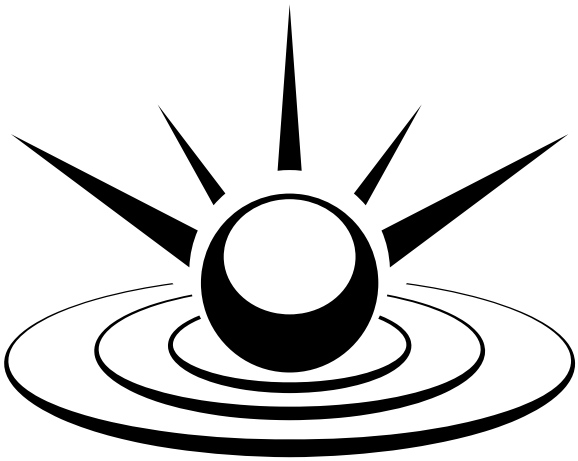

SPARKVERB™

Software User Manual

Software Version 1.1

EN 150309

SPARKVERB™

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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 ambiences 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

SPARKVERB™

System Requirements

Compatibility
Audio Units, VST, MAS, AAX, RTAS

Minimum System Requirements
- Intel CPU
- 4 GB of RAM
- 400 MB of disk space
- Mac OS X 10.7 or higher
- iLok account (free, dongle not required)

Compatibility
VST, AAX, RTAS

Minimum System Requirements
- Core Duo or faster
- 4 GB of RAM
- 400 MB of disk space
- Windows 7 or higher
- iLok account (free, dongle not required)

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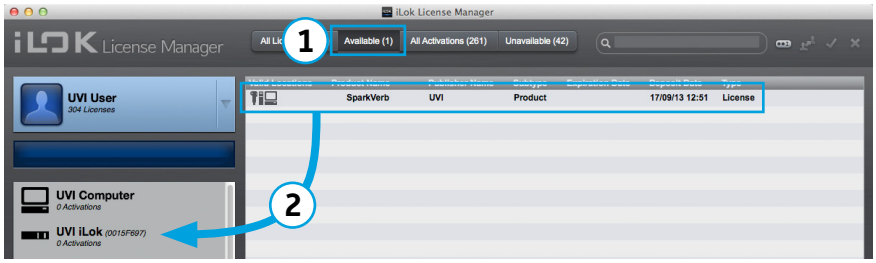

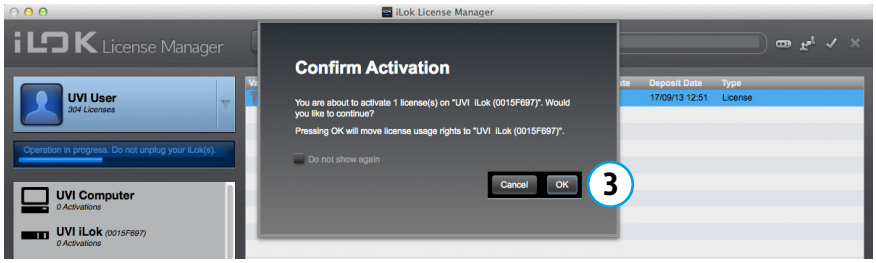

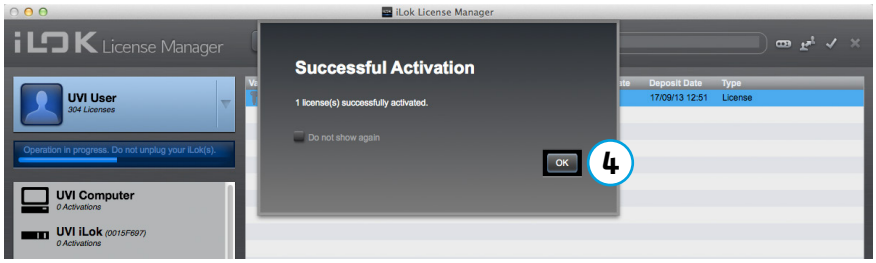

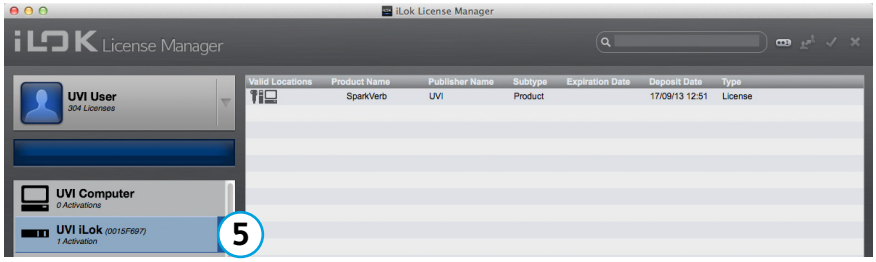

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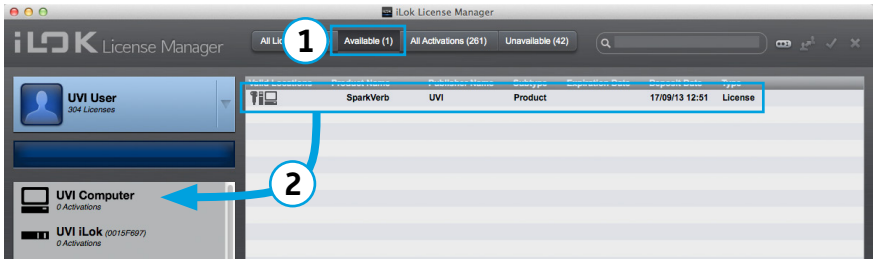
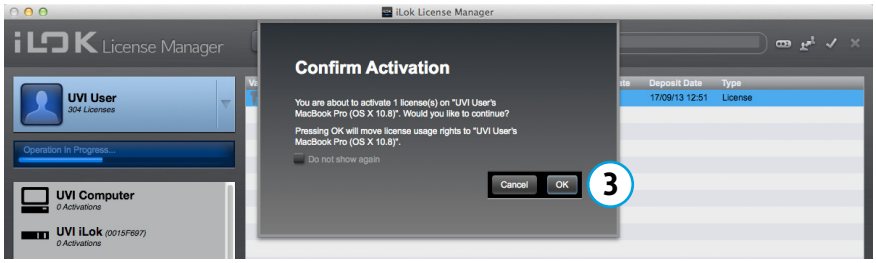
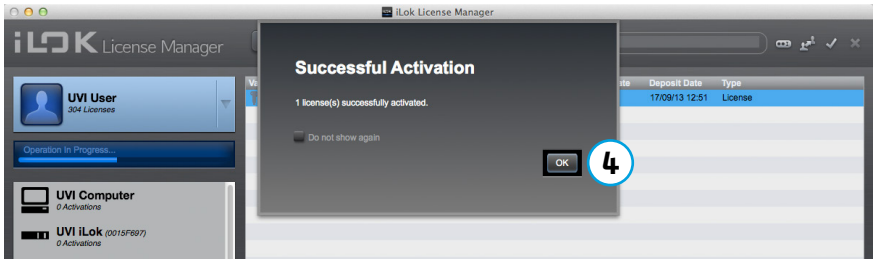
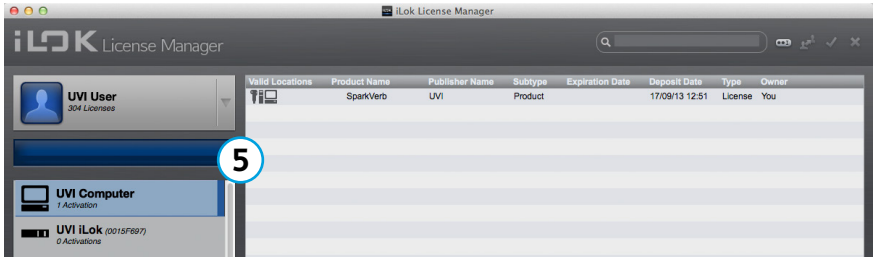








Main Interface

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 absorbtion 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 suffiently 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

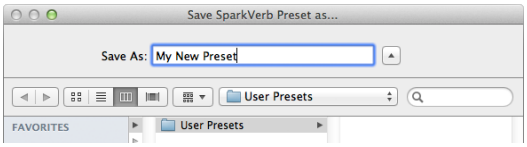
Creating a user preset is a task most will be quite familiar with. The functionality is pretty standard but it comes with an added perk in Sparkverb. Everytime you create a new preset you update the Preset Voyager's node array. So how does it work? At launch, Sparkverb builds a 2-dimensional array of 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

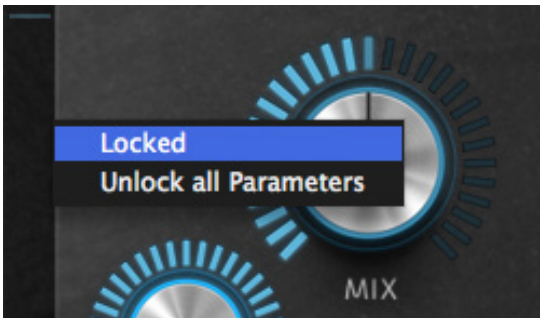
Right-clicking any parameter in the Sparkverb UI will open a contextual menu where two commands are available:

» Locked (toggle)

» Unlock All Parameters

Locked: toggles the parameter lock for that control on/off

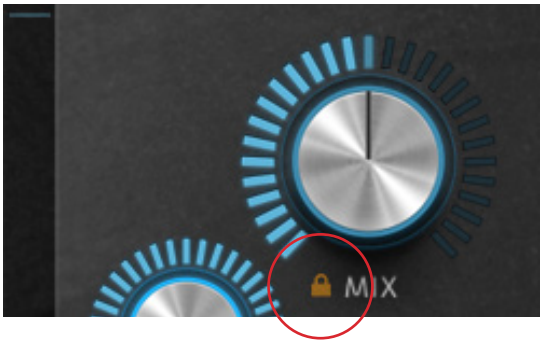
Unlock All Parameters: does just that



2 ▶ Select 'Locked'

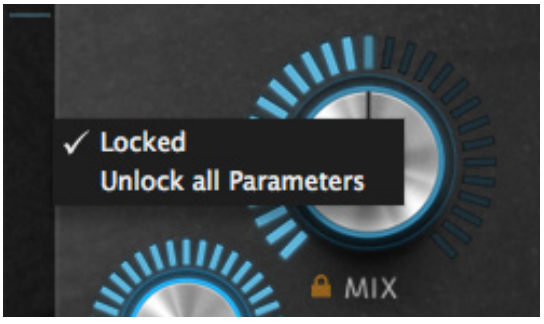
By selecting the 'Locked' toggle in the contextual menu we've now locked the Mix Amount knob

○ 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



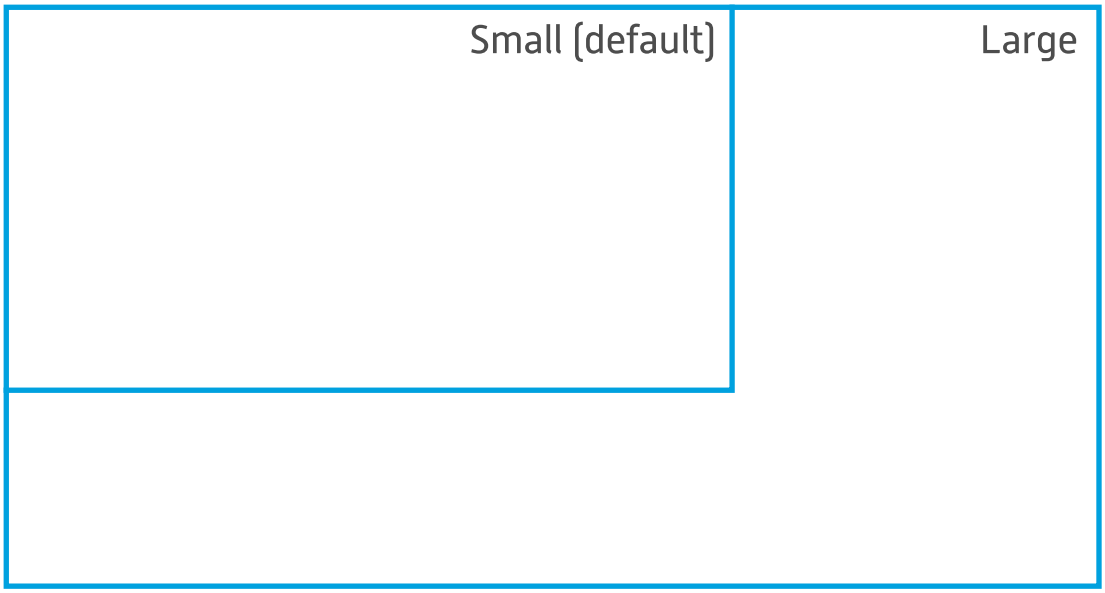
Changing the GUI Size

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 grandoise 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

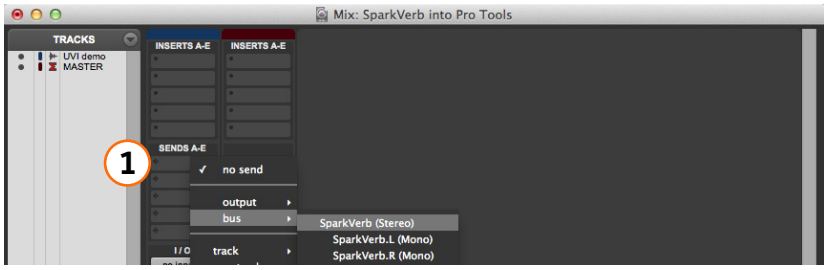


Sparkverb GUI Resolution Options

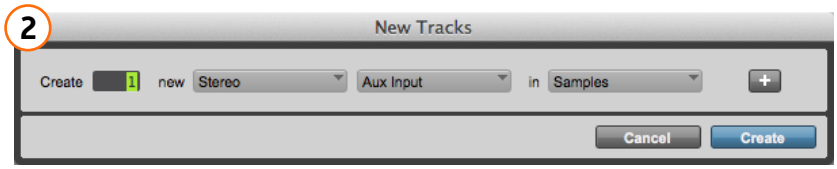
ProTools

In the following example we'll load Sparkverb onto an Aux track in Avid ProTools 11 and route signal to it:

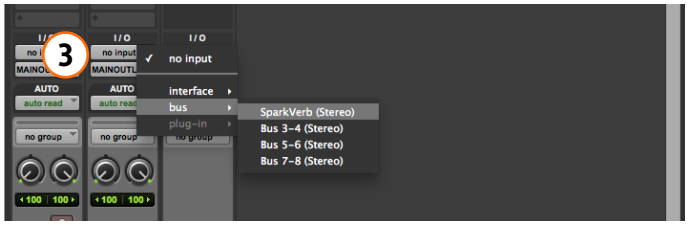
- 1. Click on a Send slots of your track to open the routing menu—then select an empty bus *(named SparkVerb here)*



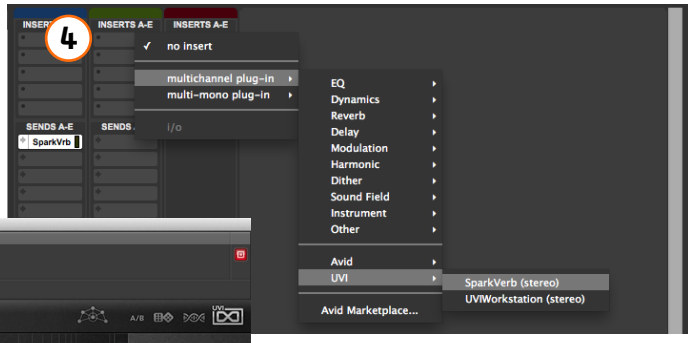
- 2. Create an Aux stereo track



- 3. Click on the Input menu of your new Aux track and assign 'SparkVerb' as the input source



- 4. Click on one of the Insert slots on your new Aux track and select 'UVI / SparkVerb' from the plugin menu



- 5. Set the amount of signal to send into Sparkverb

Now let's check to see if Sparkverb is getting signal..

- 6. Click on 'SparkVerb' and open the editor
- 7. In the Sparkverb editor we can see the signal meters showing input signal on the left, and output signal on the right

(For more information on using plugins in your DAW, please consult the appropriate user manual)

Live

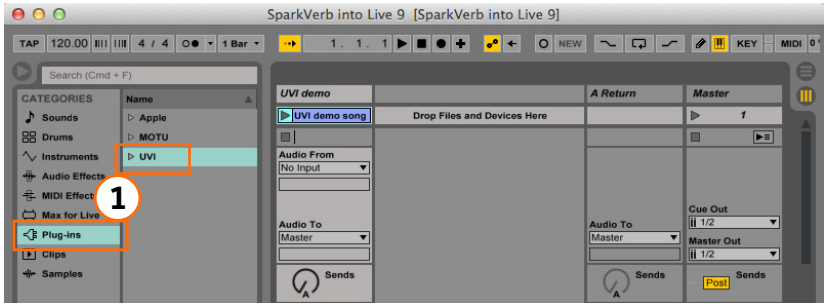
In the following example we'll load Sparkverb onto a Return track in Ableton Live 9 and route signal to it:

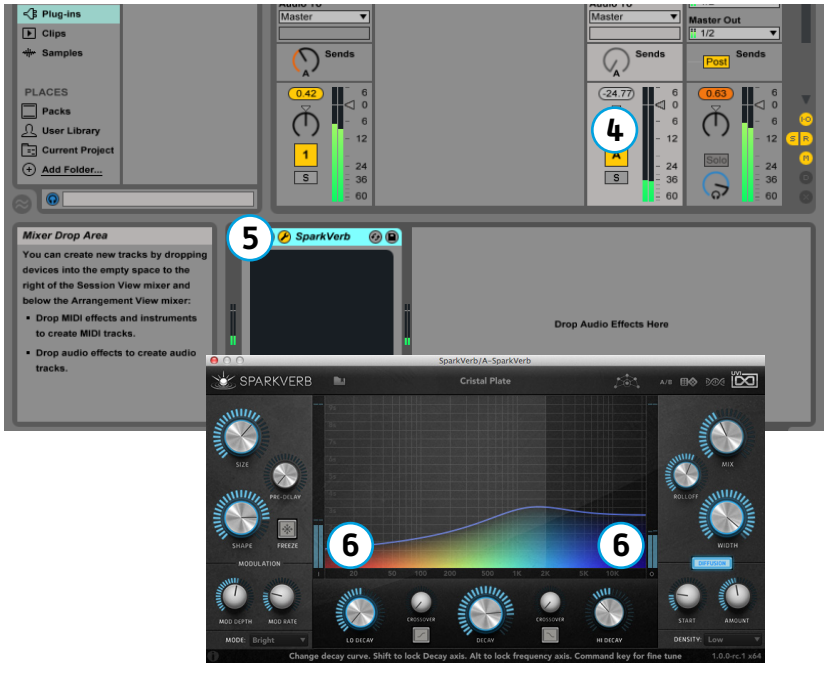
- 1. In the 'Categories' column select 'Plug-ins', then click the expand arrow next to 'UVI'
- 2. Drag 'Sparkverb' from the plug-in list onto a Return track, in this example we'll choose the 'A Return' track
- 3. Send some signal to the Return track by cranking up the 'Send' pot on one of your tracks

Now let's check to see if Sparkverb is getting signal..

- 4. Click on the 'A Return' track
- 5. Click on the wrench icon of Sparkverb
- 6. In the Sparkverb editor we can see the signal meters showing input signal on the left, and output signal on the right

(For more information on using plugins in your DAW, please consult the appropriate user manual)





Digital Performer

In the following example we'll load Sparkverb onto an Aux Track in MOTU Digital Performer 8 and route signal to it:

- 1. Click on an empty Send slot of your track

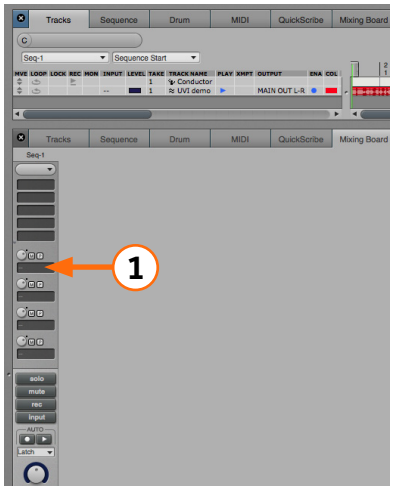
- 2. Select a bus to route signal to from your source track—in this case a stereo bus, *bus 1-2*

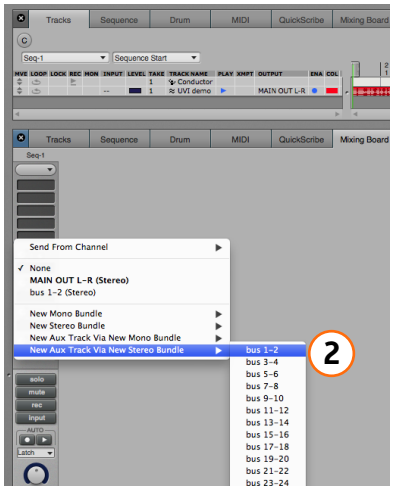
- 3. Click in one of the empty plugin slots on your new Aux track and choose 'UVI / Sparkverb' from the menu

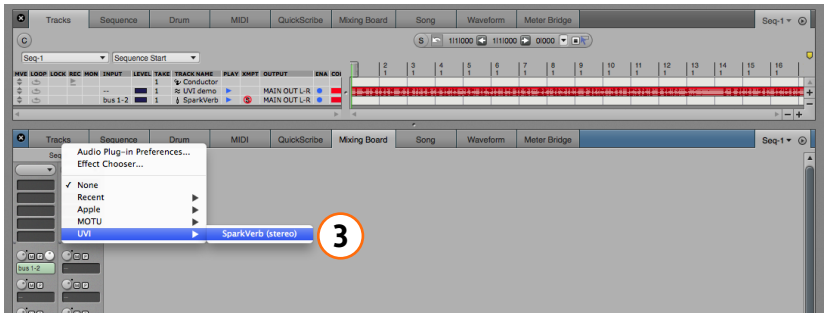
Now let's check to see if Sparkverb is getting signal..

- 4 Click on 'SparkVerb' and open the editor
- 5. In the Sparkverb editor we can see the signal meters showing input signal on the left, and output signal on the right

(For more information on using plugins in your DAW, please consult the appropriate user manual)







Logic

In the following example we'll load Sparkverb onto an Aux Track in Apple Logic X and route signal to it:

- 1. Click on an empty Send slot of your track

- 2. Select a bus to route signal to from your source track—in this case *Bus 1*

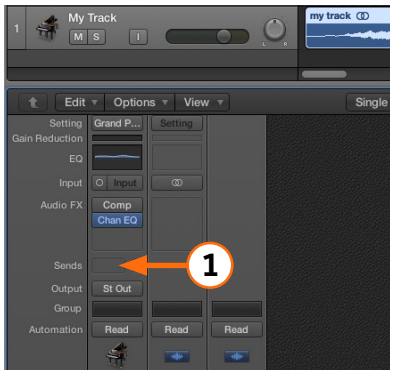
- 3. Adjust the send knob so that signal is being sent to the new Aux track

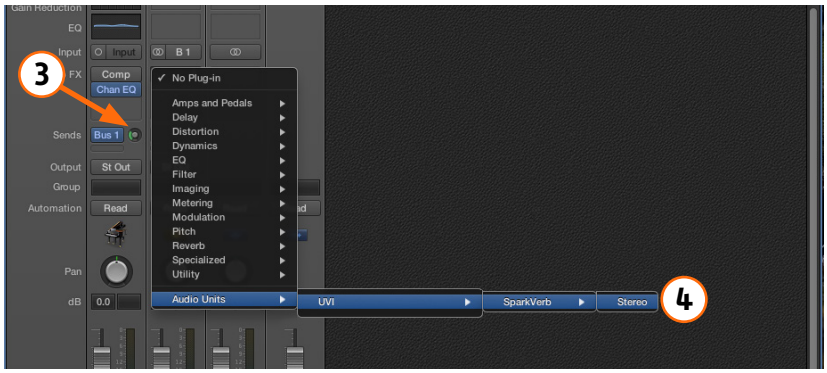
- 4. Click in one of the empty plugin slots on your new Aux track and choose 'Audio Units / UVI / Sparkverb / Stereo' from the menu

Now let's check to see if Sparkverb is getting signal..

- 5. In the Sparkverb editor we can see the signal meters showing input signal on the left, and output signal on the right

(For more information on using plugins in your DAW, please consult the appropriate user manual)





Cubase

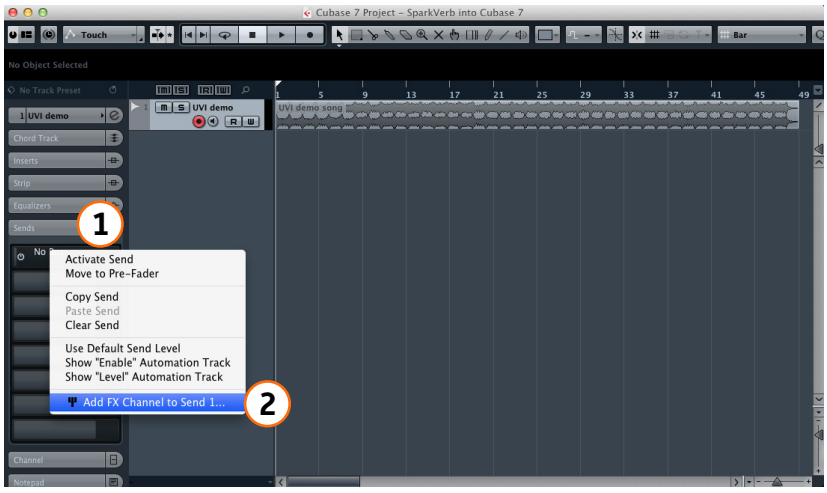
In the following example we'll load Sparkverb onto an FX Send in Steinberg Cubase 7 and route signal to it:

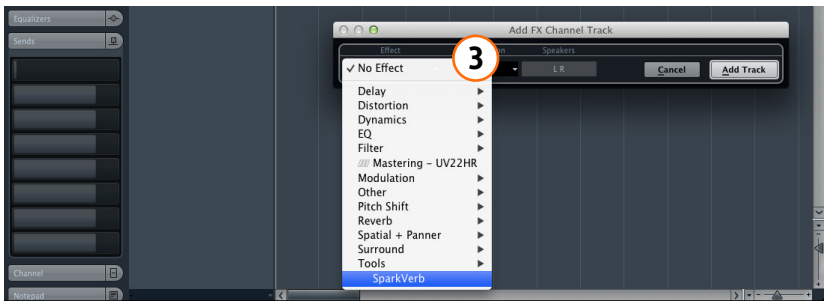
- 1. Click on the 'Sends' tab of your track
- 2. Click in one of the empty Send slots and choose 'Add FX Channel to Send 1...'
- 3. Under the 'Effects' menu, choose Sparkverb
- 4. Set the amount of signal to send into Sparkverb

Now let's check to see if Sparkverb is getting signal..

- 5. Click on 'SparkVerb' and open the editor
- 6. In the Sparkverb editor we can see the signal meters showing input signal on the left, and output signal on the right

(For more information on using plugins in your DAW, please consult the appropriate user manual)

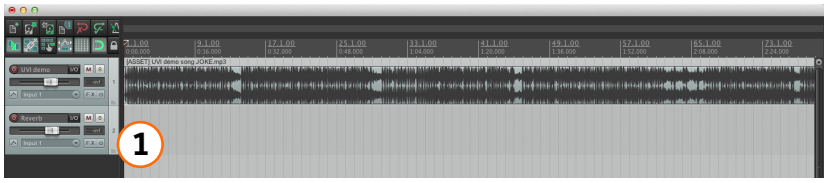




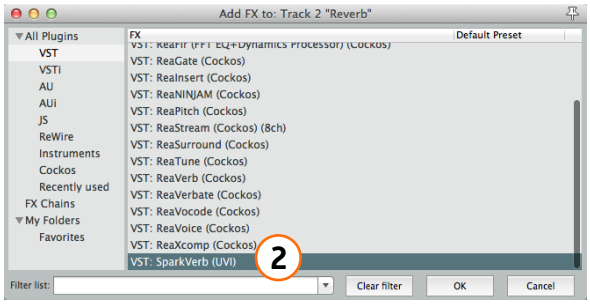
Reaper

In the following example we'll load Sparkverb onto a track in Cockos Reaper 4 and route signal to it.
Here we have two tracks set up, one with our source signal and a second to act as an Aux for Sparkverb:

- 1. Click on the 'FX' tab of the Aux track, *track 2 here*

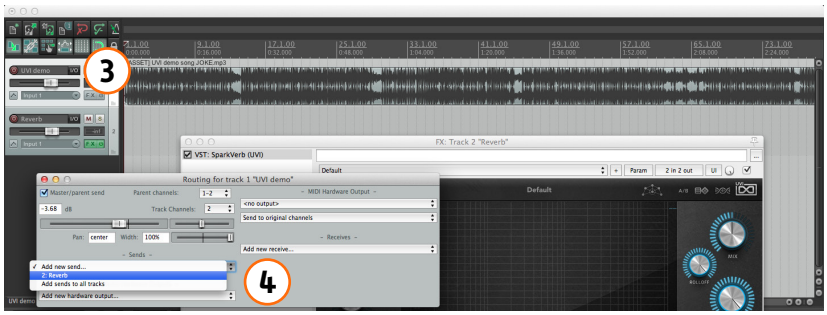


- 2. Select 'Sparkverb' from the 'Add FX' menu



- 3. Click the 'I/O' button on the source track

- 4. A Routing options menu will appear, add a Send to the track with Sparkverb on it - this will allow us to route signal from track 1 to track 2

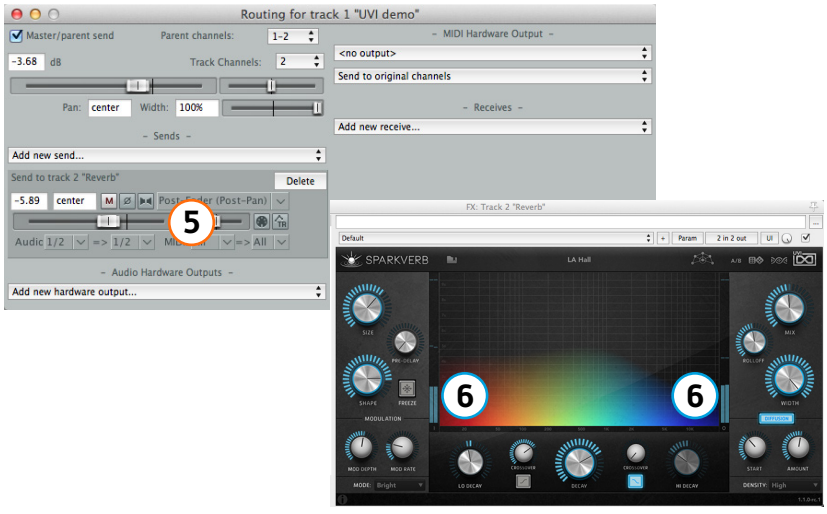


- 5. Set the amount of signal to send

Now let's check to see if Sparkverb is getting signal..

- 6. In the Sparkverb editor we can see the signal meters showing input signal on the left, and output signal on the right

[For more information on using plugins in your DAW, please consult the appropriate user manual]



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Remy Muller

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