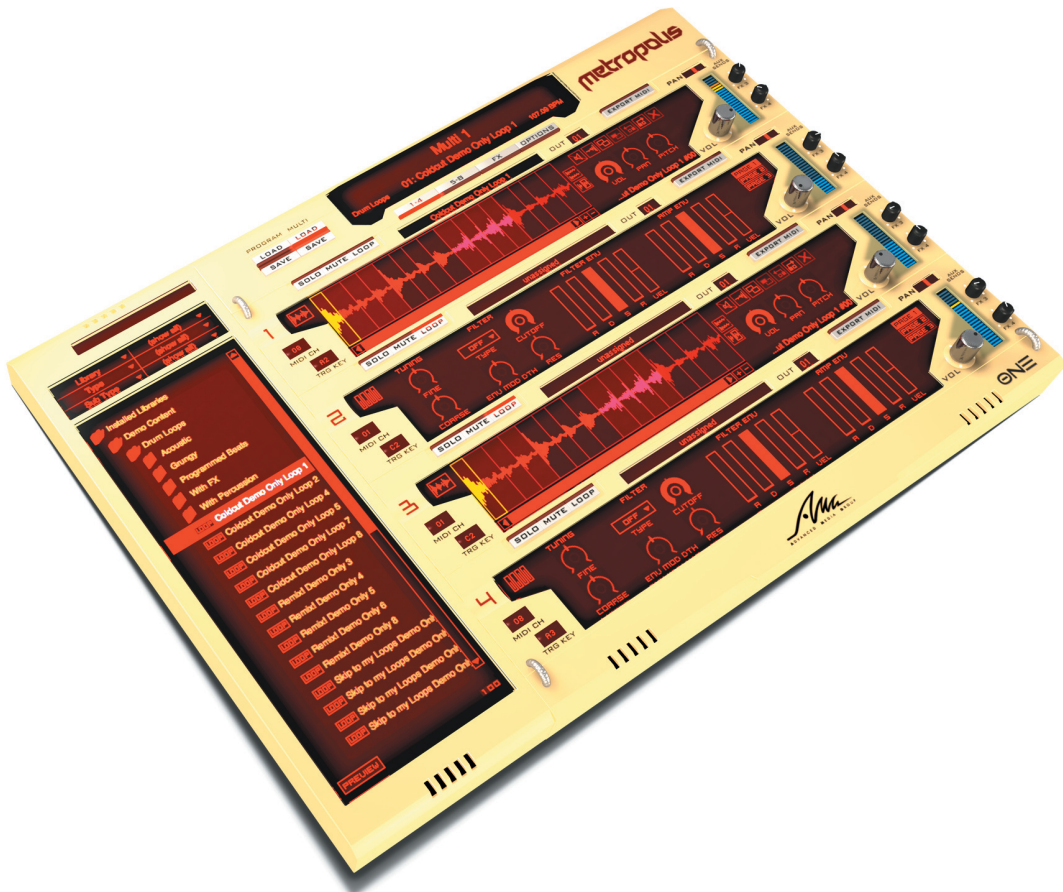


metropolis



THE HIP HOP VIRTUAL INSTRUMENT

USER MANUAL



1. Foreword

Thank you for purchasing Metropolis edition of AMG's ONE virtual instrument. To get the best from your software purchase, we recommend that you read this manual carefully and keep a copy in a safe place for future reference. Some images in this manual are taken from the original ONE colour scheme but it is operationally entirely the same as Infinite Groove - see the library guide for more specifics of this edition of ONE.

Should you experience problems operating this product and can't find the answers in this manual, our technical support representative can be contacted at support@samples4.com, via the links on www.samples4.com or your local distributor.

Don't forget, when contacting technical support to describe the problem in as much detail as possible, and provide details of your system configuration (operating system, host program, CPU, RAM, etc.).

The AMG virtual instrument team

2. Compatibility

The AMG ONE virtual instrument has been tested with a wide variety of Audio Unit and VST2-compatible host programs. However, host programs vary in their specifications and some may not implement features in the AU or VST2 specifications that AMG ONE relies upon. You should carefully check a demo version with your own system if you are worried about compatibility issues.

3. System Requirements

- Windows, PIII 1ghz processor, 512mb RAM, 16bit sound card
- Mac OS-X 10.3.9 or better, 800 MHz G4, 512mb RAM
- VST2 or Audio Unit plug-in compatible host software

You can find a list of Audio Unit or VST2 plug-in compatible host software at www.kvraudio.com, the internet's best resource for information about audio plug-ins and hosts.

4. Introduction – What does AMG ONE do?

The AMG ONE virtual instrument plug-in is a powerful way to play and manipulate sampled "loops" in your music. Sampled loops are one of the core ingredients in modern music and sound design, and AMG have dedicated themselves over the last 15 years to bring musicians the finest sound library on the planet.

Using sampled loops on a computer hasn't always been easy however. Once a sample is recorded, the duration and pitch are fixed. If you have ever tried to speed a sampled loop up or slow it down you'll know already that it is impossible to do so easily without affecting the pitch or the sound quality. This is where the technique of loop "slicing" comes into its own. Loop slicing is the process of separating a sample into its constituent beats in software such as Propellerhead Software AB's popular "Recycle" program, or Sony's ACID. Once a sampled loop has been correctly sliced it can be used much more freely with regards to pitch and tempo, and musicians are free to mix and match sampled loops from various sources seamlessly within the same composition.

Until recently, musicians wanting to take advantage of sliced loop sample files such as REX or ACIDized music loops often had to rely on clumsy work-arounds to access their sample libraries from within their host sequencer. Thankfully, AMG ONE gives you direct access to your loop library from within your host sequencer, with convenient plug-in integration. You can load a loop, jam with it live from your MIDI keyboard or mangle the beat with powerful synthesis features such as envelopes, LFOs and multi-mode resonant filters. On top of this ONE comes crammed with a huge chunk of our World class sample library worth three times more than you paid for ONE too! Read on to find out how to enter the new era of sampled loop manipulation!

5. Copy Protection

The files in the AMG ONE library are protected from unauthorised use by an advanced encryption scheme. In order to access the encrypted content, customers must register their ONE purchase at the AMG website. In order to register, three pieces of information are required:

Customer Name/Address

Serial Number

Machine ID

The serial number of your AMG ONE virtual instrument is unique for each copy sold and will be shown on a sticker in the product packaging. The Machine ID is a special 32-character code displayed on the product's Option page, generated using information about your specific computer. The machine ID does not access or use any information that might be able to identify you as a person – instead, a number of internal hardware metrics are scanned and combined to calculate your Machine ID.

Once AMG receive your registration, you will receive a small license file by email that you must save onto your system in the AMG ONE library folder. Once installed, the license file will enable you to access the encrypted content, but only on the machine authorised to run the plug-in. If you need to install the library on multiple machines, please contact AMG customer service for more information.

Unencrypted demo content from a variety of AMG loop libraries is also provided so you can have fun with your new purchase whilst waiting for your license file. Remember, you do need to provide a genuine, working email address to receive your license file.

Section Summary:

- **AMG use special encryption to protect their ONE sound libraries from unauthorised use**
- **You must obtain and install a license file before you can use the encrypted loops**
- **Demo loops are installed for you to use while you are waiting to receive your license file**



6. Front Panel Basics

When AMG ONE is correctly installed in your host sequencer, it will be selectable from within your host program's VST instrument or Audio Unit menus. When AMG ONE is selected (in accordance to your host program's instructions), the user interface above will be displayed.

Although the user interface looks complex at first sight, it has been designed to make all the main controls you need closest to hand. "Deeper" editing can also be performed by opening additional screens within the interface.

There are six basic types of controls used throughout AMG ONE's user interface:-

- **Text boxes**

Text boxes display a string of text such as a patch, file or sample name. In most cases you can edit the text box value by double-clicking on it, and see further options by right-clicking on it.

- **Rotary controls (knobs)**

Controls such as filter cutoff and resonance, as shown in the screenshot above, use rotary controls to display their settings. To change the value of a rotary control, click on it, hold the mouse button down and drag vertically. Dragging up will increase the value (the bar will grow) and dragging down will decrease the value (the bar will shrink). Whenever you click on a control, a small pop-up box will display the exact value you are changing. To set a control to its default value, hold down the CTRL key on your keyboard when clicking, and to increase the mouse range hold down SHIFT when clicking and dragging.

- **Sliders**

The amplitude and filter envelope controls are displayed using bar-graph slider controls. To increase the parameter click and drag vertically upwards. To decrease the parameter, click and drag your mouse downwards. Apart from their visual appearance, these controls are identical in function to the Rotary Controls described previously. The pan sliders are functionally the same, but orientated horizontally.

- **Buttons**

Buttons in AMG ONE's display screen have two states – "on" and "off". To toggle a button's state simply click on it. The buttons around the edge of the user interface (for example the Load button) will activate special functions when clicked.

- **Drop-down menus**

Controls where there is a set menu of choices (for example, filter type or LFO waveform) have been implemented with drop-down menus. Click on the drop-down arrow on the right of the control to display the menu of choices, and then click in the menu to select your desired option.

- **Number Spinners**

Where the number of choices would make a drop-down menu unwieldy, a number spinner control has been used (for example, MIDI channel, trigger key and polyphony). To increase a number spinner value, click and drag vertically upwards. To decrease the parameter, click and drag your mouse downwards. You can also CTRL-click to change the control back to its default value and SHIFT-click to increase the mouse range while dragging just like the knob and slider type controls.

AMG ONE can also be controlled entirely from an external MIDI controller, providing that controller is capable of sending MIDI Continuous Controller (CC) messages. Default CC mappings are listed in the appendix, but you can use a special MIDI "learn" mode to quickly build up your own mappings. Simply right-click on any control to display a menu of the current MIDI CC settings. Choose "link to next CC" from the menu to put a control into learn mode. Once a control is in learn mode, it will automatically link itself to the next CC message that it receives.

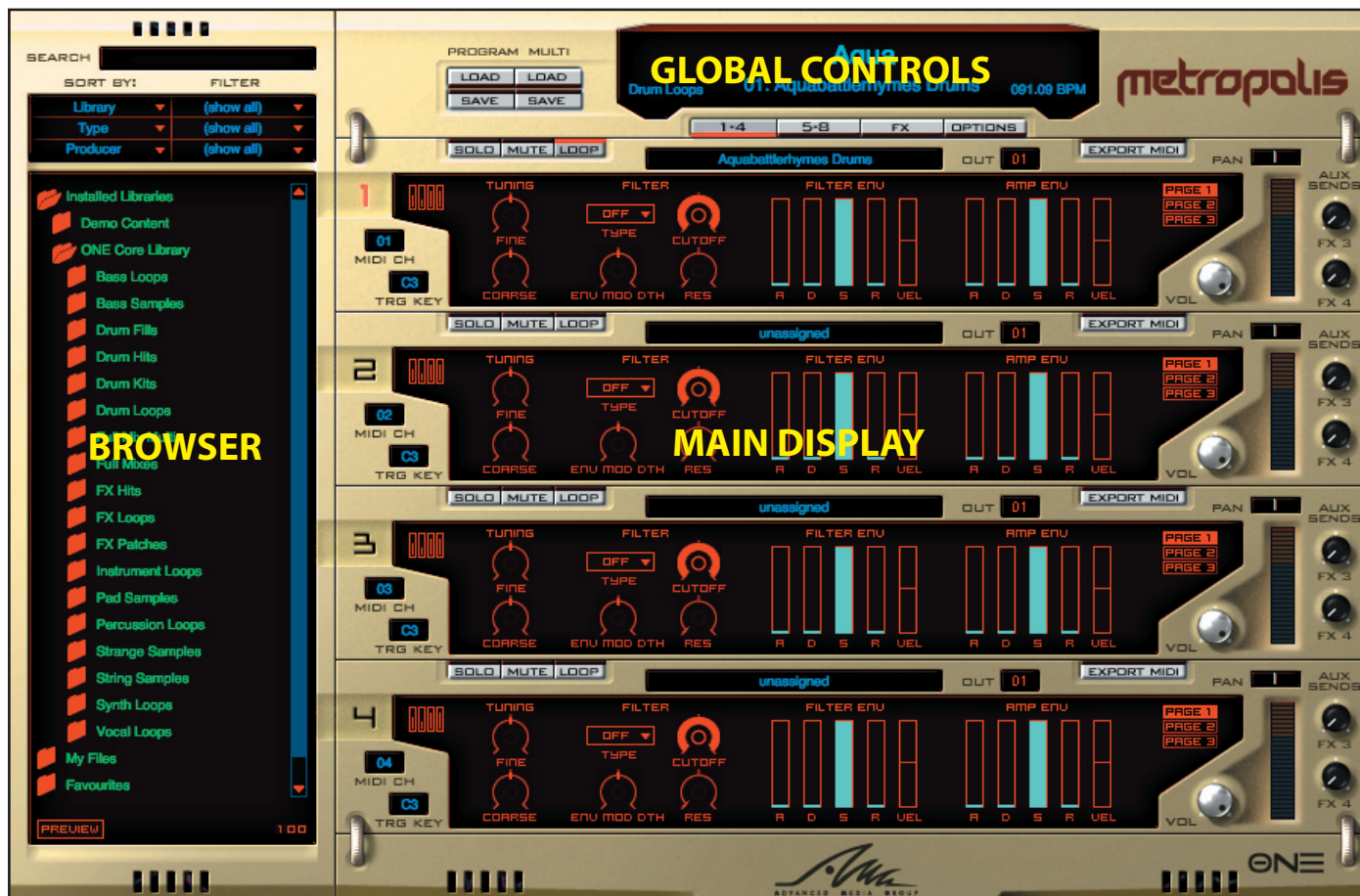
Note that MIDI controller functionality may differ from host program to host program. Some sequencers, for example, intercept and do not pass MIDI controller messages in their entirety to loaded plug-ins (FL Studio, Logic Audio for example). You should refer to your sequencer's user manual for more information if you are not sure.

Section Summary:

- **There are six types of controls used throughout ONE's interface – knobs, sliders, buttons, drop-down menus and number spinners**
- **ONE can be entirely controlled from an external MIDI controller – controller assignments can be set up easily using the MIDI learn mode, which is accessed by right-clicking on a control**

7. User Interface Organisation

ONE's interface is divided up into three main areas:-



To the left of the screen is the Browser Display, which allows you to search through the library supplied with ONE and choose patches to load.

To the right of the browser, taking up the majority of space on the interface, is the Main Display. The Main Display has four pages:

- Racks 1-4
- Racks 5-8
- FX
- Options



Immediately above the Main Display is a strip of buttons that can be clicked to select the current display page. Above the button strip are the Global Controls, which are detailed in the next section.

7.1. Global Controls



We will refer to the controls on the grey metallic part of AMG ONE's user interface at the top as the "Global Controls". This is because they are always visible regardless of the Main Display page selected. These controls are as follows (from left to right):-

- **Program Load**

Loads a sampled loop into the currently highlighted Rack. When this button is clicked a standard file dialog will be displayed. Windows users will have to select (using the drop-down selector at the bottom of the dialog window) which sort of files they are browsing for. Mac OSX users will not have to do this – invalid files will appear greyed-out in the browser dialog.

In ONE you can load loop files with the extension OPF provided they have been specially prepared for use in the software. OPF files created for the original AMG ONE/solo plugin (Dance Edition and D'n'B edition) cannot be loaded in ONE. OPF files contain the complete set of data associated with a ONE rack, including all samples, sequences, parameters and controller assignments.

You can also load sampled loops that have been specially "sliced" and saved in an appropriate format. Sampled loops sliced in Propellerhead Software's Recycle, for example, will have the file extensions REX, RX2 or RXY depending on the version of Recycle used. These can all be used in ONE provided the loop has less than 128 slices.

Sampled loops saved in Sony's ACID software will have the file extension WAV. This makes it difficult to distinguish them from ordinary WAV files which just contain plain audio in the file dialog without any slicing information. ONE is able to tell automatically if a WAV file can be loaded as a sliced ACID file (and thus be timestretched in real time) or not. If you select a WAV file to be loaded as a patch, ONE will act accordingly depending on the data in the file. If you have samples in Apple's AIFF format, these can also be loaded but they cannot be timestretched in real time by ONE.

When importing a sample that is not in OPF format, you will be asked to resave it in OPF format right away. This option can be disabled in the Options screen (see Options screen section) but it is not advisable as ONE has advanced file handling features that work best with the OPF format. There is a section discussing these file handling features, and the Options screen, later in this manual.

- **Multi Load**

ONE has eight separate Racks and four separate FX Units. There are separate parameters for each of the Rack's MIDI channel, output, volume, pan, FX send level etc. A file that contains the entire state of ONE (including all of these parameters plus all the samples and FX patches currently loaded) is called a Multi. ONE Multi files have the extension OPM.

When this button is clicked a standard file dialog will be displayed. Navigate to the desired OPM file and load it using the OK button. All information presently in memory will be erased by this action.

- **Program Save**

Saves all the settings of the currently highlighted Rack to disk as an OPF file. When this button is clicked a standard file dialog will be displayed. Use the dialog to navigate to the folder you would like to save your OPF file in, provide a filename and click "OK". The best place to save your edited files is in the "My Files" folder created when ONE is installed. Files saved in this folder can be browsed using the Browser Display. More information about file handling is given later in this manual.

- **Multi Save**

Saves the entire state of the plug-in including all eight racks and all four FX units to a single OPM file. When this button is clicked a standard file dialog will be displayed. Use the dialog to navigate to the folder you would like to save your OPM file in, provide a filename and click "OK". The best place to save your edited files is in the "My Files" folder created when ONE is installed. Files saved in this folder can be browsed using the Browser Display. More information about file handling is given later in this manual.

- **Multi Display**

At the very top of the global area, the name of the currently loaded Multi is displayed on the top line, in large characters. Double-click on the text to change the Multi name.

The second line of this display gives information about the sampled loop loaded on the currently highlighted Rack. If nothing is loaded on the currently highlighted Rack, this line of the display will be blank.

Section Summary:

- **ONE has eight Racks and four FX units**
- **The entire state of ONE can be saved into and loaded from Multi files, which have the extension OPM**
- **The entire state of an individual rack unit can be saved into and loaded from Patch files, which have the extension OPF**

7.2. The Browser Display

The Browser Display is a tool to help you organise your sound library easily. This edition of ONE is supplied with over 3500 sampled loops

The Browser Display is split into three sections: Search, Sort By/Filter and the Browser itself.

- **Search**

Search allows you to find files in your Installed Libraries folder, your My Files folder or your Favourites folder. Simply type in the name or partial name of the Program (or Single Shot or Multi) you wish to find and hit Return. The search results will be displayed in the Search Results folder in the Browser.

- **Sort By/Filter**

The Sort By and Filter By menus allow you to organise the contents of your installed libraries as you wish. Clicking on the menu arrows will bring up a list of categories which can be used to sort the Installed Libraries folder, including:

Library, Genre, Producer – these sort the items in the installed libraries by library name, the genre of the item and the producer of the item

Format, Type, Sub-Type – these sort the items by format (e.g. Loop, One Shot, FX Patch, etc.), type (e.g. Drum Loops, Bass Hits, Full Mixes, etc.), and sub-type. The types and sub-types will vary according to which libraries you have installed.

BPM – this allows you to sort items in the installed libraries by BPM range (100 to 109, 110 to 119, etc.) Multis and Single Shots will most likely not have a BPM value.

Effect Type, Algorithm – these sort FX patches by type (ambience, modulation, etc.) and by the specific algorithm used (reverb, delay, etc.). Loop patches, Multis and Single Shots will not be sorted by these choices.

None – this allows you to browse items without sorting them.

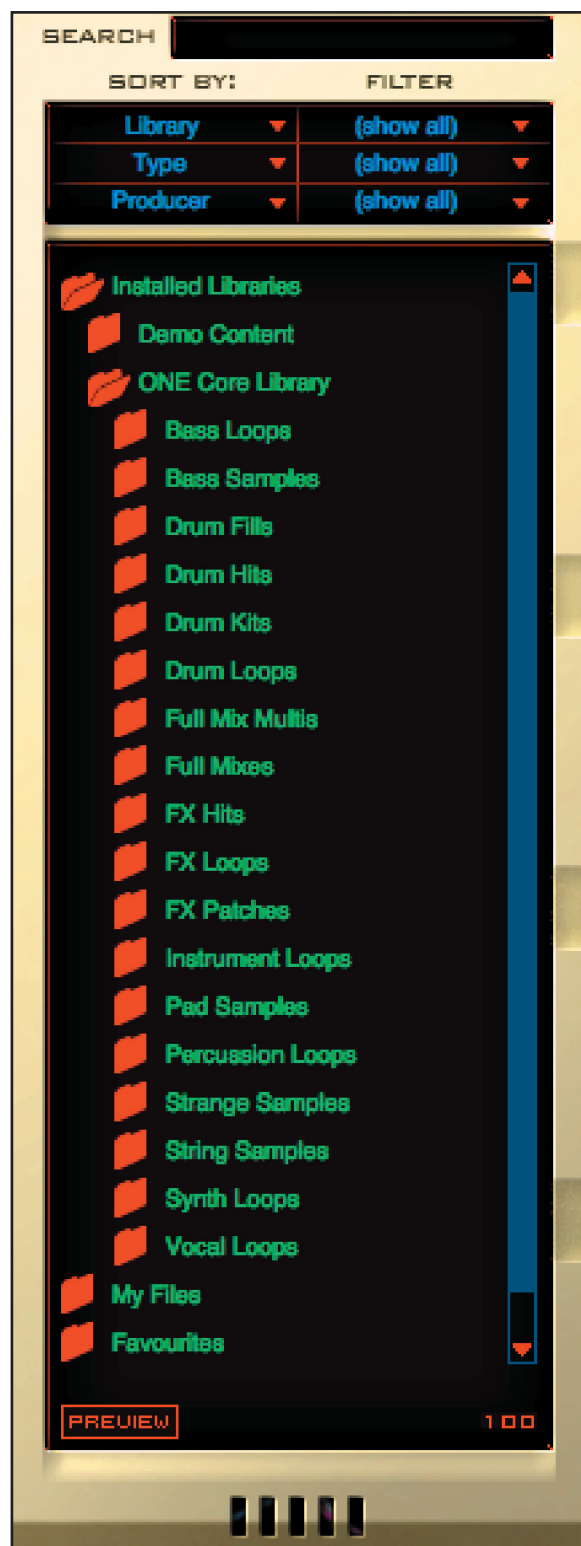
These sort criteria affect the folders visible under the Installed Libraries folder in the Browser. If for example, you choose “Producer” in the first sort box, then if you expand the Installed Libraries folder, there will be a folder for each producer in Installed Libraries. If you choose BPM in the first sort field, there will be a folder within the Installed Libraries folder for each BPM range in your installed libraries.

There are 3 sort fields, so you may select multiple sort criteria. If you select (for example) Producer in the first sort field, Type in the second field and BPM in the third field, you will get the following structure in the Browser:



Using the filter boxes it is also possible to restrict the browser to show only parts of the library. For each sort field, there is also a filter menu. If you click on the filter field arrow it will bring up a menu with “(show all)” and all the possible values you can filter by.

For example if you select Producer in the first sort field, clicking on the first filter field arrow will display a menu. If you choose “(show all)” the Browser will display Programs (or Multis, etc.) by all Producers. If you select a single producer from the filter list, the Browser will only display items created by that producer.



You can apply a filter for each sort option chosen.

- **Browser**

The Browser shows all files that can be loaded by ONE. This includes ONE's Multis/Programs/FX patches/Hits files and the other types of files that can be loaded by ONE (WAV, AIFF, REX, etc.) Files and folders can be easily identified by the icon to the left of the filename. Horizontal and vertical scrollbars appear when needed to navigate the Browser.

You will see the following icons in the browser:



Double-clicking on a folder will open it to display the folder contents, or close a folder which is already open.

There are four special folders which have some special context menus accessed by right-clicking on the folder:

Installed Libraries

This folder shows all Multis/Programs/FX patches/Hits for all installed libraries. If you have added or removed libraries from the Installed Libraries folder on disk, you will need to rescan the folder by selecting the "Rescan installed libraries" context menu option.

My Files

This folder shows all compatible files in your My Files directory. If you have saved new files in this folder or deleted any files you will need to rescan this folder by selecting the "Rescan My Files folder" context menu option.

Favourites

This folder shows all files you have added to your favourites folder. You can add files to this folder from elsewhere in the Browser by right-clicking the file and selecting the "Add to favourites" option.

Right-clicking any file in this folder brings up a menu which allows the file to be removed from the favourites folder.

Search Results

This folder contains any item found by using the search function (described previously). The number in brackets shows the number of items found by the search.



This icon identifies a ONE Multi file. Double-clicking on the file will load the Multi file as described in the Multi Load section. All information presently in memory will be erased by this action.

Multis can be added to the Favourites folder by right-clicking and selecting "Add to favourites".



This icon identifies a ONE Program file. Double-clicking on this file will load the Program into the currently selected rack, overwriting the contents of the rack.

Clicking on the Program and holding the mouse button down for a short while will preview it at the current tempo. This can also be achieved by selecting the Program and clicking on the "Preview" button at the bottom of the Browser.

Programs can be added to the Favourites folder by right-clicking and selecting "Add to favourites".

To use the individual slices of the Program in the Waveform Screen or Step Sequencer (described later) you can right-click and select the "Export Samples" option. This will save each slice in the Program as a separate OPS file in a directory chosen by the user. It is highly recommended that the user save these files in their My Files folder, since otherwise they will not be able to be used by the Browser. If the original Program was copy protected, these OPS files will be copy protected too.



This icon identifies a ONE FX patch file. Double-clicking on this file will load the patch file into the currently selected FX unit. If you are not on the FX page, a message will appear, asking you to select an FX unit first.

FX patches can be added to the Favourites folder by right-clicking and selecting "Add to favourites".



This icon identifies a ONE Single Shot (OPS) file. Normally these files contain a single sound, such as a drum hit, bass note or sound effect and are loaded into a single sequencer slot or waveform slice, but they can also be loaded directly into a rack and played back at different pitches across the keyboard.

To load a single shot into a waveform slice, select the Waveform Display page in a rack, select one or more slices into which to load the file, then double-click the single shot file in the browser. The Waveform Display is described in more detail later in this manual.

To load a single shot into the step sequencer, select the Step Sequence page in a rack, select one or more slots into which to load the file, then double-click the single shot file in the browser. The Step Sequencer is described in more detail later in this manual.

To load a single shot to be played back across the keyboard on a rack, select the Synth page for the rack, and double-click the single shot in the Browser. This will overwrite any information in the rack and replace it with the single shot file playable across the whole keyboard at different pitches. The sample will not be timestretched to follow the sequencer tempo, but this provides simple one shot playback of samples.

Clicking on the single shot file and holding the mouse button down for a short while will preview it. This can also be achieved by selecting the single shot file and clicking on the "Preview" button at the bottom of the Browser.

Single shots can be added to the Favourites folder by right-clicking and selecting "Add to favourites".



These icons represent ACID WAV files and Propellerheads REX/REX/RX2 files. Double-clicking on such an item will load it into the currently selected rack, similar to the Load Program function described previously. Any information in the rack will be overwritten.

Note: if you have selected "auto-resave imported files" on the options screen, you will be prompted to resave the file as a ONE Program file (OPF). For further information, see the section on file handling.

Clicking on an ACID/REX file and holding the mouse button down for a short while will preview it at the current tempo. This can also be achieved by selecting the single shot file and clicking on the "Preview" button at the bottom of the Browser.

ACID/REX files can be added to the Favourites folder by right-clicking and selecting "Add to favourites".



These icons represent simple sample files - WAV files (with no ACID information) and AIFF files. Similar to single shot files, these files would normally be loaded into individual step sequencer slots or waveform slices, but it is possible to load them directly into a rack to play them across the keyboard.

To load a sample into a waveform slice, select the Waveform Display page in a rack, select one or more slices into which to load the file, then double-click the sample in the browser. The Waveform Display is described in more detail later in this manual.

To load a sample into the step sequencer, select the Step Sequence page in a rack, select one or more slots into which to load the file, then double-click the sample in the browser. The Step Sequencer is described in more detail later in this manual.

Note: for both the above, if you have selected "auto-resave imported files" on the options screen, you will be prompted to resave the file as a ONE single shot file (OPS). For further information, see the section on file handling.

To load a sample to be played back across the keyboard on a rack, select the Synth page for the rack, and double-click the sample in the Browser. This will overwrite any information in the rack and replace it with the sample playable across the whole keyboard at different pitches. The sample will not be timestretched to follow the sequencer tempo, but this provides simple one shot playback of samples.

Note: if you have selected "auto-resave imported files" on the options screen, you will be prompted to resave the file as a ONE Program file (OPF). For further information, see the section on file handling.

Clicking on the single shot file and holding the mouse button down for a short while will preview it. This can also be achieved by selecting the single shot file and clicking on the "Preview" button at the bottom of the Browser.

Single shots can be added to the Favourites folder by right-clicking and selecting "Add to favourites".

- **Preview button**

It is possible to preview Programs, Single Shots, ACID files, RCY/REX/RX2 files, WAV files and AIFF files by selecting them in the Browser, and clicking the "Preview" button and holding it down. Releasing the button will stop the preview.

While the item is previewing "Previewing..." will be shown in the browser. If the item cannot be previewed "No preview available..." will be shown instead.

- **Volume number spinner**

Dragging the volume spinner up and down sets the preview volume between 0 (silent) and 100 (full volume).

Section summary

- **The Browser shows the files available in the library and in the My Files directory.**
- **Search allows files to be found by name.**
- **The Sort By/Filter fields allow the Installed Libraries folder to be sorted and filtered by different categories.**
- **Double-clicking a file in the Browser loads it into the currently selected rack, slice or slot.**
- **Clicking and holding down the mouse previews many items in the Browser.**
- **Right-clicking displays menu options for most items.**

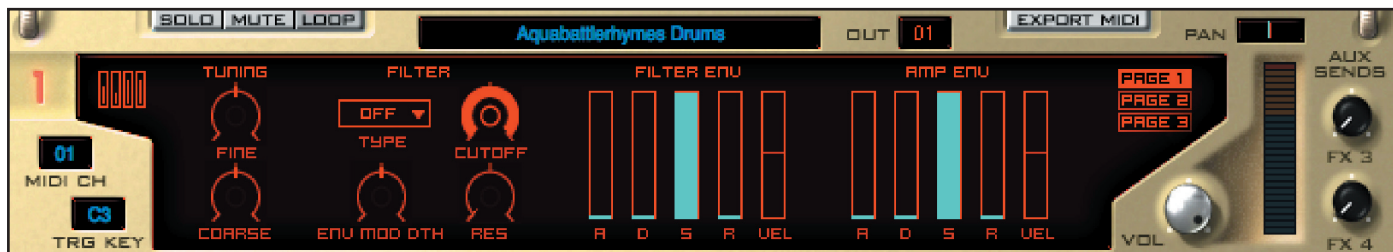
7.3. The Rack Controls

Each of ONE's racks plays back sounds on a particular MIDI channel. A rack can play back the following:

A loop patch, either from a ONE library or an imported REX/ACID WAV loop. Individual slices in a loop can be replaced or overlaid with different samples and processed in a number of ways.

A 4/4 "step" sequenced pattern comprising of up to 32 sound layers - each sound can either be loaded in from the ONE library, an external file or a slice from a loop already loaded into ONE. A step sequenced pattern can be used in the same rack as an existing loop or on its own.

A single sample patch – it is possible to take one sample and map it across the keyboard to be played back at different pitches. It is not possible to combine single sample patches with step sequenced patterns.



The following controls are visible for each rack, irrespective of what page is selected:

- **Rack Selection Indicator**

The currently selected rack is indicated by a glowing rack number. Any load/save operations will refer to the currently selected rack. A rack will usually be automatically selected when you move a control on that rack, but you can manually select a rack by clicking on this indicator.

- **MIDI Ch**

Each rack is assigned a MIDI channel and will only respond to MIDI information on that particular channel. This number spinner allows you to select the MIDI channel for the current rack. You can assign multiple racks to the same MIDI channel if you wish to overlay different loops, or you can use different MIDI channels to control each rack separately. By default, each rack is assigned to a different MIDI channel.

- **Trig Key**

This spinner determines which MIDI note will trigger the patch on this rack when in Loop mode. You can change the trigger note by dragging this value up and down. There are also three separate modes of operation which can be selected by right-clicking the spinner and choosing from the menu:

One note – the patch will only be played when the trigger key is played. Playing any other notes will result in no sound.

One octave – when the trigger key is played, the patch will be played back at its normal pitch. Playing keys up to an octave above or below the trigger key will play the patch back at a higher or lower pitch, depending on the note played. If the patch is a loop, the tempo will always be locked to the sequencer and is not affected by which note is played.

Two octaves – as one octave, but you may play notes up to two octaves above or below the trigger key.

Hint: jamming with multiple loops

A great way to jam with multiple loops is to load up a different loop into each rack and assign them to different trigger keys in one note mode on the same MIDI channel. You can trigger the different loops on your MIDI keyboard to drop different loops in and out on the fly for tempo synchronised live looping.

- **Solo/Mute**

These controls allow you to solo or mute a rack. Selecting solo will automatically mute all racks which do not have solo activated.

- **Loop**

With Loop mode switched on, the entire loop will be played back in sync with the current sequencer tempo whenever the trigger note (default C3) is received. With Loop mode switched off, the individual slices for the loop will be triggered using the notes C1, C#1, D1, etc.

- **Program Name**

This displays the name of the program on the rack. Double-click the field to edit the name.

Right-clicking the program name field brings up a context menu with the following options:

Load patch – this allows you to select a file to load and works the same way as the Load Program button.

Save patch – this allows you to select a name and save the patch to an OPF file. This works the same as the Save Program button.

Unload current patch – this unloads the patch from the current rack.

- **Out**

Clicking on the Out field will bring up a menu allowing you to send the output of the rack to one of ONE's 4 outputs, or to one of ONE's internal insert FX. More information on ONE's output and FX routing can be found in the ONE Routing Architecture section later in the manual

- **Export MIDI**

This allows you to export the MIDI notes for a particular loop. If you have a loop which sounds good but you want to rearrange some of the notes or use the timing of the loop with completely different sounds click this button, select a filename, and ONE will export a Type 0 Standard MIDI file which can be imported into your sequencer.

If you want to use this MIDI file to play the sounds in this rack, then you should use the Loop button to switch loop mode off for this rack. The notes in the MIDI file can then be used to trigger the individual notes from the sequencer of your choice, or you can rearrange the notes in your sequencer to change the timing or which sounds are triggered by a particular note.

- **Pan**

This slider allows you to alter the balance of the sound between the left and right channels of the output. -100% pans the sound fully to the left, +100% pans the sound fully to the right.

- **Vol**

This knob allows you to alter the volume of the rack.

- **Meter**

This meter shows activity on the current rack. If there's no sign of activity on this meter, there is no sound being played.

- **Aux Sends FX3/4**

In addition to the sound being sent to the Out destination (described earlier in this section), it is possible to send the sound from the rack to either or both of the auxiliary send FX channels (FX units 3 & 4). This allows you to share effects (e.g. reverbs, delays) between several racks. You can alter how much of the output is sent to each FX unit using these controls. The aux sends are "post-volume", which means that the rack's volume knob must be turned up to send any signal to the FX units. More information on ONE's FX routing can be found in the "ONE Routing Architecture" section of this manual.



- **Rack Synthesizer/Waveform/Step Sequencer Selector**

Clicking this control allows you to cycle between the rack's main synthesizer controls, the Waveform Display and the Step Sequencer. Each of these will be described in the following section of this manual.

Section summary

- **Each of ONE's racks has independent control of solo/mute, pan and volume and each can be routed to ONE's outputs or shared FX units**
- **Each rack can work in loop mode where a single note triggers tempo synchronised playback of a loop, or in non-loop mode where the slices are each triggered by different notes.**

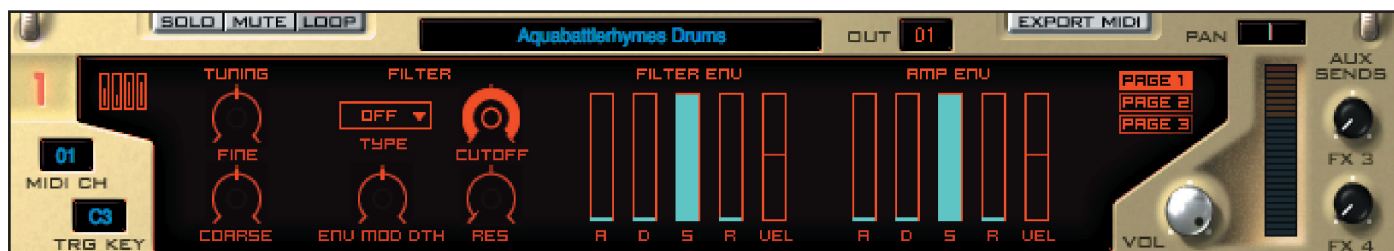
7.4. Rack Synthesizer Controls



Synth Page 1/2/3 Selector

The rack synthesizer controls are split across 3 pages. You can cycle through these pages using the page 1/2/3 selector to the right of the rack.

7.4.1. Controls on Rack Synthesizer page 1



The first virtual page of rack synthesizer controls contains just the controls most users will access most frequently.

Tuning Section

Controls in the Tuning section affect the playback pitch of the sampled loop, but do not affect the playback tempo.

- **Fine**

Sets the pitch (in cents) of the loop being played. An offset of +100 cents will cause the loop to play one semitone sharp.

- **Coarse**

Sets the pitch (in semitones) of the loop being played. An offset of +24 semitones will cause the loop to be played two octaves higher than recorded pitch.

Filter Section

AMG ONE contains a powerful multi-mode resonant filter that you can use to creatively mangle your sampled loops.

- **Filter Type**

There are 10 different kinds of filter available, accessible via the drop down menu

Filter	Description
LP12	12db/Octave Lowpass filter – reduces the treble
HP12	12db/Octave Highpass filter – reduces the bass
BP12	12db/Octave Bandpass filter – reduces the bass and treble together
BR12	12db/Octave Band reject filter – creates a notch in the spectrum like a phaser
LP24	As LP12 but with a stronger effect
HP24	As HP12 but with a stronger effect
BP24	As BP12 but with a stronger effect
BR24	As BR24 but with a stronger effect
LP/BR	A hybrid of Band Reject and Lowpass. Great for Phasey-synth sweeps
PEAK	A narrow peaking filter that emphasises only a small range of the spectrum

- **Cutoff**

The action of the Cutoff control is to set the point in the audio spectrum at which the effect of the filter begins. For a lowpass filter this means the frequency after which the treble is reduced. In a highpass filter this would be the frequency at which the bass is back to normal (the opposite of a lowpass filter!). For bandpass and bandreject the cutoff is the centre of their area of effect.

- **Resonance**

The Resonance control, in the LP12/24, HP12/24 and LP/BR filters, causes the output of the filter to feedback into the input. This creates a peak in the spectrum at the cutoff point. Many classic “squelchy” analogue synth sounds use a resonant lowpass filter. With the BP12/24 and BR12/24 the resonance control widens or focuses the filter’s effect around the centre frequency.

- **Filter Env Mod Depth**

The Env Mod Depth knob determines how much of the Env signal from the filter envelope (see next section) is added to the Cutoff frequency of the filter set by the Cutoff control. You can use this to vary how the filter opens, and closes over time for exciting dynamic effects.

Filter Envelope Section

AMG ONE has two envelope generators, one connected to the filter and the other connected to the amplifier. Each envelope generator has four stages:

Stage	Description
Attack	Time taken for the envelope output to reach maximum output
Decay	Time take to fall from maximum to the sustain level
Sustain	% of maximum output to hold at until slice end marker
Release	Time taken to die away to zero output while slice is finishing

The filter envelope parameters, in conjunction with the Filter Env Mod Depth parameter, are used to control how the filter opens and closes over time. Since the filter envelope is triggered at the beginning of each slice in a loaded sample loop, the envelope cannot be used to slowly open or close the filter as the loop plays. Instead, the filter envelope is used to create exciting and radical rhythmic “wah” type effects where the filter opens and closes rapidly on each beat of the loop. This is a huge amount of fun to experiment with so get stuck in!

One tip for creating pulsating filter effects is to reduce the Filter Envelope Sustain control to zero, and increase the Filter Envelope Decay control a fraction. By reducing the Filter Cutoff control and increasing the Filter Env Mod Depth you should hear the filter “pulsing” – opening and closing very quickly in time with the beat. Use the Filter Resonance control to emphasis this effect and add “squelch”!

If you have a velocity-sensitive master keyboard (or your host sequencer allows you to set velocity values for MIDI notes in your track) then experiment with the Filter Velocity control. When this control is set to a positive amount (e.g. +50%) you will be able to control the filter envelope output by playing harder and softer on your keyboard. When you play a trigger note harder, AMG ONE will open the filter envelope more – when you play more softly it will open it less. The exact amount of variation you can create with velocity depends on the value of the parameter – higher values give a greater range of velocity response.

When the Filter Envelope Velocity control is set to a negative amount (e.g. -50%) the relationship between the played velocity and its effect on the filter envelope becomes inverted. Playing harder (higher velocity) will yield a lower output from the filter envelope.

Amplifier Envelope section

The parameters in this section are the same as for the Filter Envelope section. However, the second of AMG ONE's two envelope generators is dedicated to the amplifier which in turn determines what you hear from the plug-in's output.

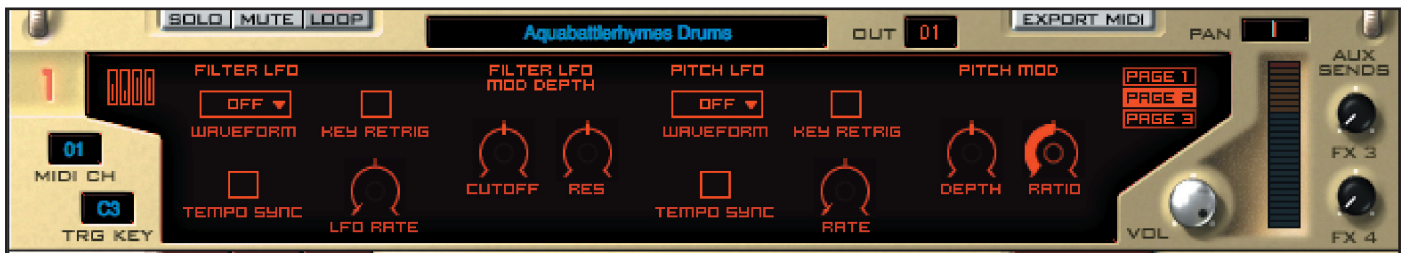
These controls can be used to radically alter the dynamics of a sampled loop. For example, the settings given in the preceding section for a pulsating filter effect can be used in the amplifier envelope to create a super-tight staccato effect.

Also of particular note is how the Amplifier Envelope Release parameter can be used. When a sampled loop is sliced into individual beats in a program such as Recycle or ACID, the length of each slice determines the relative timing of each beat. To play the loop faster, software like AMG ONE simply stops each slice short of its full length and immediately plays the next slice. This has the effect of later slices seemingly “cutting off” earlier slices which can make a speeded-up sampled loop sound slightly unnatural. Since there is still some sound left to play in each slice, you can make a speeded-up loop sound more natural by increasing the Amplifier Envelope Release parameter a few milliseconds or so. This will allow each slice to play on and fade out even after a new slice has started playing.

When slowing down a loop, slices are played to their end, but the software waits before playing the next slice. This again sounds slightly unnatural, but the Amplifier Release can help here if the loop has been cleverly pre-formatted in Recycle. Sound Designers who use Recycle have an option called “stretch”, which adds a small looped section of sound to the end of each slice that fades out quite quickly. When a loop is played at normal speed or faster, when the Amplifier Envelope Release parameter is at minimum, these stretched slices are no different from ordinary slices. However, if the sampled loop is slowed down, increasing the release parameter enables the stretched portion to be heard – this can help a loop sound more natural.

If you need dynamic control over the output level of a sampled loop, use Amplifier Envelope Velocity control. When this control is set to a positive amount (e.g. +50%), the loop will get quieter when you play more softly and louder when you play harder. The exact range of sensitivity is determined by the control setting. When the control is set to a negative amount (e.g. -50%) the effect of velocity on the output level is inverted – playing softly will make the loop play back louder.

7.4.2. Controls on Rack Synthesizer page 2



The second virtual page on the display screen contains controls that can be used to more deeply edit how their sampled loops are played.

Filter LFO section

LFO is short for Low Frequency Oscillator. You may be familiar with synthesiser oscillators that produce an audible tone – LFO's are identical but operate at a much lower frequency, often below the hearing threshold. The output of the LFO is not connected to the audio circuitry however. Instead, the rising and falling output is used to make the value of another parameter (for example filter cutoff) rise and fall automatically.

AMG ONE contains two very well-specified LFOs. The group of controls on the left relate to the Filter LFO, and those on the right related to the Pitch LFO.

• LFO Waveform

The first control is the Waveform selector that allows you to choose the waveform that the filter LFO will output. The shape of each waveform is shown on the buttons themselves and are as follows:

Waveform	Description
Sawtooth (a.k.a. Ramp)	A slow rise followed by a rapid drop. Interesting to use on synth sounds modulating pitch or filter for pulsating, rhythmic effects
Square (a.k.a. Pulse)	Rapid rise, followed by a rapid drop, not so good on filters but fun on pitch for siren effects.
Triangle	Slow rise, slow fall with sharp transitions at the maxima. Excellent on pitch and filter cutoff.
Sine	As above, but with smoother transitions at the maxima. Good for natural sounding vibrato.

• Key Retrigger

The LFO can be forced to always return to the beginning of its cycle every time a slice begins (or a key is pressed, depending on whether or not Loop Mode is active) with this parameter. When this parameter is ON and Loop mode is ON, the LFO will return to the beginning of its cycle every time a trigger is held down to play the loop. If this parameter is OFF, the LFO will run continuously and you will not be able to guarantee when playback begins the LFO will be at a particular stage in its cycle. If you want an exact LFO effect at a particular point in your song you should use the Key Retrigger feature.

If Loop mode is OFF however, since AMG ONE will be playing individual slices rather than the whole sampled loop, this parameter (when switched ON also) will cause the LFO to restart when a new slice is triggered.

• LFO Rate and Tempo Sync

These two parameters in turn determine exactly how fast the LFO will cycle. When Tempo Sync is OFF, the LFO Rate parameter is set as a value in Hz (cycles per second). However, when Tempo Sync is ON, the LFO Rate parameter is set as a fraction of a beat and is directly linked to the host program's tempo just like the slice sequencer. So if you want the LFO filter to open and close over an exact section of your song, or in sync with the beat (at higher settings), use the Tempo Sync button.

• Filter LFO Mod Depth - Cutoff

This control determines how much of the LFO signal is used to change (modulate) the Filter Cutoff setting on edit page 1. When set to a small positive value, the LFO will gently sweep the filter cutoff up and down over a small range. When set to a large positive value, the LFO will sweep the filter cutoff fully open and fully closed quite aggressively. Negative values for Filter LFO Mod Depth (e.g. -50%) will cause the LFO signal to be inverted before it is used to modulate the filter.

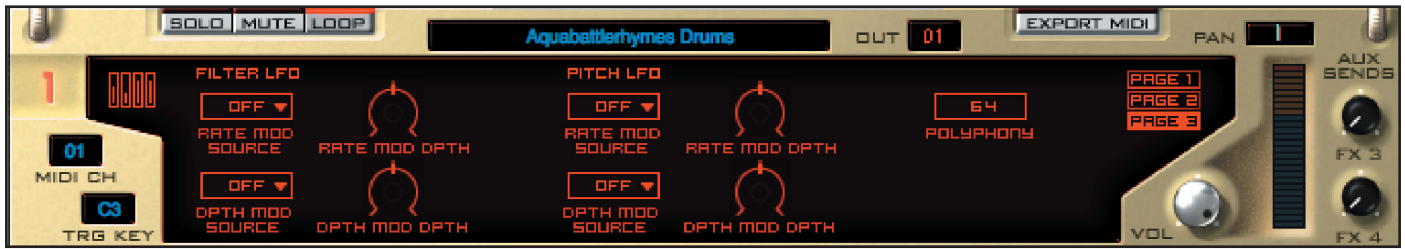
• Filter LFO Mod Depth – Resonance

This control determines how much of the LFO signal is used to change (modulate) the Filter Resonance setting on edit page 1. This control is used in much the same way as the Filter LFO Mod Depth – Cutoff control described in the preceding section.

• Pitch Mod Depth and Pitch Mod Ratio

On the far right there are two controls that determine how the Pitch LFO is used to change (modulate) the tuning of the loop being played. The first of these controls sets the amount pitch-shifting that will occur as the LFO signal sweeps up and down, the second determines the exact range over which that modulation will occur. For example, if the Pitch LFO waveform is set to Triangle, and the Pitch Mod Depth is set to +100% and the Pitch Mod Ratio left at 1:1, the playback pitch will be swept first up one octave, then down an octave and so on. If the Pitch Mod Ratio control is increased to 2:1, the playback pitch will sweep up and down two octaves instead.

7.4.3. Controls on Rack Synthesizer page 3



The third and final edit page contains controls that few users are likely to need to access on a daily basis. The controls on this page are used to determine how the two LFO signal generators will respond to MIDI messages from common controllers such as the Modulation Wheel, Velocity or Aftertouch. In the same manner as Edit Page 2, this page is divided into two sections with controls related to the Filter LFO on the left and the Pitch LFO on the right.

- **LFO Rate Modulation Source**

Determines which MIDI controller source signal will be used to change (modulate) the speed of the appropriate LFO. Choose from Velocity, Modulation Wheel or Aftertouch.

- **LFO Rate Modulation Depth**

Sets the sensitivity of the LFO to rate modulation. If set to a positive value (e.g. +50%), increasing the rate modulation source MIDI controller will cause the LFO rate to speed up. If set to a negative value (e.g. -50%) the relationship will be inverted, i.e. decreasing the MIDI controller will cause the LFO rate to speed up.

- **LFO Depth Modulation Source**

Determines which MIDI controller source signal will be used to change (modulate) the depth (output level) of the appropriate LFO. Choose from Velocity, Modulation Wheel or Aftertouch.

- **LFO Depth Modulation Depth**

Sets the sensitivity of the LFO to depth modulation. If set to a positive value (e.g. +50%), increasing the depth modulation source MIDI controller will cause the LFO output to become stronger. If set to a negative value (e.g. -50%) the relationship will be inverted, i.e. decreasing the MIDI controller will cause the LFO rate to become stronger.

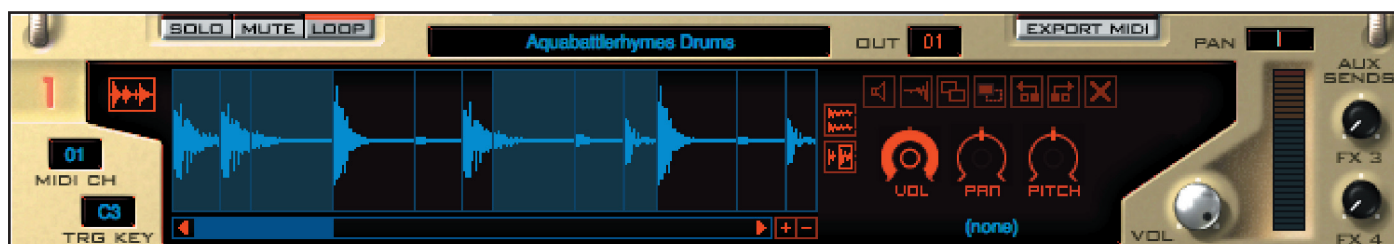
- **Polyphony**

Sets how many voices this rack will use. To change the value of this control, click on it and drag vertically with the mouse (upwards to increase, downwards to decrease). With a typical loop you are unlikely to hear much difference if you decrease the polyphony (and have the amplifier envelope release set to minimum) as loop slices don't normally overlap when played at original or slower speed. If you are speeding a loop up, have a loop that has been specially sliced in Recycle using the "stretch" parameter and have the amplifier envelope release set above minimum, you may wish to adjust the polyphony to ensure a particular level of CPU consumption. You may also find the polyphony control useful if you have loop mode switched off and are playing slices manually.

Section Summary

- **The main synthesizer controls for each rack are split across 3 pages, selected using the synth page selector control toward the right of the rack**
- **The most frequently used controls are on page 1 and control the tuning, amp envelope and filter type and envelope**
- **Page 2 contains controls to modify the pitch and filters using LFOs**
- **Page 3 contains controls to set the rack polyphony and affect the pitch and filter LFOs using MIDI controllers**

7.5. Waveform Page



The Waveform page can be used to modify a loop in many creative ways. It is split into 3 sections:

- **The left hand of the page consists of the Waveform display which shows the slices in the current loop.**
- **To the right of the waveform display there are two controls which control the appearance of the waveform display.**
- **The remainder of the controls on the right show information about the currently selected slice and provide ways to modify it.**

If the current patch contains no loop information (for example a step sequencer only patch, or in cases where a single shot sample has been loaded to play across the keyboard) this display will show the message "(unassigned)".

Waveform display

The waveform shows the slices in the current loop. The scroll bar beneath the display can be used to navigate the slices, and the +/- buttons to the right of the scroll bar allow you to zoom in or out.

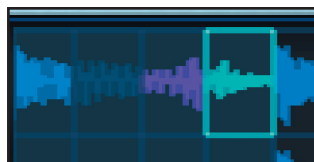
Clicking on individual slices within this display allows you select and modify individual slices. When a slice is selected the bottom right hand side of the page shows the following information about that slice:



- **The volume of the slice**
- **The pan of the slice**
- **The pitch of the slice**
- **The name of the sample for the slice**

All of the above can be edited for an individual slice.

The colour of the slice on the waveform also indicates several things about the slice:



- **Bright blue: the slice will be played back normally**
- **Cyan: the slice is highlighted**
- **Dark blue: the slice has been muted and will be silent on playback**
- **Purple: the slice has been reversed**

Multiple slices can be selected using shift-click to select a range of slices or ctrl-click to toggle the selection of individual slices. Where possible, you can select multiple slices and alter all slices at the same time.

The sound of a slice can be previewed on its own by clicking the slice to select it and holding the mouse down. Releasing the mouse will stop the preview.



It is also possible to layer additional sounds on top of certain slices. Clicking the Show Layers button will show the slices which have extra layered sounds on top.

To help get a better feel for the construction of a loop there is also a Show Current Slice button. Clicking this will highlight which slice in the loop is currently playing. This does not select slices, it simply shows what is being played back.



Show Layers Button

Show Current Slice Button

Loading samples in via the browser

In the same way as you can replace the sound of a slice or layer an additional sound onto a slice using copy/paste, you can also replace or layer a sound using the Browser.

To layer a new sound on top of an existing sample, activate the waveform layer display using the Show Layers button. Select the appropriate slot in the bottom half of the display.

Locate the sample you wish to use in the Browser (this must be a WAV, AIFF or OPS single shot file). You cannot load other file types into a slice. Double-click the item in the Browser and it will be loaded into the selected slice.

Don't forget you can preview the current slice by clicking it and holding the mouse down, and you can do the same thing to audition sounds in the Browser too.

To replace an existing sample, the same procedure is used, but you start by selecting the slice you want to replace.

As with paste, you can clear the layered or replaced sound if you wish to get back to the original.

Slice Operations

Each slice in the waveform can be altered in a number of ways – each of these functions can be initiated by right-click a slice and choosing an option from the context menu or by selecting a slice and clicking one of the buttons on the top right of the Waveform page:



Mute – mutes or unmutes a slice or slices.

Reverse – reverses or unreverses a slice or slices.

Note: If the loop has been processed to add special “stretch” tails to each sample (e.g. in Recycle! or for imported ACID loops) the ends of each sample may contain unexpected data which may show up when reversed.

Copy – copies a slice for pasting elsewhere. Slices can be pasted to any slice in any rack, or can be pasted to a slot in the Step Sequencer described later in the manual.

Paste – pastes the copied slice over the selected slice. You can paste a slice over an existing slice to replace the sound in that slice, or you can layer a sound on top of an existing slice by using the Show Layers button to show the layered slices and pasting a slice into the bottom half of the display.

Swap to Left/Right – you can exchange the sound in the current slice with the slice before or after. This is a great way of twisting existing loop in unexpected ways to provide a little variety without extensively reprogramming the loop.

Clear Sample – if you have replaced a slice with another sound, or added a layered sound onto a slice, this is how you remove that replaced or layered sound. The original sound will reappear underneath. You cannot clear one of the original sounds in the loop, but you may mute it.

Slice Parameters

This section shows the parameters for the slice or slices selected in the Waveform Display. If multiple slices are selected it will still be possible to edit the volume, pan and pitch for slices and any relative differences between the slices will be maintained. How much you can change the value of a parameter will be limited if other slices with different values are selected too. However, if multiple slices have different values for the same parameter, the limits of movement of the parameter will be restricted to ensure all slices stay within the combined minimum and maximum values. In this way you can edit the overall level of a group of slices whilst preserving their individual differences.

- **Sample Name**

Displays the name of sample associated with the current slice – double-click this field to edit the name. If multiple slices are selected, "(multiple slices)" will be displayed and this field will not be editable.

- **Vol**

Sets the volume of the current slice between 0% and 100%.

- **Pan**

Sets the L/R balance of the current slice between –100% (fully L) and 100% (fully R).

- **Pitch**

Sets the pitch (in semitones) of the current slice. An offset of +24 semitones will cause the sound in the slot to be played two octaves higher than recorded pitch.

Section summary:

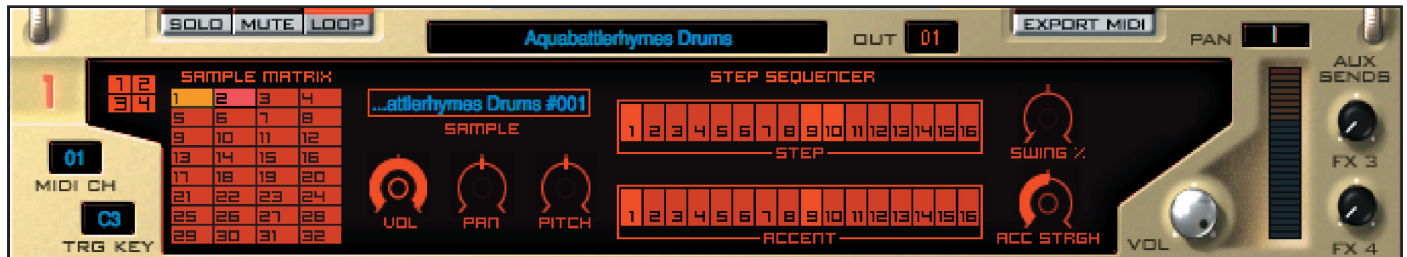
- **The Waveform page allows you to examine the slices in a loop patch.**
- **You can mute or reverse any slice, replace or layer another sound on the slice and alter mute, volume, pan and name of each slice.**
- **You can copy and paste slices within the rack or from other racks, and you can load additional sounds into slices from the browser.**

7.6. Step Sequencer Page

The step sequencer allows you to create your own rhythms from scratch using the ONE library content or you can integrate patterns using your own imported content into the ONE library content.

Each rack in ONE contains a separate step sequencer, which can accommodate up to 32 sounds with independent volume, pan and pitch. Each sound has access to a 16-step sequencer with accent control per step. You build up pattern for each sound using the step sequencer for that slot, in the style of the old school drum machines.

Note: for the step sequencer to work, the rack must be set to Loop mode. Also, the Trig Key mode described in the Rack Controls section earlier also controls whether the step sequencer plays. If the Trig Key is set to C3 and the mode selected is “one note” the sequence will only be played when the MIDI note C3 is received by the rack. The “one octave” and “two octave” modes can also be used to allow the step sequence to be transposed up and down the keyboard in the same way as any other loop.



The Step Sequencer page is split into four sections:

Sample Matrix – on the left of the screen is the Sample Matrix which contains 32 independent slots. Each slot can contain a different sound.

Slot Parameters – to the right of the Sample Matrix are the parameters for the currently selected slot: sample name, volume, pan and pitch.

Step Sequencer – the step sequencer shows the sequence for the currently selected slot. The top line of buttons shows which beats will be triggered for the slot, and the bottom line of buttons allows accent to be set for each step.

Global Sequence Controls – the knobs on the right of the page show swing and accent settings for the current patch. These are common for all slots on the rack.

Sample Matrix

The sample matrix is used simply to indicate which slots in the sequencer you wish to work with. You select a slot in the matrix by clicking on it, and if any sound has been loaded into that slot, you will see the slot parameters appear to the right of the matrix. You can select multiple slots using shift- or ctrl-click (these operate identically) to change parameters for multiple slots together.

You can preview the sound in any slot by clicking the slot and holding the mouse down. Releasing the mouse will stop the preview.

Typically you will start by loading new samples into one or more slots, adjusting the volume/pan/pitch for the slot, then using the step sequencer slots to create a pattern.

Loading samples into slots using the Browser

You can start with an empty rack if you wish, or you can add a step sequence to an existing loop. Either way, select the target slot in the Sample Matrix.

Locate the sample you wish to use in the Browser (this must be a WAV, AIFF or OPS single shot file). You cannot load other file types into a slot. Double-click the item in the Browser and it will be loaded into the selected slot.

Don't forget you can preview the current slot by clicking it and holding the mouse down, and you can do the same thing to audition sounds in the Browser too.

To overwrite the sound in an existing slot, the same procedure is used, but you start by selecting the slice you want to replace.

The sound won't be played even if you trigger the loop at this point – to get the sample to trigger you need to put some steps in the step sequencer.

Creating a pattern for a slot

The step sequencer contains 16 buttons which correspond to 16 steps in a 4/4 one-bar pattern. The four beats in the bar start at positions 1, 5, 9 and 13.

If the button is lit, then the sound of the current slot will be played at that position in the bar. To toggle a button from off to on and vice versa, you simply click the button. So, if you have a kick drum loaded into the selected slot, activating the buttons at 1, 5, 9 and 13 will play a kick drum on every beat (when you trigger the loop via MIDI of course!)

If the accent button for a step is activated, the sound will be played louder. The increase in volume for accented steps is controlled by the Acc Strength knob on the right of the page and described in more detail later.

Sample Matrix

SAMPLE MATRIX			
1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32

As has been described previously the Sample Matrix allows one or more slots to be selected for the purposes of loading a new sample from the Browser.

When a slot is selected the slot information to the right of the matrix shows the following information about that slice:



- **The volume of the slot**
- **The pan of the slot**
- **The pitch of the slot**
- **The name of the sample for the slot**

All of the above can be edited for an individual slot.

The colour of the slot also indicates several things about the slice:

SAMPLE MATRIX			
1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32

- **Mid blue: the slot is empty and has no sound loaded**
- **Bright blue: the slot has a sound loaded**
- **Cyan: the slot is highlighted**
- **Dark blue: the slot has been muted and will be silent on playback**
- **Purple: the sound on the slot has been reversed**

Slot Operations

Several functions are available by right-clicking a slot and selecting one of the options in the context menu:

Mute – mutes or unmutes the current slot.

Reverse – reverse the sample in the current slot

Clear Sample – removes the sample in the current slot

Copy – copies the sound in the current slot. This can be then be pasted into any other slot in any rack, or can be pasted into a slice in the Waveform display described earlier in the manual.

Paste – this pastes a previously copied slice or slot into the current slot.

Slot Parameters



This section shows the parameters for the slot or slots selected in the sample matrix. If multiple slots are selected, it will still be possible to edit the volume, pan and pitch for slots and any relative differences between the slots will be maintained. However, if multiple slots have different values for the same parameter, the limits of movement of the parameter will be restricted to ensure all slots stay within the combined minimum and maximum values.

Sample Name

Displays the name of sample associated with the current slot – double-click this field to edit the name. If multiple slots are selected, “(multiple slots)” will be displayed and this field will not be editable.

Vol

Sets the volume of the current slot between 0% and 100%.

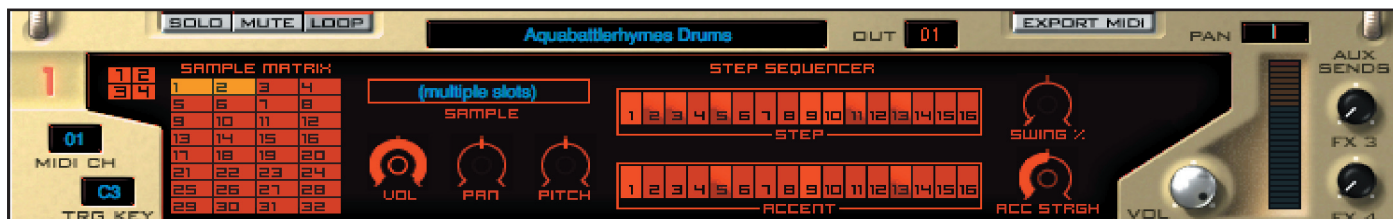
Pan

Sets the L/R balance of the current slot between –100% (fully L) and 100% (fully R).

Pitch

Sets the pitch (in semitones) of the current slot. An offset of +24 semitones will cause the sound in the slot to be played two octaves higher than recorded pitch.

Step Sequencer



The step sequencer is an easy-to-use 16-step (one bar 4/4 time) sequencer.

Steps

If the step is activated for a step the step will be lit (cyan) and the sound on the current slot will play at that step. If the step is deactivated, the step will be unlit (blue) and no sound on the current slot will not play at that step.

Clicking on a step will toggle it from activated to deactivated and vice versa.

If multiple slots are selected and the step is only activated for some slots, the step will be shown half cyan and half blue. Clicking on the step will activate it for all selected slots.

Accent

If the accent is activated for a step the step will be lit (cyan), and the step will play slightly louder than steps which have no accent. The volume difference is determined by the Acc Strength control described later.

Clicking on a step from accented to non-accented and vice versa.

As for the step display, if multiple slots are selected and accent is only activated on the step from some slots, the accent will be shown half cyan and half blue. Clicking on the accent button will switch accent on at the step for all selected slots.

Swing %

This sets the swing of the current step sequence. If this is set to 0% the step sequence will be played back straight, and as this control is moved toward 100% the sequence will be played back with more of a groove, until at 100% the sequence is played back with a heavy shuffle.

Acc Strength

This sets how loud an accented step is compared to a non-accented step. At 0%, accented steps are played at the same volume as non-accented steps. At 100%, accented steps are played at roughly twice the volume of non-accented steps.

This parameter is shared between all slots in the sequence.

7.7. FX Page



The FX page contains all the controls you need to set up the effects in ONE. There are 4 FX units (2 insert FX units and 2 send FX units) shared by all the racks. Each FX unit can be set to any of ONE's 16 effects.

Note: to get output from a rack to one of the FX units you need to use the rack's Out or FX Send controls as described previously and for a fuller description of ONE's signal routing please see the "ONE Routing Architecture" section later in this manual.

[screenshot of FX1, including FX send controls, Out & mix]

Each of the effects units operates mostly in the same way, though only FX1 and FX2 have Send FX3 and Send FX4 controls:

FX unit selection indicator

This shows the name of the FX unit and is highlighted to show the currently selected FX unit. Changing any control in an FX unit will select that unit, but you can also click on the selection indicator to manually change the currently selected FX unit.

Patch

This shows the name of the current selected FX patch if an FX patch has been loaded, otherwise it shows "unassigned". You cannot create an FX patch from scratch, you must load in a patch from your installed libraries, and change it as required.

To load an FX patch from the menu: click the arrow to the right of the field. This will bring up a menu of all FX patches in your installed libraries, sorted by effect type and algorithm. Click on a patch to load it into the FX unit.

To load an FX patch from the Browser: select the unit you wish to load the FX patch into, and double-click the FX patch in the browser.

Double-clicking on the patch name allows you to edit the FX patch name.

Right-clicking on the field brings up a menu with some additional options:

Save current FX patch – this saves the FX patch in the unit as a ONE FX Patch file (.OFF extension). You can save this file anywhere on your hard disk, but it is recommended you save this in the My Files directory, so you can use the Browser to load this into another unit in future. (Note: you will need to rescan the My Files folder before such a patch will appear in the Browser).

Unload current FX patch – this removes the FX patch from the FX unit, and resets the FX units to its default settings.

Load FX patch – this allows you to load a ONE FX Patch file (.OFF extension) from anywhere on your hard disk into the current FX unit.

Type

This shows the algorithm used by the FX patch. ONE has 16 effect algorithms:

Delay – delay with standard and ping pong modes, with tempo sync and a filter on the feedback line

Reverb – reverb with variable diffusion, damping and early reflections

Chorus – chorus with variable feedback and damping

Flanger – flanger with tempo sync control

Phaser – phaser with up to 16 stages and tempo sync control

Rotary Speaker – rotary speaker simulation with variable vibrato and tremolo

2-band EQ – 2-band equalizer with variable Q on each band

3-band EQ – fixed-Q 3-band equalizer

Compressor – compressor with soft/hard knee modes

Limiter – limiter with fixed ceiling and make-up gain control

Gate – simple gate with variable attack and release time

Distortion – warm distortion effect with simple EQ

Crusher – bit crusher effect to digitally distort the sound

LFO LP Filter – low pass filter modulated with an LFO with tempo sync option

LFO HP Filter – high pass filter modulated with an LFO with tempo sync option

Auto Filter (Wah) – 24dB/oct filter modulated by the input volume

Auto Gate/Pan – effect to modulate the volume or pan of a signal using an LFO

FX Parameter Knobs

The 6 parameter knobs show appropriate parameters for the effect algorithm chosen:

7.7.1. Delay

Mode

The delay effect has 5 modes:

Stereo (ST) – the left and right channels of the input signal are delayed by the same amount and sent to the left and right outputs.

Inverse Stereo (INV ST) – the left and right channels of the input signal are delayed by the same amount, but the processed left channel is sent to the right output channel and vice versa.

Mono (MONO) – the left and right input signals are mixed together, delayed and the same delayed signal is sent to both left and right output channels.

Mono Left-to-Right Ping Pong (L-R) – the left and right input signals are mixed together as for Mono mode, but the delays are alternately sent to the left and right output channels. The first delay is sent only to the left channel, the second only to the right, the third to the left, etc.

Mono Right-to-Left Ping Pong (L-R) – the left and right input signals are mixed together as for Mono mode, but the delays are alternately sent to the left and right output channels. The first delay is sent only to the right channel, the second only to the left, the third to the right, etc.

Tempo Sync

This controls whether the delays will be synchronized to the host tempo (ON) or independent of the host tempo (OFF). Synchronization will not function correctly if your host sequencer does not support sending tempo information to plug-ins.

Delay Time

The length of time between delays. If tempo sync is off, this ranges between 50ms and 2000ms (2 seconds). If tempo sync is on, this ranges from 1/16 of a bar (1/4 of a beat) to 16/16 (1 bar).

Feedback

The output of the delay can be fed back into the input of the delay to produce multiple delays. This value controls the amount from 0% (no feedback) to 100% (maximum feedback). 100% feedback still attenuates the signal to a certain extent to reduce unpleasant feedback. Negative values will invert the phase of the signal before feeding it back into the input. This may give a more pleasant sound in some circumstances.

Filter Type

The type of filter applied to the output of the delay, either lowpass (LP) to reduce the treble in the output or highpass (HP) to reduce the bass in the output.

Cutoff

The point in the audio spectrum at which the delay filter starts to take effect. For a lowpass filter, any frequencies above this value will be reduced in volume. For a highpass filter, any frequencies below this value will be reduced in volume. The range is 55-21096 Hz.

7.7.2. Reverb

PreDelay

This controls the amount of delay before the reverb is heard (0-250ms).

Room Size

This controls the size of the room simulated by the reverb (0%-100%). Low values will make the sound appear to be in a smaller space, higher values will sound like playback is occurring in a larger space.

Diffusion

This value simulates the type of walls in the space being simulated. Low diffusion settings cause discrete reflections much like hard stone walls, whereas higher diffusion settings give a denser reverb with no audible discrete reflections much like a hall draped with soft furnishings.

Reverb Time

This sets the overall length of the reverb between 500ms and 15000ms (15 seconds).

High Frequency (HF) Damping

This control dampens the treble in the reverb signal over time, lower values tend to sound colder and higher values will make the reverb sound warmer.

Early:Late Balance

This control sets the balance between the early reflections of the reverb (where the sound is "reflected" immediately off the surfaces nearby) and the late reflections (where the sound has bounced around and repeated many times and built up a diffuse tail). This value ranges from 0:100 (early reflections only) to 100:0 (late reflections only).

7.7.3. Flanger

Delay Time

Sets the delay time of the flanger between 0ms and 5ms. This affects the character of the flanged sound.

LFO Sync

If set to ON, the LFO will be synchronized to host tempo where available. If set to OFF, the LFO will independent of the host tempo.

LFO Rate

Low values of this parameter will cause slow sweeping flange effects, high values will result in squelchy effects. If tempo sync is off, this value can be altered from 0Hz to 2.5Hz. If tempo sync is on, this value ranges from 32/1 (LFO cycle every 32 beats), through 1/1 (LFO cycle every beat) to 1/32 (32 LFO cycles every beat).

LFO Depth

This parameter determines how much effect the LFO has on the flanger (0% - 100%).

Feedback

This parameter determines how much of the flanger output is mixed back into the FX input. A value of 0% will produce a simple, thin-sounding flange. Higher values will produce thicker, denser flange effects.

Stereo

If this parameter is set above 0%, the effect will use the LFO settings to pan the effect around the left and right channels. The intensity ranges from 0% to 100%.

7.7.4. Phaser

Stages

This parameter determines the number of stages used in the phaser effect. A low value will produce a thinner effect, a higher value will produce a more pronounced swirling effect. The range is 1 to 16 stages.

LFO Sync

If set to ON, the LFO will be synchronized to host tempo where available. If set to OFF, the LFO will independent of the host tempo.

LFO Rate

Low values of this parameter will cause slow sweeping phaser effects, high values will result in squelchy effects. If tempo sync is off, this value can be altered from 0Hz to 2.5Hz. If tempo sync is on, this value ranges from 32/1 (LFO cycle every 32 beats), through 1/1 (LFO cycle every beat) to 1/32 (32 LFO cycles every beat).

LFO Depth

This parameter determines how much effect the LFO has on the phaser (0% - 100%).

Feedback

This parameter determines how much of the phaser output is mixed back into the FX input. A value of 0% will produce a simple, thin-sounding phasing. Higher values will produce thicker, denser effects.

Stereo

If this parameter is set above 0%, the effect will use the LFO settings to pan the effect around the left and right channels. The intensity ranges from 0% to 100%.

7.7.5. Rotary Speaker

Balance

The rotary speaker can apply both vibrato (pitch modulation) and tremolo (volume modulation) to a sound. If balance is turned fully left (0:100) only vibrato will be applied to the sound. If balance is turned fully to the right (100:0) only tremolo will be applied. Values in the middle will apply varying amounts of each.

Speed

This parameter controls the speed of both vibrato and tremolo. The range is 1.5Hz (slow) to 8Hz (fast).

Vibrato

This parameter controls how much vibrato is applied to the signal, from 0% (none) to 100% (maximum),

Tremolo

This parameter controls how much tremolo is applied to the signal, from 0% (none) to 100% (maximum).

7.7.6. 2-Band EQ

This equalizer has two bands (low and high) with frequency (Freq), Q, and Gain parameters for each. Each band applies a boost or cut centred on a given frequency, with a width determined by the Q parameter, and a strength determined by the gain parameter.

Lo Freq/High Freq

Determines the centre frequency of the low/high band. Lo Freq ranges from 55Hz to 1760Hz, Hi Freq ranges from 880Hz to 21096Hz.

Lo Q/Hi Q

Determines the width of the boost or cut around the centre frequency. A low Q will apply the boost or cut to a very narrow region around the centre frequency, a high Q will apply the boost or cut to a wider region. The range of the parameter is 0.05 octaves (narrow) to 4 octaves (wide).

Lo Gain/Hi Gain

Determines the amount of boost or cut to apply to the band, ranging from -12dB of cut to +12dB of boost.

3-band EQ

This is a 3-band equaliser with a fixed Q for each band.

Lo Freq/Mid Freq/High Freq

Determines the centre frequency of the low/mid/high band. Lo Freq ranges from 55Hz to 1760Hz, Mid Freq ranges from 110Hz to 14080Hz, Hi Freq ranges from 880Hz to 21096Hz.

Lo Gain/Mid Gain/Hi Gain

Determines the amount of boost or cut to apply to the band, ranging from -12dB of cut to +12dB of boost.

7.7.7. Compressor

Threshold

The volume level above which the sound will be compressed, ranging from -50dB to 0dB. A value of -50dB compresses pretty much all the input (since most input will be louder than -50dB), whereas a value of 0dB will compress nothing (since no input can be louder than 0dB).

Ratio

The amount of compression that will be applied to a signal above the threshold. This value ranges from 1:1 (no compression) thru 29.7:1 (major compression) to Limit, which limits all input signals to the threshold level.

Knee

Two modes are available: hard knee where no compression is performed below the threshold value, and compression is applied at its full ratio as soon as the threshold level has been exceeded, or soft knee, where the compression is more gradually introduced around the threshold level.

Attack

This parameter determines how quickly the compression starts after the input signal has exceeded the threshold level. The range is from 0ms (which will tame peaks quickly but is more likely to be audible) to 1000ms (which will not tame peaks as well, but is less likely to be audible).

Release

This parameter determines how quickly the compression is stopped after the input signal has dropped below the threshold level. The range is from 10ms (quick) to 1000ms (slow).

Output Gain

This parameter determines how much gain will be applied to the output signal to "make-up" for the loss in level caused by compression. This value ranges from 0dB to 50dB of gain.

7.7.8. Limiter

The limiter is very similar to the compressor but ensures that the level is guaranteed never to exceed the threshold level.

Threshold

The maximum output level to be allowed through the limiter, ranging from -50dB to 0dB . A value of -50dB will limit the input signal to be very quiet, whereas a value of 0dB will leave the input signal untouched.

Attack

This parameter determines how quickly the limiter starts after the input signal has exceeded the threshold level. The range is from 0ms (which will tame peaks quickly but is more likely to be audible) to 1000ms (which will not tame peaks as well, but is less likely to be audible).

Release

This parameter determines how quickly the compression is stopped after the input signal has dropped below the threshold level. The range is from 10ms (quick) to 1000ms (slow).

Output Gain

This parameter determines how much gain will be applied to the output signal to “make-up” for the loss in level caused by compression. This value ranges from 0dB to 50dB of gain.

7.7.9. Gate

The gate effect cuts out all quiet sounds below a given volume threshold.

Threshold

The minimum output level to be allowed through the gate. When the input signal drops below this level the gate will activate, shutting out the sound. This value ranges from -50dB to 0dB . A value of -50dB will allow pretty much all input signals through, whereas a value of 0dB will activate the gate all the time, silencing the output completely.

Attack

This parameter determines how quickly the gate is switched off after the input signal has exceeded the threshold level. The range is from 1ms to 1000ms .

Release

This parameter determines how quickly the gating is activated when the input signal has dropped below the threshold level. The range is from 10ms (quick) to 1000ms (slow).

7.7.10. Distortion

Input Gain

This parameter determines the amount of trim applied to the input signal before the distortion is applied. This value ranges from -10dB (reduces the volume of the signal significantly) to 0dB (no reduction).

Pre-Amp Gain

This parameter controls the amount of distortion applied to the input signal, and ranges from 0dB (no distortion) to 36dB (maximum distortion).

Character

This parameter changes the “character” of the distortion. Values range from 0% (normal) to 100% (smooth).

Low Cut

This parameter allows you to reduce the bass of the distortion. Frequencies below this value will be reduced with a highpass filter. Values range from 55Hz (minimal bass reduction) to 440Hz (significant bass reduction).

High Cut

This parameter allows you to reduce the treble of the distortion. Frequencies above this value will be reduced with a lowpass filter. Values range from 21096Hz (minimal treble reduction) to 880 (significant treble reduction).

7.7.11. Crusher

Bits

This reduces the bit depth of the input signal. Values range from 2 bits (almost destroyed) to 16 bits (listenable).

Sample Rate

This parameter reduces the sample rate of the input signal. Values range from 44100Hz (high quality sound) to 2205Hz (low quality sound).

Overload

This provides a boost to accentuate the distortion of the input signal. Values range from 0dB (no boost) to 36dB (maximum boost).

Bass/Treble

These parameter allow the bass or treble of the output to be cut or boosted. Values range from -12dB of cut to +12dB of boost in each case.

Output

These output of the effect may be reduced in volume using this parameter. Values range from -36dB (maximum volume reduction) to 0dB (no volume reduction).

7.7.12. LFO LP Filter/LFO HP Filter

These two effect apply a lowpass or highpass filter respectively to the input signal. The frequency of the filter is modulated by an LFO, which can be synced to tempo.

LFO Wave

The following LFO shapes are available:

Sawtooth (SAW) – a slow rise followed by rapid drop

Square (SQU) – a rapid rise, a period of hold, followed by a rapid drop and another period of hold

Triangle (TRI) – a slow rise, followed by a slow fall with sharp transitions between the two

Sine (SIN) – a slow rise, followed b a slow fall with smooth transitions between the two

LFO Sync

If set to ON, the LFO will be synchronized to host tempo where available. If set to OFF, the LFO will independent of the host tempo.

LFO Rate

This parameter determines the frequency of the LFO. If tempo sync is off, this value can be altered from 0Hz to 20Hz. If tempo sync is on, this value ranges from 32/1 (LFO cycle every 32 beats), through 1/1 (LFO cycle every beat) to 1/32 (32 LFO cycles every beat).

LFO Depth

This parameter determines how much effect the LFO has on the filter cutoff (0% - 100%).

Cutoff

This parameter determines the starting frequency of the filter, before it is modulated by the LFO. Values range from 0% to 100%.

Resonance

This parameter determines the resonance of the filter. At high values, the filter will boost the frequencies around the cutoff frequency significantly. Values range from 0% (no resonance) to 100% (maximum resonance).

7.7.13. Auto Filter (Wah)

This operates in a similar fashion to the LFO LP/HP Filter effects, but the filter cutoff frequency is modulated by the volume of the input signal. This makes it straightforward to produce auto-wah style filter effects.

Filter Type

There are 4 selectable filter types:

LP24 – a 24dB/octave lowpass filter (filters out frequencies higher than the cutoff)

HP24 – a 24dB/octave highpass filter (filters out frequencies lower than the cutoff)

BP24 – a 24dB/octave bandpass filter (lets only those frequencies close to the cutoff through)

BR24 – a 24dB/octave band reduction filter (filters out frequencies close to the cutoff)

Cutoff

This parameter determines the starting frequency of the filter, before it is modulated by the input sound. Values range from 0% to 100%.

Resonance

This parameter determines the resonance of the filter. At high values, the filter will boost the frequencies around the cutoff frequency significantly. Values range from 0% (no resonance) to 100% (maximum resonance).

Depth

This parameter determines how much the level of the input signal affects the cutoff frequency. Positive values mean that a louder input signal will increase the cutoff frequency. Negative values mean that a louder input signal will decrease the cutoff frequency. Values range from -100% (large cutoff decrease for loud input) thru 0% (input volume does not affect cutoff) to +100% (large cutoff increase for loud input).

7.7.14. Auto Gate/Pan

This effect uses an LFO to modulate the volume (and optionally pan) of the input signal.

LFO Wave

The following LFO shapes are available:

Sawtooth (SAW) – a slow rise followed by rapid drop

Square (SQU) – a rapid rise, a period of hold, followed by a rapid drop and another period of hold

Triangle (TRI) – a slow rise, followed by a slow fall with sharp transitions between the two

Sine (SIN) – a slow rise, followed by a slow fall with smooth transitions between the two

LFO Sync

If set to ON, the LFO will be synchronized to host tempo where available. If set to OFF, the LFO will be independent of the host tempo.

LFO Rate

This parameter determines the frequency of the LFO. If tempo sync is off, this value can be altered from 0Hz to 20Hz. If tempo sync is on, this value ranges from 32/1 (LFO cycle every 32 beats), through 1/1 (LFO cycle every beat) to 1/32 (32 LFO cycles every beat).

LFO Depth

This parameter determines how much effect the LFO has on the level of the signal, from 0% (no effect on the input signal) to 100% (the volume of the signal will alternate between full volume and silent).

Stereo

This parameter determines whether the effect will only affect the overall volume or whether it will pan the sound from left to right instead. Values range from 0% (affects both channel volumes simultaneously) to 100% (affects channels at opposite times, creating an auto pan effect).

Send FX3/Send FX4 (FX1 and FX2 units only)

This control sends the output of the unit to the FX3 and FX4 units. Further detail on the routing within ONE is described in the section "ONE Routing Architecture" later in this manual.

Out

This control routes the output of the FX units to one of the 4 main outputs. Further details on the routing within ONE is described in the section "ONE Routing Architecture" later in this manual.

Mix

This control determines the balance between the unprocessed (dry) input signal and the processed (wet) signal. The value ranges from 0:100 (dry signal only) to 100:0 (wet signal only).

Typically for an insert effect loaded into FX1 or FX2 you will set this control somewhere between the two since you will want to hear the dry signal and also the effect, though this depends on circumstances.

Typically for a send effect loaded into FX3 or FX4 you will wish to set the Mix control to 100:0 (wet) since the unprocessed signal will already reach the output from the main rack.

7.8. The Options Screen



The Options Screen is accessed when the Options button at the top of the interface is clicked. Click any of the other buttons in the button strip to hide the Options Screen.

There are eight controls on the Options Screen:

- **Installed Libraries Folder path**

This text box displays the location when AMG ONE believes its library files to be installed. By default, when the plug-in is installed, this is set to your current user documents folder. If the library is not installed to this location, you must click in this field to display a folder selection dialog, and choose the location where you copied the library from the CD-ROM. Selecting the Library Path like this causes AMG ONE to rescan the library directory and create new cache files for its patch menus (.OCH files). If, at any time, you delete the .OCH files in your library folder, the plug-in will automatically rescan the folder shown in the Installed Libraries path next time it is started. If you decide to move your library folder after it has been used, it is a good idea (though not essential) to delete the .OCH files before you move it.

If the plug-in cannot find the Installed Library folder, you will receive an error message stating "Library Scan Failed" upon starting the plug-in. If the library folder is present and correctly set, but does not contain the correct folder structure and files underneath, you may also receive this warning.

The folder shown in the Installed Library path is also the folder on your system where you must save the License File sent to you by AMG after registering the plug-in. If this file is not present, your Library will still scan correctly and the patch menus will be displayed, but you will not be able to load any encrypted OPF files from the main library. You will only be able to load unencrypted demo content.

In general, it is not safe to make modifications to the folder indicated in your Installed Libraries path. It should start out as a direct copy of the folder on your installation CD-ROM. Altering the contents of this folder in any way (except deleting cache .OCH files) might cause unexpected error messages to be displayed.

- **My Files Folder path**

This text box displays the location when AMG ONE should look for your own files that you wish to manipulate in the Browser Display. By default, when the plug-in is installed, this is set to a folder called "My Files" inside the AMG ONE main folder, which is normally found in your current user Documents folder.

- **Loop Import Start Key**

When a sampled loop in REX or ACID format is imported into ONE, a MIDI file is automatically generated that plays the slices in the file. This number spinner control tells the plug-in what MIDI note slices should start to be mapped at when the file is imported. Once a file has been imported this option has no further effect.

- **ACID Stretch Factor**

When an ACIDized WAV file is imported into the plug-in, some processing takes place on the samples to improve the sound of the time stretching when the loop is slowed down. A seamlessly looping segment from each slice is automatically generated and copied to the end of each slice. This parameter controls how big the looping segment is relative to the slice length. Once a file has been imported this option has no further effect.

- **ACID Overlap Factor**

The looping segment added to ACID slices is overlapped with the original data to smooth the transition. This parameter determines the width of the overlapping region. Once a file has been imported this option has no further effect.

- **Auto-resave Imported Files**

This option determines whether or not any file loaded into a ONE rack that is not a native OPF file should be automatically resaved as an OPF file. The pros and cons of this option are discussed in the section on File Handling.

- **Disable File Warnings**

Once you are sufficiently comfortable with ONE's special File Handling features you can activate this option to prevent some of the non essential warning messages from interrupting your workflow.

- **Machine ID**

As mentioned in the section on copy protection, the Machine ID is a unique "fingerprint" of your system based on metrics taken from certain hardware elements. It does not contain any information that can identify you as a person, and it is unique for that particular combination of hardware on your system.

Your Machine ID is required by AMG as part of the registration process. This allows AMG to generate a unique License File for your exact Computer. Without this license file, the plug-in cannot decrypt the files in the Library and will not be able to load any sounds.

To make it easy to register, clicking on the Machine ID display will reveal a menu with three options

- **Copy To Clipboard**
- **Register at AMG website**
- **Save to File**

If you copy the Machine ID to your clipboard, this will enable you to use the normal paste command in your email or web browser application during the registration process to automatically complete the Machine ID field in the registration form, or when sending an email query to AMG.

Selecting the Register option will open your default web browser, connect to the internet if necessary and automatically take you to the registration page on the www.samples4.com website. The Machine ID field will be filled in automatically for you.

Many musicians prefer to keep their Digital Audio Workstations separate from the internet. If you prefer, you can save the Machine ID to a simple text file, copy it over to a machine where you do have internet access and submit your registration request from there.

If you make significant changes to the hardware of your system, your machine ID may change unexpectedly and cause your license file to become invalid.

Remember, you do need to have a working email address to receive your license file.

8. ONE Routing Architecture

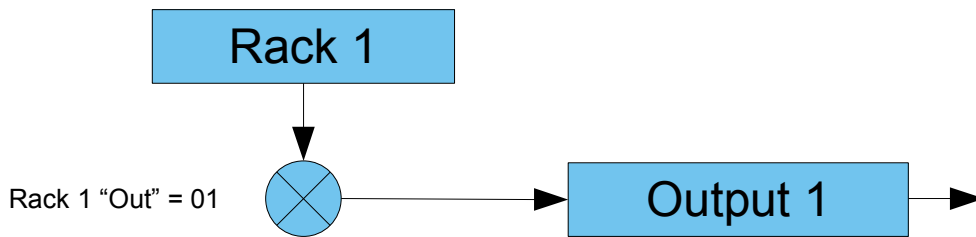
ONE has four separate outputs which allows you to route different racks out to your host sequencer separately

What facilities you have will depend upon what is supported by your host sequencer, but the individual outputs are accessible in Steinberg Cubase SX (tracks automatically appear in the mixer), in Mackie Tracktion (by dragging the ONE plug-in into a Tracktion rack), in Ableton Live 5 (by selecting ONE's outputs as inputs for a separate audio track) and in Sony ACID 5 (tracks automatically appear in the mixer). Please consult your sequencer's manual for further details.

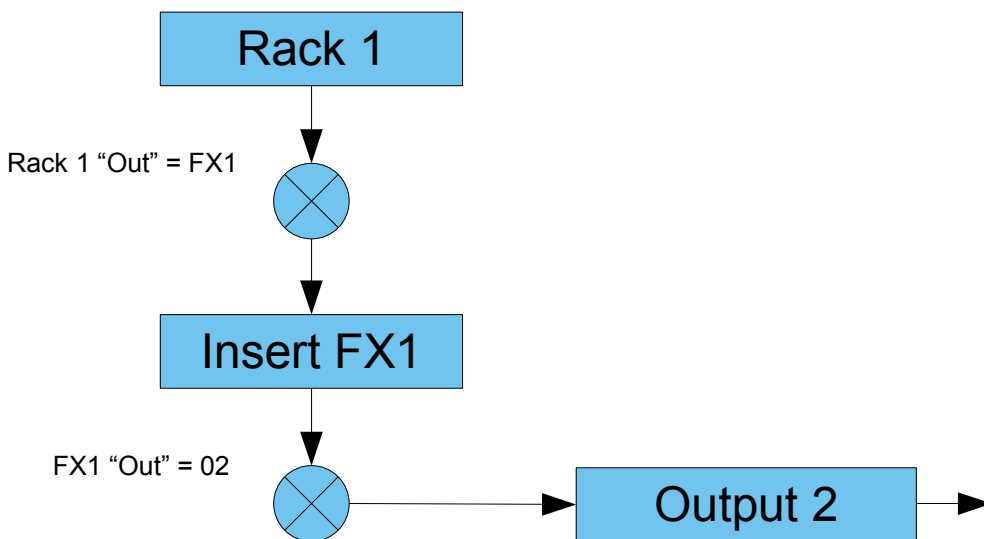
By default, each rack routes its output to output 1, but you can choose a different output for any rack using the rack's Out menu.

Each rack can also be routed to insert FX1 or FX2 – once you route to an insert FX unit, all output from the rack is routed directly to that FX unit, and the sound no longer immediately appears on any output.

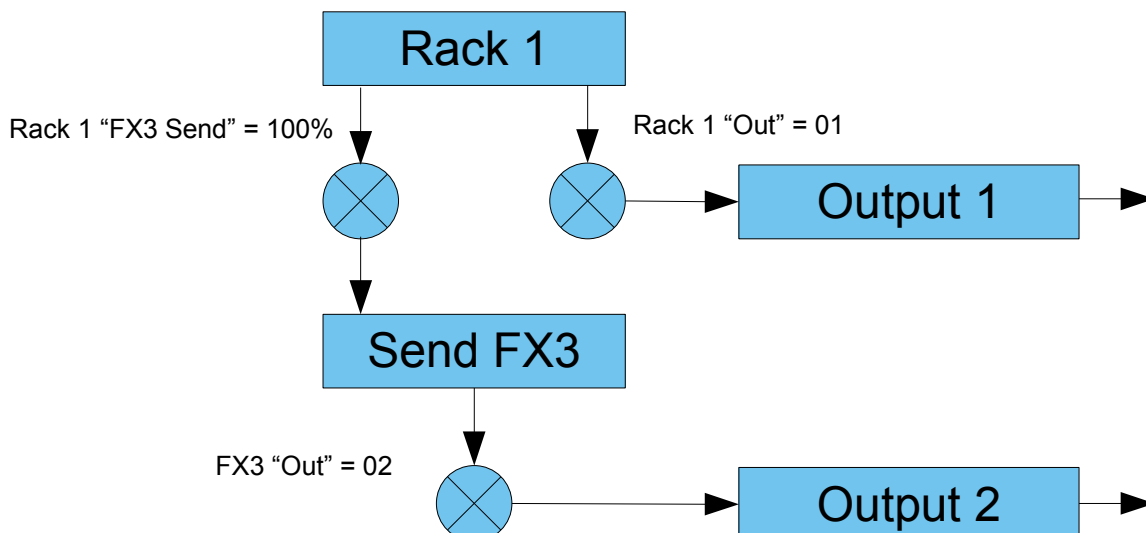
Each FX unit can be routed to any of outputs 1, 2, 3 or 4:



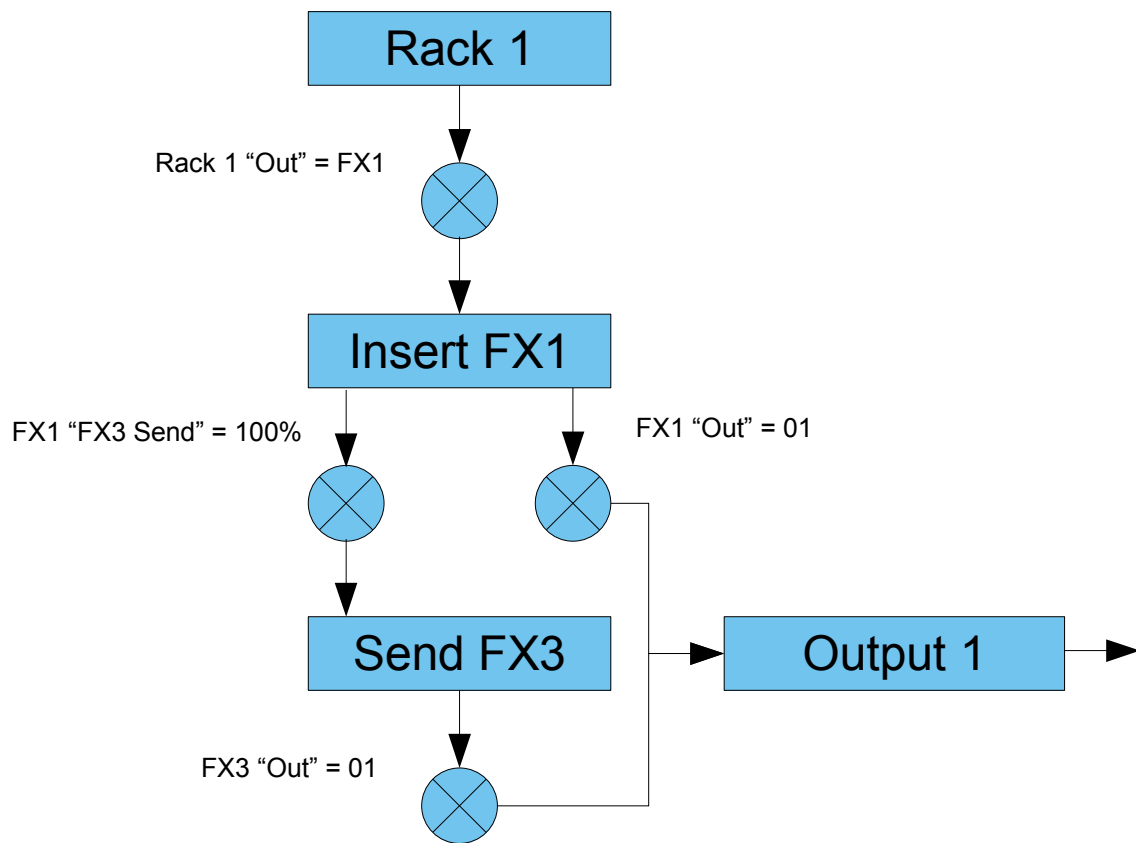
The following diagram shows a rack routed to insert FX1, with insert FX1 routed to output 2:



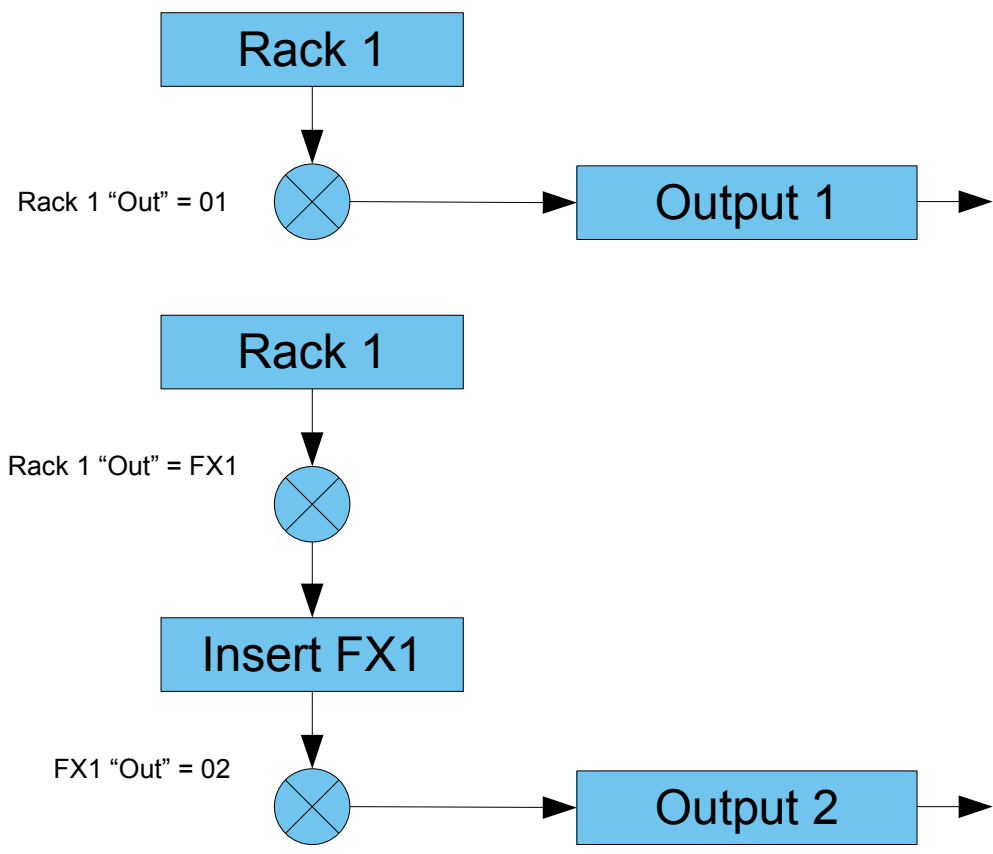
FX units 3 & 4 (FX3/4) are configured as send effects. To send a rack's output to FX3 or FX4 you use the FX send controls on each rack. The rack's output now goes to the output shown in its Out field and also to the FX unit. Once the sound has been processed by the FX unit, it will be sent to the output in the FX unit's Out field. This may be the same output as the original rack or can be a different one:



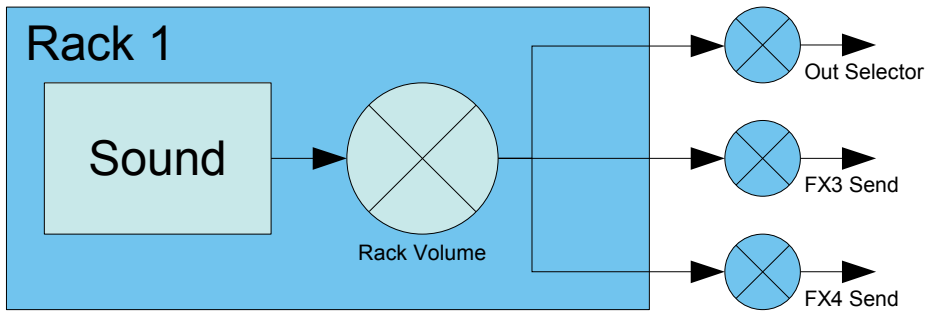
It is also possible to route the output from insert FX1 & FX2 to send FX3 & FX4 using the FX1/2 send FX controls on the FX page. This is shown in the diagram below with all FX routed to output 1.



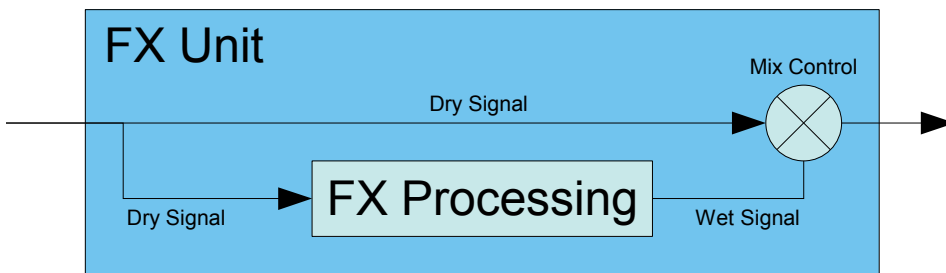
In this way, you can share the same reverb between two racks but have one rack processed by a delay effect too:



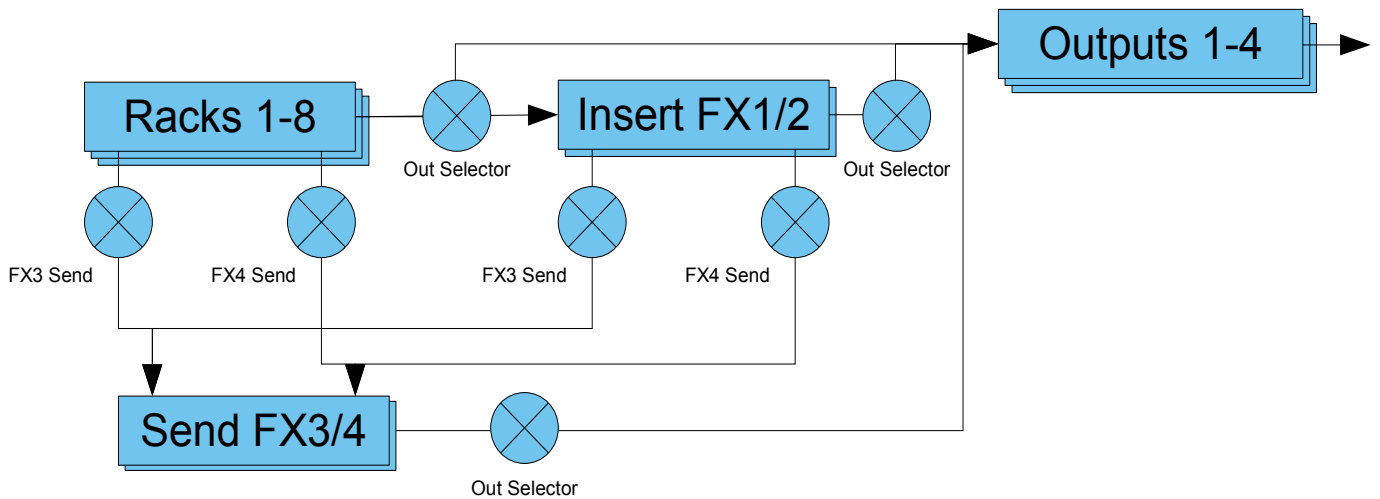
FX Send controls are post-fader, which means if you reduce the volume of a rack, the signal sent to the FX units will also be reduced, as illustrated below:



Each FX unit has a mix control as well. Rotated fully left (0:100) the FX unit will output the original unprocessed input (dry) signal, rotated fully right (100:0) the FX unit will output only the processed (wet) signal. At values in between, the FX unit will output a mixture of the dry and wet signals. This is illustrated below:



To summarise, the ONE signal path can be represented by the following diagram:



9. File Handling

Samples in ONE can be one of two types: referenced or embedded.

Referenced samples - a Program which contains referenced samples will use very little disk space - it doesn't store copies of the sample, but simply remembers where actual sample came from on disk. When you make your own Programs with the ONE library samples, ONE never makes copies of the samples, it just stores the locations of the original samples in the library. When you load the Program back it must go back to the Library and load the library samples.

The advantage of using reference samples is that your saved Programs and Multis are very small, they contain no sample data which is typically very large, especially if you save multiples copies of a Program.

ONE has some simple rules about loading referenced samples back in – it will try to find samples in the following places, which are searched in order:

1) the exact filename where the sample came from,

e.g. D:\My Documents\AMG ONE\Installed Libraries\Huge Loop.opf

The file must contain a sample of the original name and must not have been modified, or ONE will not be able to find the sample.

If the sample came from a file on a removable disk, you will be prompted to insert the correct removable disk.

2) The Installed Libraries folder is searched for a file with the same name (e.g. Huge Loop.opf). This will locate a file that has been moved, but the file must not have been changed, or ONE will not be able to find the sample.

3) The My Files folder will be searched for a file with the same name (e.g. Huge Loop.opf). This will locate a file that has been moved, but again, the file must not have been modified, or ONE will not be able to find the sample.

When you save your song in a sequencer, your song file contains the current state of the Multi. This means you do not have to save out your Multis or Programs explicitly – all the information will be stored with the song.

When the auto-resave option is switched on, your non-ONE files (WAV, AIFF, REX, etc.) are saved as ONE Program (.OPF) or Single Shot (.OPS) files depending on the type of file imported. Once you have done this, any Program or Multi you create using that file will reference the OPF/OPS file correctly. Make sure you don't delete these files since you will need them to reload your Programs or Multis!

If you want to use the auto-resaved files in other Programs, you should save these auto-resaved files in your My Files folder, so you can see the files in the Browser and use the files in other Programs.

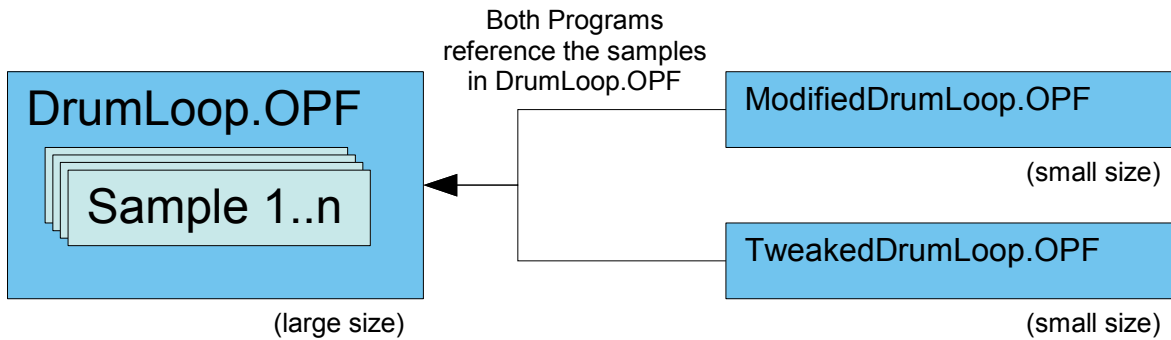
Embedded samples – if you choose to deactivate the auto-resave samples option, any samples you import will become embedded. When you save a Program or Multi containing embedded samples, those samples will be embedded in the .OPF or .OPM file, and will be much larger than a referenced file.

The same is true for a song saved in your sequencer, in this case the song file contains not only the current Multi and Programs, but also the embedded samples, so you will notice a large increase in the size of your song files. If you only plan to use the samples in one song, and you don't mind large song files, this will be fine for you.

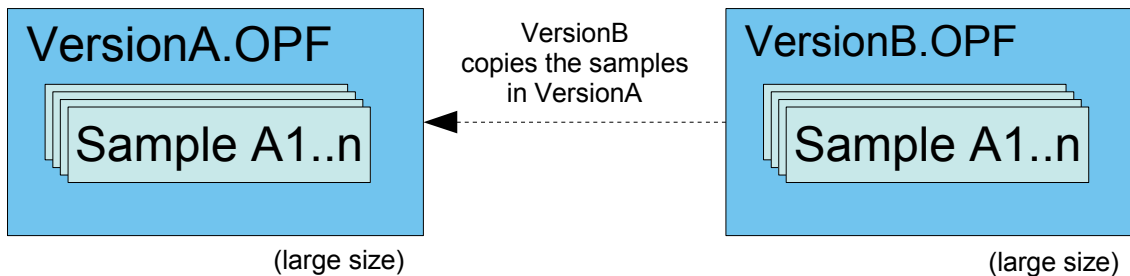
Examples:

Example 1) Auto-resave is activated – An ACID WAV file “DrumLoop.WAV” is loaded into rack 1. The user is asked to autosave as a patch file, and does so (DrumLoop.OPF). The settings in rack 1 are modified and this is saved as “ModifiedDrumLoop.OPF”. This modified Program is loaded into rack 2, tweaked some more, and then saved as “TweakedDrumLoop.OPF”

Both ModifiedDrumLoop.OPF and TweakedDrumLoop.OPF now depend on the samples in DrumLoop.OPF as shown below:



Example 2) Auto-resave is deactivated – An ACID WAV file is loaded into rack 1. The user changes a few settings and then saves the Program as “VersionA.OPF” – the samples are embedded in the VersionA.OPF. If at a later date, the user loads in VersionA.OPF, makes some changes and saves a new copy as VersionB.OPF, this new file will contain any samples embedded in VersionA.opf and it is safe to delete the original file if required.

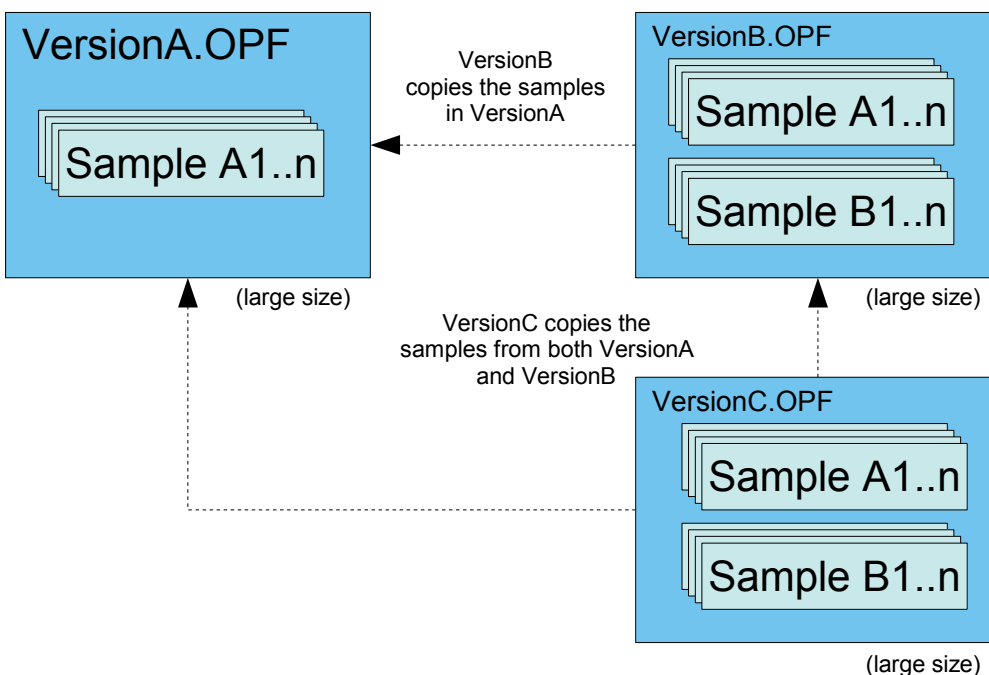


Example 3) Auto-save is deactivated - An ACID WAV file is loaded into rack 1. The user changes a few settings and then saves the Program as “VersionA.OPF” – the samples are embedded in the VersionA.OPF file.

At a later date, the user loads in VersionA.OPF, imports some additional AIFF files, and saves a new copy as VersionB.OPF. The new samples are embedded in VersionB.OPF, in addition to the original samples from VersionA.OPF, increasing the file size. Loading VersionB.OPF does not require VersionA.OPF on disk any more.

If the user then load VersionB.OPF, makes some changes and then saves the new Program as VersionC.OPF, all the samples from both VersionA.OPF and VersionB.OPF will end up in the new file, increasing its size further. This Program does not reference the original samples in VersionA.OPF or VersionB.OPF. It is safe to delete them and VersionC.OPF can still be reloaded.

The situation is illustrated below:



Overwriting Samples

To save memory, ONE will only keep one copy of any sample in memory, even if it is used by multiple racks. When loading a file, ONE check to see if the file is already in memory. If it is, the message "Some samples will be overwritten in this operation. Please select OK to proceed, or cancel." will be displayed. Selecting OK will overwrite the samples in memory with the new sample. Selecting Cancel will cancel the load of the file.

Reloading a sample into a free step sequencer slot is also a good way of overwriting a sound with a newer version of the sound.

10. MIDI controller settings

AMG ONE can also be controlled entirely from an external MIDI controller, providing that controller is capable of sending MIDI Continuous Controller (CC) messages. Default CC mappings are listed below, but you can use a special MIDI "learn" mode to quickly build up your own mappings. Simply right-click on any control to display a menu of the current MIDI CC settings. Choose "link to next CC" from the menu to put a control into learn mode. Once a control is in learn mode, it will automatically link itself to the next CC message that it receives.

Note that MIDI controller functionality may differ from host program to host program. Some sequencers, for example, intercept and do not pass MIDI controller messages in their entirety to loaded plugins (FL Studio, Logic Audio for example). You should refer to your sequencer's user manual for more information if you are not sure.

Parameter	MIDI controller
Volume	7
Pan	10
FX3 Send Amount	91
FX4 Send Amount	93

To send MIDI CC messages to specific Racks, set your MIDI controller or sequencer to send them on the same MIDI channel that the Rack is assigned to. You can control multiple racks at once with a single MIDI controller if their MIDI channels are the same, and you can assign the same parameter to different MIDI CCs on different racks if you so wish.

11. Copyright and Credits

Tachyon Engine customisation:	David Waugh for Muon Software Ltd
Tachyon Engine coding:	David Waugh, Steve Baker
Graphics:	Shaun Ellwood for Decoder Design
Project Management:	Matt Wilkinson for AMG

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12. AMG would like to thank...

First and foremost Dave and Steve for making all our (plug-in) dreams come true. It's been a long and rocky road for everyone involved but the results have ultimately justified the sacrifices made by all those involved with the project I believe. Also all the great artists who have contributed to our libraries over the years that have made AMG what it is today and our library so diverse and inspiring for musicians all over the World. Those who have worked long and hard turning these samples into content for ONE also deserve a mention, Lee Groves over many years and Ali Lexa in more recent times in particular. Also Byron Wong for his belief and support over many more years than I care to remember, an incredibly talented guy and great friend.

I'd like to dedicate ONE to the babies that made it into the World before ONE was able to - Roberto, Vince & Tracy's Oscar and Jet. Also the amazing musicians whose work has inspired and entertained me over so many years - Pet Shop Boys, Vince Clarke & Andy Bell, Keane, David Gray, Coldplay, Ultravox, OMD, Bryan Ferry, Trevor Horn and many more. Finally and most importantly my family for their endless support, understanding and love, especially during the last couple of years when Daddy has 'been in the office' far more than he should have been. Michaela, Byron & Indy; I love you and will get out of the office a bit more now this is finished, I hope...;-) - Matt 8), Founder, AMG