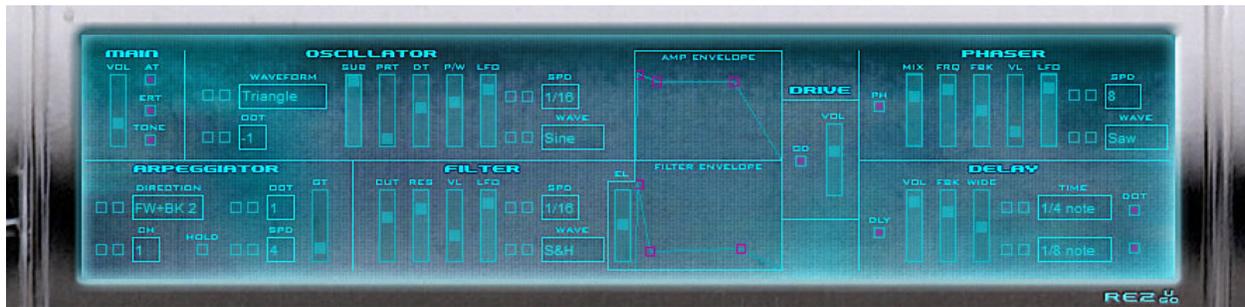


# REZ 2.0 BY UGO



## Operations Manual

<http://www.cortidesign.com/ugo>

## Table of contents:

<b>Welcome to Rez 2.0</b>	<b>3</b>
Overview	3
Important	3
Installation	3
Tips	3
<b>Controls</b>	<b>4</b>
Main	4
Oscillator	4
Arpeggiator	4
Filter	5
Envelopes	5
Drive	5
Phaser	6
Delay	6
<b>Trouble Shooting</b>	<b>7</b>
Credits	7
Version History	8
<b>License Agreement</b>	<b>10</b>

# Welcome to Rez 2.0

## Overview

Rez is a pretty basic synth. It's monophonic and has typical analog synth controls and features. What makes Rez special is its filter. It's made from multiple chained filters acting as a single big filter and it's highly resonant. Even though Rez may be relatively simple, it is capable of a rather wide range of sounds, from funky squishes, beastly basses and screaming leads, to tight arpeggiations, atmospheres, bells, and interesting effects.

## Important note about the filter:

While much effort has been put into making the filter easier to work with at extreme resonance levels, strong frequency spikes are still quite possible. To reduce the risk of blowing out your speakers or your ears, keep the volume levels low when working with high resonance levels, at least until you have tested your preset over your controller's full range. (Especially in the upper register.)

## Installation

Just place the Rez folder into your host's VST plug-in directory.

## Tips

- Hovering your mouse over most controls will bring up a pop-up of its name or description. It will also show the MIDI CC number the control has been assigned to.
- The cutoff has been assigned to CC11 so you can use your keyboard's mod wheel to control it.

# Controls

## Main

**VOL** - Controls the overall volume of the synth.

**AT** - Switches the aftertouch support on/off. Aftertouch will modulate both the detune and phase adjustment offset.

**ERT** – Sets whether or not the envelopes retrigger when playing legato. This affects both the amp and filter envelopes.

**TONE** – Switches between brighter oscillator and filter tone of version 2 (on) and the warmer, softer tone of version 1 (off.) It also switches between the beefier sub oscillator tone of version 2 with the more subdued tone of version 1.

## Oscillator

**WAVEFORM** -Sets the oscillator type.

**OCT** -Sets the pitch for your patch.

**SUB** - Adjusts the volume of the sub oscillator on/off. Use this to fatten up the sound or to add notes to a patch that uses noise. When the tone is set in version 2 mode, the sub oscillator gives a much more pronounced sound thanks to an additional sub octave.

**PRT** - Adjusts how much portamento (glide) effect you will get between notes.

**DT** – Sets the amount of detuning is applied to the internal oscillators

**P / W** – This sets both the phase offset of one of the internal oscillators as well as adjusts the width of the pulse waveform.

**LFO** – The slider sets the amount that the LFO will modulate the phase offset and the pulse width.

**SPD** – Sets the speed of the LFO

**WAVE** – Sets the LFO's waveform

## Arpeggiator

**DIRECTION** - Turns on and selects the pattern type for the phrase arpeggiator. Unlike the average arp, this phrase arp's note order is not locked into being sequential. Instead, it gets its note order from the order in which you play the keys. This makes it far more flexible and fun. Also, the arp will sync to an incoming MIDI clock (such as your host's BPM.)

**HOLD** -When switched on, the arp will keep playing after you've let go of the keys. Note: in some circumstances, leaving this on after playing can occasionally cause a stuck note.

**CH** - This selects the MIDI channel that the arp will be responding on. This will also set the channel for the note memory. (Which allows you to have a previously played, yet still pressed key, to play again once the second key is lifted. Like when you play a classic monophonic synth trill.)

**OCT** - Sets the octave range for the arp.

**TIME** - Sets the speed of the arp.

**GATE** - Lets you adjust the note length when the arp is playing.

## Filter

**CUT** - Filter cutoff

**RES** - Filter resonance

**VL** - Controls how much the cutoff will react to key velocity.

**LFO** - Adjusts how much the LFO will modulate the cutoff.

**SPD** - Sets the speed of the LFO

**WAVE** - Sets the LFO's waveform

## Envelopes

The three nodes on these two graphic envelopes control a basic ADSR arrangement. To adjust an envelope, click inside a node and drag it. The switch to turn on/off the retrigger is in the Main section.

**NODE 1** - Controls the attack speed

**NODE 2** - Controls both the decay rate and the sustain level.

**NODE 3** - Controls the release rate.

**EL** - This additional control sets the amount that the filter envelope will modulate the cutoff.

## Drive

This is the first effect in the effects chain.

**OD** - Turns on the overdrive.

**VOL** - Adjusts the amount of overdrive in the sound.

## Phaser

In addition to the usual swooshing effect of most phasers, this one also has a rather vocal quality to it, making it sound almost like a cross between a phaser and a formant filter. Also, you'll find that this has two extra features that most phasers don't have. One is that you don't have to have it modulated by an LFO if you don't want to. This lets you use the phaser as another tone shaping option. The other feature is that the frequency can be modulated by key velocity, which provides some rather fun filter style effects.

The phaser is the second effect in the chain. So when all 3 effects are turned on, the phaser will fall between the overdrive and the delay.

**PH** – Turns the phaser on.

**MIX** – Sets the wet/dry mix.

**FRQ** – Adjusts the frequency.

**FBK** – Adjusts the feedback. Raising it will make the effect more prominent and resonant.

**VL** – Sets the amount the phaser frequency gets modulated by key velocity.

**LFO** - Adjusts how much the LFO will modulate the frequency.

**SPD** – Sets the speed of the LFO

**WAVE** – Sets the LFO's waveform

## Delay

The delay is actually 2 delays running together. You can set the speed of each delay separately. The delay is the final effect in the signal chain.

**DLY** - Turns on the delay.

**VOL** - Controls the volume of the delay.

**FBK** - Controls the delay's feedback level.

**WIDE** – Adjusts the stereo width of the delays. The higher the setting, the further the delays are panned apart from each other.

**TIME** - Sets the speed for each delay. Delays will sync to an incoming midi clock.

**DOT** - Dotted notes.

# Trouble Shooting

**Problem** - A note is sticking.

In some situations, the arp's hold function can cause notes to stick. So if you've got a stuck note, and the hold function is on, try turning it off. Changing patches while still holding down arpeggiated notes may cause a stick too. Turning the arp off and on again should clear that up.

**Problem** - Notes won't play on channel 16.

I don't know what is causing this, but the only known solution is to just play Rez on another channel.

**Problem** - Arpeggiator gate settings sound a little different in different hosts, such as energyXT.

This seems to be an issue with how the arp divides the midi in various hosts. So far, it only seems to differ very slightly, so a minor adjustment of the gate will get the preset sounding fine in there again.

## Credits

### Rez 2.0

Created by Ugo (Chris Sciorba)

**Website** - <http://www.cortidesign.com/ugo>

**email** - [ugo@ix.netcom.com](mailto:ugo@ix.netcom.com)

### This synth incorporates SynthEdit modules by:

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

- CK\_Delay
- CK\_Host Position
- CK\_Note\_Mem\_Hold\_Unison
- CK\_Phrase\_Arp

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

- DH\_VoltageToFloat

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

- EP\_BPM\_2\_Delay\_Time
- IK\_EP\_Parasat
- CV\_To\_MIDI\_CC

Ikaldor

- IK\_EP\_Parasat

Rick Jelliffe

- RJ\_Sleeper

Etric Van Mayer ([www.evmsynths.com](http://www.evmsynths.com))

- EVM Graphic Envelope 2

Attila Fustos (<http://www.panicnow.net/~emusic>)

- AF\_Phaser - ©2003-2006 by Attila Fustos - attila\_fustos@k.ro

Tweakbench (<http://www.tweakbench.com>)

- Randomizer

## Presets By:

Ugo – [www.cortidesign.com/ugo](http://www.cortidesign.com/ugo)

SM - rsmus7 / Stephan Muesch / <http://rsmus7.panicnow.net/index2.htm>

MY - Mark Stolk / Mystahr

TC – Tim Conrardy / AlgoMusic <http://www.algomusic.nl>

CH - Canned Heat / Hootan Farzad

DB - Darrell Burgan / [www.spiritcanyonaudio.com](http://www.spiritcanyonaudio.com)

Additional thanks to the SynthEdit Users list, www.kvraudio.com, Steinberg for their VST format, and...of course...Jeff McClintock for creating SynthEdit.

## Version History

**3/20/06 – v 2.0**

**New features / changes:**

- Totally new GUI
- Replaced delay pan sliders with a single stereo spread control
- Tweaked the overdrive for stronger distortion
- Added overdrive volume control
- Added button to switch the oscillators (including sub), and filters between the old tone and a new, brighter tone with a bigger sub and bigger detune.
- Beefed up the sub oscillator (in new tone mode) and gave it a volume control
- More pronounced detune (when the new tone mod is activated)
- Added MIDI CC support for most parameters
- Removed the ramp waveform option from the oscillator section

- Removed the 1/12 LFO option
- Added 8 bar LFO option
- Added phase offset adjustment (plus modulation)
- Added Phaser
- Added sample and hold option to both cutoff and phase/pulse width LFOs
- Added option for aftertouch to modulate both the phase and the detuning
- Made a couple of control range adjustments
- Fixed LFO timing bug
- Fixed LFO waveform bug
- LFO start times now sync to host play/record
- 176 new presets

#### **4/10/04 – v 1.3.1**

Fixed bug in LFO 1/12 setting.

#### **3/29/04 – v 1.3.0**

##### **New features / changes:**

- Added Phrase Arpeggiator
- Added Overdrive
- New GUI
- Minor internal changes
- Added a bunch of new patches

#### **9/03 - Rez v 1.0**

First public release

## License Agreement

1. There is no charge for the download or use of this synth. If you paid someone on eBay for this, they just ripped you off...please report them.
2. You may use this for free in personal and/or commercial music composition (Film, TV, audio CD, theater, video game soundtrack.)
3. You are not allowed to sell this synth or any part of it (including the provided presets, the manual, etc.), nor are you allowed to sell access to these things.
4. You are not allowed to distribute this synth in any way (online, magazine CD, hardware or software packages, etc.) without my written or emailed consent.
5. You are not allowed to sell samples of the provided presets. You may, however, sell samples of presets you create. Just use the Rez-Blank.fxp preset as your starting point. This preset is included in the zip file. If for some reason you can't find that file, please contact me and I will send you another one.

If you have any questions about this license agreement, please feel free to contact me at: [ugo@ix.netcom.com](mailto:ugo@ix.netcom.com) or [csciurba@adelphia.net](mailto:csciurba@adelphia.net)

Congratulations on having actually read the manual all the way through, even the license agreement and this fine print. As a bonus, here's a hint...go inspect the Ugo logo on Rez's GUI.