



USER MANUAL — V1.0

Convolution Reverb · Gare de Lion, Wil (Switzerland)

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Convolution reverb — measured at Gare de Lion, Wil (Switzerland), before the 2026 renovation.

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What Verb de Lion is

Verb de Lion is a convolution reverb from Gare de Lion in Wil. Before the 2026 renovation the room was measured at 36 places — the hall, the balcony, the corridor, the toilets.

Every place was excited twice: once through the club's PA, once straight from the stage. And recorded twice: with an XY pair and with a Mid/Side pair. All four recordings are in the plugin. You blend the source with **DIRECT – PA** and the microphone arrangement with **XY – MS**, both continuously.

Every place carries its distance to the stage, the measured drop in level and the decay time; the three numbers sit above the photograph.

The reverb is no reconstruction. These are measurements of a room that no longer exists in this form after the renovation.

Formats: VST3 for macOS, Windows and Linux. Verb de Lion is an effect plugin (stereo in, stereo out).

Installation

The plugin is a single file, or a folder. Copy it where your host looks for VST3:

System	Location
macOS	/Library/Audio/Plug-Ins/VST3/ or ~/Library/Audio/Plug-Ins/VST3/

System	Location
Windows	C:\Program Files\Common Files\VST3\
Linux	~/.vst3/ or /usr/lib/vst3/

On macOS an AU version is included as well; that one goes into `~/Library/Audio/Plug-Ins/Components/`.

Then restart the host. The impulse responses are inside the plugin — there is nothing to download.

License

Verb de Lion costs ten francs, and it is free if you own Drums de Lion.

One key unlocks both. If you own Drums de Lion there is nothing to buy and nothing to type: Verb de Lion finds the existing key by itself on first launch and unlocks. Nothing happens on screen while it does — that is the intended case.

If you buy the reverb on its own you get a key by email. On first launch a field appears; enter it there and click **Activate**.

One license covers three computers. Activations count per machine, not per plugin: Drums de Lion and Verb de Lion on the same computer take one slot together.

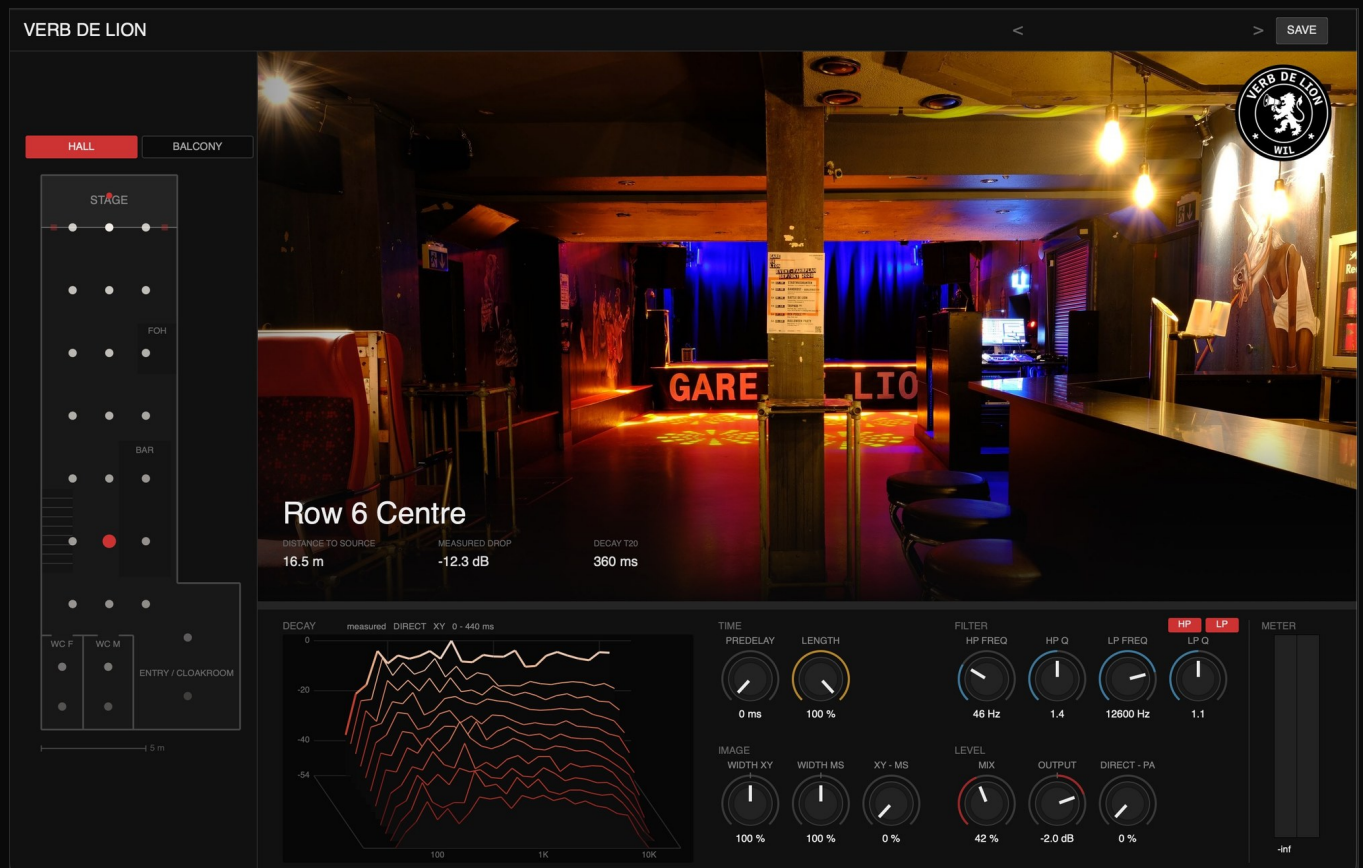
The plugin keeps running without a network connection. Only an explicit refusal from the server brings up the license window; a dead line does not.

Quick Start

1. Put Verb de Lion on a track or a bus.
2. Click a dot on the plan at the left. The picture shows the view from there towards the stage.
3. Set **MIX** — how much reverb sits in the signal.
4. **DIRECT – PA** decides what excites the room: 0 % is the signal straight from the stage, 100 % is the club's PA.

Everything after that is detail work.

The Interface



The interface: the plan at the left, the chosen position in the middle, the controls at the right.

The plan is on the left. At the top the two floors: **HALL** and **BALCONY**. Below that the plan of the chosen floor with every position as a dot. The active one is red. The scale at the bottom shows five metres.

In the middle the photograph taken from the chosen position, facing the stage. Above it the name of the place, its distance, the measured drop in level and the decay time T20.

Underneath the decay as a waterfall: how the reverb falls off over time and frequency, measured at that place. The caption names the source (DIRECT or PA) and the microphone pair (XY or MS).

The controls are on the right, in four groups: TIME, FILTER, IMAGE, LEVEL. At the far right the meter.

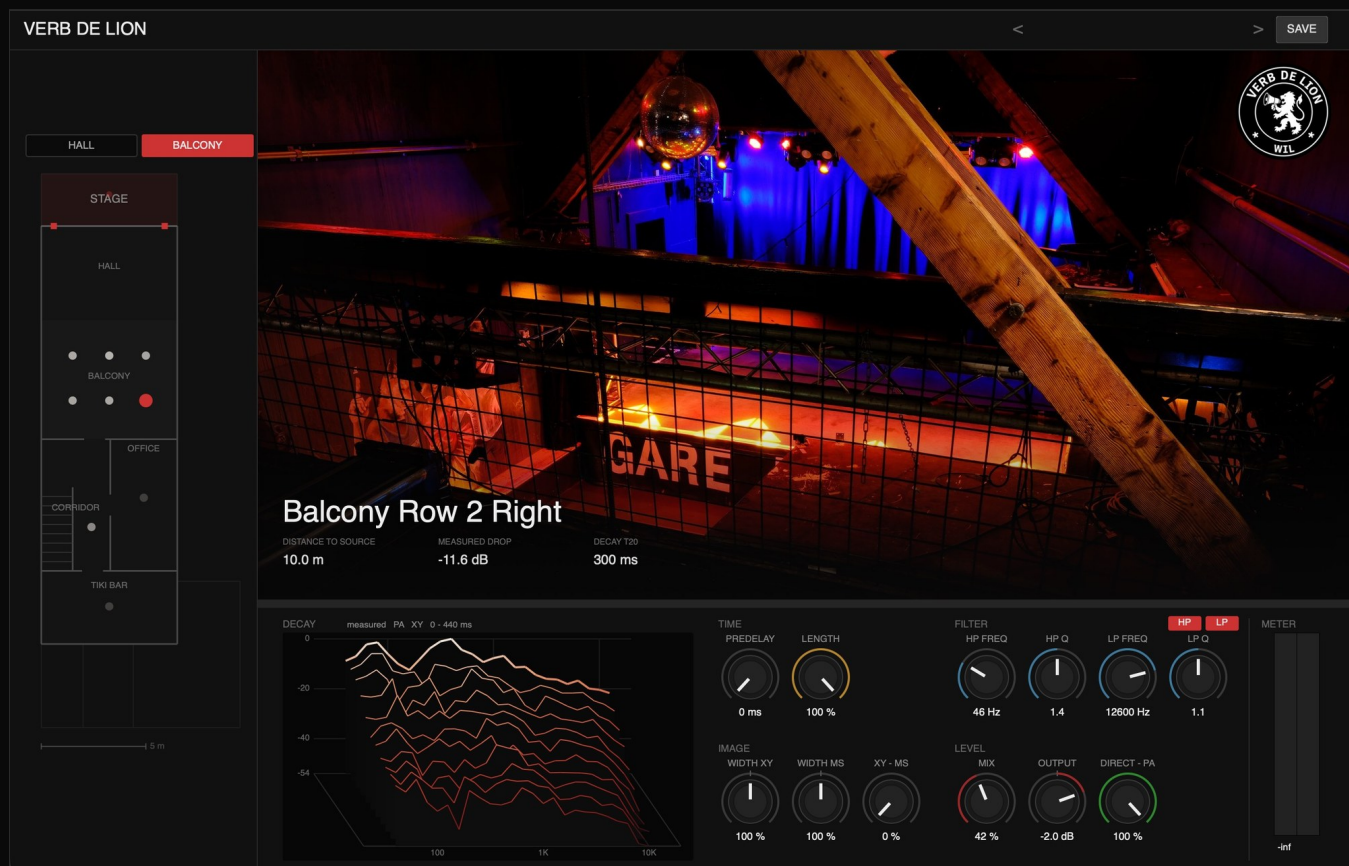
The top bar holds the preset navigator and **SAVE**. The seal at the top right opens the info page.

Positions

There are two floors, each with its own plan.

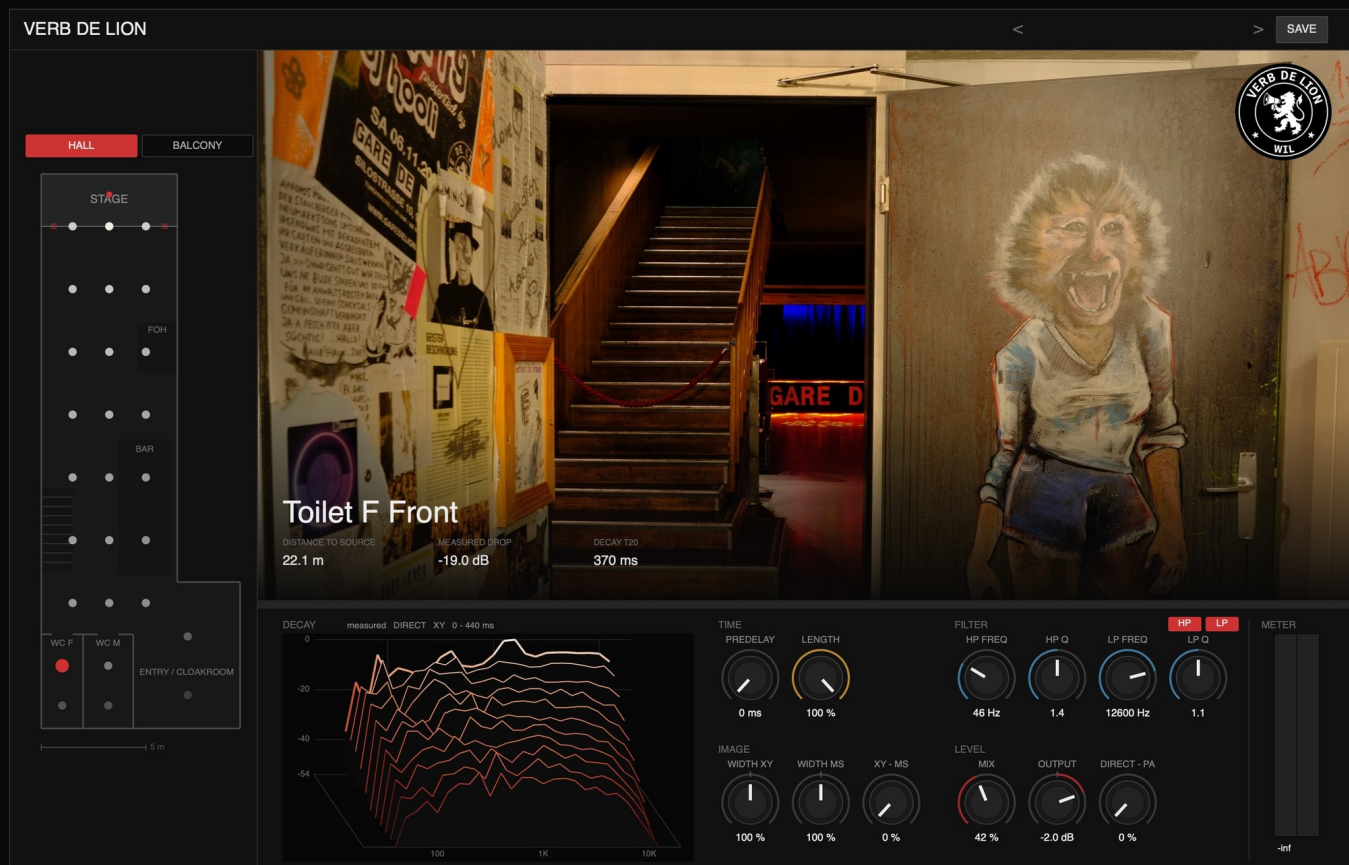
HALL — the main room. The zones are named: stage, FOH, bar, the men's and the women's toilet, entry with cloakroom.

BALCONY — the gallery, plus corridor, office and tiki bar.



BALCONY, row 2 right. DIRECT - PA is at 100 %, so the waterfall shows the PA measurement.

The positions differ more than their distance suggests. The women's toilet is 22 metres from the stage and 19 dB quieter – and still rings longer than row 6 in the hall.



Toilet F Front: 22.1 m, -19.0 dB, T20 370 ms. Compare row 6 centre in the picture above – 16.5 m, -12.3 dB, 360 ms.

The Controls

TIME

Control	Range	Default	Effect
PREDELAY	0-200 ms	0 ms	Delay before the reverb. Pushes the room back without changing it.
LENGTH	10-100 %	100 %	Cuts the impulse response. Shorter means drier, and keeps the character.

FILTER

Highpass and lowpass sit on the reverb, not on the dry signal. Each can be switched off with the **HP** and **LP** buttons.

Control	Range	Default
HP FREQ	20-2000 Hz	46 Hz
HP Q	0.3-9.9	1.4
LP FREQ	1-20 kHz	12.6 kHz
LP Q	0.3-9.9	1.1

IMAGE

Every position was recorded with two microphone arrangements: XY and Mid/Side.

Control	Range	Default	Effect
WIDTH XY	0-200 %	100 %	Width of the XY recording.
WIDTH MS	0-200 %	100 %	Width of the Mid/Side recording.
XY - MS	0-100 %	0 %	Blends between the two. 0 % is pure XY.

LEVEL

Control	Range	Default	Effect
MIX	0-100 %	42 %	How much reverb is in the output.
OUTPUT	-60...+6 dB	-2 dB	Output level.
DIRECT - PA	0-100 %	0 %	What excited the room. 0 % the stage, 100 % the club's PA, everything in between continuously.

On DIRECT - PA: the two measurement runs are uncorrelated, so blending them produces no comb filtering. The measured difference in arrival time has already been taken out.

Presets

The preset navigator sits in the top bar: **< name >** steps through them, **SAVE** stores one of your own. Clicking the name opens the list with a search field.

Your own presets live under Verb de Lion/Presets in your system's application data folder, separate from Drums de Lion.

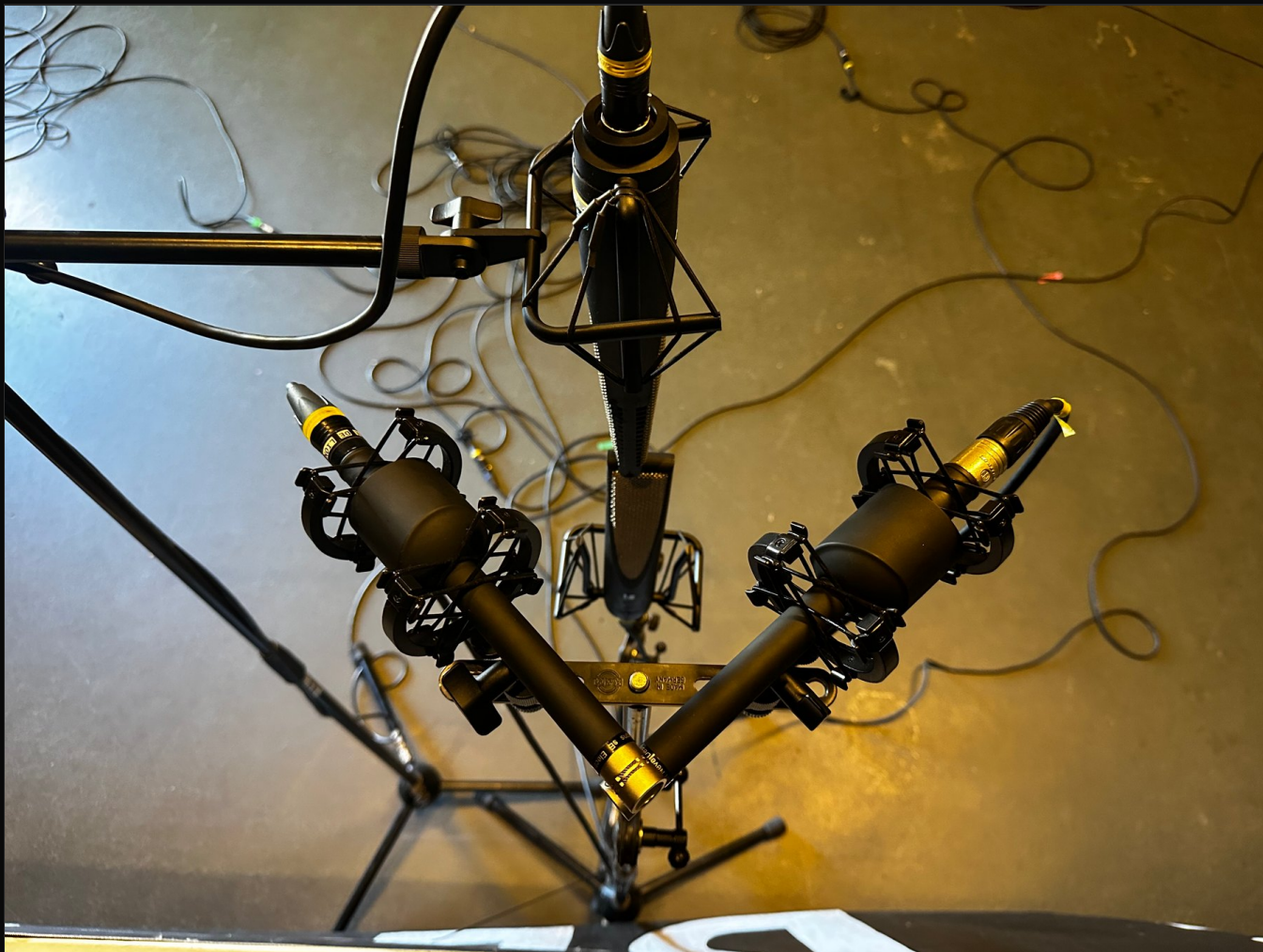
A star after the name means unsaved changes.

How it was measured



One of the 36 measuring positions in the hall.

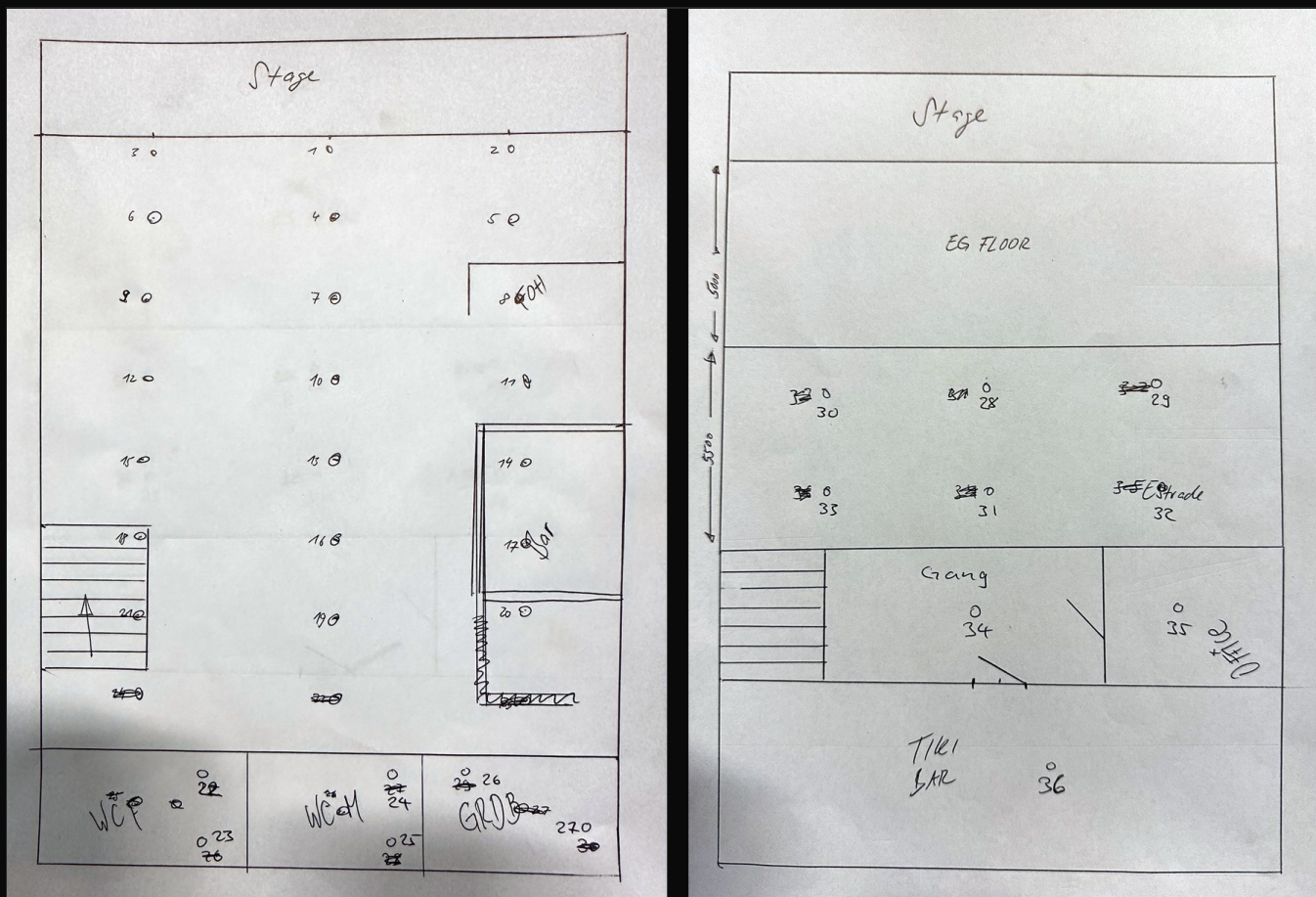
The same rig stood at every position: two microphone pairs, XY and Mid/Side. The room was excited twice, once straight from the stage and once through the club's PA. That makes four recordings per position.



The two microphone pairs from above.

The measurement signal was an exponential sine sweep, 48 kHz and 24 bit, twice per take. Exponential because the harmonic distortion of the PA then lands in front of the linear part during deconvolution and can be cut off; a linear sweep smears it across the whole impulse response.

The impulse responses are level-matched against each other. The yardstick is not the peak but the K-weighted energy against pink noise — a peak says nothing about how loud a convolution turns out. That is why the level does not jump when you change position or turn DIRECT – PA.



The sheets from the measuring day: the hall on the left, the balcony on the right. The numbers are the positions you find in the plugin.

When something doesn't work

The license window appears although I own Drums de Lion. The reverb looks for the key in the Drums de Lion application data folder. If it is not there — because Drums de Lion was never activated, for instance — it finds nothing. Start Drums de Lion once and activate it, then reload Verb de Lion.

No reverb audible. MIX is at 0 %, or the plugin sits on a send whose return path is missing. At 100 % MIX you hear the room and nothing else.

The sound is thin or narrow. XY - MS is at 0 %, which is pure XY. Turn it towards MS for a wider image.

Activation fails. Check the key for typos. It begins with VDL - or DDL -; both are valid. If the license is already active on three machines, the only way forward is to release one of them.

Credits

Recorded and built by Frank Acklin, Störsender Studio, Sirmach TG, Switzerland.

Measured at Gare de Lion, Wil, in August 2026 — before the renovation.

Muscle and schlepping: Marko Rajcic.

Software: built with HISE and JUCE, both under the GPLv3. The source code for the plugin is available at stoersender-software.com.

The measurements are not free software. They fall under the license agreement that comes with the plugin.

Trademark Notice

Gare de Lion is the name of the club where the measurements were made, and is used here solely to describe that origin. All other brand and product names mentioned are trademarks of their respective owners.

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