



**TRUC<sup>2</sup>** was developed by **de la Mancha** and **Sink**  
It is a modulated multi-effect plug-in in VST format for Microsoft Windows based hosts.

*This manual applies to v1.1*

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## INTRODUCTION

**TRUC<sup>2</sup>** is a multi-effect plug-in with 4 different effect modules and two automated XY pads to modulate their levels and parameters. It is designed to add variation and movement, anywhere along the scale of subtle to overkill and is suitable for any material.

The 4 effect modules are DIRT, GRAIN, RING and DELAY. The first XY pad modulates the volume/mix level of each module, whilst the second XY pad modulates any 4 of the 15 automatable parameters. Both XY pads can be moved manually and additionally automated with a variety of LFO shapes, speeds and depths.

truc2 is a complete rewrite of the original from new. The main improvements over the original version of truc are

- Correct real-time rendering of all XY modulations
- Enhanced XY pad LFO modulation options
- XY pucks can be dragged whilst being modulated by LFO
- Graphical representation of modulations on XY pads and parameter knobs
- More dirt options
- More ring mod / pan / vol mod options
- Completely new GUI

## FEATURES

- 4 effect modules
  - DIRT – 18 flavours of distortion, 3 types of degrading and a resonant state-variable filter
  - GRAIN – Tempo-sync Granulising with 6 envelope shapes and pitch/size/rate randomisation
  - RING – Ring modulation with LFO, 14 tones, 11 LFO waveforms, vol and pan modulation
  - DELAY – Tempo-sync delay with reverse, ping-pong and resonant LP filter
- 2 XY pads with simultaneous manual and automatic modulation
  - Modulate the effect module overall volume or wet/dry mix level
  - Modulate any 4 from 15 of the parameters in the 4 effect modules
- Tempo-sync LFO for each XY pad axis, with 16 waveforms and adjustable depth and phase
- Dragable XY pucks for manual modulation, even when automated by LFO
- Graphical representation of XY and parameter modulation to see at a glance what is automated
- 120 Presets covering all functions and different configurations
- Bonus mini-truc, 4 way mixer
- Truc 2.1 is an update to SynthEdit 1.1, which eliminates problems of multiple instances on multi-core CPUs

## INSTALLATION

Installation is simple, just extract *truc2\_1.dll* from the zip file and copy it into your VST directory. Install and load in your host program as you would any other VST effect

To uninstall, simply delete the *truc2\_1.dll* file and the associated *truc2\_1* folder from your VST directory

### Folder permissions

Like all SynthEdit plugins, when truc2 is first scanned by your host, it will create a folder called *truc2\_1* in the same directory as the *truc2\_1.dll* file and copy some needed module files into this folder. These are required for the plug-in to function correctly.

In some cases, particularly for Windows Vista, the default folder permissions do not allow this automatic creation of a folder and files by software and the plug-in will not work. In this case, you will need to change the folder permission of your VST directory to allow it to happen. You may need your host to rescan the plug-in after changing permissions

## CONTROLS

The concept of **TRUC<sup>2</sup>** is to have 4 different effect modules, modulated by 2 XY pads. The left hand XY modulates the levels of the 4 effects, the right hand XY modulates individual parameters. All XY/LFO modulation is shown on the horizontal bar graphs and all parameter modulation is shown on the ring around the knob.

### Mode

At the bottom of the Left XY pad, you will see a mode selector, which allows you to select **vol** or **mix** mode



This is the modulation mode of the Left XY pad

- Vol = XY pad modulates the output volume of each effect module
- Mix = XY pad modulates the wet/dry mix level of each effect module

Vol tends to give more noticeable impact, like automating faders on a mixer. Mix can be slightly more subtle, as the original audio is also heard

### The Left XY pad



The Left XY pad modulates the vol/mix levels of the 4 effect modules when the **toggle** is set to ON. When set to OFF, the levels default to 100% for all 4 modules.

You can move the solid puck by clicking and dragging with the mouse. As the puck moves closer to one corner, that effect will increase in level and the others will decrease. You will see the 4 horizontal bars moving to indicate the % modulation (0-100%). Double-click the puck to reset it to the centre.

By moving the puck fully into one corner, it will be at 100% and the others at 0%. If the puck is dead centre, then all effects will be at 25%.

If you increase the **min %** knob to 50%, then this means that no effect will go below 50%, useful to ensure the levels don't go to zero for example.

By turning the **LFO** toggle ON, the puck will be automated by the 2 LFO's below in the X and Y axis. You will see an outline puck to represent the automation and the horizontal bars will move accordingly.

You can still drag the solid puck around whilst the LFO is automating it, and the outline puck will move with it.

### XY LFOs



Below each XY pad are controls for 2 LFOs, one for the X axis (horizontal) and one for the Y axis (vertical). These are the LFOs that automate the XY puck.

Using the drop-downs, you can choose from 16 different waveforms or select 'off'. There are the usual sine, triangle etc, some unusual and of course random.

The LFOs are tempo-synced to your host bpm, and so their speed is expressed in beats, from 1/16<sup>th</sup> to 16 beats, selected from the drop-down.

Each LFO has a **depth** setting (0-100%) to determine how much the LFO modulates the puck and a **phase** setting (-360 to 360 degrees) which is useful to offset one axis from another for interesting puck modulation. You can double-click the phase knob to reset it to zero. The **phase** knob also has other functions for 2 of the LFO shapes

- Pulse – sets the pulse width
- Rnd smooth – sets the smoothness of the transition (max value = 345, if you go above it will not change)

## The Right XY pad



The Right XY pad modulates any 4 parameters when set to ON. When set to OFF, the levels default to 100% for all 4 chosen parameters.

In each corner of the pad is a drop-down box, where you can choose which of the 15 parameters will be modulated by that corner. You can also choose 'none' as an option.

When you move the puck around, you will not only see the horizontal bars on the XY pad moving, but also the rings around the knobs of the selected parameters

In all other respects, the Right XY pad has the same functions as the Left XY pad, including the LFO modulation below it.

## Dirt



The **DIRT** module is a combined distortion and filter effect, with 3 drop-downs and 4 modulatable parameters.

Using the **dirt** drop-down, you can choose from 18 different distortion styles, or set to bypass

The **degrade** control lowers the sound quality using 3 different methods, step, linear or curve

The **filter** is state-variable between low pass, high pass, band pass and band reject

The **dirt** and **degrade** knobs set the amount of each in % (0-100)

The **cut off** knob sets the filter cut point in kHz. There is also an **up / down** arrow to set the direction of modulation.

- Up = modulates up to the cut off value
- Down = modulates down to the cut off value

The **res** knob sets the filter resonance

## Grain



The **GRAIN** module splits the audio into small chunks (grains) so each can be manipulated to give broken, stuttery or glitchy sound. It has 3 drop-downs and 4 modulatable parameters.

**Grain size** and **Grain rate** are expressed in beats (1/16<sup>th</sup> to 16) so they are in tempo-sync with your host bpm.

Size = how long each grain is

Rate = how often a grain is generated

The **envelope** is used on the volume of each grain, which can be used to de-click or shape the sound to taste. There are 6 shapes to choose from, or 'none'

The **Pitch** knob will shift the pitch of the audio from -60 to +60 semitones. You can double-click the knob to reset to zero

The next 3 **rnd** knobs are all **randomisers**, expressed as 0-100% and will randomise the **pitch**, **grain size** and **grain rate** respectively

## Ring



The **RING** module is a flexible Ring Modulator effect, with its own LFO that can also modulate volume and pan. It has 4 drop-downs and 4 modulatable parameters.

**Ring mode** allows you to choose from 14 different tonal variations of ring modulation as well as bypass mode

**Ring osc** selects the waveform of the signal that will be ring modulated with the incoming audio, There are 11 waveforms to choose from

**LFO** selects the LFO waveform, with 16 different shapes to choose from

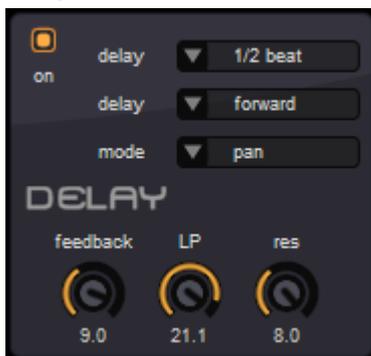
**LFO rate** selects the speed of the LFO, expressed in beats to be in tempo-sync with your host bpm (1/16<sup>th</sup> to 16 beats)

The **Ring Hz** knob sets the frequency of the ring osc that will be modulated with the incoming audio

The **ring** knob sets the LFO depth (0-100%) for modulating the ring modulation frequency. This function is only turned on when the toggle is set to ON

The **vol** and **pan** knobs also set the LFO depth to modulate volume and pan position, and again are also only active when their toggles are turned ON

## Delay



The **DELAY** module is a delay effect with filtered feedback, it has 3 drop-downs and 3 modulatable parameters

The first **delay** drop-down selects the delay frequency, expressed in beats (1/16<sup>th</sup> to 16) to be in tempo-sync with your host bpm

The second **delay** drop-down selects the direction of delay

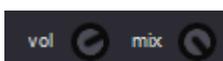
- Forward = standard delay
- Reverse = backwards delay

The **mode** drop-down selects from stereo, ping-pong or pan delay modes

The **feedback** knob adjust how much feedback the delay has (how many echoes)

The feedback can be filtered using a resonant low pass. The **LP** knob adjusts the filter cut off in kHz and the **res** knob is the amount of resonance.

## Global controls



At the bottom of the interface you will find global controls for the **volume** and the wet/dry **mix** level

These controls act on the final summed output of truc2, which can be useful as the different combinations of effects can make the output clip or be too quiet. The mix control is useful if you want to make the effect less extreme, by increasing the dry audio level (by turning to the left)

## TRUC mini



truc mini is a bonus plug-in included in the download zip of the full version

It is an effect plug-in that you can install by extracting *truc2\_mini.dll* from the zip file and copy it into your VST directory. Install and load in your host program as you would any other VST effect.

It is a 4-way cross-mixer plug-in that is the same as the centre-left panel from the full version of truc2. Instead of routing the audio to 4 hard-wired effect modules, you can route to 4 different mixer channels with your own chain of effects.

It has one stereo input, and 4 stereo outputs (Out1-4 in each corner of the XY pad). You may need to consult your host manual in order to route each output to a different mixer channel.

The incoming audio is routed to all 4 outputs, at a volume level according to the XY puck position, and indicated on the horizontal bar graphs in each corner of the XY pad.

Control is exactly the same as the full version for modulation by LFO, dragging by hand and setting min% for the output volumes.

Truc mini comes with 42 presets.

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## CREDITS

Great big thanks to **Sink**, co-developer and preset designer on *truc2* and the original *truc*

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

Also a huge thanks to **g200kg** for the fantastic freeware knobman, used to make the controls on most of my GUIs

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Links	
Sink	<a href="http://www.sinkmusic.com/">http://www.sinkmusic.com/</a>
SynthEdit	<a href="http://www.synthedit.com/">http://www.synthedit.com/</a>
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## ABOUT THE DEVELOPERS

**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](http://www.papadodo.co.uk) [www.3x0.co.uk](http://www.3x0.co.uk) and [www.mono-log.co.uk](http://www.mono-log.co.uk)

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**Sink** is a french-based electronic music producer. He creates electronica, melting IDM/Breakz/Ambient/Chiptune/Dubstep/Electro and many playful bleeps, and enjoys gathering rusty vintage analogue hardware sounds and tweaks with digital processes. He also collaborates with various developers. Find more about him here [www.sinkmusic.com](http://www.sinkmusic.com) and there [www.myspace.com/sinkmusic](http://www.myspace.com/sinkmusic)