

SPARKVERB™

Software User Manual

Software Version 1.1
EN 161010



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Introduction



With a cutting-edge algorithmic design, Sparkverb breaks many boundaries of contemporary reverbs giving users modern and innovative controls that dramatically enhance usability, speed and creative freedom while delivering remarkable sound quality and CPU efficiency.

Easily traverse everything from natural sounding spaces to infinite, shimmering ambiances with stunning depth and fidelity throughout the entire spectrum. This type of range typically implies a dense and complex interface—not in Sparkverb. Usability was a pivotal consideration in development. A great deal of care was taken to allow a high degree of customization with the fewest controls possible, resulting in less time spent fidgeting and more time being productive. At the core of Sparkverb's interface is a frequency-based spectrum editor; use it to sculpt and refine your sound with phenomenal speed and control. Adjust decay globally and across multiple bands with hi/lo multipliers and crossovers directly on a single canvas. It's an entirely new way to work with reverb. All other controls are clearly arranged and labeled, including A/B comparison, making fine-tuning a painless process. Dialing in a reverb, simple or complex, has never been this fast.

Sparkverb shines in traditional mixing sessions but was designed to be an exceptionally flexible creative tool as well. Discover new spaces and explore the full range of sonic possibilities effortlessly with built in mutation and randomization. These functions are made even more useful by parameter locks available on every control. Experiment within prescribed boundaries such as a fixed mix amount or pitch modulation to find exciting variations that work for your specific need. Another innovative tool comes in the form of the Preset Voyager. At launch, Sparkverb creates a 2-dimensional array of all presets on your machine; simply toggle the Preset Voyager display and click-drag between preset nodes to freely interpolate new settings. Watch controls update in real time to see what's happening and create new presets to redefine the space—the possibilities are limitless.

Under Spark's elegant exterior lays a powerful and extensively optimized DSP engine. Built on UVI's Parametric FDN Engine, Sparkverb can be instanced near-limitlessly. The dramatic performance gives you unprecedented access to Sparkverb's high-fidelity sound throughout your sessions. Use it on as many tracks and busses as you need without worrying about CPU overload.

Additionally you'll find numerous features which help to make Sparkverb indispensable such as fully continuous parameters; freeze; multiple operation modes; variable densities; unique and decorrelated multi-channel operation; full automation control; advanced diffusion algorithms and tunable modulation for pitch accuracy regardless of scale. Add a generous helping of factory presets and you've got a versatile and powerful sonic tool suited for the most demanding studio environments.

Whether you're working with small ensembles, massive orchestras, sound design or anything in-between, Sparkverb offers a unique experience and innovative feature set that helps you work faster, smarter and more creatively than ever before. Let Sparkverb redefine the way you resound.

Version 1.1 Change Log:

- ▶ Added Predelay parameter
- ▶ Added Quad channel support
- ▶ Better integration with REAPER
- ▶ Fixed a crash in Cubase



System Requirements



Compatibility

Audio Units, VST or AAX

Tested and Certified in :

Digital Performer 8+, Pro Tools 11+, Logic X+, Cubase 7+, Nuendo 6+, Ableton Live 8+, Studio One 2+, Garage Band 6+, Maschine 1+, Traktion 4+, Vienna Ensemble Pro 5+, Reaper 4+, MainStage 3, MuLab 5.5+, FL Studio, Bitwig 1+, Reason 9.5+

Minimum System Requirements

- ▶ Mac OS X 10.9 or higher (64bit only)
- ▶ Mac Intel or ARM (Apple Silicon) Processor, 4 GB RAM



Compatibility

VST or AAX

Tested and Certified in :

Digital Performer 8+, Pro Tools 11+, Cubase 7+, Nuendo 6+, Ableton Live 8+, Studio One 2+, Maschine 1+, Traktion 4+, Vienna Ensemble Pro 5+, Reaper 4+, Sonar X3+, MuLab 5.5+, FL Studio, Bitwig 1+, Reason 9.5+

Minimum System Requirements

- ▶ Windows 8 or higher (64bit only)
- ▶ Intel Core Duo2+, 4 GB RAM

Flexible Authorization With iLok



All UVI licenses allow up to 3 concurrent activations on any combination of computer hard drives or iLok USB keys, easily managed through the iLok License Manager (iLok account required).



Main Interface



1 ► Room Size

Set the mean room dimension in meters with continuous control *[from tiny rooms to huge halls]*

2 ► Room Shape

Change the delay distribution and distort the room

- » Shape=0: highest echo density
- » Shape=1: highest spectral mode density

3 ► Density

Change the echo density *[affects the number of internal delays; from sparse echoes to dense reflection patterns]*

4 ► Decay Time

Main decay time in seconds *[e.g. the time it takes for the reverb to decay about 60dB aka RT60. For more naturalness, changing the room size will also affect the actual decay time in order to keep the room absorption properly constant]*

5 ► Lo Section

- » **Lo Decay**
Decay time multiplier at low frequencies
- » **Lo Crossover**
Cutoff f between Low and Mid bands
- » **Lo Cut**
Changes the shelving filter to a highpass and disables the [Lo Decay] multiplier

6 ► Hi Section

- » **Hi Decay**
Decay time multiplier at high frequencies
- » **Hi Crossover**
Cutoff f between Mid and High bands
- » **Hi Cut**
Changes the shelving filter to a lowpass and disables the [Hi Decay] multiplier

7 ► Decay Editor

- » Click-drag in the Center Column
Modify [Decay Time]
- » Click-drag in the Left-Column
Modify [Lo Decay] and [Lo Crossover]
- » Click-drag in the Right-Column
Modify [Hi Decay] and [Hi Crossover]
Horizontal drag modifies crossover f
Vertical drag modifies decay time

8 ► Pre-Delay

Add a delay to the reverb tail *[use to increase voice intelligibility by delaying early reflections]*

9 ► Freeze

Freezes the reverbs with infinite decay *[Input gain is kept very low during freeze to avoid endless energy accumulation in the reverb]*

10 ► Diffusion

- » **Diffusion Toggle**
Enable the short-term diffusion section *{percussive material may benefit from diffusion to reach sufficiently high short-time echo density}*
- » **Start Time**
Changes the delay-time of the first diffuse. *[Short values have a quick and compact spread but can sound metallic. Longer values create more time-spread, sound less metallic but can be heard as discrete echoes instead of diffusion.]*



Main Interface (continued)



10 ► Diffusion (continued)

» Amount

The optimal diffusion amount lies around 0.618 (*Shorter values have a more pronounced attack-time while longer values sounds more like long-term reverberation and less like short-term diffusion. Longer values sounds more metallic.*)

11 ► Modulation

» Depth [in cents]

Explicit control over the modulation amount in cents for perfectly controlled modulated tails, lush pads, unisons and chorus/reverb ensembles

» Rate [multiplier]

Controls the relative rate of modulation [different for each delay line] *[The default value is enough most of the time, but for maximum control or special effects it can be adjusted to match the reverberated audio input.]*

» Mode [lo-fi]

Low-fi interpolation mode, generated lots of high frequency diffusion

» Mode [dark]

Default mode, exhibit some additional high-frequency decay damping for dark and natural room sounds

» Mode [bright]

Precise mode, more expensive, respects the high frequency decay specifications more accurately

12 ► Mix

Dry/Wet amount

13 ► Rolloff

Lowpass filter cutoff frequency to control the reverberation bandwidth *[from oldschool reverberation units with limited sampling-rate to high-end contemporary devices]*

14 ► Width

Stereo/Surround width

15 ► I/O Metering

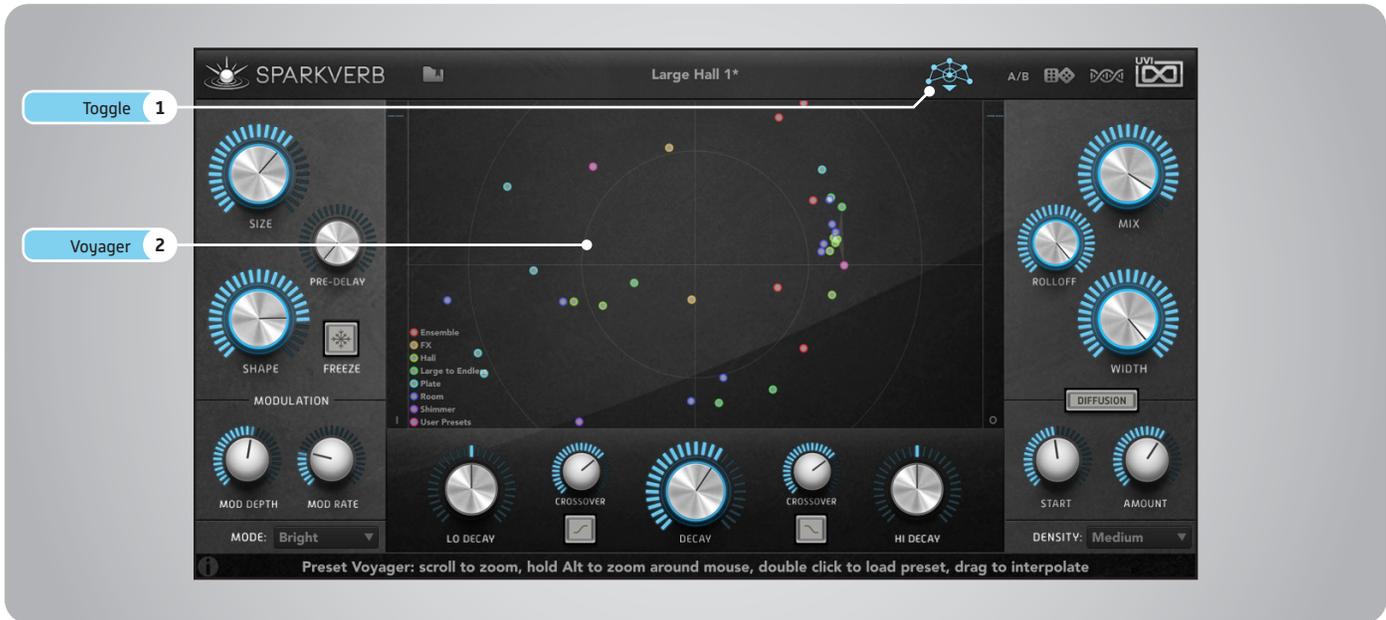
- » Left side: input level meter
- » Right side: Output level meter

16 ► Right-Click Any Parameter

Toggles a contextual menu where you can enable and reset Parameter Locks, and toggle MIDI Learn/MIDI UnLearn *[MIDI Learn is not available in the Audio Unit version of Sparkverb]*



Preset Voyager



1 Toggle

Toggles the main display between [Decay Editor] and [Preset Voyager]

2 Preset Voyager

Overview

The Preset Voyager displays all factory and user presets in a cloud arranged according to their similarity and color-coded based on their category

The array is generated at Launch, so if you save a new preset it won't show up in the Preset Voyager until Sparkverb has been reloaded

Operation

- » **Click-dragging in the cloud**
Changes the current reverb setting by interpolating between the parameters of the adjacent presets
- » **Right-click anywhere in the display**
Opens a contextual menu where you can show/hide [Text Labels], [Legend] and [Triangulation Lines]
- » **Use the scroll-wheel** on your mouse to zoom for increased fidelity
- » **Hold the [alt/option] key while zooming** to center the array
- » **Double-click on a preset** to load it



Control Bar / Menu



1 ▶ **Menu Toggle**
Toggle the drop-down menu on/off

2 ▶ **Load/Save Preset**
Load and Save Sparkverb presets

3 ▶ **Factory Presets**
A list of loadable factory presets
» Select one from the menu to replace the current plugin state

4 ▶ **User Presets**
A selection of factory presets
» To add a preset to the list simply hit [Save] and choose the default location

5 ▶ **GUI Size**
Choose between Small and Large UIs

6 ▶ **Next / Previous Preset**
Quickly move through the presets
» Buttons appear when you move the cursor over the menu bar

7 ▶ **Mutate**
Applies a small random change to all unlocked parameters *(use to explore the region around the current setting)*

8 ▶ **Randomize**
Applies a large random change to all unlocked parameters *(use to find unexpected results and fuel creativity)*

9 ▶ **A/B Snapshot**
Use to store two different plugin states for A/B comparison
» Initial Click: Stores current state to memory A
» Following Clicks: Stores current state in bank A (resp B) and loads the previous state from bank B (resp A)

10 ▶ **Preset Voyager**
Toggles the Preset Voyager on/off

11 ▶ **Tool Tips**
Display instructions for any parameter by mousing over it

Creating a New User Preset

Changing the Dynamic

Creating a user preset is a task most will be quite familiar with. The functionality is pretty standard but it comes with an added perk in Sparkverb. Everytime you create a new preset you update the Preset Voyager's node array. So how does it work? At launch, Sparkverb builds a 2-dimensional array of all factory and user presets, mapping the presets in space based on the bias of their settings. The more varied the presets the more interesting the array becomes, allowing you to travel and interpolate new settings with each addition. The result will be personal to each user based on the types of presets they create.

In the following example we'll save a new preset that we've made, and name it 'My New Preset'.

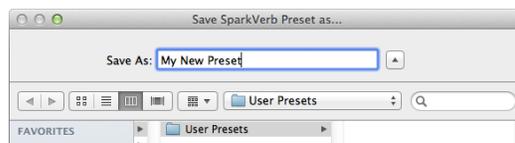
Remember: the Preset Voyager's node array is calculated at launch, so you'll need to re-instance Sparkverb for it to update

1 ▶ Select 'Save' in the Toolbar Menu

Within the Toolbar Menu are the Save and Load Preset commands, as well as all User and Factory Presets and two GUI resolution options



2 ▶ Give Your Preset a Name



3 ▶ Finding Your Preset Later

You can now find your preset under 'User Presets' in the Toolbar Menu



Using Parameter Locks

Controlling the Chaos

Sparkverbs features such as Randomize, Mutate and the Preset Voyager allow you to modify multiple parameters at once, making subtle shifts to extreme changes with one click. This can be a powerful way to quickly preview numerous configurations. However, to make the most of these features you will want to lock certain parameters from time to time. That's where Parameter Locks come in.

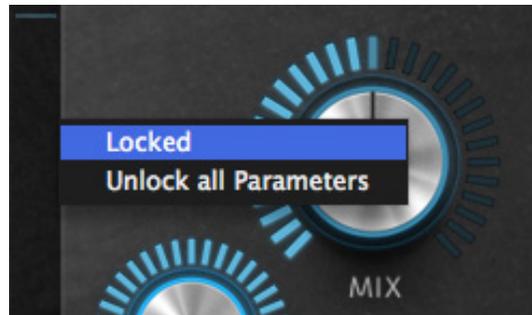
In the following example we'll lock the Mix Amount to 50%. As a result the Mix Amount parameter will be ignored by global functions like Randomize, Mutate and the Preset Voyager. *Parameter Locks are available on every control in Sparkverb.*

1 ▶ Right-click the 'Mix Amount' knob

Right-clicking any parameter in the Sparkverb UI will open a contextual menu where two commands are available:

- » Locked (toggle)
- » Unlock All Parameters

Locked: toggles the parameter lock for that control on/off
Unlock All Parameters: does just that



2 ▶ Select 'Locked'

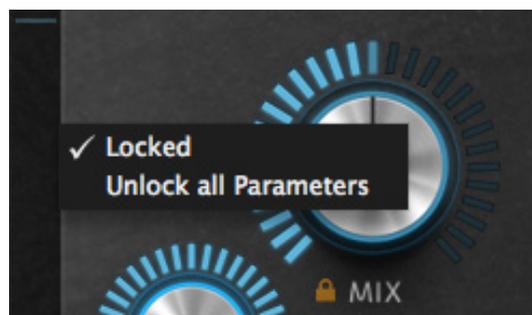
By selecting the 'Locked' toggle in the contextual menu we've now locked the Mix Amount knob

- You'll see a small orange lock appear next to the parameter name signifying the state change



If you right-click the Mix Amount knob again you'll see the 'Locked' toggle has been switched on, signified by a ✓

To deactivate the lock, simply select the 'Locked' toggle again or select 'Unlock All Parameters' to disable parameter locks globally



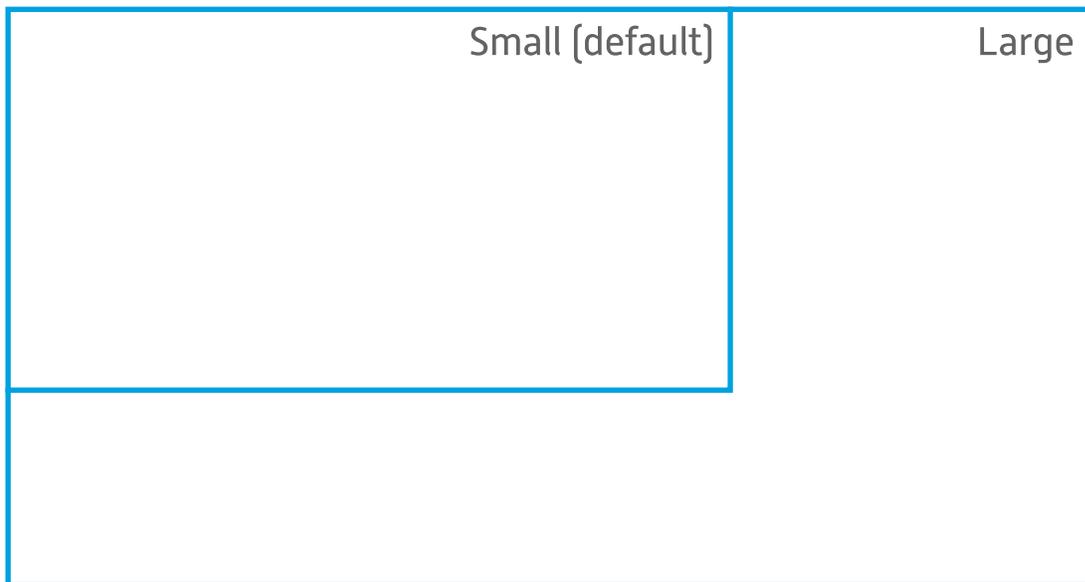
Changing the GUI Size

Sometimes Bigger is Better

Sparkverb's default UI resolution provides a compact footprint which is adequate for standard use and suitable for most screens, however, some users prefer a larger window to interact with so we've included a more grandiose option. Toggle between them at any time in the menu as illustrated below.

Resolution Settings

To change the UI window size in Sparkverb select the desired size from the Toolbar Menu



Sparkverb GUI Resolution Options



Links

UVI

- Home uvi.net/
- UVI Portal uvi.net/uvi-portal
- Effect Installation Guide. [installing_uvi_effects_en.pdf](#)
- FAQ uvi.net/faq
- Tutorial and Demo Videos youtube.com/
- Support uvi.net/contact-support

iLok

- Home ilok.com/
- iLok License Manager ilok.com/ilm.html
- FAQ ilok.com/supportfaq



SPARKVERB™

Credits and Thanks

Produced by UVI

DSP

Remy Muller

Software

Olivier Tristan
Remy Muller

GUI

Nathaniel Reeves

Preset Design

Remy Muller
Damien Vallet
Alain Etchart
Simon Stockhausen
Laurent Bergman

Documents

Nathaniel Reeves
Kai tomita

Special Thanks

To our fantastic beta testers!



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