LOOPHOLE   was developed by **de la Mancha**

It is a loop sampler instrument in VST plug-in format, for Microsoft Windows based hosts.

This manual applies to version 1.1

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INTRODUCTION

LOOPHOLE is a midi-triggered loop sampler, which allows you play sections of up to 4 different loops using midi notes to control which section of which loop plays. This can be a great way to mash up 4 different loop styles or add quick variations on 4 similar loops. As well as having full control of which sections to play, you can also trigger random sections too (well this is a *de la Mancha* plugin!)

You can load any 4 loops and sync them to host tempo, then using midi notes you can play the loops, switching between loops, playing several loops and defining which sections play. You also get a visual display of the loops, the play position and which sections are being played. The multi-out version lets you applying further effects processing to each loop separately. Loophole also has a volume envelope per loop to declick or fade in/out.

Version 1.1 is an update to SynthEdit 1.1, which eliminates problems with multiple instances in multi-core CPUs

FEATURES

- Loop sampler, using midi notes to trigger sections of each loop, either specifically or randomly
- 171 original drum loops across 19 different kits covering acoustic and electronic styles (Rock, Jazz, Breakbeat, DnB, Hip Hop, Dubstep, Lofi, Glitch, 8 bit, House, Trance and more)
- Loads any 16, 24 and 32 bit WAV in mono or stereo
- Very low CPU (<1% on 2.2GHZ dual core CPU)
- Tempo-sync each loop by setting length in beats, allowing stretching or different lengths if desired
- Play sections of each loop, each triggered by a different midi note
- Play random sections using one midi note
- Graphical representation of loops, play position and triggered sections
- Normalise and mono options per loop
- Envelope per loop to fade in/out or declick
- Volume control and mute per loop
- Stereo out and Multi-out versions
- 21 presets covering different styles and sounds
- 12 midi files showing examples of basic and advanced triggering
- Updated to SynthEdit 1.1, which eliminates problems with multiple instances on multi-core CPUs

INSTALLATION

Installation is quite simple, just extract all the folders and files from the *loophole.zip* into your VST directory. Install and load in your host program as you would any other VST instrument.

You need to extract the whole contents of the *loophole standard version* folder, ensuring you keep the folder structure, so that in your VST directory you should see a dll file and a folder called 'loophole':

.. \YourVSTdirectory\loophole_1_1.dll
.. \YourVSTdirectory\loophole_1_1\

In the *loophole* folder will be a subfolder called *loophole_loops*, that contains all the loops, with each kit in a folder named after the kit with a bpm suffix

.. \YourVSTdirectory\loophole_1_1\loophole_loops\block_rockin_117bpm\
.. \YourVSTdirectory\loophole_1_1\loophole_loops\breakfast_140bpm\
.. \YourVSTdirectory\loophole_1_1\loophole_loops\crock_122bpm\

To uninstall, simply delete the *loophole_1_1.dll* file and the associated *loophole_1_1* folder from your VST directory

MULTI-OUT VERSION

Included in the zip file is a multi-out version of loophole. This version has 4 stereo outputs, one for each loop. This means you can connect each stereo pair to a different mixer channel in your host, so that you can add effects and process each one differently. You may need to consult your host manual to ensure all 4 pairs are connected, some do it automatically, others need you to do it manually.

You need to extract the contents of the *loophole multi-out version* folder from the zip to your VST directory as follows:

.. \YourVSTdirectory\loophole_1_1_multi.dll
.. \YourVSTdirectory\loophole_1_1_multi\

For the multi-out version presets to work, you will also need to copy the included loops in the standard version into the multi-out folder. To save download file size, the loops are not included twice. Copy the *loophole_loops* folder into

.. \YourVSTdirectory**loophole_1_1_multi**\loophole_loops\

So that you see:

.. \YourVSTdirectory\loophole_1_1_multi\loophole_loops\block_rockin_117bpm\
.. \YourVSTdirectory\loophole_1_1_multi\loophole_loops\breakfast_140bpm\
.. \YourVSTdirectory\loophole_1_1_multi\loophole_loops\crock_122bpm\
etc

You may install either or both versions, as they have different plugin ID and will be seen as different plugins by your host
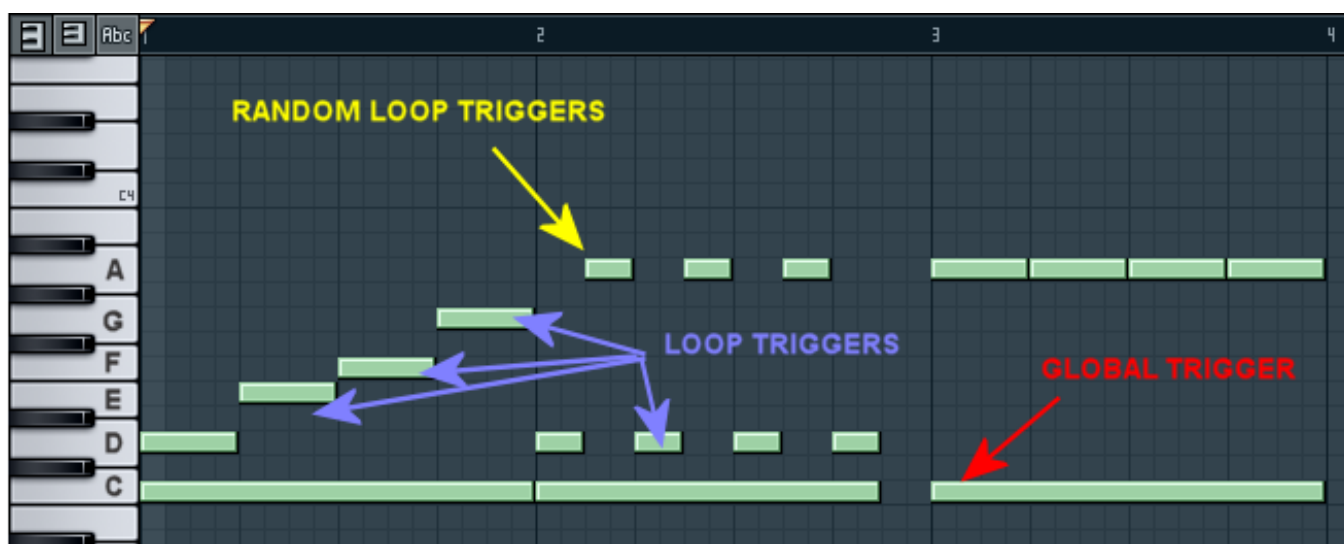
BASICS

loophole operates on the principle of midi notes triggering global play, the play of each loop and the random play of loops. All the used midi notes are labelled on the GUI for easy reference

C = global trigger – this must be pressed / held to activate loophole, otherwise no sound will play. When note is on, the loop play position (vertical black line) will cycle through the 4 loops in sync with the host tempo. When released, the play position will remain stopped. Each time the note is pressed, the play position will restart from zero. This note is an on/off trigger and velocity has no impact.

D, E, F, G = loop trigger – each note triggers the volume on/off for the specific loop, with volume related to the velocity of the note. At the point the note is pressed, the loop will sound from wherever the global play position is, until the point the note is released. The triggered section is highlighted on the sample display. Any, none or all 4 notes can be pressed to create a mix of loop sections.

A = random loop – this works the same way as the loop triggers, except it randomly triggers any one of the four loops. The note timing, duration and velocity work as for the loop triggers. The random loop trigger can also be pressed at the same time as any/all of the loop triggers.

Now, the tricky bit, which C?

All the triggers are in the 3rd octave in the midi piano roll, but different hosts label them differently

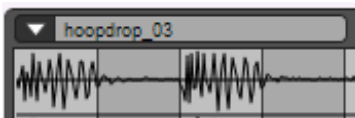| Note	Midi Note	Cubase	Reaper	FL Studio
C	36	C1	C2	C3
D	38	D1	D2	D3
E	40	E1	E2	E3
F	41	F1	F2	F3
G	43	G1	G2	G3
A	45	A1	A2	A3

So depending on your host, you may need to consult the manual, count up the piano roll or randomly hit notes. You can also load in some of the included midi files from the zip, which should work in all hosts.

So now you've found out which keys do what, it's time to start loading loops and mashing them up. Once you've done that, please come back and read the rest of the manual ☺

CONTROLS

Loading a loop
You can load any 16, 24 or 32 bit WAV, mono or stereo, from any connected drive/folder
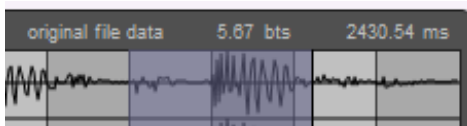
Click on the down arrow to the left of the filename to open the file load dialog

Navigate to the folder where your loops are located and select the loop you wish to load
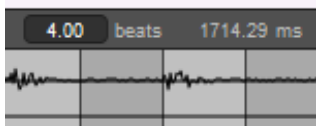
Tuning a loop
Once your loop is loaded, you will want to tune it to be the right length and sync with your host tempo.

To the top right of each loop, you will see the 'original file data' that shows the file length in ms and the number of beats at the current host tempo. In this example, this value is 5.67 beats long
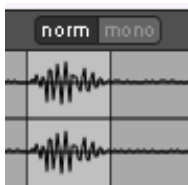
Now you can tune the loop to the correct length, which in this case is 4 beats.

This will make the loop play slightly faster to sync with host tempo.
Typing a value of 2 beats will make it play twice as fast again
Typing a value of 8 beats will make it half speed compared to 4 beats

Loop normalise and mono
There are 2 buttons to toggle on/off the **normalise** and **mono** settings per loop

You can **normalise** any loop, which raises the loop volume so that the highest peak is at 0dB. By doing this to all 4 loops, you help to make them similar in peak volume level (but not necessarily average volume, depending on how compressed the loops are)

You can also make any loop **mono** instead of stereo, which also changes the loop display.

Loop volume / envelope
Each loop has a set of controls to adjust volume and volume envelope

The **vol** knob is a simple volume control. Click the **mute** button to turn the sound off, useful for sound design.

Click the **env** button to turn the volume envelope on, then adjust the **attack** and **release** settings to get a desired fade in or fade out of the loop. A short value (3-10ms) can be used to declick if required, or long values (500+ ms) can be used to create fades.

Note that the release phase happens only after the midi note is released.

LOOP DISPLAY

The GUI shows the waveform of each loop, as a stereo or mono waveform depending on the loop format and if the **mono** button is pressed

When play is pressed in your host and the C note is triggered, then you will see 2 dynamic displays

- Play progress indicator – vertical black line that scrolls left to right to show where the play position is
- Loop play highlight – purple rectangle that shows which shows when a selection of the loop is triggered by one of the loop trigger or random trigger notes

Note that the display is an indication only and is not a sample accurate display. You may see small gaps at the start and end of the purple highlights for example. This is only a visual impact, the audio will precisely follow the midi notes.

LOOPS & MIDI FILES

Also included in the download are;
- 171 loops in 24 bit WAV format
- 12 Midi files showing different trigger patterns

You do not need either of these resources if you don't want to use them, but they are useful to demonstrate what is possible in loophole

Loops
All the loops are 4 beats / 1 bar long and their bpm is given in the folder name that they are in
eg: \loophole_1_1\loophole_loops\block_rockin_117bpm

The loops are original material created by me, so there are no copyright issues. You are free to use them in your music but not distribute them as loops either in their original form or modified.

Midi files
The midi files are examples of different triggering patterns, showing simple 1 bar patterns to more complex 4 bar patterns with random triggering and multiple layers. You load the midi files into your host piano roll to trigger loophole (loophole doesn't load midi files itself, only loops)

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CREDITS

Thanks to **Jeff McClintock** for creating SynthEdit and to the 3rd party SE module developers, without which this plug-in wouldn't exist.

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Links	
SynthEdit	http://www.synthedit.com/
Dave Haupt Modules	http://www.dehaupt.com/SynthEdit/semodules.htm
Chris Kerry Modules	http://www.chriskerry.f9.co.uk/
K D Lynch	http://www.rubyhex.com/synthedit/
Scoofster Audio	http://scp.web.elte.hu/synthedit/modules.html

ABOUT THE DEVELOPER

de la Mancha lives, eats, dreams and breathes VST plugins, seeking to bring randomization and modulation to the masses. He is also a producer of odd-skool breakbeat, downtempo glitchy beats and other assorted bleeps and noises. You can find his music at www.papadodo.co.uk www.3x0.co.uk and www.mono-log.co.uk

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