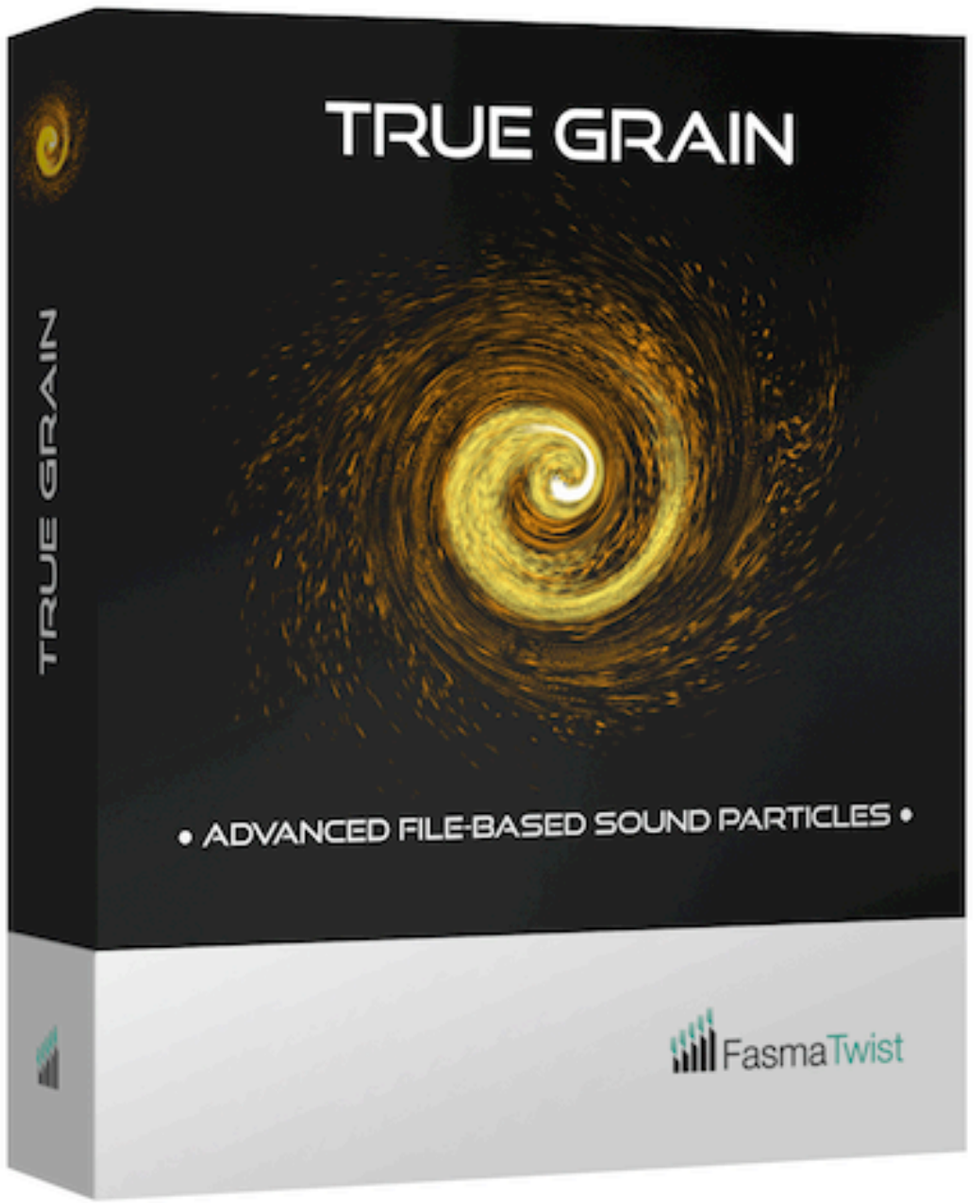
FASMATWIST

TRUE GRAIN

USER MANUAL



True Grain is an advanced audio plugin that creates high-fidelity sound particles from multiple files, offering real-time processing and precise harmonic control. This manual provides detailed descriptions of each parameter in the plugin.



WARNING: This plugin can produce high densities of audio events. Performance will vary depending on your system's capabilities, so be mindful of resource limits!

Supported Audio Formats: WAV/AIFF/FLAC/ALAC/MP3, 16/24/32bit, 44/48/96kHz, Mono (stereo files are automatically converted to mono by averaging both channels). Audio files are automatically resampled on load to match your DAW sample rate.
Plugin Formats: VST3, CLAP, AU
Output Channels: VST3 and CLAP support any count from 1 to 32, plus 40, 48, 56 and 64; stereo is the default and True Grain follows the channel count of the track it is loaded on. **The AU version is stereo only**.

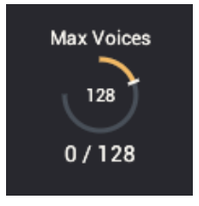
Multichannel Notes

Channel Layout: True Grain treats every output as an ordinary speaker. No channel is an LFE or bass channel, and the channels are a line, not a ring, so panning never wraps from the last channel back to the first.

Surround Monitoring: On six- and eight-channel buses your host may label the outputs 5.1 or 7.1 and apply its own bass management to the channel it considers LFE. For a true speaker array, route the bus directly to your interface with surround monitoring off, so each output feeds one speaker unaltered.

VST3 Arrangements: Two, six and eight channels match named VST3 formats and load everywhere; other counts have no standard VST3 name and a few hosts will refuse the bus. Use the CLAP version for those arrays.

Max Voices

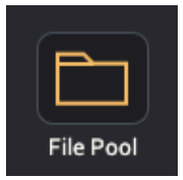


Sets the maximum number of simultaneous grains. When the limit is reached, new grains are dropped while existing ones continue. The counter below shows active voices vs. the limit (e.g. 64 / 128). At the limit, it turns red and a pulsing red ring appears around the knob. Lower values reduce CPU but limit overlap; higher values allow denser clouds at higher processing cost. A permanent default value can be set in the settings.

Enabling Hints

At the bottom right of the GUI there is a switch designated by a question mark. Click to switch on. Then hover over any parameter **title** to get more details about its function. When hints are enabled the current version of the plugin is displayed at the top right corner.

Loading Sound Files



Click the **File Pool** button to open the pool window. The pool is the plugin's list of sample files: every grain plays one of the ticked files, and the **Sound File** parameter selects between them in the order shown.

Adding Files: Add Files picks individual files; Add Folder adds every supported file in a folder, in alphabetical order. Files already in the pool are skipped.

Enabling and Removing: The tick next to each file decides whether it is used; unticked files stay in the list, greyed out, and are never played. The x button removes a file after a confirmation (alt-click removes it immediately).

Ordering: Drag a file by the grip on its left to move it; a line shows where it will land. The order of the list is the order the Sound File parameter steps through.

Missing Files: A file whose path no longer resolves is shown in red. Locate points it at its new location, and Search in Folder relocates every missing file at once by matching names in a folder you choose. Hover the i button to see a file's full path.

Saving Pools: Save Pool writes the list to a *.tgpool* file and Load Pool reads one back, replacing the current list, so the same set of samples can be reused across projects.

Applying: Changes in the window are a draft. Apply commits them to the plugin; Cancel discards them, asking first if anything has changed. Clear empties the list behind a confirmation. With an empty pool the plugin plays its default grain.

Presets



The bar along the bottom of the interface loads and saves presets. The name box shows the current preset, or Init Patch when none is loaded, and the current preset is remembered when the plugin is reloaded.

Browsing: Click the name box to open the list of presets in the folder the loaded preset came from, or in the default preset folder when no preset is loaded. The arrows to the left step through the same list alphabetically and wrap around at either end.

Init Patch: Resets every parameter to its default and empties the file pool, so the default grain plays.

Saving: Save overwrites the loaded preset, keeping the previous version beside it as a *.tgp.bak* file. Save As, in the ... menu, writes a new preset, opening in the folder of the loaded preset. With no preset loaded it opens in the default preset folder: *~/Library/Audio/Presets/FasmaTwist/True Grain* on macOS, *Documents\FasmaTwist\True Grain\Presets* on Windows.

Revert Save: Swaps the preset file with its backup, undoing the last Save; use it again to return. It is greyed out when the current preset has no backup.

Load From File: Loads a preset from anywhere on disk. The name box then browses that preset's folder.

Snapshots

The snapshot system at the bottom of the interface allows you to store and recall up to 16 parameter configurations, organised in two grids of 8 slots each (left and right).

Storing Snapshots: Click a numbered button (1-8) in either the left or right grid to select a slot, then click the centre store button (red circular button between the numbers) to save all current parameter values to that slot. Empty slots are indicated by a folded corner.

Recalling Snapshots: Click any filled snapshot button to instantly recall those parameter values. The left grid controls the left morph position, and the right grid controls the right morph position.

Morphing: Use the horizontal fader between the two grids to smoothly interpolate between the left and right selected snapshots. The toggle switch above the fader enables or disables morphing. When disabled, you can still select snapshots but the fader has no effect.

Copy/Paste/Clear: Right-click on any snapshot slot to access a context menu with Copy, Paste, and Clear options.

Tip: You can automate the morph fader as well as the snapshot selection for the left and right grid.

Tip: The behaviour of **Pitch Quant** morphing is different to other parameters. The new value snaps in place when the slider touches the left or right side. This allows for properly timed chord changes.

Settings

Click the cog icon to open the Settings window. Its sections are collapsible, and changes take effect when you press Save.

Max Voices: Override max voices on open sets the value every new instance starts with, instead of the default.

Snapshot Morphing Exclusions: Unchecked parameters are not affected when moving the morph fader, allowing you to keep specific parameters static or under manual or automation control while morphing others.

Support: If the plugin ever crashes it writes a crash.log in its configuration folder, recording the version, the message and a backtrace; further crashes are appended to the same file. Open Crash Log opens it in a text editor, or tells you nothing has been written if the plugin has not crashed on this machine.

Parameters Overview

Note that you can edit the value on a slider by using alt-click/option-click on the number display.

- **Density:** The number of grains emitted per second. A higher value will produce a denser texture of grains. Lower values work well for ratchet effects. You can toggle between grains per second and bar division using the button next to the slider.

- **Bar Division:** Number of grains emitted per bar based on the project's tempo. This setting is useful for creating rhythmically synced textures. For non-tempo-based grains, toggle back to grains per second (**Density**). **Tip**: To produce ratchet effects that transition to regular rhythms (as in Aphex Twin's Bucephalus Bouncing Ball, for example), add a new midi note where the regular rhythm begins. A MIDI note-on event always guarantees proper sync to the tempo.

- **Density Scatter:** Controls the randomness in the timing of grain emission. A low value results in a regular, clock-like pattern, while higher values make the grains scatter randomly in time. **Tip**: Use high scatter values for organic, non-repetitive textures, and low values (in conjunction with **Bar Division**) for precise, rhythmic grains.

- **Sound File:** Selects which file in the File Pool each grain plays, in pool order (see section 'Loading Sound Files'). Each grain plays the full file unless **Duration Scaling** is applied. **Tip**: Disable **Sound File Range** to use this as a switch between the sound files.

- **Sound File Range:** Defines the range of files used from the pool. Each event will randomly choose a file from the range.

- **Rate:** Playback rate of the audio file, in semitones with 0 being the original pitch. Positive values speed up playback (higher pitch), while negative values slow it down (lower pitch). Decimal values can be used to achieve microtonal tuning.

- **Rate Range:** Sets the range of playback rates for random variation. When enabled, each grain will have a different pitch randomly chosen from this range. **Tip**: To move the whole

range up or down at the same time you can use the **Transpose** parameter or automate the upper and lower limit.

- **Pan:** Adjusts the position of the grains across the output channels. A value of -1 places the grains on the first channel (left in stereo), while 1 places them on the last (right in stereo). **Tip**: Disable **Pan Range** to use this as a normal pan slider.

- **Pan Range:** Defines the range of panning for the grains across the output channels. With this enabled, grains are randomly panned between the **Pan** value and this range. Disable it to fix grains at the **Pan** value. **Tip**: A wide panning range creates an immersive spatial effect. Smaller ranges can localise the sound while retaining a wider image. Automate both parameters to move a wider cloud around and/or change its spatial size.

- **Distance:** Perceived distance of the grains from the listener, in metres. Higher values simulate a more distant sound, with both amplitude and filtering reduced accordingly. **Tip**: This parameter can move the cloud towards or away from the listener. Combine distance control with panning for dynamic spatial effects.

- **Distance Range:** Range for the **Distance** parameter, enabling random variation in perceived distance. If disabled, grains will remain at the exact distance defined by **Distance**.

- **Amp:** Controls the overall loudness of the grains. Amplitude is affected by other factors like **Distance**. **Tip**: Remember that **Distance** reduces the amplitude but also filters. If you are looking for an effect of depth use **Distance**. To only affect loudness use **Amp**.

- **Amp Range:** Sets the range for amplitude random variation. If disabled, grains will use the exact value defined by **Amp**. **Tip**: A subtle amplitude range can add variation to your sound, especially useful for percussion.

- **Attack:** Value in seconds. Determines how quickly the grain reaches its full volume. Shorter values create sharp, percussive grains, while longer attacks are smoother and more gradual. **Tip**: Remember that the duration of the file is always constant (**Rate** is taken into account). **Attack** and **Release** only affect the fade in and out for each grain.

- **Release:** Controls how quickly the grain fades out. Value is in seconds.

- **Attack Curve:** Defines the shape of the attack envelope, allowing for linear or more complex attack behaviours. **Tip**: The effect is more pronounced when using really short grains or large grains with a long attack.

- **Release Curve:** Defines the shape of the release envelope. Use this to control how the grain fades out.

- **Duration Scaling:** Scales the playback duration of each grain by multiplying the original duration by this factor. A value of 1 keeps the original length, while lower values shorten it.

- **Duration Scaling Range:** Sets the range for the randomised scaling of grain duration. When disabled, the grain duration will match the exact value set by **Duration Scaling**.

- **Start Position:** Sets the grain's start point within the sound file, where 0 is the start and 1 is the end. **Tip**: By using a very low **Duration Scaling** value and this parameter you can move through the sound achieving a classic granulation effect such as time stretching.

- **Start Position Range:** The range for the grain's start position. Grains can begin at any point between the defined start position and this range. **Tip**: Using start position range you

can select a region in a sound to extract variable grains with consistent timbre. For instance, you could set the range to a syllable of a vocal sound.

- **Gain:** Applies gain to the entire output signal.

- **Transpose:** Transpose the pitch of all grains, measured in semitones. This affects all grains equally and it is additive to the current **Rate** of each grain.

- **Pitch Quant:** Quantises the **Rate** to a specific grid. The custom option allows you to select a TOML file that defines the pitch grid in semitones. You can edit the TOML file directly within the plugin using the built-in editor (click the edit button next to the custom file selector), which features syntax highlighting and Save/Save As options. Alternatively, edit externally and reload using the refresh button. The TOML file allows comments (using the # character) which can be quite useful for documentation. **Tip**: Define multiple "chords" in the TOML file and use a harmonic sound to create chord clouds. Remember that you can use different values across different ranges, so changing the **Rate** range will have an effect on what portion of the custom grid is utilised.

custom_example.toml

```
custom1 = [-1, 0, 1]
custom2 = [-21, -17, -12, -9, -5, 0, 3, 7, 12]
custom3 = [-5, -2, 0, 4]
custom4 = [-10, 0, 10, 14]
```

ATTRIBUTIONS:

Default sound from 60.wav by atonia | License: Creative Commons



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