforms.

7.2 **LFO Phase** - Shifts the phase of the LFO. You can think of this as offsetting the start position of the lfo

7.3 - **LFO Rate** - Speed of the LFO

7.3.1 - SPEED CHART: (Knob Value = BPM Value)

0 to 5 = 16/1

6...15 = 8/1

16...24 = 4/1

25...35 = 2/1

36...45 = 1/1

46...54 = 1/2

55...65 = 6/16

66...75 = 4/16

76...84 = 3/16

85...94 = 2/16

95...100 = 1/16

7.4 - **+Rnd** - The amount of randomness added to the main LFO Shape

7.5 - **BMod (for LFO A) and AMod (for LFO B)** - The amount of amplitude modulation introduced from the other LFO. Cross-modulating LFOs can be created using these features.

7.6 - **Gated Output** - the LFO value is only triggered by the active Gate step in the Gate sequencer

7.7 - **BPM Sync** - Sync's the LFO to the current tempo

7.8 - **Re-trigger** - Click'n'drag to choose any track's Gate sequence to re-trigger the start of the LFO

