WHAT IT IS

A granular effect that takes the track apart and puts it back as grains — in time and in key. For producers who want to take apart what is already on the track. Not a synth: GRUS makes nothing on its own, it needs something to chew on. The grains can fall on the host's grid, 1/4 down to 1/32 with triplets, and take their pitch from a chord instead of a random range. Delay, grain length, scatter and the read head can lock to the same grid, and REPEAT holds a slice and plays it again. A modulation matrix with four LFOs, a 16-step sequencer, an envelope follower, a phrase-long TIDE and per-grain randomness moves any of twenty controls — in time with the host.



Rendered by the plugin itself, offscreen — the real interface, not photographed in a DAW. Every dot in the field is one grain the engine started.

INSTALL (MACOS, AU + VST3, UNIVERSAL)

1 Unzip. 2 Copy GRUS.component to ~/Library/Audio/Plug-Ins/Components/ and GRUS.vst3 to ~/Library/Audio/Plug-Ins/VST3/. 3 Rescan plug-ins in your host (Ableton Live 12: Settings → Plug-Ins → Rescan).

First launch. If macOS says the developer cannot be verified: System Settings → Privacy & Security → Open Anyway, then rescan. Ableton on Apple silicon: if Live does not list GRUS, check whether Live itself runs under Rosetta (Finder → Get Info on the Live app) and rescan after changing it. GRUS follows the host tempo; it adds no latency.

YOUR SERIAL

Until GRUS is activated it passes your audio through untouched, and a sign above the grain field says: *Enter your serial to activate — find it in your purchase email or at oscillateaudio.com/my.* Click ACTIVATE on the sign or in the footer, left of the version, enter the email address from your order and the serial (`GRUS-PRO-XXXX-XXXX-XXXX-XXXX`), click Activate. You do this once: the footer then reads LICENSED (a click shows who it is licensed to), and GRUS stays unlocked in every project, as AU and VST3. No trial clock. The serial is bound to your address, checked on your machine and never sent anywhere — no account, no licence server. It is kept in `Documents/oscillate-licenses.txt`, shared by all Oscillate Audio devices. Lost it? Enter your email at oscillateaudio.com/my.

EVERYWHERE

Drag a knob up or down; hold Shift for fine steps; the mouse wheel works too; a double-click (or right-click) sets it back to its default. Chips switch with a click. Drag the lower-right corner of the window to resize GRUS (70 to 150 %); on a small screen it opens scaled down so that it fits. Every control is host automation. When a GRID switch takes over a job, the free knob it replaces turns pale but stays visible. A knob that is being modulated wears a thin violet ring: the faint arc is the range the matrix can reach, the bright dot is where it is right now.

HEADER AND GRAIN FIELD

CONTROL	WHAT IT DOES
PRESET FIELD	Top centre. Arrows step through scenes and presets; a click on the star in the name field stars the current one. A click on the name (or on BROWSE to its left) opens the preset browser. A right-click opens the short list: SCENES, PRESETS, YOUR PRESETS, then SAVE AS..., DELETE, REVEAL PRESET FOLDER, RANDOMIZE and the update switch.
DICE	Throws a new setting within musical limits (the same as RANDOMIZE).
TEMPO	The host tempo GRUS is following.
MAIN OUT	The level meter is the control: drag sideways, −48 to +6 dB, all the way left is silent; double-click for 0 dB. Presets never touch it, so your gain staging stays while you browse.
GRAIN FIELD	The input as a waveform, the grains as dots. Drag inside it to play: across = SPRAY, up and down = SIZE. The scene or preset name sits top left; BUFFER HELD shows while FREEZE is on.
CHARACTER	One colour for the whole engine: CLEAN; TAPE wow and flutter, tape saturation, darker echoes; DUST lower sample rate and bits, crackle in time with the cloud; METAL comb filters tuned to the detected key (root left, fifth right); BLOOM allpasses in the echo and at the output — the echo turns into a room. MORPH drives its strength.

GRUS · Controls

THE FOUR PANELS

CONTROL	WHAT IT DOES
GRAIN · CHANCE	How likely a grain fires on each grid step — and, off the grid, how many grains per second.
GRAIN · SIZE	Grain length, 4 to 600 ms — or one note value with SIZE SYNC.
GRAIN · SPRAY	How far the read position scatters.
GRAIN · PITCH	Range of the pitch scatter, 0 to 24 semitones.
SHAPE · WINDOW	The grain envelope: SWELL (grains bloom slowly and break off) … soft … hard … PERC (hard attack, then decaying — grains with teeth).
SHAPE · REVERSE	Share of grains that play backwards.
SHAPE · FILTER	Left: low-pass per grain (darker). Centre: off. Right: band-pass per grain.
SHAPE · FOLD	Wavefolding per grain.
SPACE · DELAY	Echo time, 20 ms to 1.2 s — or a note value with DELAY SYNC. Off the grid the right side runs longer, and the feedback crosses over.
SPACE · FEEDBACK	How much of the echo returns, 0 to 0.92.
SPACE · WIDTH	Stereo width, 0 to 1.2.
SPACE · MIX	Dry / wet. At 0 the output is exactly the input.
TONE · HARMONY	0 = pitch from the scatter only, 1 = pitch from chord degrees only; in between it crossfades from consonant to cloudy.
TONE · SOURCE	How much of the input's stereo image stays inside each grain.
TONE · SHIMMER	The echo rises in pitch on every pass; the interval is set by SHIMMER TONE.
TONE · MORPH	One knob from tame to broken: pushes density, grain length, spray, pitch range, reverse share, fold, filter, drive, feedback and the grid at once. Presets leave it at 0 — it is yours.

GRUS · Controls

GRID, REPEAT, HOLD, SCENES AND MIX

CONTROL	WHAT IT DOES
GRID · RATE	Six chips: 1/4, 1/8, 1/8T, 1/16, 1/16T, 1/32 — the grid the grains fire on.
GRAINS ON GRID	Grains fire on the host grid, always on the count and by CHANCE in between. Off: free-running.
DELAY SYNC	DELAY in note values (1/2 down to 1/32, dotted and triplet) — the DELAY knob in the GRID panel sets it.
SIZE SYNC	The grain is exactly one note value long (SIZE knob in the GRID panel).
SPRAY GRID	SPRAY jumps in whole grid steps: a displaced grain reads exactly one step earlier.
TIME GRID	The read head stands on whole steps: stretching becomes stuttering that lands on the count.
PITCH SEMI	Grain pitch snaps to whole semitones.
REPEAT	How often a slice is captured on a grid step and played again (0 = off). LENGTH 1/2 … 1/32, TIMES 2x … 8x. It sits before the delay, so the echo falls on the repeats.
FREEZE	Holds the buffer: the input moves on, GRUS does not. With TIME the read head travels through the held buffer. A project saved with FREEZE on records about six seconds after loading, then holds.
TRANSIENT	GRUS watches the input for attacks and fires a burst of grains that read exactly where the attack sits — the source keeps its groove. 0 = off.
MOTION	A slow drift of its own, so nothing stands still. The display on the right shows the motion and the grains per second.
TIME	Speed of the read head against the recording: 1 follows it, 0.25 stretches four times, 0 holds the spot, negative runs backwards.
PAN	Where the grains land: RANDOM, PING-PONG, SPREAD, SWEEP, CIRCLE.
SHIMMER TONE	+12, +7 or +19 semitones per pass.
KEY	Click to cycle: KEY AUTO listens for the key of the input, KEY MINOR and KEY MAJOR set it. It decides the third in the chord and the scale the scatter snaps to.
SCENES	SPARSE, CLOUD, CHAOS, FROZEN, BRUTAL — five rough characters, one click each.
DUCK	The cloud steps back while the input plays and blooms in the gaps; the dry signal comes back as the cloud gives way.
LOW KEEP	Below 150 Hz the signal stays dry and mono — the kick stays a kick.
CHORD	Not on the panel, but a host parameter: FIFTHS, TRIAD, SUS, OCTAVES — the chord HARMONY takes its degrees from.

WHERE IT IS

The row with GRID and REPEAT has two tabs at its top left: GRID and MODULATION. The modulation tab shows how many slots are working (MODULATION · 3). The rest of the device stays as it is — if you never open the tab, you never see the matrix.



The modulation tab, rendered by the plugin itself. Left: the eight sources and the editor of the one you picked. Right: the ten slots.

HOW A SLOT WORKS

Each of the ten slots reads SOURCE → TARGET → AMOUNT. Click SOURCE or TARGET to pick from a list; drag AMOUNT sideways (−100 … +100 %, Shift for fine steps, double-click for 0). Click the slot number to clear it. Picking a target in an empty slot takes the source you have open on the left and starts at +25 %.

The amount is measured on the knob itself: +100 % is the whole way from one end to the other. LFO, SEQ and GRAIN swing around the knob (±), ENV and TIDE push in one direction only. Several slots on the same target add up and stop at the end of the knob. Modulation never moves the knob — automation and presets still see your setting.

THE SOURCES

LFO 1 – 4	SINE, TRI, UP, DOWN, SQR, S&H (stepped random), DRIFT (smooth random). SYNC on: 4 BARS down to 1/32, dotted and triplet, locked to the song position — a 1/4 LFO hits the same spot of every beat, also after jumping in the arrangement. SYNC off: RATE 0.02 – 20 Hz.
SEQ	Sixteen steps, each −100 … +100 %. Draw them with the mouse, double-click a step for 0. LENGTH 1 – 16, DIVISION for the step length, GLIDE slides from step to step. RND throws a pattern, CLR clears it. Always on the grid.
ENV	Follows the input level (−48 dBFS = 0, 0 dBFS = full). ATTACK 0.5 – 200 ms, RELEASE 10 – 2000 ms. Louder phrases push harder.
TIDE	One long arc across 1 to 32 bars: RISE, FALL, ARC (up and back down), STEPS (four stairs). For build-ups and breakdowns that span a whole phrase — something an LFO cannot do, because it repeats before you hear its shape.
GRAIN	Every grain rolls its own value. On SIZE, SPRAY, PITCH, WINDOW, REVERSE, FILTER, FOLD and WIDTH each single grain gets its own offset — one grain short, the next long, one bright, the next dark. On the other targets the value jumps with every grain.

GRUS · Modulation

TWENTY TARGETS

PANEL	TARGETS
GRAIN	CHANCE · SIZE[g] · SPRAY[g] · PITCH[g]
SHAPE	WINDOW[g] · REVERSE[g] · FILTER[g] · FOLD[g]
SPACE	DELAY · FEEDBACK · WIDTH[g] · MIX
TONE	HARMONY · SOURCE · SHIMMER · MORPH
HOLD	TRANSIENT · MOTION · TIME
REPEAT	REPEAT

[g] = per grain with the GRAIN source. DELAY has no effect while DELAY SYNC is on (the note value wins). Modulated DELAY glides like tape, so an LFO on it bends the echo in pitch — on purpose.

RECIPES

Trance gate	SEQ 1/16 with steps at 0 and −100 % → MIX +85 %, MIX at 1.0. The cloud chops in time; nothing clicks (every slot is smoothed by 4 ms).
Build-up	TIDE 4 BARS RISE → SHIMMER +35 %, SPRAY +30 %, FEEDBACK +6 %. Start the song on bar 1 and the riser lands on bar 5.
Living cloud	GRAIN → SIZE +25 % and GRAIN → WIDTH +30 %: every grain different in length and place.
Tape wow	LFO DRIFT, SYNC off, 0.4 Hz → DELAY +3.5 % (or → TIME +3 %).
Vocal bloom	ENV → SHIMMER +25 % with a long RELEASE: loud phrases leave a brighter tail.
Wobble	LFO SINE 1/8T → FILTER +30 % on a bass, FILTER set to LP.
Stutter fills	SEQ 1/16 → REPEAT +45 %: some steps capture and repeat, others pass.

GOOD TO KNOW

Modulation is computed every 32 samples inside the engine, so it costs almost nothing and is the same in every host. Presets and DICE set the matrix too; scenes clear it. The open tab is saved with the project. Projects made before the matrix load unchanged — all slots empty.

GRUS · Presets

244 PRESETS, ALMOST ALL OF THEM MOVING

A scene is the rough character, a preset is a finished use. Open them with BROWSE (or a click on the name): tiles with a grain picture drawn from the preset's real values, sorted by sound, with search and stars (☆ on a tile, ★ STARRED on the left). The first twelve — Tape Stutter, Swell Choir, Rust Crusher, Tuned Metal Rain, Bloom Pad, Grain Gate, Pluck Cascade, Sidechain Cloud, Broken Cassette, Reverse Riser, Grid Dust Beat, Glass Harmonics — each show a different tool.

234 of the 244 presets use the modulation matrix; open the MODULATION tab to see what moves and change it. Ten stay still on purpose, because they are mix tools that should not wander: Vocal Doubler, Warm Slapback, Wide Blur, Low Double, Slapback Grains, Reese Thickener, Spread Taps Wide, Sub Keeper Dust, Gentle Thickener, Pocket Ambience. Presets never switch FREEZE on, set MORPH back to 0, leave MAIN OUT alone, and are level-matched with their modulation running, so browsing does not jump in volume.

BROWSER	#	TRY FIRST	WHAT MOVES
DRUMS	20	Snare Roll Builder, Hat Sparkle, Kick Ghost Echo	SEQ accents on SIZE, ENV on FILTER or FOLD
RHYTHM	21	Tape Stutter, Grid Dust Beat, Grain Gate	SEQ accents on SIZE, SEQ gate on MIX, ENV on FILTER or FOLD
VOICE	26	Swell Choir, Vocal Doubler, Warm Slapback	DRIFT on WIDTH, ENV on SHIMMER or HARMONY, TIDE arc
KEYS	12	Pluck Cascade, Glass Harmonics, Dust Keys	GRAIN on PITCH, slow LFO on FILTER, LFO on WINDOW
BASS	20	Crunch Bass, Octave Pluck Bass, Metal Growl Bass	LFO wobble on FILTER or FOLD, ENV
PITCH	18	Major Arp Grains, Octave Sparkle, Fifth Cloud	SEQ melody on HARMONY, GRAIN on PITCH
TIME	18	Half Speed Dream, Reverse Chop Radio, Stretch Shimmer	LFO on TIME, TIDE on SPRAY, GRAIN on REVERSE
TEXTURE	11	Broken Cassette, Reverse Riser, Backspin	S&H on SPRAY, GRAIN on REVERSE
AMBIENT	22	Bloom Pad, Last Light, Sleepwalker	TIDE arc on SHIMMER, DRIFT on FILTER, GRAIN on SIZE and WIDTH
SPACE	18	Ping Pong Dust, Circle Echo, Dub Stab Throw	LFO on WIDTH and DELAY, ENV ducks MIX
RESO	17	Tuned Metal Rain, Metal Bells, Drone Machine	GRAIN on PITCH, slow LFO on FEEDBACK
LOFI	16	Cassette Chop, Worn VHS, 8-Bit Grains	DRIFT wow on DELAY, S&H on FILTER
DESTROY	19	Rust Crusher, Heavy Swell, Shattered Glass	random SEQ on PITCH, S&H on FOLD, TIDE rise
MIX	6	Sidechain Cloud, Wide Blur	ENV against SHIMMER or SPRAY

GRUS · Updates & support

YOUR OWN PRESETS

SAVE AS… (in the browser or the right-click list) asks for a name; the preset lands in `Documents/Oscillate Audio/GRUS/Presets` and appears under YOUR PRESETS. DELETE moves the one that is loaded to the Trash, FOLDER (REVEAL PRESET FOLDER in the list) shows the files. Your presets keep the modulation matrix with everything else.

UPDATES

When a newer version exists, a mint notice appears next to DICE: `UPDATE 1.1 · FREE ↗` (the number is the new version). Every update is free for owners.

`Click`	Opens the download page on oscillateaudio.com in your browser — normally your account at oscillateaudio.com/my.
`Hover`	A card over the grain field says what is new.
`Switch`	In the browser: UPDATE CHECK: ON / OFF at the bottom left. In the right-click list, last entry: UPDATE CHECK: ON (DAILY) → TURN OFF.
`How often`	At most once a day, in the background. It never holds up loading, and without internet nothing changes.
`What is sent`	Only a request for the latest version number. No serial, no email, no computer ID, no cookies; as with any web request, the server sees your IP address.

TIPS

Beats stay beats. On a drum loop switch GRAINS ON GRID on and add SPRAY GRID and TIME GRID; LOW KEEP keeps the kick dry. Tape Stutter, Grid Dust Beat and Halftime Chop start there.
In key. Raise HARMONY and let KEY AUTO listen — or set KEY MINOR / MAJOR when the material is ambiguous. PITCH SEMI keeps the scatter on semitones.
Vocals. DUCK keeps the voice in front and lets the cloud bloom in the pauses (Swell Choir, Reverse Echo).
Pads. Switch GRAINS ON GRID off, lengthen SIZE, turn WINDOW toward SWELL and add SHIMMER — Bloom Pad and Last Light are built that way.
Automate MORPH. One lane from tame to broken is the quickest build-up GRUS has — or let TIDE do it: TIDE 8 BARS RISE → MORPH.
Make it breathe. GRAIN → SIZE and GRAIN → WIDTH turn a static cloud into one where every grain is different.
Hold a moment. Tap FREEZE on the beat and play with TIME: the frozen buffer becomes an instrument.
Stuck? DICE throws something new within musical limits; a scene chip brings you back to solid ground.

SUPPORT

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