

Dr-Fusion v2 User Guide

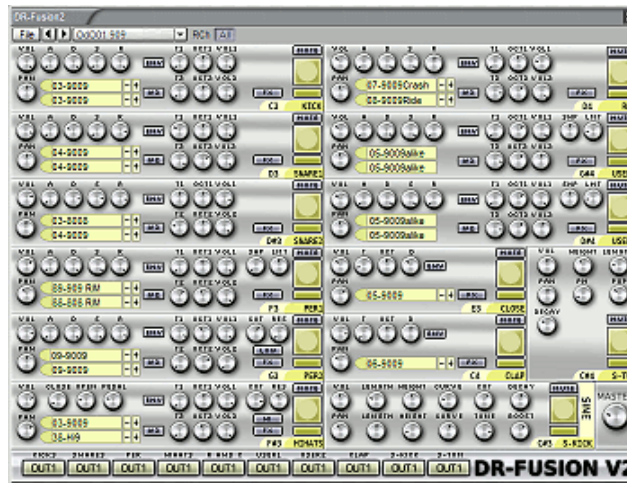
Developer: OdO

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1 Introduction



Welcome to the User Guide for Dr-Fusion 2.

Dr-Fusion 2 is a drum sampler and synth with:

- 7 instruments with dual samples (kick, 2 snares, 2 percussion, hihat, ride and crash,
- 2 instruments with dual samples into which the user can load samples,
- 2 instruments with single sample slots (closed hihats, claps)
- 2 synths for toms and kicks,
- pads (for auditioning), LEDs (for monitoring) and Mute buttons
- 2 samples can be loaded into many of the instruments for layering (the second sample can be muted), over 560 samples are built in,
- each sample-based instrument has a comprehensive set of controls (many can be automated),
 - ♦ tune (1 octave), octaves and volume controls for each sample,
 - ♦ main volume, volume envelope (ADSR), pan,
 - ♦ any one of four FX: Distortion, Filter, Bit Crusher and Clipper, each with their own controls.

The kick, snares, percussion and hihats each have over 120 samples available, there are 61 closed hihats, 30 ride and crashes, and 35 claps

In addition, DR-Fusion has two drum synths, for kick and tom. OdO ahs created another product – Rhythms, which provides a comprehensive set of drum synths in a multi-output VSTi. Give that a try, too.

And, finally, there are 35 Drum kits presets, and you can set up your own using the integrated samples and synths.

I have the fond dream that Dr-Fusion is pronounced "Doctor Fusion", and is perhaps inspired by Dr John, the night-tripper.

1.1 Contents

This guide covers the following areas:

- [General Controls](#)
- [Dual Sample Instruments](#)
- [Single Sample Instruments](#)
- [FX](#)
- [Synth Instruments](#)
- [Automation](#)
- [Installation](#)

You can click on a link to jump to that area.

1.2 Credits

Of course I must thank OdO, Dr-Fusion's creator and owner, for providing Dr-Fusion (and many other good VSTs) for his assistance in the production of this guide.

Go visit his site [soon](#).

1.3 Comments

If you have any positive comments, please send them to OdO.

Any mistakes are mine. If you can suggest any improvements to this guide, please send them to me.

You can contact us through [KvR](#).

DarkStar

2 General Controls

2.1 Instrument Outputs



DR-Fusion has 6 output channels. Different instruments can be routed to different outputs. Just click on each of the Out buttons to set the output channel.

2.2 Master Controls

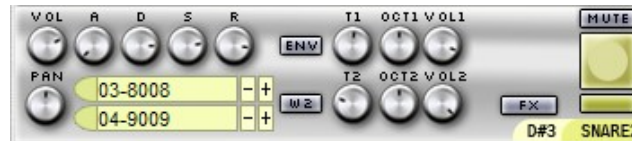
Just the one – a Master Volume, down in the bottom-right corner.

3 Dual Sample Instruments

Dr-Fusion has 9 instruments that can be loaded with 2 samples – kick drum, 2 snares, 2 percussion, hihats, ride and crash, and finally, 2 instruments into which you can load your own samples.

The 2 user instruments can be loaded with any 16-bit mono or stereo sample in the first release, but this will be extended in later releases.

3.1 Instrument Controls



The controls available are the same for most of these Instruments, apart from the Hihats:

- Volume and Pan position
- a volume envelope with ADSR controls and an Envelope On/off button,
- two sample selectors and a control to mute the second sample (more on these below)
- for each sample:
 - ♦ finetune (+/- 100%)
 - ♦ transpose (+/- 4 Octaves)
 - ♦ volume
- an FX selector (more on this later)
- beneath that selector, you will see the name of the MIDI trigger (this is not editable)
- a mute button for the instrument
- a pad, so you can preview the instrument's sound, just click it
- and finally, an LED which indicates when the instrument is triggered.

3.2 Hihats Controls

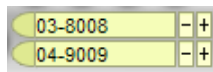
The hihat controls are a little different



- Volume and Pan position
- Decay controls for the Close, Open and Pedal sounds and an Envelope On/off button,
- two sample selectors and a control to mute the second sample (more on these below)
- for each sample:
 - ♦ finetune (+/- 100%)
 - ♦ transpose (+/- 4 Octaves)
 - ♦ volume
- an FX selector (more on this later)
- beneath that selector, you will see the name of the MIDI trigger (this is not editable)
- a mute button for the instrument
- a pad, so you can preview the instrument's sound, just click it

- and finally, an LED which indicates when the instrument is triggered.

3.3 Sample Browser Controls



For each sample you can see a sample slot:

- click the left-hand end to pop up the browser window for the samples that can be loaded,
 - – the available samples are different for the different instruments,
- the name of the loaded sample appears next,
- and the – and + buttons load the previous and next available samples

The browser windows for most of the instruments list the samples built-in to Dr-Fusion, but the browser for the 2 user instruments is a Windows window and you can browse to any of your sample folders.

4 Single Sample Instruments

Dr-Fusion has 2 instruments that can be loaded with a single sample (although, of course you could load one sample into any of the dual-sample instruments and mute the second sample). – closed hihats and claps.

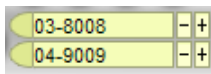
4.1 Instrument Controls



The controls available are the similar for all these Instruments:

- Volume and Pan position
- finetune (+/- 100%)
- transpose (+/- 4 Octaves)
- a volume envelope with Decay control only and an Envelope On/off button,
- the sample selector
- an FX selector (more on this later)
- beneath that selector, you will need the name of the MIDI trigger (this is not editable)
- a mute button for the instrument
- a pad, so you can preview the instrument's sound, just click it
- and finally, an LED which indicates when the instrument is triggered

4.2 Sample Browser Controls



For each sample you can see a sample slot:

- click the left-hand end to pop up the browser window for the samples that can be loaded,
 - the available samples are different for the different instruments,
- the name of the loaded sample appears next,
- the – and + buttons load the previous and next available samples

The browser windows for most of the instruments list the samples built-in to Dr-Fusion, but the browser for the 2 user instruments is a Windows window and you can browse to any of your sample folders.

5 FX

You can apply any one of 4 FX to each Instrument: Distortion, Filter, BitCrusher and Clipper. Just click on FX and select the one you want from the drop-down list.



5.1 Distortion



The Distortion FX has two controls, for the Shape (amount of distortion) and a limiter control.

5.2 Filter



The Filter FX provides three controls:

- Filter type – Lo Pass, Hi Pass or Band Pass.
- Cutoff frequency,
- Resonance.

5.3 Bit Crusher



And the Bit Crusher has two, a Downsample level and a Bit depth (from 16 to 1).

5.4 Clipper



The Clipper FX also has two controls, for the frequency range; frequencies outside the Lo to Hi range are attenuated.

6 Synth Instruments

Dr-Fusion provides 2 drum synth instruments, for kicks and tom. OdO's Rhythms VSTi has a comprehensive set of drum synths – 2 bass, 2 snares, toms, 2 hihats, wood block, rimshot, clap and "kick me too" synth.

6.1 Kick Synth



The kick synth uses 2 waveform generators and has 7 controls:

- volume and pan position,
- for each waveform generator:
 - ♦ length which affects the frequency (pitch length)
 - ♦ height which emphasises the frequencies (pitch height)
 - ♦ curve, which alters the shape of the pitch wave
- a volume envelope with Decay control only,
- cut, a cutoff frequency,
- tune and bass boost,
- and lastly, a wavetype selector – Sine or Triangle.

6.2 Toms Synth



The toms synth uses a single waveform generator and has 7 controls:

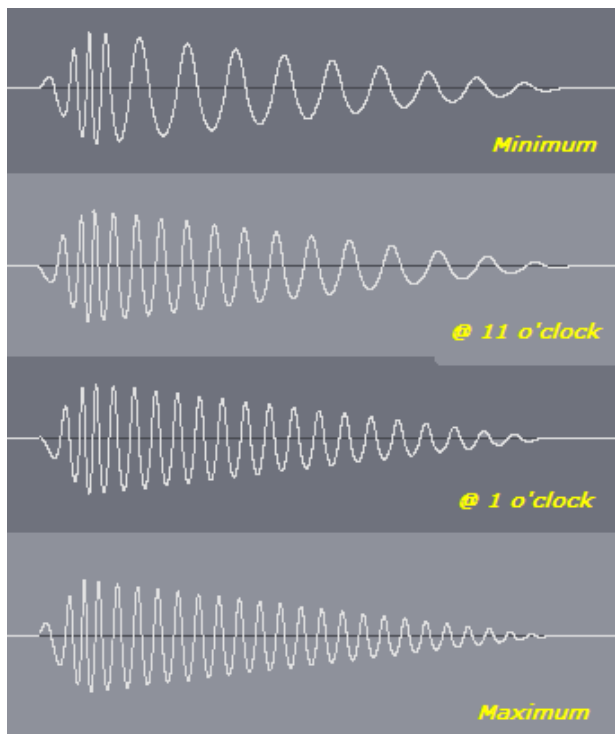
- volume and pan position,
- a volume envelope with Decay control only,
- length which affects the frequency (pitch length),
- height which emphasises the frequencies (pitch height),
- PM (phase modulation) which introduces harmonics at 2x, 3x, 4x the base frequencies
- pop, which adds a pop sound.

6.3 Synth Controls

This section illustrates the effect of some of the synth controls on the generated waves.

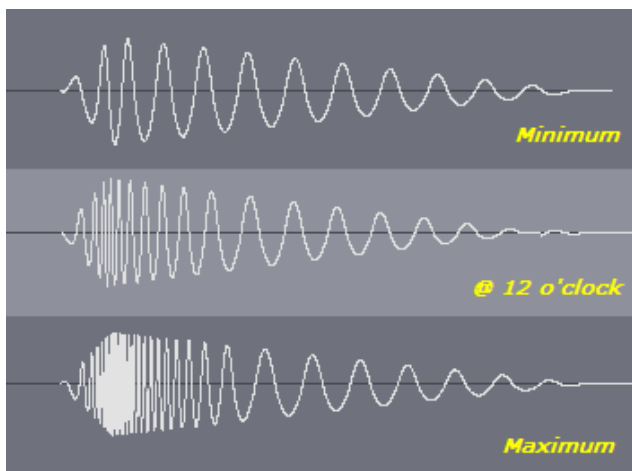
6.3.1 Length

As you increase the Height control the frequency of the whole sound is increased. This screenshot shows the effect at 4 Length settings.



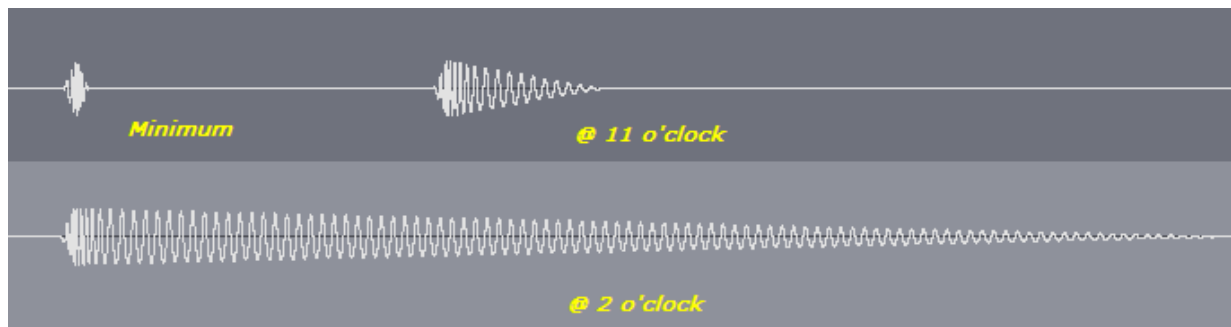
6.3.2 Height

As you increase the Height control the initial frequency of the sound is increased. This screenshot shows the effect at 3 Height settings.



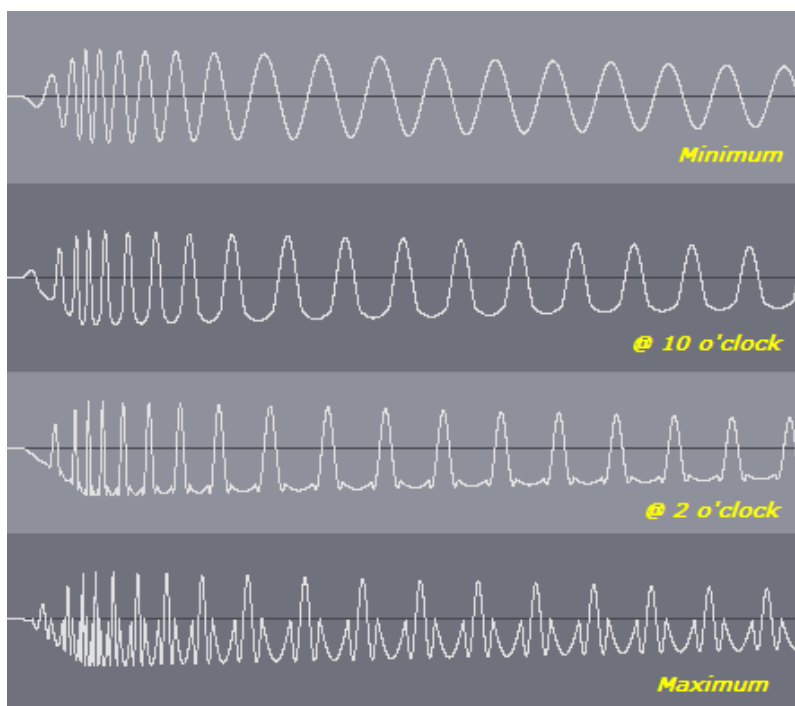
6.3.3 Decay

As you increase the Decay control the duration of the sound is increased. This screenshot shows the effect at 3 Decay settings. [The Maximum value would not fit in the screenshot.]



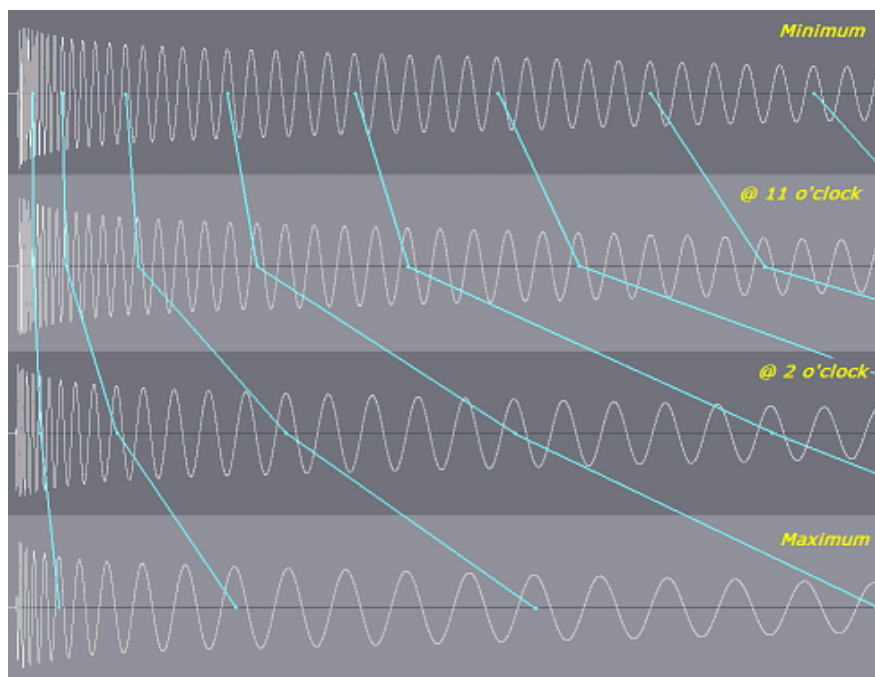
6.3.4 Phase Modulation (PM)

As you increase the PM control the difference between the phases of the sound is increased. This screenshot shows the effect at 4 PM settings.



6.3.5 Curve

As you increase the Curve control the initial frequency is lower and it reduces more slowly. This screenshot shows the effect at 4 PM settings. The lines are drawn connecting every 5 positive phases in the generated waves.



7 Automation

You can automate many of the controls in Dr-Fusion, so that you can control them from your MIDI control surface or Sequencer.

There are sets of parameters for:

- Clap
- Closed hihat
- Hihat
- Kick
- Master volume and Output selectors
- Percussion 1 and 2
- Ride & Crash
- Kick Synth
- Toms Synth
- Snares 1 and 2
- User Instruments 1 and 2

For the sample-based instruments, you can automate:

- Volume and pan position
- Attack, Decay, Sustain and Release or Decay only
- (for dual instruments) sample volumes, finetune and transpose (octave)
- (for single instruments) sample finetune and transpose (octave)
- FX Bit Crusher – downsample and bits
- FX Clipper – Hi and lo
- FX Filter– Cutoff and Resonance
- FX Distortion – Shape and Limit

And for the synths you can automate:

- Volume and Pan position,
- Length(s) and height(s),
- Decay,
- Curves,
- (for the toms synth) PM and Pop,
- (for the kicks synth) Boost and Tone.

8 Installation

Dr-Fusion is available as a WinRar download from [OdO's website](#). It is almost 20Mb, so if you are on a dial-up 56k connection it will take some time (70–80 minutes).

Extract the files (one .dll file and a folder of samples) into your VST folder.

Please note that Dr-Fusion 2 is not directly compatible with v1.

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Phew!

Right. By now, you can load samples into the instruments, tweak, tune and FX them as you wish. And automate them every which way. All you have to do now is route your MIDI keyboard or MIDI part in your Sequencer to Dr-Fusion and you can trigger each of the instruments.

Well, that is about it for this guide. I hope you have found it useful.