Waverley Tables User Guide

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Thank you for purchasing Waverley Tables. I hope these instruments prove to be useful and inspiring in your music projects! Please take a moment to read this guide to fully enjoy Waverley Tables.

Please note: Waverley Tables has been designed as an AUv3 (Audio Unit v3) instrument and does not run as a standalone app. It needs to be used inside an AUv3 compatible host such as Apple's GarageBand shown above.

WHAT IS WAVERLEY TABLES?

Waverley Tables is a sample-based instrument, or "ROMPLER". It is not a synthesiser that allows you to create your own instruments. Instead, the instruments have already been created. You also have some additional sound-shaping options accessible via 10 parameters.

WHERE DID THE SOUNDS COME FROM?

The instruments have been created using my favourite wavetable hardware synthesiser with additional processing using its own effects engine. I designed all the patches from scratch, specifically for Waverley Tables.

IS THIS THE SAME AS MU WAVERLEY IN MOODUNITS?

Not exactly. Waverley Tables uses similar sampling technology under the hood but has been developed in response to requests and suggestions from moodunits customers. The main difference is really the instruments themselves. Instruments for moodunits are designed to take up as little space and memory as possible and be relatively light on CPU. Waverley Tables has been developed without these constraints as a top priority. This means Waverley Tables takes up considerably more storage space, but it also means that instruments can be more complex, evolving and also more interesting to play. Please do take some time to listen to the sustained sounds to get a feel for how they change - many have some quite interesting tonal morphing going on!

A big design goal for Waverley Tables was also that the playing experience should “feel” and sound more like real instruments when played with a velocity sensitive keyboard and sustain pedal. If you don’t have access to a MIDI keyboard, then it’s worth considering programming in some velocity variations in your DAW or sequencer to get the best out of the instruments.

WHAT ABOUT WAVERLEY XL?

Waverley XL was sampled from virtual analog hardware, whereas Waverley Tables is from a wavetable synthesiser. So while they might have similar sound design aesthetics they do have different characteristics. Waverley Tables could be considered brighter, bolder and more complex so the two might complement one another in the same project.

USER INTERFACE

The Waverley Tables UI has been designed to be simple and intuitive and consists of a single “control panel”. There are no menus or additional screens. All interactions are via buttons and knobs. Knobs are controlled by touching down on the knob, then moving your finger up or down to increase or decrease its value.

The central display is similar to what you might find on a hardware synth. Most of the time it shows which instrument is loaded. When you tap on a parameter knob or change its value, the display will show the current value and any changes you make.

The four ABCD buttons above the display panel are parameter presets. So for each instrument, you have four presets that have been designed to complement the main instrument and illustrate the sound-shaping that can be achieved by tweaking these parameters. Think of them as jumping-off points when you’re looking for a suitable sound for your project.

Saving your own settings depends on how your host handles state saving. Please refer to the documentation for your host. Waverley Tables does not have a UI for saving and recalling your own settings.

INSTRUMENTS

There are currently 50 different instruments (#001-050), each with 4 sets of parameter presets giving 200 patches in total. Instruments are categorised as “sustained”, “keyed” or “departures” and this is shown in the central display panel. Sustained instruments will sustain until you release a key, whereas keyed instruments have a natural, more piano-like decay. Departures are no holds barred sound design extravaganzas designed to take you on an atmospheric sonic journey!

There are also a selection of 50 “components” (#051-100) from the main instruments grouped into two sections of “ATK” (attack) and “SUS” (sustain). For more details about “components” please refer to the “Sound Design With Waverley Tables Components” section in this user guide.

You can navigate through the instruments from the central panel using the NEXT and PREV navigation buttons, or by scrolling quickly using the central knob between the navigation buttons.

Component names are shown in a contrasting colour, with an A (attack) or S (sustain) suffix.

PARAMETERS

Waverley Tables has ten parameters that can be used for additional sound-shaping. The AMP envelope and FILTER in particular can be used to significantly change the character of an instrument. If you're familiar with traditional synthesisers, these parameters should be immediately recognisable. If not, you can either do a bit of research on the internet, or my personal recommendation: twiddle the knobs until you find a sound you like!

AMP

- **ATTACK** - controls the attack or "swell" part of the amplitude envelope.
- **RELEASE** - controls the fade-out time when you release a key.
- **VOLUME** - applies an overall volume cut or boost +/- 6dB.

PITCH

- **TUNE** - transposes the instrument +/- 12 semitones (an octave up or down)
- **FINE** - tunes the instruments +/- 50 cents (half a semitone up or down)

FILTER

- **ATTACK** - controls the attack or "swell" part of the filter envelope.
- **DECAY** - controls the decay time of the filter envelope once it has reached its maximum.
- **AMOUNT** - controls the amount or depth of the filter envelope - zero means no effect.

LFO

- **RATE** - controls the rate of the filter LFO from 0.12 - 0.48 Hz.
- **DEPTH** - controls the depth of the filter LFO - zero means no effect / off.

TECHNICAL SPECIFICATIONS

- 50 individual high quality multi-sampled instruments designed specifically for Waverley Tables
- 50 "attack" and "sustain" components selected from the main instruments
- 16 note polyphony
- Note range C0 - C6 (Apple standard C3 = middle C)
- Velocity-sensitive timbre changes with 30dB dynamic range
- Pitch bend range +/- two semitones (a whole note)
- Modulation wheel is mapped to filter cut-off (note this will override filter envelope and vice versa)

SOUND DESIGN WITH WAVERLEY TABLES COMPONENTS

With the exception of the "keyed" category, instruments in Waverley Tables are made up of two components called "attack" and "sustain". A component is an audio file recording, or "sample" from the hardware synthesiser I used to design all the Waverley Tables instruments.

The attack component captures the initial sound of the instrument from the precise moment a key has been played. There is usually lots of interesting sonic information going on in this phase and it contributes significantly to the perceived character of the instrument. You only hear this component once for each key played, and it decays to zero volume over its duration.

The sustain component picks up where the attack component left off, and is a recording of the instrument playing continuously, long enough to capture any "movement" or timbre changes. You hear the sustain component from the moment you press down on a key to the moment you release it. The sustain component has a more or less consistent volume level and will loop seamlessly over its duration.

The sound that you hear from a Waverley Tables instrument is a mix of these two components playing together initially, then the sustain component only, once the attack component has finished playing. The duration and overall shape of what you hear is also governed by the AMP envelope.

In Waverley Tables, instrument slots #051-100 are components, comprising 25 attack (A suffix), and 25 sustain (S suffix) components from the same 25 instruments. This allows you to experiment by combining components from different instruments. Instruments in the range of #031-050 have been designed using component mixing, for example:

31) Argonomic Radiation = Argonomic Motion A + Solar Radiation S

Waverley Tables does not allow you to mix and match components within the instrument itself. Instead, you need to use your AU host. While this entails a bit more work (depending on the host) it gives you a lot more flexibility. For example you can have totally different AMP and FILTER envelopes and also have different effects chains for each component. Components also come with ABCD parameter presets to get you started.

Probably the best AU host right now for experimenting with components is Kymatica's AUM since its uncluttered UI allows you to re-size two Waverley Tables instance windows and have them both visible as shown below (standard 9.7" iPad display). It's also very easy to set up two AU instrument channels in AUM to be controlled by the same MIDI source.

TIP: Please note that the attack components aren't really designed to be used in isolation, but if you do, consider adding reverb or delay if you find the linear fade ends too abruptly for your tastes.

I hope you have fun experimenting with Waverley Tables components! A few things to try…

- Transpose one of your components up or down an octave, or up or down a 5th.
- Try adding different AU effects to different components - e.g., delay on the attack, and reverb on the sustain component.
- Try using the sustain component only with another totally different instrument, like an acoustic piano to create a sympathetic pad with a slow and long AMP attack / release (preset D). Transposing up or down an octave also works well here.
- Please share your results - I'd love to see and hear what you come up with!