KINISIS

Version 1.0

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2   USER INTERFACE OVERVIEW

Kinisis has a unique interface that may take a moment to get used to, but will soon allow you to create complex sounds easily and intuitively.   The main component of the interface is the *Timeline.*   This represents a note from start to finish. A white vertical line in the Timeline selects the time point in a note that is currently being edited. All the knobs, sliders, and controls organised in the top of the screen show the parameter values at the current time point in the Timeline. Moving a control sets the parameter value ***at the current time point in the Timeline.*** It is easy to make a parameter's value change over the course of a note by simply setting its value at different points in the Timeline and letting Kinisis blend the parameter values as a note is played.

3   INTERFACE SECTIONS

There are three main parts to the interface which have different roles. The **synthesis parameters** control what sound is produced *at the current point in the Timeline*. Note that this is different from normal synthesisers where knobs and sliders control the whole sound. In Kinisis, you are controlling a single time point in the note.

The **Timeline** represents the duration of a note, and controls how the synthesis parameters change over a note. *Breakpoints* are set in the Timeline to store synthesis parameters.

The **global parameters** apply to the sound as a whole. They consist of parameters such as effects and volume controls which affect the whole sound. All notes and voices share the same global effects. Global parameters are **not** controlled by the Timeline; they have a single setting which applies to the whole sound.

4 TIMELINE

The Timeline is the heart of the Kinisis synthesiser, so it is important to be familiar with how it can be used to control your synthesis parameters.
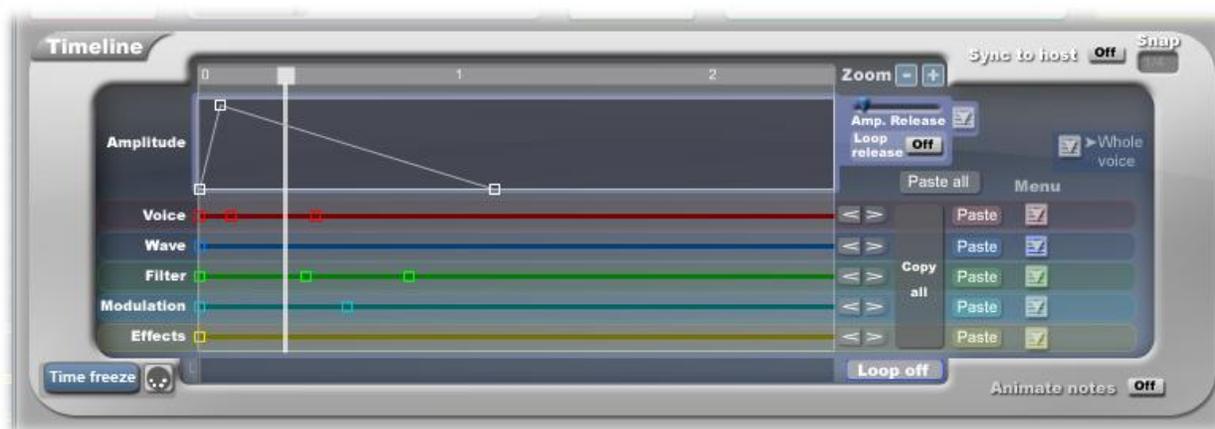
4.1 CATEGORIES IN THE TIMELINE

Five colour coded categories of synthesis parameters are available, and each has its own line in the Timeline graphic. Each line holds the values that a particular group of parameters should have over the course of a note. The matching colour coded groups of controls are found in the top of the screen. The **amplitude** section is a special case which contains a graph of how the amplitude should vary over the course of a note.

4.2   SETTING THE TIME POINT TO EDIT
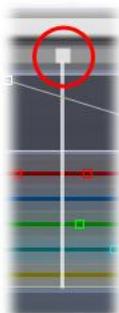
The current time point being edited in the Timeline is chosen by moving the vertical bar shown on the left. The bar can be moved by dragging the square part at the top with the mouse (the part circled in red).

The synthesis controls at the top of the screen set move to show the values at the current point in the Timeline. Moving a control stores the value in the Timeline at the point being edited. A parameter can be made to change over time by moving to different points in the Timeline and setting values. Kinisis blends between the values as it moves through the Timeline to play a note.

4.3   ZOOMING AND PANNING THE TIMELINE

You can adjust the view in the Timeline to display the information you need. Use the zoom **+/-** buttons to change the zoom level of the Timeline.
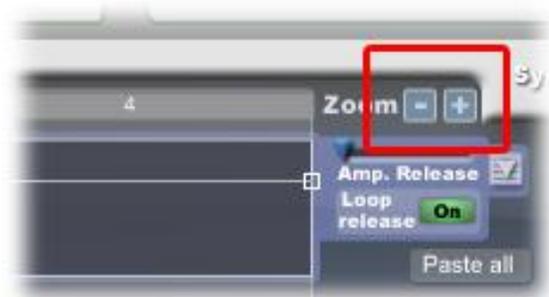
To scroll through time, hold down the left mouse button on the grey bar at the top of the Timeline and drag the mouse left and right. The scroll area is shown below:

4.4   ANIMATING THE CONTROLS AS YOU PLAY

The Kinisis user interface is not only a powerful way of designing sounds, it can also provide visual feedback to allow you to see what is happening in a patch when you are playing notes. Switch on the **animate notes** option so that the

Timeline and synthesis controls will move in real-time as a note is played to show the current time point being played, and the current synthesis parameter settings.

Note that editing is not possible while the **animate notes** option is on and a note is playing. To continue editing the Timeline or synthesis parameters, wait for all playing notes to stop, or switch off the **animate notes** option.

Some CPU power is required to redraw the screen for the **animate notes** feature, especially on computers with slower video cards. It may be useful to switch off the feature when it is not needed if CPU use is an issue.

4.5   BREAKPOINTS

A small square shown along a category line holds the values of a category of parameters at that point in time. The values of parameters are smoothly blended between breakpoints. Breakpoints can be edited as follows:

- **Add:** double-click on a line to create a new breakpoint at that position **or** move a synthesiser control in a coloured group at the top of the interface. A new breakpoint will be created at the current time position in the corresponding coloured line in the Timeline (assuming a breakpoint does not already exist at that point. If one exists, then the values at that breakpoint are changed).

- **Move in time:** Hold the left mouse button on a breakpoint and drag left and right to change its time position in the Timeline

- **Select:** click on a breakpoint to move the current time pointer onto it. The breakpoint centre is filled with colour when it is selected.

- **Modify values:** to change the synthesis parameter values at a breakpoint, first select it. Then, move a control in the top part of the interface to set its value.

- **Delete:** Right-click (Windows/Mac) or Ctrl-click (Mac) on a breakpoint to delete it. Note that the first breakpoint on each line (at *time=0*) cannot be deleted.

4.6   MULTIPLE-SELECTION OF BREAKPOINTS

More complex editing can be done by selecting several breakpoints and making changes to the whole selection at once.

- **Select** a group of breakpoints by dragging the mouse. The view will scroll if you want to highlight breakpoints that are currently off the Timeline screen.

- When a selection has been made, you will notice that the **multiple-selection controls panel appears at the bottom** of the Kinisis interface. This provides some controls for working with your selection.

- You can **slide all selected points along time** by dragging on any point in the selection

- Use the **copy** and **paste** buttons to duplicate the selected breakpoints. Position the current time slider in the Timeline to decide where the paste command will place new breakpoints.

- Click **delete** to permanently remove the currently selected breakpoints.

- **Deselect** by clicking the appropriate button in the panel at the bottom, or by clicking on some empty space somewhere in the timeline area.

- You can **stretch** or **squash** a selection of breakpoints by clicking **Rescale** to enable this mode. Then, hold the left mouse button down over

one of the selected breakpoints and drag the mouse left and right to scale the selection. Click the **Rescale** button again when finished to return to normal editing.

-        In the right side of the multiple selection panel, you will see **3 toggle switches**. These control what happens when you move one of the parameter controls in the upper part of the Kinisis GUI. The modes are explained below:

EDITING LOCKED: The default mode. The controls are locked so that you cannot set any of the timeline-controlled parameters. This is to prevent accidental changing of lots of your breakpoints!

RELATIVE CHANGE TO CURRENT VALUES: When selected, you will see all Timeline-controlled parameter controls move to their central position. When you move a control, this makes a relative change to all the selected breakpoints' values for that parameter. The change you make is added or subtracted from the existing values. So, for example, you can use this to shift an existing filter envelope up or down in frequency. This also makes it easy to shift the tuning of a complex Timeline without having to edit each breakpoint manually. Note that the controls prevent you from shifting a parameter out of its valid range, so you may find the controls 'stick' when a selected breakpoint hits its maximum or minimum value limit.

SET ABSOLUTE VALUE OF SELECTION: Changing a parameter copies that exact value to all the selected breakpoints of that

type. So, if you have some breakpoints selected in the Filter Timeline, setting the frequency knob in this mode copies the frequency value to all the selected breakpoints. This would be useful, for example, for setting the resonance of some filter breakpoints to a fixed value while keeping some existing cutoff changes intact.

-	Some additional options for selecting breakpoints are available. Click the 'Whole voice' menu button (at the right side of the timeline area) to find tools for selecting from all Timelines. To select in one particular Timeline (e.g. voice, or filter), click the menu for that timeline at the right (menu icon has an arrow pointing down). The amplitude envelope menu also has this feature.

-	Copy/paste/delete of selection can quickly be accessed by right-clicking anywhere in the timeline while some breakpoints are selected.

-	Copy and paste works between multiple open instances of Kinisis.

4.7   COPYING BREAKPOINTS FROM THE CURRENT TIME POINT

The parameter values at the current edit time point can be copied so that you can duplicate them somewhere else in the Timeline. The **copy all** button stores all the parameter values at the current point.   It is not necessary for there to be breakpoints at the point being copied; Kinisis will copy the synthesis control settings at any point in the Timeline. Move the edit time pointer to a new point in time and paste values there by either:

-       Clicking **paste all** to paste values for all the categories of the Timeline (*except* the amplitude graph)

-       Clicking individual **paste** buttons to paste specific categories

## 4.8   LOOPING THE TIMELINE

Looping is useful for creating repeating patterns or sustained notes in Kinisis. Each voice has its own loop controls so you can control looping for each voice independently.

Drag box to set Left loop point   Drag box to set Right loop point   Enable / disable looping
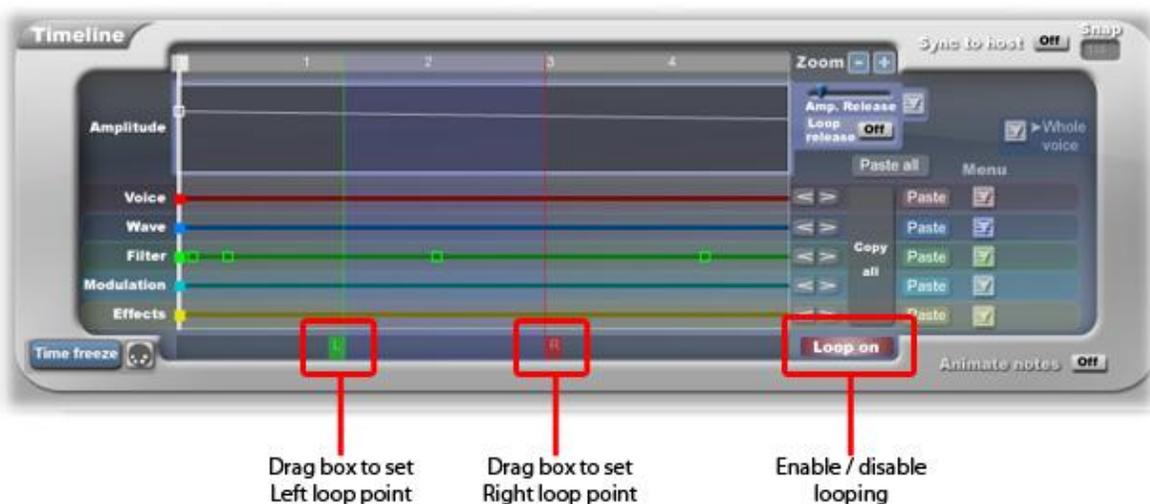
Switch the **Loop** button **on** to make Kinisis loop between the left and right loop points when playback reaches the right loop point. Switch **off** for Kinisis to ignore the loop points and continue playing through the Timeline as a note is played.

Position the left and right loop points by dragging the small rectangle at the bottom of the loop pointers.

4.9   AMPLITUDE EDITING IN THE TIMELINE
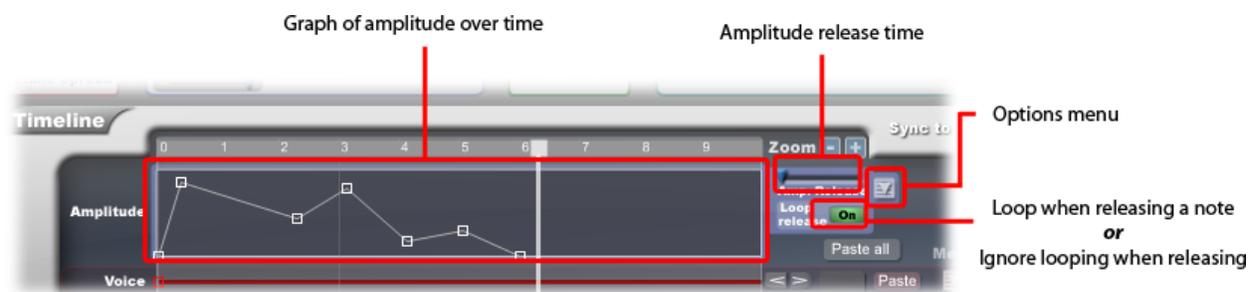
Kinisis has flexible control over how the amplitude of a note changes over time. Any amplitude envelope shape can be created by placing points onto the graph. Note this is different to how values are set in other parts of the Timeline, since there is no control in the synthesis parameter area for amplitude. Instead, the values are set directly in the amplitude graph by settings the *y* position (height) of each point in the graph.

Basic editing of amplitude breakpoints:

- **Add:** double-click to create a new breakpoint

- **Delete:** right-click on an existing breakpoint to delete

- **Change amplitude:** drag a breakpoint up or down to change the amplitude at that time point. The **edit multiple** breakpoints at once, drag a selection area which contains the amplitude breakpoints to adjust, hold **shift** and

move the mouse up and down while holding the left mouse button. All the selected amplitude breakpoints will have their amplitude adjusted.

- **Change time:** drag a breakpoint left or right to change its position in time. To adjust multiple breakpoints at once, drag a selection area containing the breakpoints to be edited, hold to left mouse button down and drag left and right to move the points in time.

For more information on working with multiple breakpoints, see page 9.

RELEASE TIME

The Release Time slider controls how quickly the amplitude of a note fades away when you stop playing a note. This allows notes to smoothly fade away at from whichever point in the Timeline you release them.

LOOP RELEASE

This controls whether looping is active during the release of a note. This is only relevant when the main Loop mode is enabled for the Timeline. When "Loop Release" is *on*, the Timeline will continue to loop during the release of notes. When *off*, looping will not take place during the release. The use of this can be seen in the following example:

These breakpoints will change the sound during the release part of the note

Loop points are set up to hold the note at this point in the Timeline
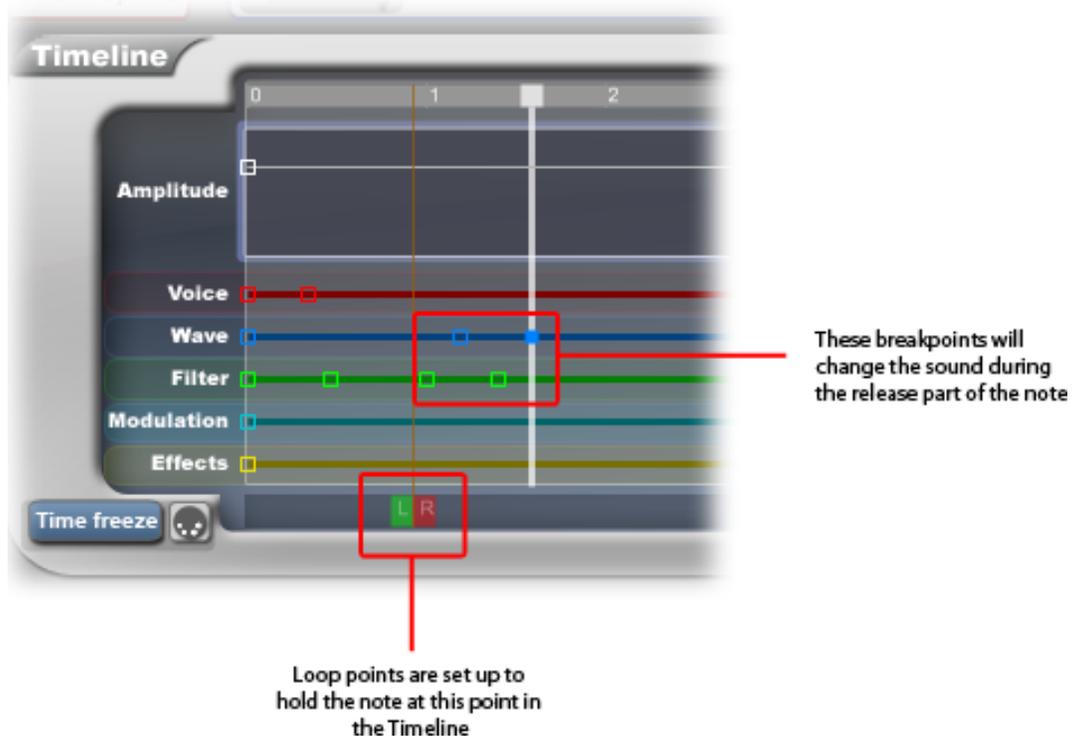
Assume that Loop Release is *off* in this example. When a note is held, the Timeline will stop at the loop points shown. When the note is released, however, it will break out of the loop and reach the breakpoints after the looped point. This allows the *release* part of the note to be given a distinctive sound.

4.10   SUB-MENUS

Pop-up menus with extra options and tools for various parts of the Timeline are available by clicking on the buttons that look like this:

Various menus are available for working with different parts of Timeline.
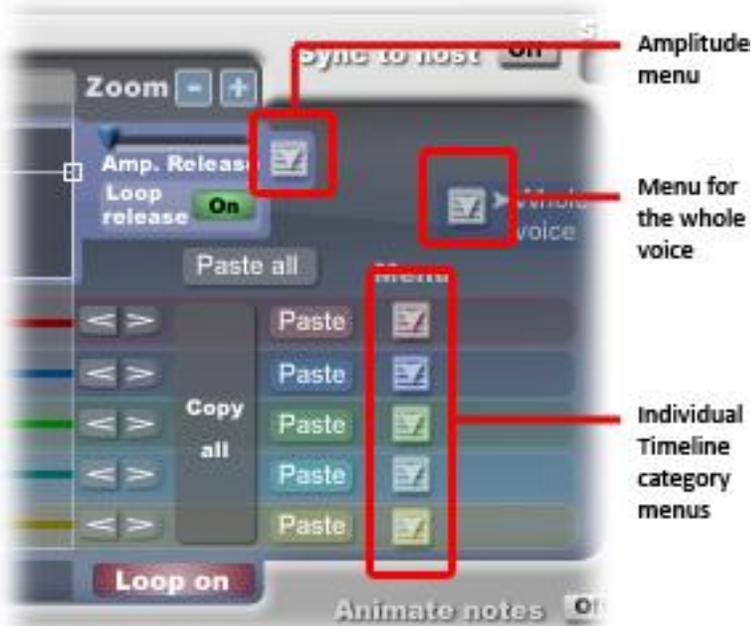
Whole voice menu

These options allow you to work with the whole current voice. The following pop-up menu appears:
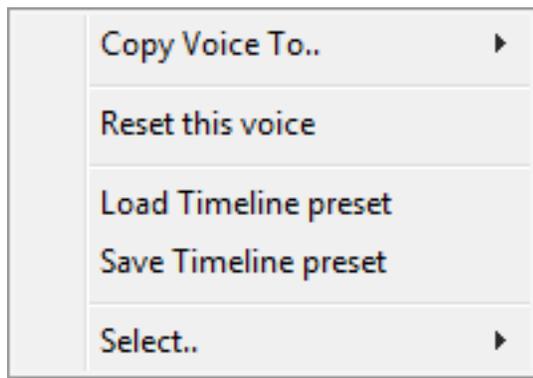
Copy Voice To: Duplicates all of the current voice's settings onto another voice that you select. This includes all the Timeline information, synthesis parameters, looping options etc. The contents of the destination voice will be completely replaced.

Reset this voice: Restores the voice to its default values. All Timeline breakpoints and synthesis parameter will be erased and replaced with a set of simple default settings. Use this option to start creating a voice from scratch.

Load / save Timeline preset: This feature allows you to easily re-use parts of the Timeline that you have designed by saving them as presets. One or more categories of the Timeline are saved or loaded. A preset stores the whole duration of a certain category in the Timeline; you cannot load or save specific parts of each category line.
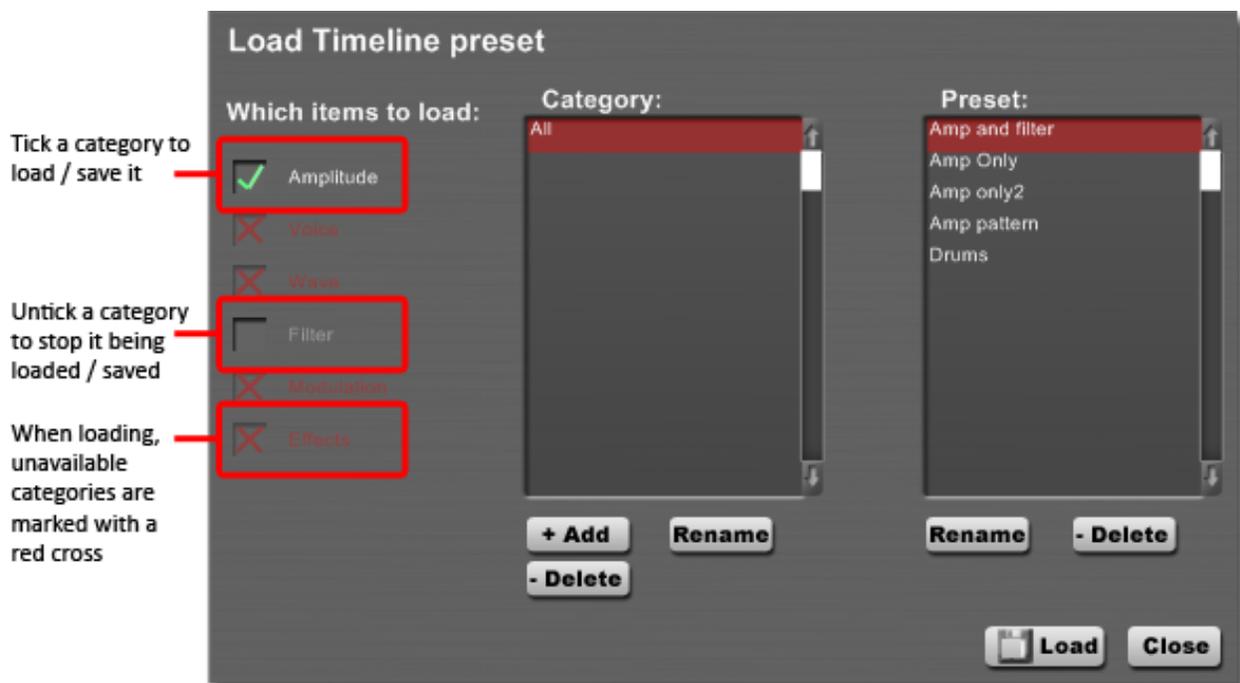
The dialog boxes for loading and saving Timeline presets are similar. When saving a new preset, use the tick boxes on the left of the dialog to choose which parts of the Timeline to save.

When loading a preset, the categories list allows you to specify which Timeline categories you would like load by ticking the required categories. Some categories may not be available in the current preset; a red cross marks categories which are not available. **Note:** when a Timeline preset is loaded, the

current contents of the chosen categories are overwritten. Ensure that you do not accidentally overwrite Timeline contents that you want to keep.

Select: used to easily select multiple breakpoints across all the Timeline categories based on the position of the edit time point in the Timeline. See page 9 information on working with multiple selections of breakpoints.

Amplitude envelope menu
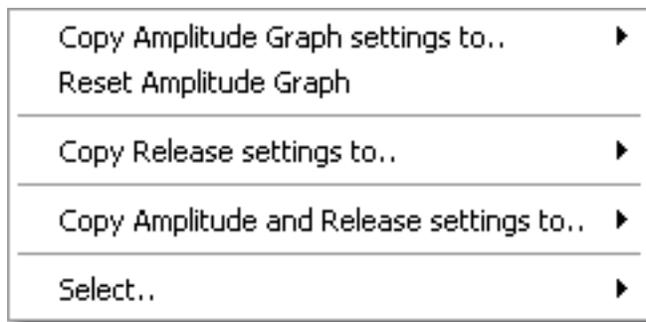
Copy Amplitude Graph settings: copy the amplitude part of this Timeline to another voice, overwriting the contents of the destination voice.

Reset Amplitude Graph: clears the amplitude graph and restores it to its default.

Copy Release settings: copy the release time and state of the "loop release" button to another voice.

Copy Amplitude and Release settings: copies both the amplitude graph, and the release settings, to another voice.

Select: used to easily select multiple breakpoints in the amplitude graph based on the position of the edit time point in the Timeline. See page 9 for a description.

Individual category menus
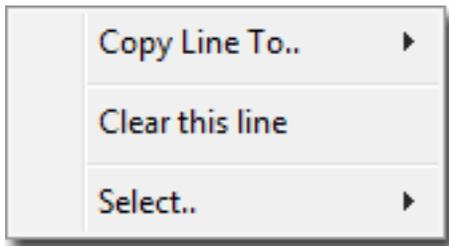
Copy line: a category in the Timeline is copied to the corresponding category in another voice. The existing contents of that category in the destination voice are deleted and completely replaced with the breakpoints from the current voice.

Clear this line: the contents of this category in the Timeline are deleted and set to default values.

Select: used to easily select multiple breakpoints in a Timeline category based on the position of the edit time point in the Timeline. See page 9 for a description.

4.11   SYNCING THE TIMELINE TO THE HOST TEMPO

The Timeline can be used for creating interesting rhythmic sounds. The **sync to host** function allows you to create sounds that follow the tempo of your song in your sequencer.

Grid lines show snap points   Enable / disable sync to host tempo   Set Timeline snap
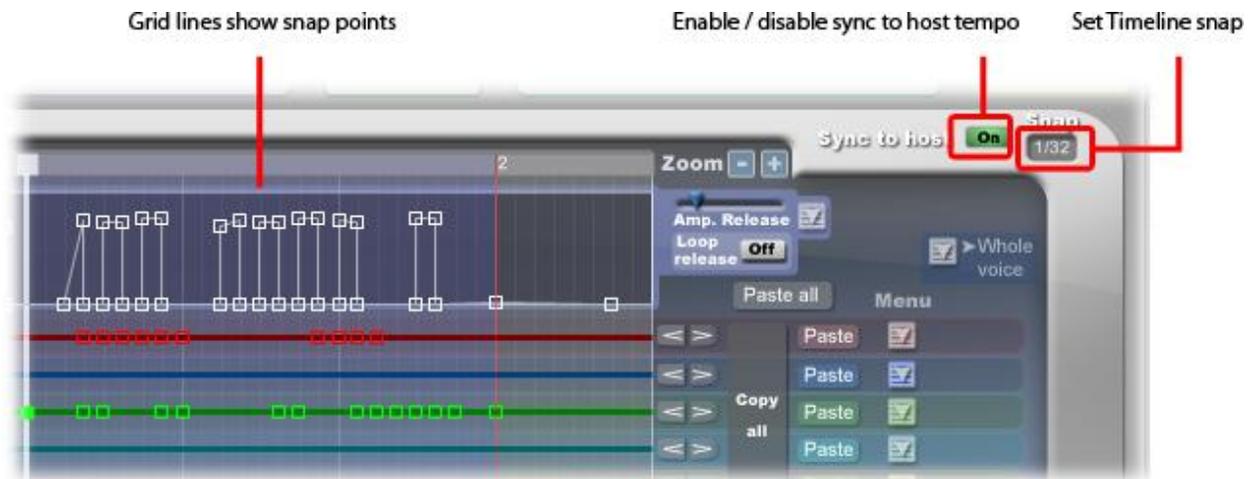
When **sync to host** is **on**, the Timeline time label units change from seconds to **bars**. Changing the tempo in your sequencer will also change how quickly Kinisis plays back through the Timeline.

The **snap value** is displayed and set in the top-right side of the Timeline graphic (see above). This value chooses the timing of the grid that is displayed in the Timeline, and controls where you can create and move breakpoints to.

Change the **snap value** by clicking on the number (e.g. "1/32" in the example) which brings up a pop-up for choosing the snap timing.

4.12   TIME FREEZE MODE

When notes are played using the Time Freeze feature, Kinisis uses the synthesis parameters at the current edit point in the Timeline, rather than moving through the Timeline from the beginning as normal. So, the sound that is heard is from a specific point in the Timeline. This has two main uses:

1) To aid in designing sounds by allowing you to listen to and edit a specific point in the Timeline.
2) As a performance tool, allowing you to move the time pointer to control what part of the Timeline plays in real-time, so that you can create interesting changes in tone as you play.

Enable Time Freeze mode using the button on the bottom-left of the Timeline:
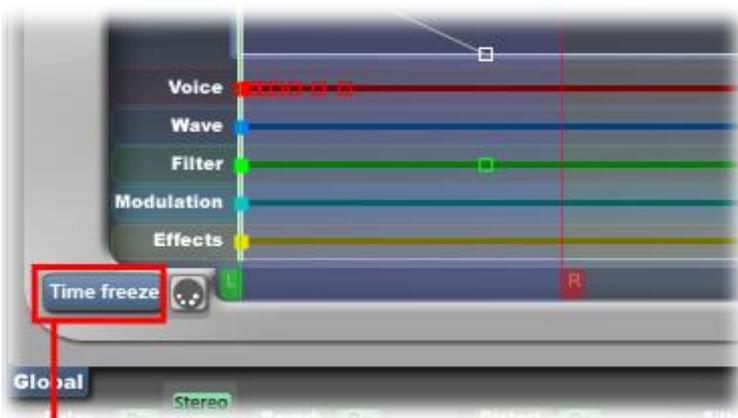
NOTE: The Time Freeze setting applies to all 4 voices at once. When on, Time is frozen for all voices, and all voices play the sound the current point in their own Timeline.

The current time pointer in the Timeline turns **blue** when Time Freeze mode is enabled. Drag the pointer left and right using the square at the top of the pointer. Kinisis will use the synthesis parameters at the current time point to create the sound when notes are played.
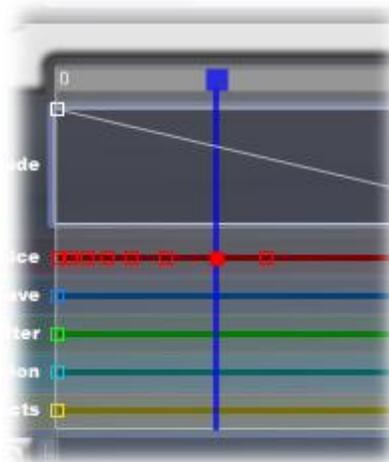
The time pointer movements can be recorded into you sequencer using automation. Automation of the time pointer is only possible while in Time Freeze mode.
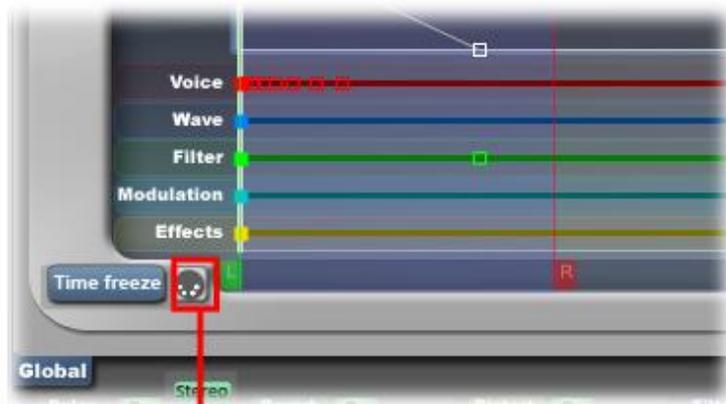
Access MIDI Learn menu for the freeze time pointer

It is also possible to use a MIDI controller to move the time slider, which is great for real-time performance. To assign a MIDI control to the time pointer, click the MIDI icon as shown above. Select MIDI Learn from the pop-up menu that appears, and then move the MIDI controller (such as a knob or slider on your MIDI input device) that you would like to assign. Kinisis will then move the time pointer as you move the MIDI controller.

NOTE: A single MIDI controller setting is stored for Kinisis on your computer. The same setting is used in every instance of Kinisis, even in other song files in your sequencer.

4.13   NAVIGATING BETWEEN BREAKPOINTS

Quickly position the current edit time pointer by clicking on a breakpoint square in the Timeline. When the pointer moves, the synthesis controls will change to show their settings at that position in the Timeline.

You may also use the **previous/next breakpoint** buttons (highlighted in the screenshot on the right) to move between each breakpoint in a particular

Previous / next breakpoint on each line

category. The current edit time pointer moves to the appropriate breakpoint.

5   DETAILS OF SYNTHESIS PARAMETERS

5.1   VOICE

1) Switches the current voice on or off. The voice will not be heard anymore when a note is played. A voice consists of all the synthesis parameters shown on the current page, as well as the current Timeline. *Not controllable by the Timeline.*

2) Change the tuning in semi-tone increments relative to the note being played your MIDI keyboard or sequencer.

3) Adjust tuning in a smaller range with more accuracy.

4) Set the left and right position of the sound in the stereo field.

5) Number of oscillators to play per note (unison). Oscillators can be layered to create a thicker, "fatter" sound. Moving the slider changes the number of oscillators used from 1 (unison off) to 4. In the *off* position, a single oscillator is used, and the *detune* and *spread* controls have no effect. *Not controllable by the Timeline.*

6) Detunes the oscillators used for unison relative to each other's pitch. Increasing the detune creates a thicker sound. Has no effect when *unison* slider is in the *off* position.

7) Moves the unison oscillators left and right in the stereo field to create a "wider" sound when used with unison. Has no effect when *unison* slider is in the *off* position.

5.2   WAVE

1) Mix between the four waves shown at the sides to produce the single wave that is played. Move the red dot closer to make it louder than the others. When the dot is centered, an equal mix of all four waves is produced.

2) Display of the wave in this position.

3) Opens a popup window which allows you to choose a different wave for this position. You can load a preset wave, or import one from a sample recording. For more information, see pages 36-37.

4) Open an editor window which allows the wave in that position to be changed in various ways. For more information, see page 39.

5) Mix between the main wave sound and a noise sound source. The noise source is useful for producing "breathy" or "airy" sounds.

5.3 FILTER

1) Turn the filter *on* or *off*. When *off*, the other controls in the filter section have no effect.

2) Set the cutoff frequency. For low-pass filters, this sets the highest frequency that is let through the filter. For band-pass filters, this is the central frequency for the band of frequencies that are allowed through the filter. For high-pass filters, this is the lowest frequency that passes through unaffected.

3) Resonance, also referred to as "emphasis" in some other synthesisers. This boosts the frequencies around the cutoff frequency, thus making the effect of the filter more audible. Low resonance gives a smoother sound to the filter, whereas high settings give a more piercing, powerful sound.

4) Choose between the three available types of filter using the arrows. The types are:

> G

Low-pass – only lets frequencies below the cutoff frequency to pass through.

Band-pass – a bell-shaped filter that only allows frequencies around the cutoff to pass through. The resonance value affects the width of the frequency range that is allowed through.

High-pass – only frequencies above the cutoff frequency can pass through.

5) When key track is *on*, the cutoff frequency follows the pitch of the note being played. In this mode, the frequency set by the cutoff knob is added to the note pitch. Use this feature when you want to get the same sound change out of the filter no matter what note is played.

5.4   MODULATION
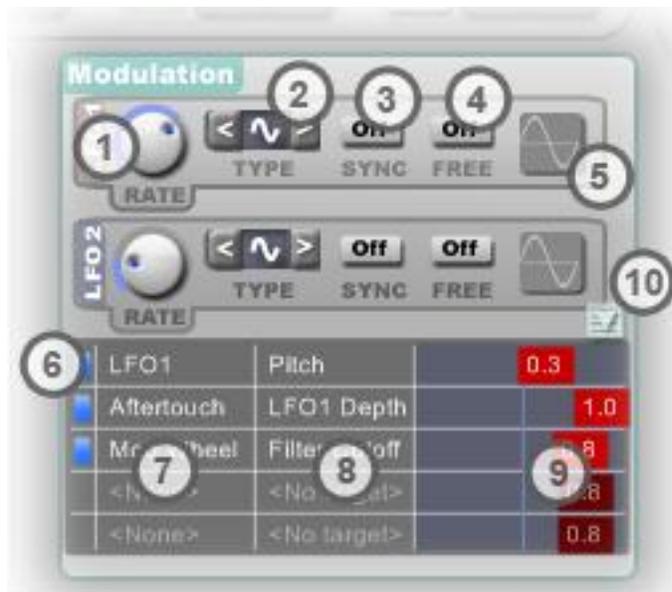
1) LFO rate. Sets how quickly the modulation wave cycles.

2) LFO wave type. Determines the wave shape produced by the oscillator.

3) Sync to host tempo. When *off*, the LFO rate is not affected by your sequencer's tempo. When *on*, the LFO rate is synchronised with your sequencer's tempo so that the oscillator plays in time with the rest of your track.

4) Enable free running LFO mode. When *on*, the LFO continues from its previous position when a new note is played. When *off*, the LFO wave always plays from the beginning when a new note is triggered.

5) Toggle whether the full LFO wave is used, or whether just the top half of the waves is used (positive mode). This can be used to create a "trill" effect. To do this, route the LFO to modulate pitch, and then set the modulation amount slider to choose the pitch range of the trill. The toggle button's icon changes to show the current mode:

Normal: whole LFO wave is used (note the icon always displays a sine wave, even if this is not the actual wave type being used).

Positive: only the top half of the wave is used.

6) Enable/disable a mapping in the modulation matrix. Must be enabled for the mapping in this row to have an effect. *Not controlled by the Timeline.*

7) Modulation source. Click in this cell to bring up a popup with a list of sources. The source provides the values which will be used to modify the target parameter. *Not controlled by the Timeline.*

8) Modulation target. Click to choose the target from the popup menu. The target is a synthesis parameter that will be changed by the modulation source. *Not controlled by the Timeline.*

9) Modulation amount. This slider is controlled by the Timeline. Slide left and right to control how much of an effect the modulation source has on the target parameter. At *0*, there is no effect. At *1*, the source has a large effect on the parameter being controlled. The *amount* slider can also be set to a negative value which reverses the effect of the modulation. So, when the source value increases, the target parameter is decreased.

10)   Options menu popup for the modulation matrix. This allows you to copy the routeings to another voice.   Note that this only copies the modulation source and target selections. The amount values, on the other hand, are controlled by the Timeline, so if you need to copy the amounts then use the Timeline controls to achieve this (see page 9).

5.5   EFFECTS
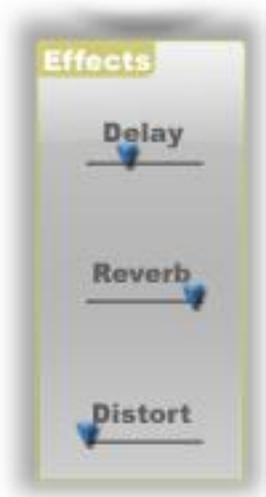
Each voice has its own set of effects sends. These control how much of the audio from this voice is sent to each of the **global effects**. Note that this means there is only one reverb, delay and distortion effect available per Kinisis synthesiser. Use the global effects section controls to enable the effects you want to use and set their controls, and then use the send effect sliders to route audio to the effects as needed.

The **send amount sliders** are controllable by the Timeline, so it is possible to use this in interesting ways. For example, you can apply reverb to just the attack part of a sound and leave the tail dry. Or, perhaps create a pad sound that becomes more distorted and crunchy as the note is held down.

6   GLOBAL EFFECTS AND SETTINGS

The **Global** section of the user interface is dedicated to controls that apply to the whole of the Kinisis program. These controls are not linked to the Timeline.

The controls in the **Global** section can be automated if your host sequencer software supports this feature.

6.1   EFFECTS

Kinisis provides a set of effects that are shared by all the Voices in the synthesiser. Use the sliders in the effects section of the synthesis controls (see page 29) to route audio through an effect processor. Effects that are not being used should be switched off to conserve CPU power.

Delay

An "echo" effect.

On/Off: ensure that the effect is switched on so that the "effect sends" sliders in the synthesis parameter section produce a result.

Time: How often the echoes are repeated.

Feedback: The volume of the sound that is repeated. With a low setting, the echoes will quickly fade away to silence. At the maximum setting, the echoes will repeat forever.

Mix: sets the overall volume level of the delay effect.

Stereo: With stereo mode *on*, a wide effect is achieved with different delays in the left and right channels. When *off*, a narrow, mono effect is produced.

Reverb

Simulates the ambience created when a sound bounces around a room or some other space.

On/Off: ensure that the effect is switched on so that the "effect sends" sliders in the synthesis parameters section produce an effect.

Time: time taken for the ambience effect to fade to silence.

Size: Size of the simulated space. A small value produces an effect similar to a small room, whereas a higher value resembles a hall or similar large space.

Mix: sets the overall volume level of the reverb effect.

Distortion

An effect that makes sound thicker, harsher and more aggressive. Commonly used with electric guitars, this is also a useful effect for a synthesiser.

On/Off: ensure that the effect is switched on so that the "effect sends" sliders in the synthesis parameters section produce an effect.

Tone: changes the character of the distortion sound. Low settings give a warmer sound, while high settings give brighter, more extreme distortion.

Drive: the amount of gain that is applied to the sound before it enters the distortion effect. Increasing the drive gives more extreme distortion, and also produces a more aggressive sound.

Highs: filters the high frequencies of the sound produced by the effect. This is useful since distortion produces lots of treble so you may use this control to reduce harshness if needed.

Filters
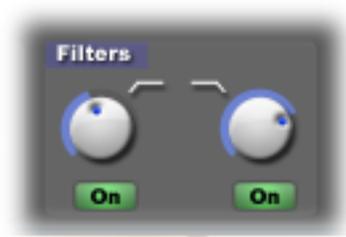
The high and low frequencies of the overall Kinisis sound can be filtered to allow you to generally shape the tone and fit it into a mix. Separate high pass and low pass filters are provided, and these can be enabled independently.

6.2   VOICE MIXER

Set the overall volume of each of the four voices by dragging the faders up and down with the mouse.

Use these controls to conveniently mix the various voices in your patch without needing to edit amplitude envelope graphs.

6.3   KEYS

The Keys panel allows you to control how Kinisis responds to notes played through your MIDI keyboard or through your sequencer.
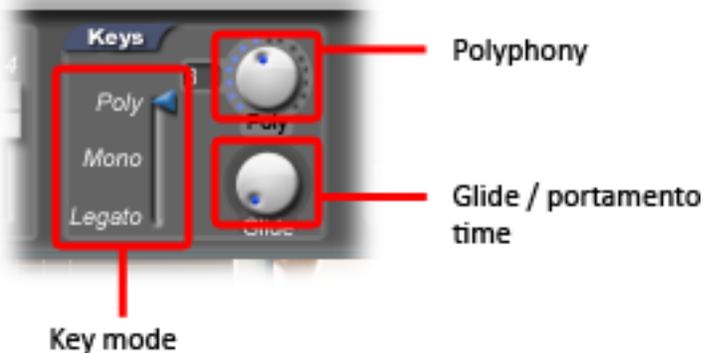
Key mode: choose between three modes for how Kinisis responds to notes:

- **Poly (Polyphonic):** multiple notes can be played at once. Use the *polyphony* knob to set how many notes can play simultaneously. If the maximum polyphony is exceeded, the oldest note is stopped to allow a new note to be played.
- **Mono:** a single note can be played at once. Usually suitable for bass and lead sounds. When a new note is played, any previously playing note is stopped.
- **Legato:** only one note can be played at once. If a new note is triggered when no other notes are playing, then the new note starts playing from the beginning as normal. If a note is already being held down, it continues playing but its pitch changes to the pitch of the new note being held. If you release a playing note while another note is being held, the note continues playing but changes to the pitch of the previously held note. *Legato* mode allows you to play smooth leads and bass lines.

Glide: when a new note is played, its pitch glides from the last note's pitch to the new pitch. The *glide* knob sets how quickly the pitch change happens. At its lowest setting, the new note instantly plays its correct pitch.

6.4   PITCH BEND RANGE

Set the number of semi-tones of pitch bend that is available using your MIDI keyboard's *pitch bend* wheel/stick.

6.5   MASTER VOLUME

Controls the final volume at the Kinisis audio output.

7   EDITING WAVEFORMS

Kinisis allows you to generate sound by mixing between four waveform in the **Wave mix** section of the synthesis controls. Controlled from the Timeline, this is a powerful method of creating interesting changes in tone.

The waveforms can be created in various ways:

- Using one of the standard built-in waveforms (ramp, square, sine, silence)

- Loading a preset

- Importing from a WAV audio file

- Created using the *additive* and *waveform* editor provided by Kinisis.

Each Voice has its own independent set of waveforms.

7.1   BUILT-IN WAVEFORMS

To load a standard built-in waveform (ramp, square, sine, silence):

1) Click the **Load** button next to the waveform you would like to change

2) The **Waveform browser** dialog popup appears. Click on a waveform from the **Standard waves** section to load it:


3) Click **Close** to exit the dialog.

1) Click the **Load** button next to the waveform you would like to change

2) The **Waveform browser** appears which allows you to access preset waveforms.
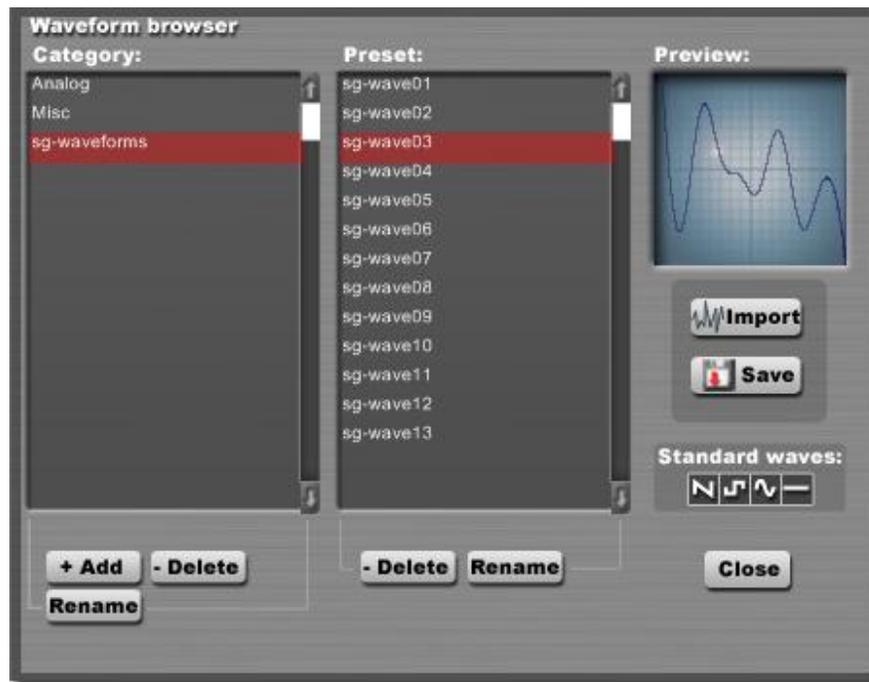
3) Choose a **Category** from the left panel. Each category contains a list of presets which appear on the preset list on the right.

4) Click on a **Preset** from the list. The preset is instantly loaded and you can play notes on your MIDI keyboard to hear how the chosen waveform

affects to current patch. The waveform is displayed in the **Preview** display screen on the right of the dialog.

5) When you are happy with your selection, click **Close** to return to the main Kinisis screen

7.3   IMPORTING A WAVEFORM FROM AN AUDIO FILE

Kinisis can import waveforms from WAV audio files. The following kinds of files are supported:

- 8bit, 16bit, or 24bit bit depth, 44.1kHz sample rate WAV files
- Single-cycle waves can be used, but long samples are also accepted. If a longer WAV is used, Kinisis will analyse the beginning of the sample and extract a single-cycle waveform.

Note that your imported waveform may look different in the Kinisis waveform editor. This is normal. The waveform is sometimes modified by the import process in order to improve the sound quality when using that waveform in Kinisis.

1) Click the **Load** button next to the waveform you would like to change

2) From **Waveform browser** that appears, select **Import**:
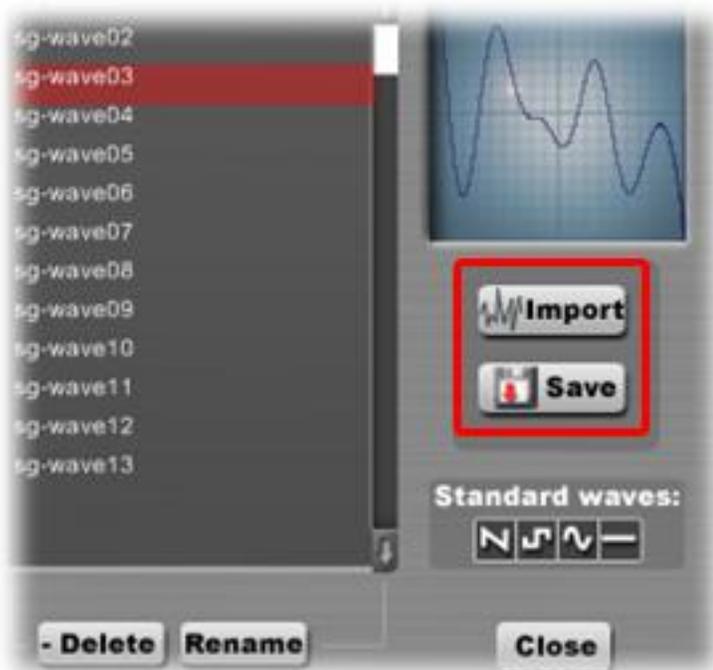
3) Find a WAV file on your computer to import from the file browser that appears. The sample will be loaded and displayed in the **preview** display.

4) If you would like to save the imported waveform as a preset that can be reused, click the **Save** button (located under the **Import** button). Enter a name for the preset, select the Category to add it to (or create a new one) and click **Save** to create a new preset.

5) When finished, click **Close** from the **Waveform browser** window to return to the main Kinisis editor.

Click the **Edit** button next to the waveform you would like to change

The dialog that opens gives you two ways of editing a waveform. You can:

a) Directly draw a waveform shape
b) Adjust the levels of harmonics to create a wave with additive synthesis
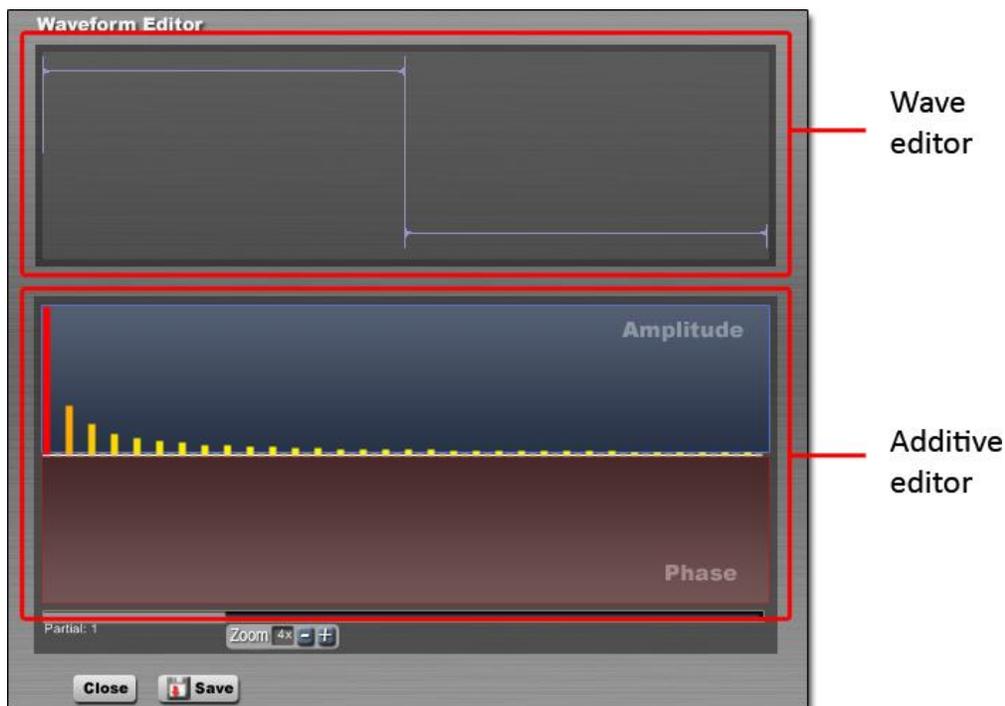
Using the waveform editor

Draw by holding down the mouse and dragging over the wave display. Release the mouse button to move the pointer without drawing.

Tips: It's difficult to achieve specific sounds with this type of editor, but it is a good tool for experimenting with. Large smooth curves produce low frequencies, e.g.:
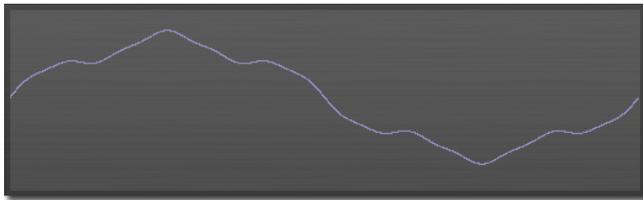
Lots of jagged lines create high frequencies:
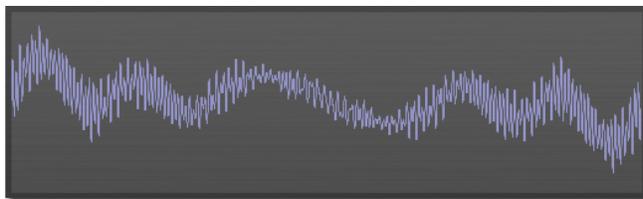
The waveform editor and additive editor are kept in sync with each other. When you make a change in the waveform editor, the additive editor will update to reflect the change.

Using the additive editor

The additive editor allows detailed and precise editing of the frequencies that make up a waveform. Any waveform can be created by adding sine waves with the right frequency and amplitude. The Kinisis additive editor gives you control of 256 sine waves at fixed frequencies, and allows you to set their amplitude and phase.

Frequency

Each bar sets the amplitude of a sine wave

Amplitude

Phase

Increase amplitude

Increase phase

Partial 25

Zoom 8x

Wave number that mouse is over

Scroll bar

Zoom the view

Each bar sets the phase of a sine wave
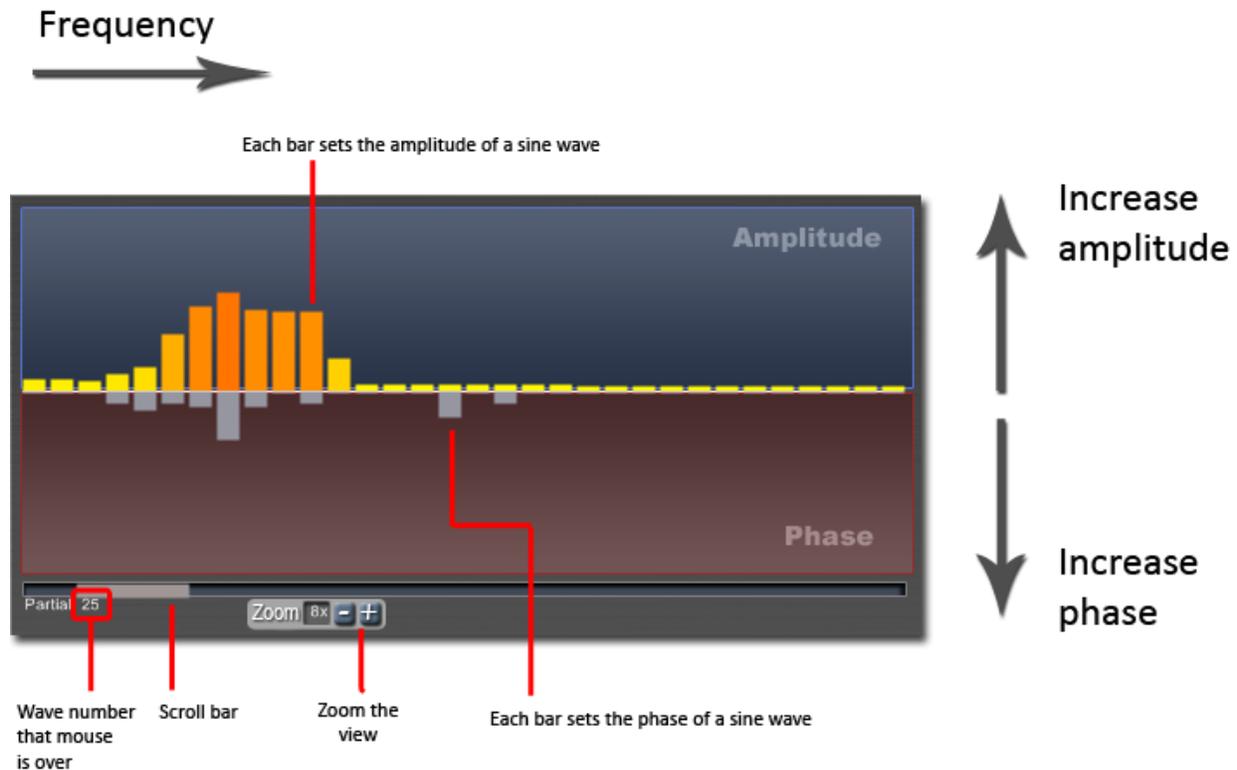
Each column represents one sine wave. Click to set the value of the bar you are hovering over. The height of the mouse position determines the value that is set. You can also hold the left mouse button and drag a bar up and down to adjust its value as you move. You can edit multiple bars quickly by holding down the left mouse button and moving the mouse left or right over the bars you want to change.

Use the zoom control to allow easy editing of specific bars. When you are zoomed in, not all bars are visible on the screen at the same time. Use the scroll bar to move between all the available bars.

Amplitude

The low frequency bars add bass frequencies to the waveform. Increase the low frequency waves to give a fuller, warmer tone to the sound. The higher frequencies add brightness, and can also create a more metallic tone. However, too much of the highs can quickly lead to a harsh sound.

Phase

The phase settings do not have a direct effect on the tone of the waveform. However, phase is important if you use the **Wave mix** feature of the synthesiser to blend different waves. If frequencies with different phases are mixed together, then those frequencies can cancel out to an extent depending on the phase difference. This cancelling of frequencies might lead to an unusual change in tone and some frequencies disappearing as the sounds are mixed. To avoid this effect and achieve the most natural mixed sound, set the phase of all frequencies to zero by pulling all the phase sliders up to the centre of the editor window. You may instead like to purposely create phase differences to get a different sound while mixing between waves.

Note that adjusting phases will alter the appearance of the waveform in the waveform editor at the top of the window. However, the tone of the waveform stays the same since it contains the same amount of each frequency, and this is what determines its tone.

8   PERFORMANCE CONTROLS

The **Perform** page allows you to control some sound parameters as you play, changing the character of the patch in real-time. You can use the mouse, or map controls on your MIDI controller for hands-on control of many parameters at once.

The performance controls **shift the existing values of the mapped parameter** as notes are played back**.** For example, if your patch has filter cutoff frequency changes programmed into the Timeline, you can assign a performance control to the cutoff and shift the existing frequencies up or down in real-time.

Six X-Y pads are provided, with 2 parameters assignable to each pad. Move the pointer around the pad to control a value, with the X axis (left-right) controlling one value, and Y axis (up-down) controlling another.

Pointer which controls your assigned parameters. The X and Y directions control separate parameters

Current parameter value being set by the pointer (-1 to 1)

Button brings up list of parameters to assign to this axis

Name of parameter assigned to this control

Which voice this control is linked to

Button to allow you to assign a MIDI controller
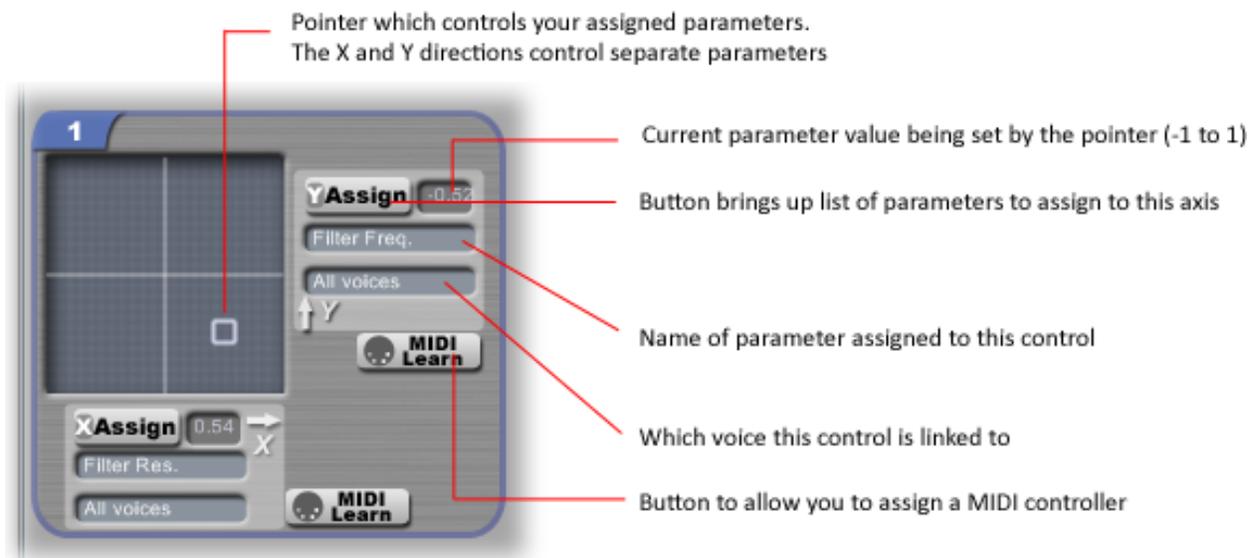
8.1 CHOOSING A PARAMETER TO CONTROL

Click the "X Assign" or "Y Assign" button to choose which parameter is controlled when the pointer is moved.

From the first popup menu, select from which voice you want to assign a parameter. You may choose a specific voice, or "all voices" so that a certain parameter from all four voices is assigned.

When you select the voice, a sub-menu appears showing the list of parameters that can be assigned. Click one to complete the process. You will see the chosen voice and parameter appear in the display.

Changing an existing assignment or changing which voice it is assigned to

Click on an "assign" button and choose a new parameter setting. The previous setting will be overwritten.

8.2 REMOVING AN ASSIGNED PARAMETER

Click the "assign" button for the setting you want to remove, and select "<None>" from the popup. That axis of the chosen pad will no longer control a parameter.

8.3 USING AUTOMATION WITH YOUR HOST SOFTWARE

The performance control pointer positions can be automated by your host software (assuming the host supports automation). This is the only way to automate sound changes in Kinisis.

NOTE: You cannot automate any of the synthesis controls that are linked to the Timeline directly. Automating the synthesis controls would cause the Timeline to be edited at the current edit point when the automation is played back, and this is usually not what you want! Therefore, the only way to automate synthesis parameters is using the "Perform" page.

8.4 MIDI LEARN

To assign a MIDI control to an axis, click the "MIDI Learn" button. Select MIDI Learn from the pop-up menu that appears, and then move the MIDI controller (such as a knob or slider on your MIDI input device) that you would like to assign. Kinisis will then move the time pointer as you move the MIDI controller. You assign controllers separately for the X and Y axis of each pad.

To remove the connection between a MIDI controller and a performance pad, click the "MIDI Learn" button and select "Disconnect from MIDI controller" from the pop-up menu.

NOTE: A single set of MIDI controller settings are stored for Kinisis on your computer. The same settings are used in every instance of Kinisis, even in other song files in your sequencer.

9 WHERE FILES ARE KEPT

You may wish to find various Kinisis files on your hard disk in order to create backups, install new patches, etc.

9.1   ON WINDOWS

The **KinisisWinVst.dll** file is the main plug-in file, and it is put in the location you chose when you installed Kinisis. This should be your sequencer's **Vstplugins** folder.

Your **Patch**, **Waveform**, and **Timeline** preset files are stored in the *Application Data* folder. To quickly view this folder in Windows Explorer:

1) Press [**Windows key** + **R**] to open the *Run* dialog.
2) Type **%appdata%\Progress Audio\Kinisis** and click *Ok*.
3) A folder will open which contains the various Kinisis preset folders.

9.2   ON MAC OSX

Kinisis supports the Audio Units and VST formats on the Mac. The Audio Unit plug-in path is **/Library/Audio/Plug-ins/Components/KinisisMacAU.component**

The VST plug-in path is **/Library/Audio/Plug-ins/VST/KinisisMacVst.vst**

Your **Patch**, **Waveform**, and **Timeline** preset files are stored in the following path:

/Library/Application Support/Progress Audio/Kinisis