

DMM Stem Splitter — Field Manual

v0.9.0 · DARK MATTER METAL · splitter.darkmattermetal.ai

Split any song into its individual stems — vocals, drums, bass, guitar and more — entirely on your own machine. Nothing is uploaded anywhere, ever. Your music never leaves your computer.

Built by Dark Matter Metal, tuned for metal, works on anything.

Quick start

- Start the app (**DMM Stem Splitter.exe**). A console window opens — that's the engine. Leave it running; closing it stops the app.
- Your browser opens the control room automatically. If not, go to the address shown in the console window.
- Drop an audio file onto the big drop zone (or click it to browse). MP3, WAV, FLAC — anything real audio works.
- Pick a **Model**, **Mode**, **Quality** and **Output format** (see below — the defaults are a good start).
- Hit **Split Stems**. Watch the progress bar, then play with your stems in the mixer or download them.

First split ever? The model weights download automatically the first time each model is used (~80–300 MB per model, one time only). After that, everything works fully offline.

Models

- **4 stems** (**htdemucs**) — vocals, drums, bass, other. The default. Fastest, and the cleanest vocals/drums/bass.
- **4 stems: higher quality** (**htdemucs_ft**) — same four stems, fine-tuned variant. Noticeably slower (it runs four passes) for a modest quality bump.
- **6 stems** (**htdemucs_6s**) — adds guitar and piano. The trade-off: its vocals, drums and bass are audibly weaker than the 4-stem models.
- **Metal Hybrid** — the best of both, built for metal. Runs the 4-stem AND the 6-stem model back to back, then assembles the final pack: vocals/drums/bass from the 4-stem pass, guitar and piano from the 6-stem pass, and rebuilds "other" so everything still sums back to your mix. Roughly twice the split time of a single 4-stem run. When you want the full 6-stem split at the best quality this tool can produce, this is the one.

Modes

- **Full stem split** — every stem the selected model produces.

- **Vocals / instrumental** — two files: the vocal and everything else. The instrumental is a ready-made karaoke or lyric-video backing track.
- **Drums / drumless** — the drum stem plus a drumless mix. Drummers: that's your practice track.
- **Bass / bassless** — same idea for bassists.
- **Guitar / guitarless** — the guitar stem plus a guitarless backing track. Picking this switches the Model to Metal Hybrid automatically: the guitar comes from the 6-stem model, and the guitarless side is your original mix minus that guitar — so the backing keeps the full fidelity of your master. Switch away from guitar mode and your previous model choice comes right back.

Quality

- **Standard** — the model's defaults. Fastest.
- **High** — ~1.5× slower. Less warble on dense mixes.
- **Ultra** — ~3× slower. Best separation this engine can do. Worth it on dense metal masters.

Output

- **WAV 16-bit / 24-bit** — lossless, drop straight into a DAW. 24-bit if you'll process the stems further.
- **FLAC** — lossless at roughly half the size.
- **MP3 320 / 256 / 192** — smallest files, fine for practice tracks.

The engine separates at 44.1 kHz internally. If your source is 48 kHz (or anything else), the finished stems are automatically resampled to match the source rate, so they drop onto your project without a rate mismatch.

Preview split

Not sure which model or quality to commit to? **Preview 30s** finds the loudest 30 seconds of the track and splits just that — a couple of minutes instead of a long full run. Listen, judge, then hit **Run full split** on the preview's card: it reuses the same upload and settings for the real thing.

The stem mixer

Every completed job has a **Preview / Mix Stems** button — a full mixer in your browser:

- **Play / seek** — all stems play in perfect sample sync, one shared transport.
- **S (solo)** — hear one stem alone. Soloing another stem switches to it; clicking the active solo returns to the full mix.

- **M (mute)** — drop a stem out. Mute always wins — muting a soloed stem silences it, exactly like a DAW.
- **Volume sliders** — build a rough practice mix (say, drums down to 30%) before deciding what to download.
- Each stem shows its **waveform**, and stems that are basically empty get a "mostly silent" tag (the 6-stem model's piano stem earns this a lot on metal).

Jobs

- **Progress** — honest stages: loading model, separating (with pass counts), writing stems. Metal Hybrid shows which of its two passes is running.
- **Cancel** — queued or running jobs can be cancelled any time.
- **Split again** — every job keeps its upload for 7 days, so a finished split's **Split again** button re-splits the same track with whatever the settings panel says right now — try a different model or quality without re-uploading. Failed or cancelled jobs get **Re-run** (a same-settings retry) instead.
- **Failures** — if a split fails you get the real error, and **View full log** shows the engine's complete output.
- **Files** — stems are named `<track>_<Stem>` (e.g. `MySong_Vocals.wav`), so nothing collides in your DAW folder. **Download All** zips the pack with a `dmm-stem-pack.json` manifest describing every stem.
- **Housekeeping** — **Clear finished** removes done jobs and their files. Anything older than 7 days is swept automatically.

Device

Auto uses the best available. This build runs on CPU — a CUDA GPU option only appears when the app detects a CUDA-capable setup.

Rough CPU timings for a ~4-minute track: 4-stem Standard ≈ 5–10 minutes, Metal Hybrid ≈ double that, Ultra ≈ triple, and the fine-tuned 4-stem model is the slow one at 20–40 minutes. Queue up an album and walk away — jobs run one at a time, in order.

What to expect from the results

Honesty section. Stem separation is powerful and imperfect — knowing the limits saves you re-running jobs hunting for a setting that doesn't exist:

- **Lead and rhythm guitar come out together.** The model has exactly one guitar channel. No setting splits lead from rhythm.

- **"Other" is the catch-all.** Synths, orchestration, and faint echoes of everything else land there. Some muffled bleed in "other" is normal, not a broken split.
- **Guitarless tracks can leak a little guitar.** The backing is your mix minus the guitar the model found — whatever it missed (quiet lead lines, especially) stays behind, faintly.
- **Ultra + Metal Hybrid is the quality ceiling** for dense metal. If a stem still sounds rough there, that's the state of the art for now.

Troubleshooting

- **Windows SmartScreen warns on first launch** — the build is unsigned (certificates cost real money; we'd rather keep this free). Click "More info → Run anyway". The download page publishes a SHA-256 so you can verify your zip is untouched.
- **The mixer says "Failed to fetch"** — a download-manager browser extension (IDM and friends) is hijacking the audio. Tell it to ignore `127.0.0.1`, or disable it for this page.
- **The page won't load** — is the console window still open? Closing it stops the engine. Start the app again.
- **A split fails instantly** — the file probably isn't real audio (renamed files are caught early, on purpose). Failures after that: **View full log** has the answer.
- **Where do my files live?** — in the `data` folder next to the app (or in your user AppData folder if the app folder isn't writable). Downloads via the buttons land in your browser's normal download folder.

The DMM constellation

The Stem Splitter is one tool in the Dark Matter Metal toolbox:

- **darkmattermetal.ai** — the radio. AI-metal, curated by humans, streaming live.
- **mastering.darkmattermetal.ai** — master your track in the browser.
- **analyzer.darkmattermetal.ai** — deep-analyze a song's structure, lyrics and production.
- **Discord** — support, feedback and the community: discord.gg/mP83vJbjwH

Split only audio you own or have the rights to.

DARK MATTER METAL — engineered frequencies from the void.