



# DUALISM USERS GUIDE

Version 1.0

[www.ugoaudio.com](http://www.ugoaudio.com)

# Dualism Users Guide

---

This PDF will guide you through general usage, as well as provide some extra programming tips to help you get the most out of Dualism. Check the Bookmarks tab in Acrobat for quick access to individual sections.

## Installation & Overview

---

Open the zip and extract the entire Dualism folder into your host's VST folder. Yup, that's it. No annoying copy protection, no tricky registration and no troublesome installers.

Dualism is a plugin version of the dual arpeggiators and 2X MIDI utilities found within M-theory and, as such, provides you with the ability to arpeggiate/double any other synth you wish, including hardware synths.

Combining two flexible and programmable phrase arpeggiators with a pitch and speed controllable MIDI doubler, Dualism allows you to create arpeggiations that are far more complex and detailed than your standard synth arpeggiator. However, all this flexibility is contained within a small and straightforward interface, letting you quickly and comfortably create complex patterns without having to feel slowed down but the UI.

## Project Setup

---

While Dualism is not a synthesizer, your host will load it as if it was one. For Dualism to control an actual synth, it is required that your host allows MIDI note data to be sent to from one synth to another. So the way this would work would be that you would play notes to Dualism, Dualism would arpeggiate those notes, then pass them on to the synth of your choice.

The setup procedure for re-routing MIDI differs from host to host, therefore I recommend that you refer to your host's manual for instructions on how to route MIDI note data to and from Dualism. Similarly, some hosts will allow you to capture Dualism's output to a separate MIDI track so you can edit it or save it for later use, but some hosts do not offer this feature.

## 2X

---

This feature causes another midi note to be played after each one you play on your keyboard.

### On

Turns on the 2X effect.



### Speed

Adjusts how quickly the note will be triggered. Slower speeds provided a sort of delay effect. Faster speeds can be useful for creating harmonies. (Including a 12 string guitar / mandolin type of doubling.)

### Pitch

Lets you set the pitch of the newly triggered note. Settings are in semi tones above the note you play. The range is from 0, which plays the same note you do, to 12, which plays an octave higher than the note you play.

### Velocity

This slider allows you to adjust how much key velocity effects the volume of the 2X generated note.

## Arpeggiators

---

These are two programmable phrase arpeggiators which can be used at the same time. Giving both different settings allows you to create more complex patterns than you could with just a single arp. When used in conjunction with the 2X, you can get even more complex patterns.

### A few words about phrase arps:

With your typical basic arp, the pattern is based exclusively on the pitch of the notes you play, and the order in which the keys were pressed in gets ignored. So if you press 3 keys, those three notes will always play in the order defined by the arp...typically either ascending, descending or alternating pitch...and not in the order you pressed the keys in. In contrast, with the phrase arps in M-theory, the order of the playback depends on the order you press the notes down in.

### On

Activates the arpeggiators.

### SRC/BPM

This control let's you choose whether Dualism syncs to your host's clock or if it uses an internal clock. The default (off) setting uses your host's clock. Switch this on to use the internal clock. To set the internal time, click on the number, type a new speed in, and press enter.

**Note:** The clock source control effects both the 2X and the arpeggiators.



### Arp Selection

Lets you choose whether only Arp 1 plays, only Arp 2, or both at once.

### Out Chnl

This function allows you to select which MIDI channel Dualism will output it's data on. This is particularly helpful when you are using Dualism to control multi timbral synths and you only need it to control a single channel.

**Note:** The output channel control effects both the 2X and the arpeggiators.

### Gate

Sets how long the arpeggiated notes will be.

### DIR

Sets the order in which the pitch of the notes will play back (based off of the order in which you pressed the keys in)

### Octave

Sets whether the arpeggiator will trigger notes in higher octaves than what you are holding down

### Speed

Sets how fast each arpeggiator will play. In addition to the more standard speeds, there are also the options of Odd 1 and Odd 2, which provide an offset/odd timed feel.

### Pattern

These divide each arpeggiator's playback into 16 parts, allowing you to create your own arpeggiator patterns by letting you chose when an arp will trigger. This can also be useful for fine tuning the speed that the arps play back at. (Note: this is actually a step sequencer that gates the transmission of the host clock signal to the arpeggiators.)

### STP

This control lets you set the maximum number of steps in the arpeggiator pattern. To adjust, click on the number and drag up or down. Steps are activated left to right, with 1 being the first switch on the left, and 16 being the last step on the right.

## L

Turning this on will latch the arp, so when you take your finger off a key, the arp will continue to play

## X

When a latch is activated, you have the option of bypassing the arp, allowing you to play freely overtop while the arp continues to play in the background.

## MIDI CC Assignments

---

Control Name	CC
2X - On	71
2X - Speed	72
2X - Pitch	73
Arp - On	74
Arp 1 - Gate	75
Arp 1 - Direction	76
Arp 1 - Octave	77
Arp 1 - Speed	78
Arp 1 - Hold	79
Arp 1 - Bypass	114
Arp 2 - Gate	80
Arp 2 - Direction	81
Arp 2 - Octave	82
Arp 2 - Speed	83
Arp 2 - Hold	84
Arp 2 - Bypass	115

## CPU Info

---

Dualism uses very little CPU resources on it's own. However because it is causing your synth to play extra notes, you may notice the CPU usage of your project increase. To help keep the CPU load under control, you may want to reduce the gate time of the arpeggiated notes. This shortens the length of time each note plays and therefore can help minimize voice overlap. Additional reductions can be made by shortening the envelope release times in your synth.

## Known Bugs

---

### **Dual core processors + multiple instances**

Unfortunately VSTs built with SynthEdit are not completely compatible with dual core processors. Single instances work fine, but multiple instances can cause crashes in hosts that have multi processor support activated. Jeff McClintock, SynthEdit's creator, is aware of the problem and has stated that the fix for it will be in the next update (1.1) of SynthEdit. As soon as Jeff releases this fix, I will release an update to Dualism to solve this problem. In the meantime, there are a few workarounds for this issue.

1. Make additional copies of the Dualism dll for each extra instance you expect to need, and give each a new name. (eg: Dualism2.dll, Dualism3.dll, etc.) Hosts consider each an individual instance, and therefore do not run into the multiple instance conflict.
2. Freeze each instance before loading another one, especially if your host has an "unload while frozen" option.
3. Turn off multi processing in your host. Of course this is the least desirable of the three options since it negates the benefit of having a dual core, but it does work.

### **Why your host creates an audio channel for Dualism in your mixer**

I chose to make Dualism appear in hosts as a synth rather than an effect because some hosts do not allow MIDI note data to be sent to or from effects. However, and not surprisingly, many hosts require that synths have an audio output. So even though Dualism does not have a synth built into it, I had to install a "dummy" audio out into Dualism so that it would load properly in a wider range of hosts.

### **FL Studio issues**

When Dualism is loaded you may experience a lag between when you press play and when the sequencer starts. A lag also occurs when pressing the rewind button. This problem is caused by an incompatibility between Dualism and the reset procedure FL runs every time you play/rewind.

To fix this problem:

1. Press the options button in FL studio (at the top of the screen)
2. Choose the Audio Settings from the drop down menu
3. Turn off "Reset plugins on transport"

### **Project5 issues**

The same lag problem that appears in FL Studio also occurs in Project5. Unfortunately though, this host does not offer the option of turning off the reset so there is no solution for it right now. However, the faster your computer, the less lag you will notice. So if you've got a newer computer, you may not run into this problem at all.

## Credits

---

M-theory created by Ugo (Chris Sciorba)

[www.ugoaudio.com](http://www.ugoaudio.com)

[ugo@ugoaudio.com](mailto:ugo@ugoaudio.com)

This plugin was created with SynthEdit.

VST plugin technology by Steinberg.

### **This VSTi incorporates SynthEdit modules and prefabs by:**

Dave Haupt - [www.dehaupt.com](http://www.dehaupt.com)

Chris Kerry - [www.chriskerry.f9.co.uk](http://www.chriskerry.f9.co.uk)

e-phonic - [www.e-phonic.com](http://www.e-phonic.com)

Kelly Lynch - [www.rubidiumhexafluorosilicate.com/synthedit/](http://www.rubidiumhexafluorosilicate.com/synthedit/)

Lance Putnum - [www.uweb.ucsb.edu/~ljputnam/synthedit.html](http://www.uweb.ucsb.edu/~ljputnam/synthedit.html)

Rick Jelliffe - <http://extra.schematron.com>

Scoofster Modules - <http://scp.web.elte.hu/synthedit/>

### **Presets by:**

- Antoine Bertier (AB)

- Canned Heat / Hootan Farzad (CH)

- Jim Cloud (kloW)

- Runagate (Runa) - <http://www.3amnoise.net/runagate/news.html>

- Ugo

### **Special thanks to:**

- Everyone on the beta testing team

- Jeff McClintock, for creating SynthEdit

- Steinberg, for their VST format

- KVR - [www.kvraudio.com](http://www.kvraudio.com)

- Jeff Rhodes at [Perimeter Sound Arts](http://Perimeter Sound Arts)

## License Info

---

1. Do not distribute this VST or install it on other people's computers. This is a single user license so if you know someone who might like this product, please encourage them to buy copy of their own. So feel free to spread the word about how great M-theory is, but just don't spread the VST itself.

2. You are using this software at your own risk. While I do what I can to prevent trouble, I claim no responsibility for damage to your hardware, software, income, reputation, sleep habits, hat size, or person should something go wrong.

3. You may transfer your license if you wish, but you must arrange it with me first so the new owner can get tech support and updates.