



Dream II VST, VSTi and ReWire Whitepaper

Preliminary
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Version 1

1.0 Overview

This document will attempt to answer some basic questions about VST, VSTi and ReWire in Dream II. What are the benefits of these technologies? How are they used out in the field? Why are users excited, or why should they be?

Read on to learn more...

2.0 About VST

VST (Virtual Studio Technology) is an audio plug-in standard created by Steinberg. The VST standard allows third party developers to create VST plug-ins for use within VST host applications, or to create VST host applications themselves. The VST plug-in standard is the most widespread plug-in standard in use today, with thousands of available plug-ins.



2.1 The VST Host

A VST host is a software application or hardware device that allows VST plug-ins to be used in a logical context, interacting with digital audio and MIDI elements. Dream II is a VST host, enabling VST plug-ins to interact with the Dream II mix environment. As of this writing, Dream II uses version 2.4 of the VST SDK (Software Development Kit).

2.2 VST Effects versus VST Instruments (VSTi)

A VST effect is a type of VST plug-in that is used to process audio. A VST effect might be a Reverb, Compressor, Flanger or EQ.

A VST Instrument is typically used to synthesize sound or play back sampled audio. VSTi's have rapidly replaced hardware synthesizers and dedicated samplers due to their flexibility, repeatability and low cost.



2.3 Using VST Effects in Dream II

The use of VST effects in Dream II is limited only by the users imagination. Some typical scenarios include:

- Insert a VST Compressor or EQ plugin directly on a track or live input.
- Patch an Aux Output to a Live Input, then insert an VST Reverb or Flanger on the Live input. Now all channels feeding the Aux will be routed through the VST Effect.

Please note that Dream II supports VST effects from Mono to 5.1 - and beyond. These can be inserted on mono channels or on Link Groups. If a stereo VST Effect is inserted on a LCR, LCRS or 5.1 Link Group in Dream II, the left and right channels will be allocated to left and right Link Group channels automatically. Alternatively, a Link Group can be "opened up" (via BLUE + Call) and a plugin can be applied to specific member(s) of the link group as desired. If mono channels are used, the plugin is inserted in the first mono channel and each adjacent mono channel until all plugin channels have been allocated.

2.3 Using VST Instrument in Dream II

While Dream II does not include a MIDI sequencer, VST Instruments can still be played "live" through the system. This can be useful for:

- Foley, using a VSTi sampler.
- Live musical performance.
- Tuning vocals with a VSTi sampler and MIDI controller with pitch wheel.
- Live effects triggering with a VSTi sampler.

VSTi's can easily be recorded to tracks or inserted on Lives depending on your needs.

3.0 About ReWire

ReWire is a software protocol jointly developed by Propellerhead and Steinberg. ReWire enables remote control and data transfer among digital audio editing and related software. Originally appearing in the ReBirth software synthesizer in 1998, the protocol has since evolved into an industry standard.

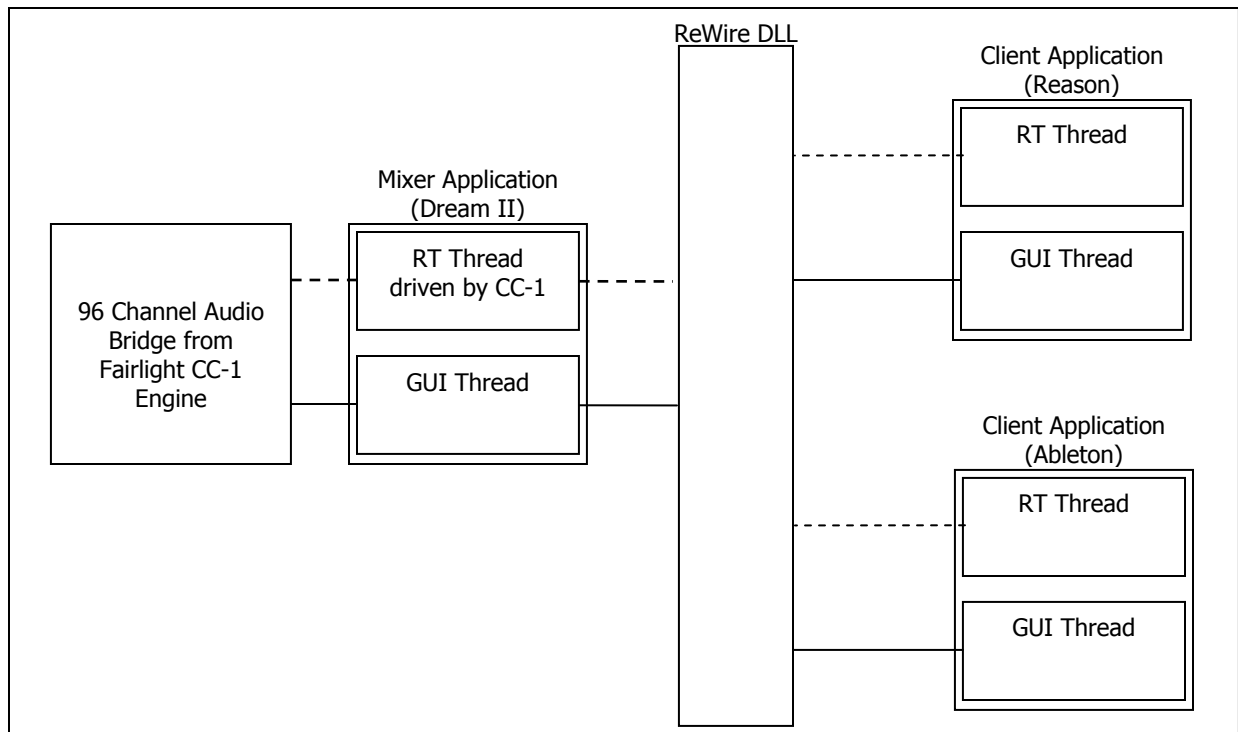


3.1 The ReWire Mixer

The ReWire protocol is designed to allow a number of ReWire *Clients* to communicate with a single ReWire *Mixer*. Only one ReWire mixer can be active at a time. Dream II is always the ReWire Mixer.

The ReWire Mixer can accept up to 256 inputs from each of the connected ReWire clients. Dream II currently supports 96 of these ReWire inputs. When a ReWire Mixer and ReWire Client are connected together, transport controls and position information are automatically transmitted in both directions between the Mixer and Client(s).

Diagram of a running ReWire session



3.2 ReWire Usage

ReWire opens up Dream II to a long list of powerful 3rd party tools, including sequencing software like Reason and Ableton Live, and sound design tools like Celemony Melodyne and even software samplers like Tascam Gigastudio.

In the real world, a composer might show up to a session with a MIDI sequence composed in Ableton Live. The entire composition could be routed to Dream inputs via ReWire during a mix to picture session, giving the composer complete flexibility to make adjustments to the score “on the fly” based on feedback from the client.

Alternatively, a music session might feature drum loops and synth bass that have been sequenced in Reason. Dream II can be used to record live guitar and vocal tracks, with the Reason tracks fed as ReWire sources via Live Inputs to the cue system for the artists.

4.0 Conclusion

VST, VSTi and ReWire open up an exciting world of 3rd party add-ons to Dream II users. Literally thousands of different programs can be connected seamlessly with Dream II. Users have the freedom to choose the tools they like the best, and the creative options for Sound Design, Music and Live Performance are virtually endless.