

Gulf Coast Synthesis Model 8

v1.8

Beta Field Manual

Welcome to the Model 8. This isn't just a plugin; it's a complete standalone DAW environment and a living mechanical simulation. Before you start recording, here is what you need to know about the physics, the console features, and how to push the machine to its limits.

1. Getting Started

- **The Tape Room:** When you first load the software, you are in the Library. Click "Create" to spawn a new Reel (which creates a dedicated folder on your disk). You can now choose default reel lengths of 10, 20, 30, 45, or 60 minutes.
- **Loading/Ejecting:** Drag a tape from the shelf to the player to load it. Click "Eject / Library" on the main deck to return to the room.
- **The Dust Cover:** The deck starts covered. Click anywhere on the glass to lift it off. To put it back, Right-Click anywhere in the empty chassis area.

2. Physics & Interaction

The Model 8 simulates the physical transport of a mechanical tape machine.

- **Grab the Reels:** You can grab the tape reels with your mouse to manually brake or spin them. This creates authentic varispeed scrub effects.
- **Tension Arms:** The spring-loaded arms respond to inertia. You can grab the Left Tension Arm with your mouse to physically bend the pitch (Doppler effect) just like a real machine.
- **Varispeed:** The large knob on the left controls motor speed.

Pro Tip: Hold Command (Mac) / Ctrl (PC) while dragging the Varispeed knob to snap to 10% musical increments (half-speed, double-speed, etc.).

3. The Console & Routing

The Model 8 engine now supports up to 24 tracks with a fully featured mixing console.

- **Channel Strip Controls:** Each track features dedicated *MUTE* and *SOLO* buttons, as well as a *Phase Invert* (\emptyset) button to flip the polarity of the signal.
- **Print EQ:** Toggle this switch to decide whether the onboard EQ is printed destructively to the tape during recording, or if it is just used post-tape for monitoring.
- **VCA Groups:** Tracks can be assigned to color-coded VCA groups (Red, Blue, Green, Yellow). Moving a fader, muting, soloing, or arming one track will mirror the action across all siblings in that group.
- **Track Management:** Open the track reordering window to simply drag and drop your tracks to change their layout on the console.
- **Internal Bouncing:** The *Input Source* (SRC) dropdown allows you to route the output of one track directly into the input of another (*Track-to-Track* bouncing) or route *Aux Returns* directly to a tape track.

4. Plugin Hosting & Effects

- **Track Inserts (INS):** Click the "INS" button on any channel strip to open the insert window. You can load up to 4 VST3/AU plugins post-tape per track. Drag and drop to reorder your signal chain.
- **Aux Sends>Returns:** Use the *EFF 1* and *EFF 2* knobs on the channel strips to route audio to your auxiliary effects plugins.
- **Master Inserts:** The master bus supports up to 4 insert effects for your final mixdown processing.

5. Tape Tools & Destruction

The strip at the bottom isn't just a visualizer—it's a canvas for destruction.

- **Select a Tool:** Click the *Brush* button (above the strip) to cycle through tools: *Dropout*, *Crinkle*, *Drag* (Tension), *Flutter*, *Splice*.
- **Draw Damage:** Click and drag directly on the *Tape Strip* to "paint" defects onto the tape.
- **Splice:** Cuts the audio and creates a mechanical pop.
- **Drag:** Simulates pressing your thumb on the flange (purple friction).
- **Crinkle/Dropout:** Simulates physical damage to the oxide.
- **Auto-Wear:** Toggle the *WEAR* button to slowly and naturally degrade the tape over time while the transport is playing.

6. Automation & System Mechanics

- **Track Automation:** Engage the AUTO button on any track to use VCA-style volume automation. Standard modes are supported: Off, Read, Touch, Latch, and Write (Overwrite).
- **Sound-On-Sound (SOS):** Found in the options tab. This disables the erase head, allowing you to overdub directly on top of existing audio without erasing the previous take.
- **Auto-Save:** The engine automatically saves a background `Recovery` folder every 2 minutes. If a crash occurs, your session is protected.
- **Low CPU Mode:** If system resources are tight, toggle this mode to disable UI animations and the physics visualizer for improved audio performance.

7. Hidden Features & Shortcuts

- **Scribble Strips:** Right-Click on any channel meter to toggle a Masking Tape Overlay for naming your tracks.
- **Track Erase:** Right-Click a meter to instantly erase all audio on that specific track.
- **Reset Controls:** Double-Click any knob or fader to reset it to its default value.
- **Manual Loop Points:** If Looping is active, you can drag the green (Start) and magenta (End) flags directly on the Tape Strip to adjust the loop.
- **Visualizer Toggle:** Toggle the WAVE button (above the strip) to switch the bottom display between the damage map and the audio waveform.
- **Key Commands:** Spacebar plays and stops the transport. Click SETUP > SHORTCUTS to bind your own keys for Record, Rewind, Fast Forward, and more.

8. Calibration & Setup

To get perfect sync when overdubbing, you must calibrate the machine to your hardware:

1. Go to **SETUP > SYSTEM**.
2. Connect your audio interface Output 1 directly into Input 1 with a physical cable.
3. Click **Run Auto-Calibration**. The machine will fire a test tone to measure your exact round-trip latency and compensate for it automatically.

Metronome: The Click Tab now supports time signatures and subdivisions (1/8th, 1/16th notes) for complex tracking.

9. Import, Export & The Lounge

- **Import Audio:** Drag and drop any WAV/MP3 file directly onto the main window to import it to a specific track. You can choose to split stereo files to adjacent tracks or sum them to mono.
- **Mixdown:** Click MIXDOWN to bounce your session. You can bounce Offline (faster than real-time) or Live (prints the mix while you manipulate knobs and physics in real-time).
- **Mix to Lounge:** This new export feature bounces your track to an optimized .ogg format and uploads it directly to the Gulf Coast Synthesis servers.
- **The Lounge Room:** Enter this new UI room to stream, download, and listen to other users' uploaded mixes playing back on a custom network tape transport.

Found a bug? Click the [BETA FEEDBACK](#) button in the top right to send us your system specs and a generated report.