STEMDECK

StemDeck User Guide

Version 1.8.0

Dipko Services LLC

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Welcome

StemDeck is a Mac app for playing backing stems live. A *stem* is one part of a recording saved as its own audio file: the drums, the bass, a keyboard part, a click track. StemDeck plays every stem of a song in perfect sync and sends each one to its own output on your audio interface, so the sound engineer can mix your tracks at the console the same way they mix the band.

StemDeck is built for the stage, not the studio. It does not record your band, edit audio, or warp anything. Files play at their native sample rate. Pitch and tempo are the only changes it makes to the sound, and click, count-in, and guide tracks are left alone when you transpose a song.

This guide is for the musician or music director who runs the laptop. It assumes you know what a fader, a channel, and a click track are. It does not assume you have used a DAW. Every part stands on its own; read front to back, or jump straight to what you need.

About this version

This edition covers StemDeck 1.8.0 on macOS 14 (Sonoma) or later. If something on screen does not match what you read here, trust the app and check for a newer guide at www.stemdeck44.com/guide. The same page offers this guide as a PDF.

How to use this guide

- **Part 1, Get Started**, takes you from install to your first song and your first show. Read it once.
- **Part 2, Concepts**, explains how StemDeck thinks: song time versus file time, the beat grid, what travels with your library and what stays on this Mac. Read it before you build a lot of songs.
- **Part 3, Your Library and Keeping It Safe**, covers importing songs, sharing them between laptops, snapshots, and what to do when StemDeck cannot find your library.
- **Parts 4 through 9** are the workflows: building songs, the Guide Builder, performing, routing to your console, MIDI and phone remote, and exporting a rehearsal mix.
- **Part 10, Reference**, lists every menu item, shortcut, and setting.
- **Part 11, Stage Notes and Troubleshooting**, is the part to reread before the first gig of every run.

Three kinds of callout appear throughout:

> **TIP**
>
> A faster or easier way to do something. Optional.

> **STAGE NOTE**
>
> Something the audience or the band will hear if it is wrong. Reliability matters more than convenience here.

> **WARNING**
>
> An action that can lose work or cause an audible failure on stage. Read before you proceed.

Keyboard shortcuts look like this: ⇧ ⌘ ?. Menu paths look like **Song** → **Align Beat Grid…**. A full list is in Part 10.

What's new in 1.7

A new guide cue library, revision 3. Every guide cue now speaks in one consistent voice. There are new cues too: counts 5 through 8, **Hold**, **Stop**, **Vamp**, **Interlude**, **Key Change**, and **A Cappella**, and new phrases such as **Intro Breakdown**, **Breakdown Chorus**, **Build**, **Verse Build**, **Outro Solo**, and **Drums In 2 3 4**. A song you built earlier keeps sounding exactly as it did until you choose **Upgrade to rev3** in the Guide Builder, which moves each cue so you still hear it where you heard it before. *Part 5.*

A Guide Builder that fits your screen. The window sizes itself to the display, and on a smaller screen the middle scrolls while Build, Cancel, and Clear Guide stay pinned along the bottom. *Part 5.*

Reorder songs by dragging. In a setlist, drag a song row up or down to change the running order. *Part 6.*

Rename from the song list. Right-click any song and choose **Rename…**. The song you clicked is renamed without being loaded, so a song that is playing keeps playing. *Part 3.*

A warning triangle that tells you why. Hover the triangle on a song row to see which stems have no routing rule and will play on output 1, and how to fix them. *Part 7.*

An update notice. StemDeck quietly tells you when a newer version is on the Mac App Store, and **Help** → **Check for Updates…** asks on demand. *Part 6.*

What's new in 1.6

Your library is a folder of song folders. Songs now live in a folder you choose (the default is `~/Music/StemDeck`), one folder per song with the stems inside. Drop a folder into it in Finder and StemDeck picks it up on the next rescan. Copy the folder to another Mac and your songs, setlists, markers, and guide cues come along. *Part 3.*

StemDeck never loses track of your library silently. If the library folder was moved, renamed, or is on a drive that is not plugged in, StemDeck stops and asks before loading or changing anything. A caption under the setlist header tells you when the library is offline, and **Library → Reconnect Library** brings it back. Cloud-synced folders (iCloud Drive, Dropbox, Google Drive) get a warning, because sync services can move audio out from under a running show. *Part 3.*

Import several songs at once. Drag a stack of song folders onto the library, or use **File → Import Folder…** (⇧ ⌘ N). One copy-or-move choice applies to the whole batch, folders that are already songs are skipped so their markers stay intact, and a summary shows what happened. *Part 3.*

Snapshots protect songs, not just settings. Every snapshot now holds each song's markers, tempo, guide cue map, faders, and setlists. One is taken at launch and before every bulk change, and **File → Save Snapshot** (⇧ ⌘ S) takes one on demand. Restore shows you what would change before it touches anything. Snapshots never include audio; back up the library folder for that. *Part 3.*

Outputs you set by hand stay set. Type an output number on a stem card and a filled amber pin appears: that stem keeps its output on every Mac, no matter what the routing rules say. Click the pin to go back to the rules. When a new stem's filename matches no rule, StemDeck asks you to choose an output instead of quietly parking it on output 1, the click output, and flags the song in the list until you do. *Part 7.*

The live outputs are 1 to 4. The default rules now put the click on output 1, count-in and guide on 2, drums on 3, bass on 4 (keys 5, guitar 7, vocals 9). "Metronome" in a filename counts as a click. *Part 7.*

A better fader. Faders are taller, with printed marks from +12 down to −48 dB. Unity (0 dB) sits three-quarters of the way up, the same place as on a live console. Hold ⌥ while dragging for fine control, and double-click any fader (including MASTER) to snap it back to 0 dB. *Part 6.*

Guide Builder: spoken cues that tell the band where they are. Place cues like "Chorus 2 3 4" on a timeline and Build a guide stem that plays in the in-ears. The cue library ships in revisions so a song you built last month keeps sounding the same until you choose to upgrade. StemDeck can measure a real beat grid from your click or drum stem, and can check a built guide against its cue map. You can also record your own voice cues with the Rec button. *Part 5.*

Timeline Editor: turn one bar of count-in into two. Select the count-in on your click stem and **Copy Selection to Start** places a copy so it ends exactly on Downbeat 1. Every other stem shifts (or the song start moves) to match, and you can revert. On a trackpad, swipe pans and pinch zooms. *Part 4.*

A real menu bar. Transport, Song, Setlist, and Library menus put every command in one place, with Rename Song, Assign Outputs, Guide Builder, Timeline Editor, and Export Mix (⇧ ⌘ E) alongside. Waveform zoom lives in the View menu (⌘ =, ⌘ –, ⌘ 0). The Help menu links to this guide. *Part 10.*

Also: a Pause button (Stop still rewinds), mute regions painted on the waveform with ⌥-drag, an optional Song End marker, tempo shown in BPM once a song has an Original BPM, a MUTE ALL kill switch on the master, remote control from a phone with a PIN and an encrypted connection, and packages you can export and import to share a song or a whole setlist with a bandmate's Mac.

PART 1

Get Started

Install and first launch

StemDeck is a Mac app. Install it from the Mac App Store like any other app: search for **StemDeck44**, click **Get**, and let macOS download and install it. The app itself is free to download; performing requires a StemDeck Pro subscription with a 7-day free trial (see *Subscription and account* in Part 10).

Choosing your library folder

The first time you launch StemDeck, it asks you to choose a folder on disk to be your library. Every song you build lives inside this one folder, as its own subfolder. Pick a folder and StemDeck remembers it for this Mac.

If you are not sure where to put it, accept the default. It lives at `~/Music/StemDeck` and that is where the rest of this guide assumes your library sits.

> **WARNING**
>
> Do not point your library at a folder inside iCloud Drive, Dropbox, OneDrive, Google Drive, or Box, and do not use your Desktop or Documents folder if either syncs to iCloud. StemDeck will warn you:
>
> "This folder is synced to the cloud. Sync services can evict audio files to save space or create duplicate copies, which can make songs fail to load. A local folder such as ~/Music/StemDeck is recommended."
>
> Cloud sync was built for documents, not for gigabytes of WAV files you need to play back instantly on stage. A stem that got silently evicted to save space is a stem that goes quiet in the middle of a song. Choose a plain local folder.

Once a folder is chosen, the Welcome Tour appears after a short pause. It is a seven-step walkthrough of the main window, covered in full at the end of this part. Click through it once so the layout makes sense, or skip it and come back to it later from **Help** → **Show Welcome Tour** (⇧ ⌘ ?).

First-launch checklist

Before you build your first song, take care of three things.

1. **Audio output device.** Open **Settings** → **Audio** (⌘ ,) and choose the device StemDeck should play through. On a laptop with headphones this can stay at **System Default**. For a stage rig, choose your multi-channel interface, for example a Behringer X32 RACK. StemDeck tells you right there whether the device you picked supports per-stem routing or is stereo-only.
2. **Library folder.** Confirm the folder you chose above in **Settings** → **Library**. You can change it later, but every song currently in the old folder stays there until you move it.
3. **MIDI controller** (optional). If you plan to run StemDeck hands-free from a foot controller, connect it now and check its channel and CC mappings in **Settings** → **MIDI**. You do not need this to get started.

With those three settled, you are ready to build a song.

Quick Start: your first song

This walkthrough takes a folder of stem files and turns it into a playable StemDeck song. Once you have done it a couple of times it takes under a minute.

What you need

A folder containing the stem files for one song: WAV, AIFF, or MP3 files, one per instrument, named so you can tell them apart (for example *Neon Moon - DRUMS.wav*, *Neon Moon - BASS.wav*, *Neon Moon - CLICK.wav*). Name the folder itself with the song's BPM in parentheses, like **Neon Moon (110)**. StemDeck reads that number straight out of the folder name, so you never have to type the tempo in by hand.

Step 1: bring the folder in

You have two equivalent ways to do this:

1. Choose **File** → **Import Folder…** (⇧ ⌘ N) and pick the song folder in the panel that opens.
2. Or just drag the song folder from Finder and drop it onto the library sidebar.

Either way, an import sheet appears showing what StemDeck found inside, and a **"How to import"** choice: **Copy**, **Move**, or **Reference in place**. Copy leaves your original folder untouched and duplicates the stems into your library, which is the safe default if the folder lives somewhere else on your Mac. Move relocates the folder into your library outright. Reference in place only applies if the folder is already inside your library.

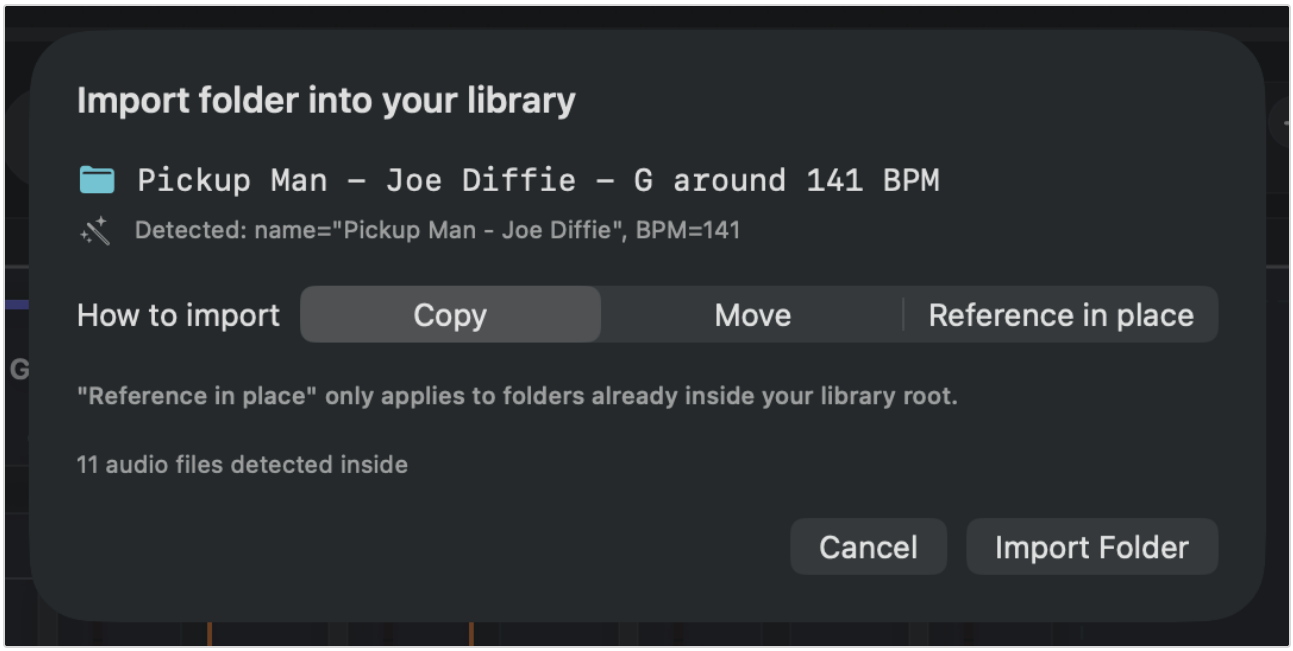


Figure 1.2: The import sheet for a single song folder, with Copy selected.

Click the **Import** button and the song appears in your library, already built.

Step 2: see what happened automatically

Open the song and look at the stem mixer. Without you touching a single setting:

- Each stem got a **display name** with the song-name prefix stripped off. *Neon Moon - DRUMS.wav* shows up simply as **DRUMS**.
- Each stem got a **color** based on what it is: drums are orange, bass is blue, a click or count/guide stem gets its own tint.
- Each stem got **routed to an output channel** by matching words in its filename against the routing rules in **Settings** → **Channels**. A file with “drum” in its name goes to output 3, “bass” to output 4, and so on. The full default table is in *How a stem gets its output* in Part 7.



Figure 1.3: A freshly imported song, stems auto-named, colored, and routed.

If one of your files does not match any rule, for example a stem named “Piano Fill” with no recognizable keyword, StemDeck does not just guess. It opens **“Choose outputs for new stems”** and asks you to pick an output for that stem before you go further. Anything you leave blank plays on output 1, the click output, and is flagged with a warning triangle next to the song in the sidebar so you notice before a show, not during one.

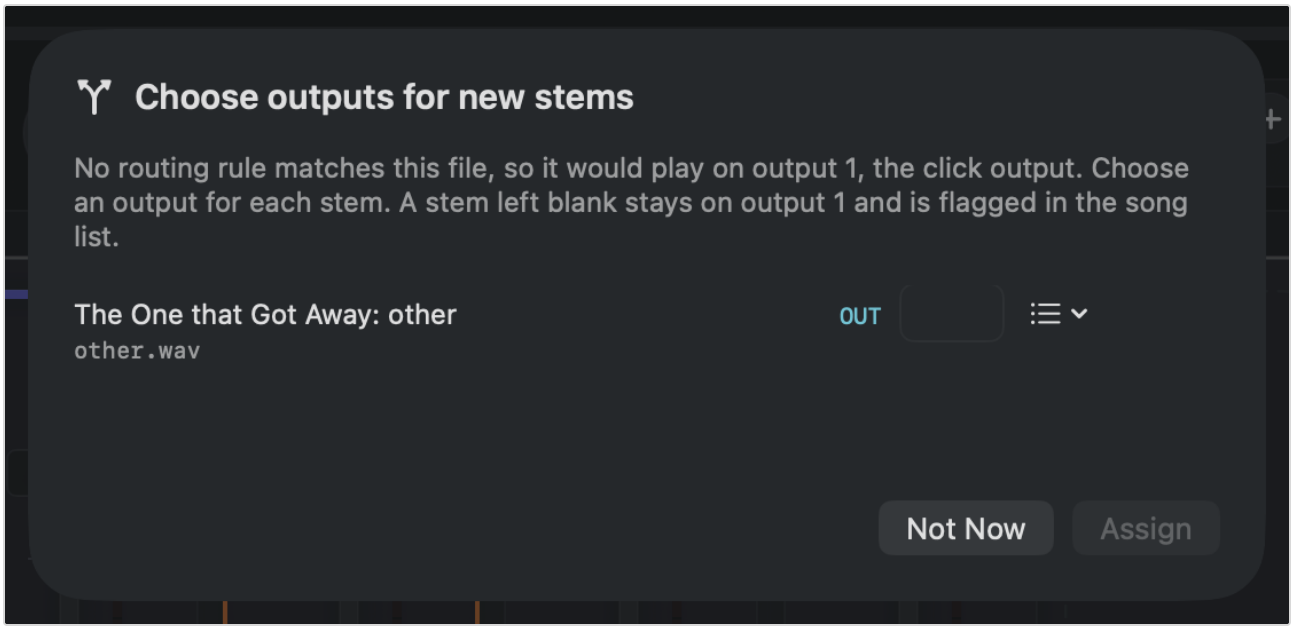


Figure 1.4: The Assign Outputs prompt for a stem that matched no routing rule.

Step 3: verify playback

Select the song, press **GO** or the Space bar, and listen. Watch the stem mixer while it plays: every fader should show level, nothing should be muted, and the OUT numbers should match what you expect on your interface.

That is it. There is no save step. StemDeck writes the song's folder and its stem list to disk the moment you import, and every change you make afterward (a fader move, a renamed stem, a marked downbeat) is written as you make it. You can quit the app or pull the power cord and nothing is lost.

Quick Start: your first show

Run through this before you open the set, every time.

1. **Check the device. Settings → Audio** shows the device StemDeck is using. Confirm it is the interface actually connected, not System Default left over from rehearsal at home.
2. **Check the outputs.** Open a song and glance down the stem mixer's OUT numbers. Any stem with an amber-tinted OUT widget fell back to output 1 because nothing routed it. Fix that before downbeat, not after.
3. **MUTE ALL is off.** The MASTER strip has one big stage-sized button. While engaged it reads **"MUTED"**. Make sure it does not.
4. **MASTER at 0 dB.** Double-click the MASTER fader to snap it back to unity if it has drifted.
5. **GO to start the first song.** Press the **GO** button, or just hit `Space`. Both do the same thing: load the selected song from the top and start it, arming the click lead-in if one is set.
6. **When a song ends, the next one loads and waits.** If you are running a setlist, the moment one song finishes, the next one is already loaded and sitting at 0:00, waveform visible, ready. It does **not** start on its own. Press **GO** or `Space` again when you are ready.
7. **Stop rewinds. Pause holds.** The **Stop** button always returns the playhead to 0:00. The **Play/Pause** button, when it is showing pause, holds exactly where you are, for the moment the singer needs a beat to catch a breath between songs without losing the place.

> **STAGE NOTE**
>
> If **LOOP** is on, `Space` does not start playback. It turns the loop off instead, on purpose, so a fumbled spacebar can never trap the band in a vamp they did not ask for. Press `Space` once to turn the loop off, then again for **GO**.



Figure 1.5: The transport row, ready for downbeat: device confirmed, outputs clean, MUTE ALL off.

The Welcome Tour

The tour is seven steps. Each one anchors a bubble to the part of the window it is describing. Click **Next** to move on, or **Skip Tour** to leave at any point. Replay it any time from **Help → Show Welcome Tour** (⇧ ⌘ ?).

1. **Your Library.** Songs and setlists live in the sidebar. Click a song to load it; drag the divider to resize the column.
2. **Waveform.** Click anywhere to seek, scroll or pinch to zoom, and use Align Beat Grid to mark downbeats and Set Start / Set End to define a loop region.
3. **Transport.** Play, stop, rewind, pitch, tempo, tap tempo, and guide-vocal recording all live in this one row.
4. **GO / LOOP.** GO is the big play button (the spacebar works too). LOOP plays the vamp region you set on the waveform, and only lights up once Start and End are placed.
5. **Stem Mixer.** One channel strip per stem. Faders run from silence up to +12 dB. M mutes, S solos. Click the OUT number to route a stem to a different output.
6. **Add Stems, Auto-Routed.** Drag audio files here, or click to pick them. Filenames containing words like “click,” “drum,” “bass,” or “vocal” are auto-routed to their default output channel, the same auto-routing you just saw happen in *Quick Start: your first song*. Tweak the patterns in **Settings → Channels**.
7. **Master + Export.** The MASTER fader controls the whole mix. Right-click it for **Export Mix**, which bounces the song, click and lead-in included, to a file your bandmates can rehearse against.

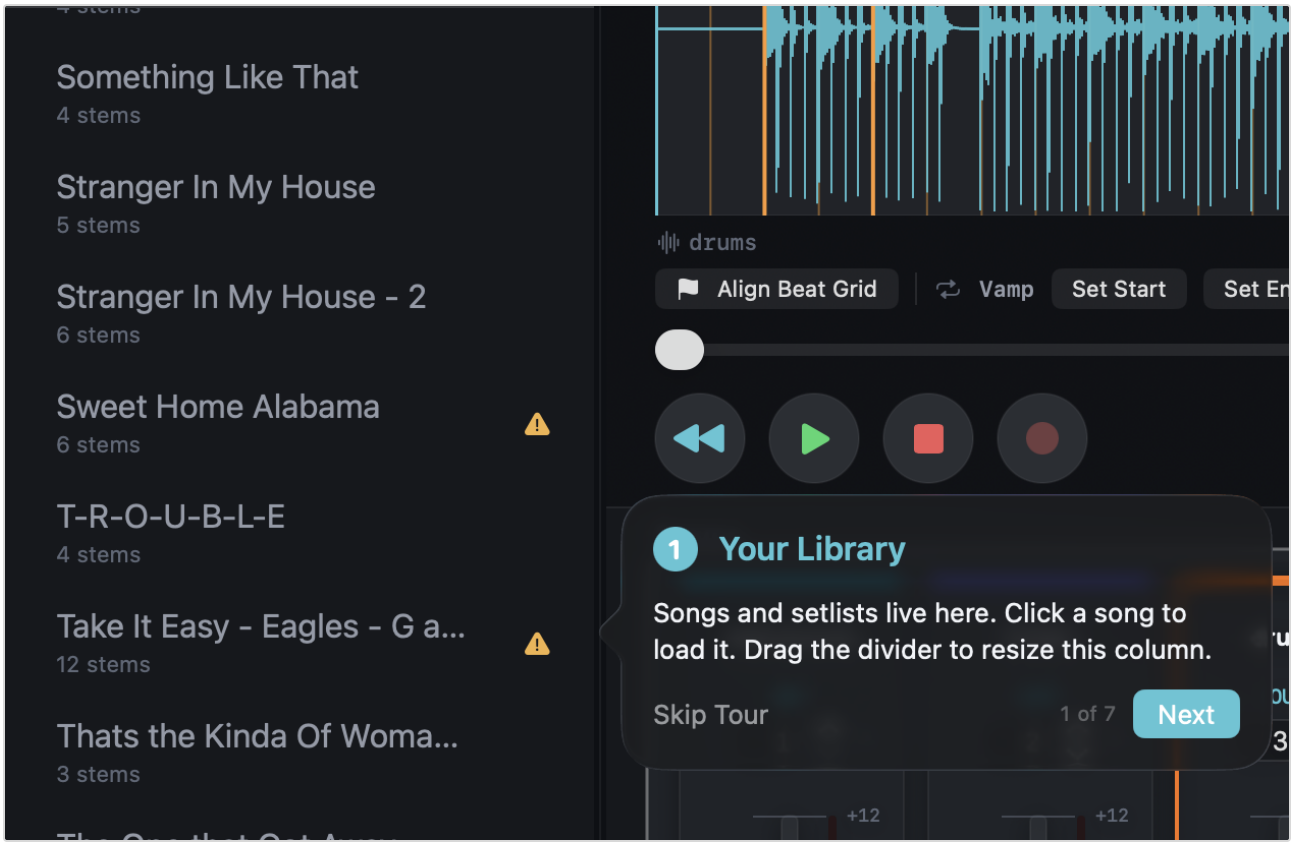


Figure 1.6: The Welcome Tour's first bubble, anchored to the library sidebar.

Joining the mailing list

After the tour, StemDeck asks once whether you want to join the StemDeck mailing list. It is entirely optional, and nothing in the app changes if you say no. Members get practical tips for using StemDeck on stage, early access to beta builds, and a vote on what gets built next, at most about one email a month.

To join, type your email address and click **Join**, then open the confirmation email and click **Confirm subscription**. You are not added until you confirm. Click **Not Now** and the invitation never comes back on its own.

StemDeck never shows the invitation while a song is playing or on top of another prompt. You can join later, or again after unsubscribing, from **Help → Join the StemDeck Mailing List…**. Every email has a one-click Unsubscribe link. StemDeck itself does not store your address; see the privacy policy at www.stemdeck44.com/privacy.

PART 2

Concepts

How StemDeck thinks about audio

A few decisions run through the whole app. Understanding them now will save you confusion later, when you are wondering why something works the way it does.

One clock

Every stem in a song is played by a single shared engine against a single clock. All of them start together at a sample-accurate instant and stay together for the length of the song. This is different from opening several audio files in separate players, which each keep their own clock and drift apart over time. Every transport action, GO, Stop, seek, loop, applies to the whole song at once. If you need one stem to start later than the rest on purpose, or a click nudged a few milliseconds, you do it with an explicit per-stem setting on the stem card (see *Stem cards* in Part 4), and the setting is saved with the song.

Native rate, only pitch and tempo

StemDeck never resamples your stems to make them uniform. If one file is 44.1 kHz and another is 48 kHz, both play at their own native rate and are only converted where needed to match your output device. Your original recordings are never touched.

The only transforms StemDeck applies are pitch (up to ±12 semitones) and tempo (0.5× to 2.0×, or a BPM once you have set one). There is no EQ, no compression, no reverb, no pitch correction. That kind of processing belongs on your mixer: because StemDeck sends each stem to its own output, every stem arrives on its own console channel, where you have the channel EQ, dynamics and effects you already use for the live band, and you can adjust them in the room. If a stem needs fixing that can’t be done live, fix it in the file before it reaches StemDeck.

Click (or metronome), count, and guide stems are the one exception to pitch: they bypass transposition entirely, so a click at 120 BPM stays a click at 120 BPM when you transpose the song from A to B flat. They still follow tempo changes, so the click stays locked to the beat.

What StemDeck writes, and what it never touches

For the most part, StemDeck does not create or modify audio files. Deleting a song, renaming a stem, moving a fader, marking a downbeat: none of that touches the files on disk. Your original recordings stay exactly as they were, which is why it is safe to point StemDeck at stems you also share with a DAW project or with a bandmate.

There are exactly three things StemDeck does write new audio for, and each one always creates a brand new file inside the song's own folder, leaving anything you brought in untouched:

- A generated click track (**Song → Generate Click Track…**).
- A built guide track (the Guide Builder, Part 5).
- A Timeline Editor bake, such as Copy Selection to Start (Part 4).

In every one of these cases the new file lives alongside your stems. An old generated file it replaces (a previous click, an earlier bake) goes to the Trash rather than being deleted outright, and a replaced guide is kept in the song folder under a dated name.

Songs, stems, and setlists

A **song** is a folder in your library, holding one or more **stems** (the individual audio files: drums, bass, vocal, click, and so on) plus the song's own settings: its downbeat, its BPM, its output routing, its markers. Everything about how a song plays lives with that song, in that folder.

A **setlist** is an ordered list of songs, nothing more. The same song can sit in several setlists at once, or in none, and can be reordered within one setlist without affecting any other. Building setlists and moving songs between them is covered in Part 6.

Song time and file time

Every stem file may have a bit of room tone, count-in, or silence before the music actually starts. StemDeck deals with this by drawing a line between two different clocks.

File time is the raw offset inside the audio file itself, starting at the first sample of the file. **Song time** is what you see everywhere in the app: the transport clock, the seek bar, the waveform. Song time 0:00 is wherever you tell StemDeck the song actually begins.

You set that point with **Song Start**, in the *Align Beat Grid* popover (Part 4). Mark it once, at the first note or the first beat of the count-in you want the band to hear, and every display in the app, the transport clock, the seek bar, the waveform, lines up to that point as 0:00. The audio before it is still there on disk; it is simply skipped when the song plays.

> **TIP**
>
> If your stems already carry a spoken or clicked count-in baked into the files, use **Song Start** to hide it rather than trimming the file. If you also turn on StemDeck's own click **Lead-In** (Part 4), you get two count-ins stacked on top of each other, one from the recording and one generated by StemDeck. Pick one. Either hide the recorded count-in with Song Start and use StemDeck's lead-in, or leave Song Start alone and skip the lead-in.

Beat alignment and BPM

StemDeck can take a song's tempo from the folder name or from a number you type, but the precise way is to compute it from two marks you place on the waveform.

Downbeat 1 (DB1) is the anchor: any clear downbeat, marked once, that becomes the reference point for the whole song's beat grid. **Downbeat 2 (DB2)** is a second reference, always marked exactly **two measures** after DB1.

From those two points, StemDeck's BPM calculator infers how many whole measures fall between DB1 and DB2 on its own. You never type a measure count. It uses your current tempo estimate to guess the measure count, checks that the guess is close enough to be trustworthy, and either offers you a precise BPM (**"Set BPM to 127.34"**) or tells you plainly that it could not resolve one (**"Doesn't add up — move DB2 closer, recompute, repeat."**), so you never end up with a grid that silently drifts.

This two-point method beats the alternatives for a reason worth knowing. Tap tempo, tapping along by hand, is accurate to about ±1 BPM over a short sample: fine for a rough estimate, not tight enough to keep a beat grid locked over a four-minute song. A published BPM for a song is often rounded to the nearest whole number, when the real tempo is something like 127.3. Two clean downbeats, marked on the beat, give you the song's real tempo instead of somebody's rounded guess.

Stereo and multichannel

Whether StemDeck sends each stem to its own output channel or folds everything into one stereo mix depends entirely on the audio device you selected in **Settings** → **Audio**. A device with more than two output channels gets full per-stem routing: drums to one channel, click to another, and so on. A device with two channels, or the built-in System Default, plays everything as a single stereo mix, and the OUT numbers on your stem cards are simply ignored (they stay visible so nothing looks broken, they just do not do anything on that device).

The practical upshot: what your OUT numbers mean depends on what is plugged in. The full routing rules, the default output table, and how to wire up a multi-channel interface live in Part 7, *Routing and Outputs*.

Your library folder and this Mac's settings

StemDeck splits what it remembers into two very different places, and it matters which is which if you ever move to a second Mac or a new laptop.

Inside your library folder, and so portable with it: every song's folder and stems, its downbeat and BPM, its tempo map, its guide cues, its setlists, and any manual output you have pinned by hand on a stem card. Copy or sync the library folder to another Mac and all of this comes along.

On this Mac only, and not part of the library: which audio device StemDeck should use, the filename routing rules in **Settings** → **Channels**, MIDI mappings, the remote-control setup, and the master fader level. None of this travels with the folder. Move your library to a second laptop and you will need to redo the device selection and, if you have customized them, the routing rules, on that machine too.

> **TIP**
>
> A manual output you pin on a stem card is the one exception: it is saved with the song, not with the machine, so it plays on the same output number on every Mac that opens the library, no matter how that Mac's routing rules are set up.

PART 3

Your Library and Keeping It Safe

The library folder

Every song you own lives in one folder on disk called your library folder. By default that's `~/Music/StemDeck/`, but you can point StemDeck at a different folder if you'd rather keep it somewhere else.

Inside the library folder, each song gets its own folder, and the stem files for that song sit right inside it. Next to the stems is a hidden file called `.stemdeck.json`. That file is how StemDeck remembers everything about the song: its stems, its downbeats, its tempo, its guide cues, its faders. StemDeck writes and reads that file for you. Never open it and edit it by hand: a typo there can make the song unreadable.

Setlists live in the same library folder, in a `setlists` subfolder, one file per setlist.

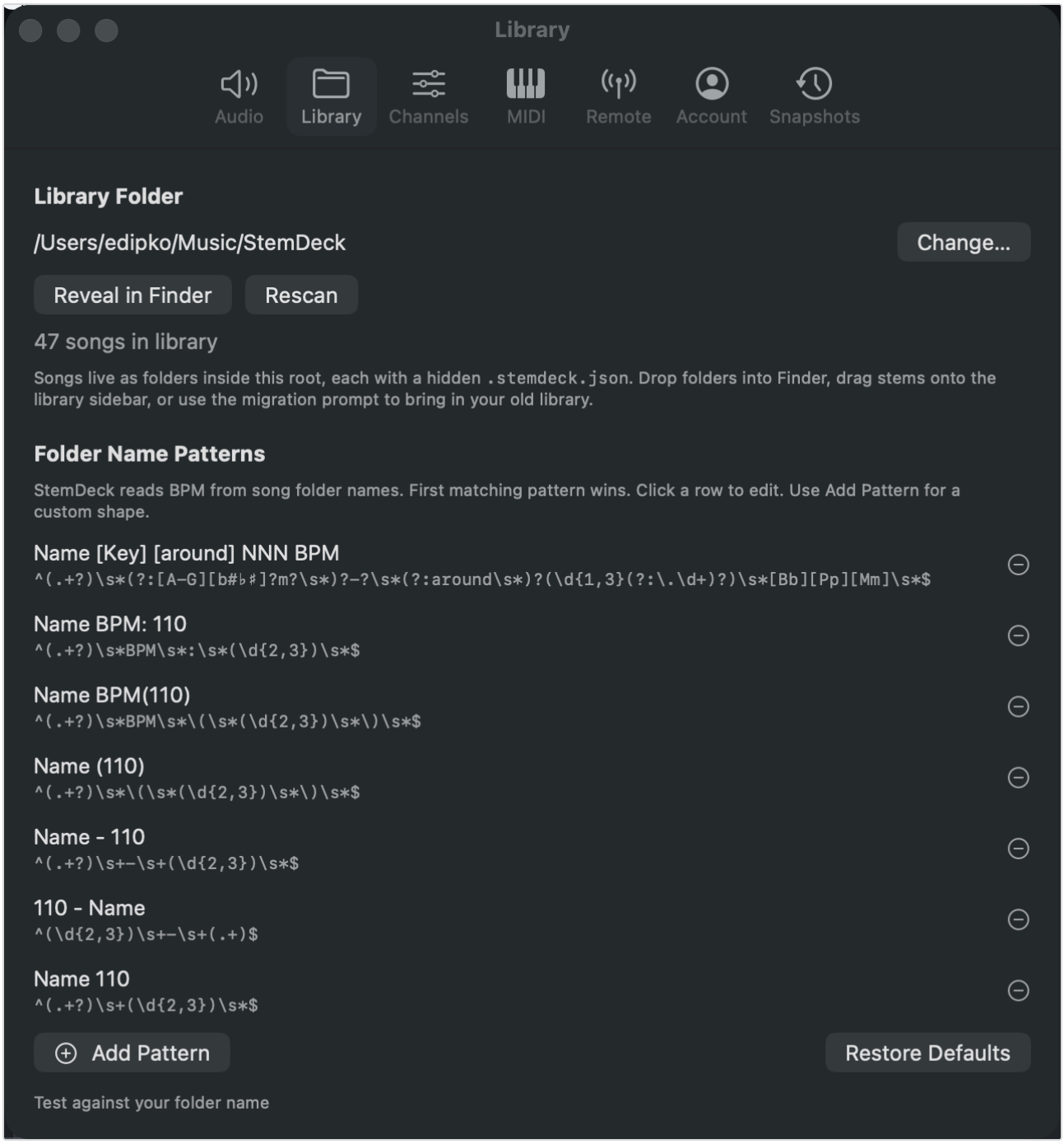


Figure 3.1: The Settings window's Library tab, showing the library folder path and its buttons.

Settings → **Library** is where you manage the folder itself:

- The path row shows where your library currently lives.
- **Change…** picks a different folder.
- **Reveal in Finder** opens the folder so you can look inside.

- **Rescan** re-reads every folder in the library and rebuilds your song list and setlists from what's actually on disk.
- A caption below the buttons shows how many songs StemDeck currently sees.

You can add a song the simple way, without going through any StemDeck import screen at all: drag a folder of stems into your library folder in Finder, then choose **Rescan** in Settings, or **File → Rescan Library** (⌘ R). StemDeck notices the new folder, reads its files, and adds it to your song list.

> **WARNING**
>
> Keep your library folder on the Mac's own local disk, not inside iCloud Drive, Dropbox, OneDrive, Google Drive, or Box. Those services can quietly move audio files off your disk to save space, or leave two copies out of sync, and either one can make a song fail to load right before you play it. StemDeck will warn you if you try to point your library at a folder that's synced to the cloud.

Song folders and names

A song's folder name can carry its tempo. Name a folder "Neon Moon (110)" and StemDeck reads 110 as the song's starting BPM the moment it's imported or rescanned. This is a convenience, not a requirement: a folder named anything else still imports fine, it just starts with no BPM set.

StemDeck understands several common shapes out of the box: "Name (110)", "Name - 110", "110 - Name", "Name BPM(110)", and "Name BPM: 110", along with a looser fallback that just looks for a trailing number. The first pattern that matches wins. A number outside 60 to 300 is ignored, so a year in a folder name like "Christmas 2024" won't be misread as a tempo.

You can see and edit these patterns yourself in **Settings** → **Library**, under Folder Name Patterns. Add your own with **Add Pattern**, and there's a small test field where you can type a sample folder name and see exactly what StemDeck would detect: the song name and the BPM, or "no BPM detected" if nothing matched. **Restore Defaults** puts the built-in patterns back if you've changed them and want to start over.

Importing songs

There are several ways to get a song into your library, and they all end up in the same place: a folder inside your library, with its stems copied, moved, or referenced there.

File → Import Folder… (⇧ ⌘ N) picks one folder of stems and shows you how it will come in. You choose **Copy** (leaves the original folder alone and copies the files into your library), **Move** (moves the folder into your library), or **Reference in place** (only available if the folder is already inside your library folder somewhere else).

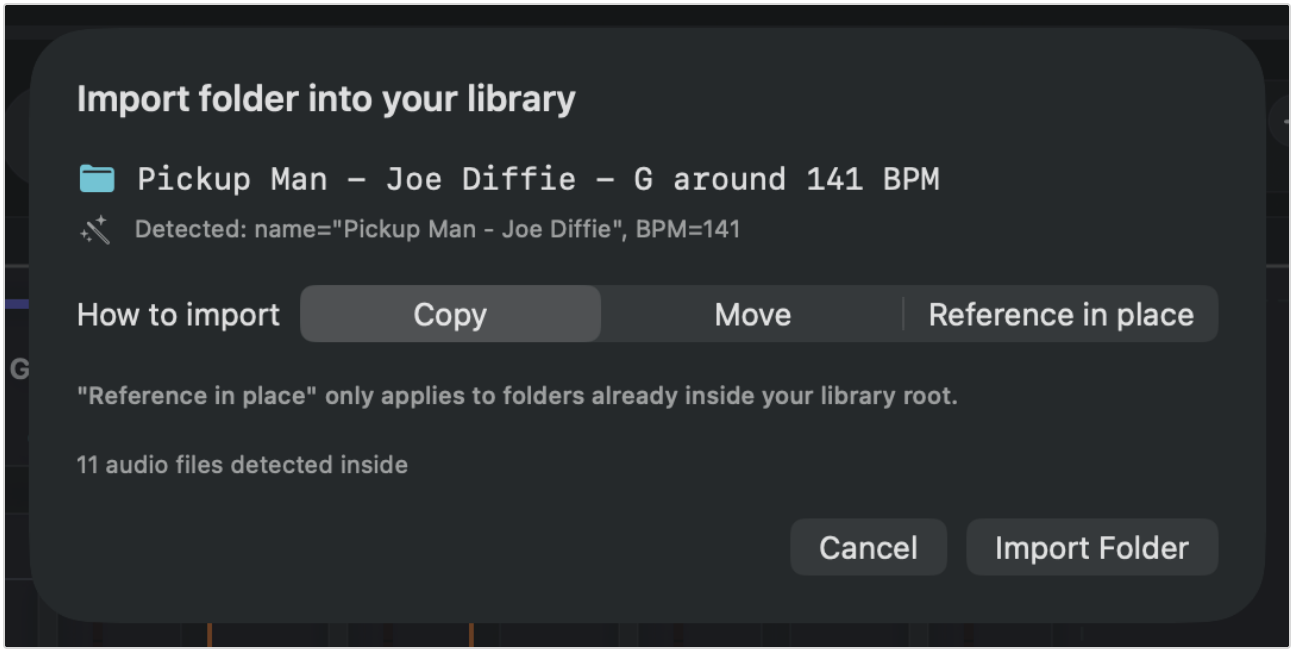


Figure 3.2: The Import Folder sheet with Copy, Move, and Reference in place.

File → New Song from Files… (⌘ N) picks one or more loose audio files and always copies them into a brand new song folder. You'll be asked to confirm the folder name before it's created.

You can also drag and drop straight onto the library sidebar:

- Drop one folder, and you get the same Copy / Move / Reference choice as **Import Folder…**.
- Drop several folders at once, and StemDeck treats it as a batch: one choice (Copy, Move, or Reference) applies to every folder, and it reports back what happened to each one.
- Drop loose files with no folder around them, and StemDeck copies them into a new song folder for you, the same as **New Song from Files…**.

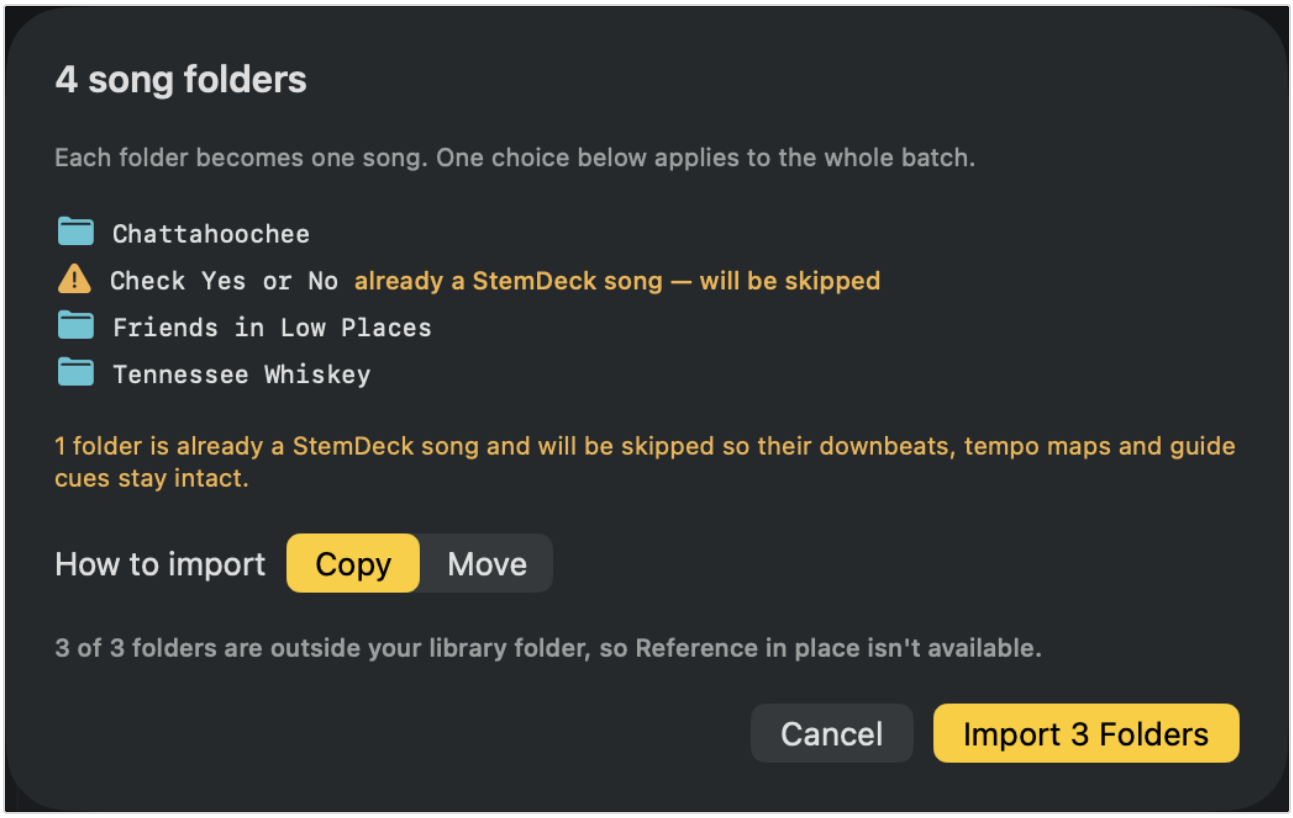


Figure 3.3: The batch import pane with several folders queued and one skipped as already a song.

In a batch, a folder can be skipped rather than imported:

- If a folder is already a StemDeck song (it already has its own `.stemdeck.json`), StemDeck skips it rather than importing it again. Reimporting would throw away the downbeats, tempo map, and guide cues you'd already set for that song.
- If a folder has no audio files in it at all, StemDeck skips it too, rather than adding an empty song to your library.

Either way, the batch tells you afterward what it imported and what it skipped, and why.

If two songs would land on the same folder name, StemDeck adds "(2)" to keep them apart. That renamed folder usually no longer matches your BPM patterns, so check that song's tempo after a batch import that reports a collision.

Drop something StemDeck can't make sense of (a mix of folders and loose files together, say), and you'll see an "Unsupported drop" message asking you to drop either a single folder of stems or one or more loose audio files, not both at once.

However a stem arrives, if its filename doesn't match any of your output routing rules, StemDeck will ask you to choose an output for it rather than silently leaving it on output 1. See *How a stem gets its output* in Part 7 for the full picture.

Sharing songs: StemDeck packages

Songs and setlists can travel as single files. **File → Export Song…** and **File → Export Setlist…** bundle everything into one `.stemdeck` package you can email, AirDrop, or copy to a drive. **File → Import Song or Setlist…** brings one back in, and you can select several packages at once: importing more than one shows a single “Import Complete” summary when it’s done.

A package carries everything that makes a song sound and feel right: the stems themselves, downbeats and the tempo map, guide cues, fader settings, and any manual output assignments you’ve made by hand. Nothing about it is left out for you to redo.

This is also how you move songs between two laptops. You have two options:

- Export a package per song, or per setlist, and import it on the other Mac.
- Or copy your whole library folder across (an external drive, AirDrop, a shared network folder) and point the second Mac at it from **Settings → Library → Change…**.

Either way, a few things are specific to each Mac and don’t travel with the song, so plan to set them up again on the second laptop: the audio device you’re outputting to, any routing rules you’ve customized in **Settings → Channels**, MIDI mappings, and remote control setup. Keep both laptops on StemDeck 1.6 or later if they’ll share a library folder: an older version doesn’t understand manual output assignments and will silently drop them the next time it saves.

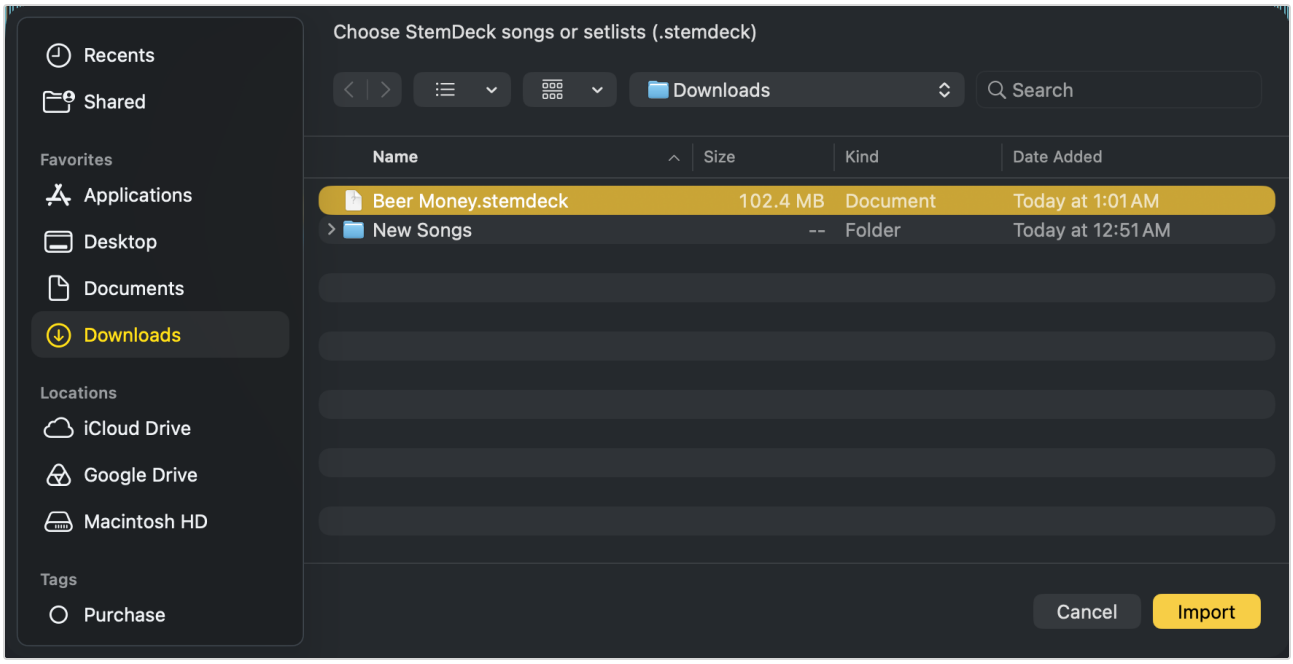


Figure 3.4: Import Song or Setlist package picker.

Renaming and deleting songs

To rename a song, right-click it in the song list (the library or a setlist) and choose **Rename…**. This renames the song you clicked without loading it, so a song that is playing keeps playing while you rename another. You can also select a song and choose **Song → Rename Song…**, which renames the selected song. Either way, StemDeck renames the song's folder on disk to match, but keeps any BPM text that was already part of the folder name: renaming "Neon Moon (110)" to "Neon Moon Reprise" gives you "Neon Moon Reprise (110)", not a folder that's lost its tempo.

A rename is refused if the new name would create a folder StemDeck can't safely use: names containing a slash, a name that starts with a dot, one that ends in a space or a dot, or one that's simply too long. You'll see why it was refused rather than have it silently altered.

Deleting a song is done from the sidebar, not a menu: right-click the song and choose **Move to Trash…**. StemDeck confirms first, then moves the song's whole folder, stems and all, to the macOS Trash. It's recoverable there in Finder exactly like any other deleted file, until you empty the Trash. If a song has no folder on disk to begin with, the same context menu instead offers **Remove from Library…**, which just takes it off your song list without touching any files. And if the song's folder happens to be on a drive that doesn't support the Trash at all, StemDeck offers a **Delete Permanently…** fallback instead, clearly marked as unrecoverable.



Figure 3.5: The Move Song to Trash confirmation.

Removing a single stem from a song (right-click a stem card → **Remove Stem**) only takes it off that song; the audio file itself is not deleted.

> **STAGE NOTE**
>
> Moving a song to the Trash doesn't touch anything else in your show. If you do it by mistake, recover the folder from the Trash in Finder, then choose **Rescan Library** to bring it back.

Snapshots and recovery

A snapshot is a save point for your song information: markers, tempo, cue maps, faders, and setlists. A snapshot never holds audio. It's there to protect the decisions you've made about a song, not the files themselves.

StemDeck takes one automatically every time it launches, and again before any change that touches a lot of songs at once, so an accidental bulk action is never the last word. You can also take one on purpose before a gig: **File** → **Save Snapshot** (⇧ ⌘ S).

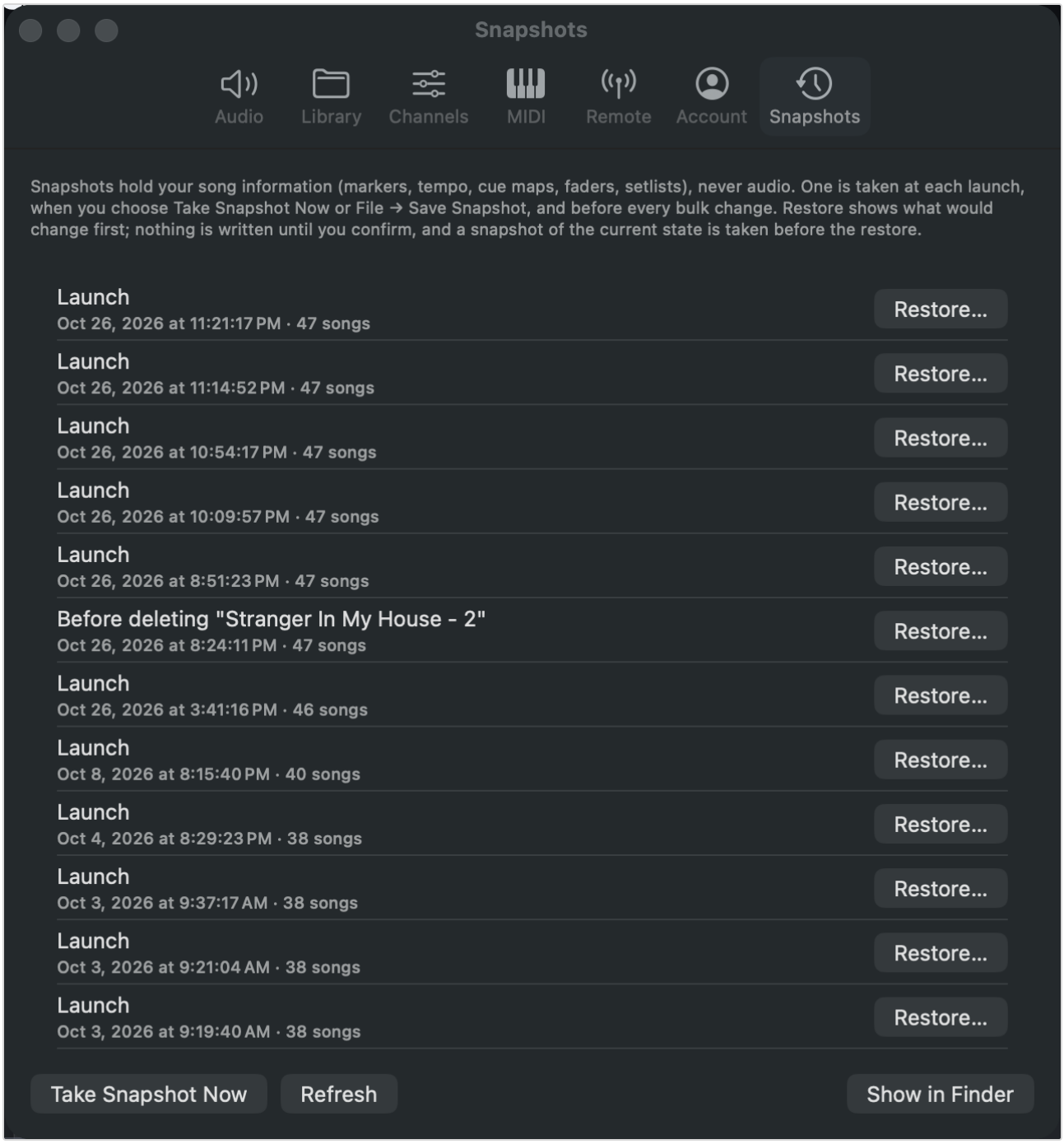


Figure 3.6: Settings → Snapshots tab with a list of saved snapshots and the restore controls.

Settings → Snapshots lists them all, newest first, with a date and a short description of what each one covers. From here:

- **Take Snapshot Now** grabs one on demand.
- **Restore…** on any row shows you what would change before anything happens. Your current state is snapshotted first, so restoring an older snapshot never costs you the ability to come back.

- **Show in Finder** reveals the raw snapshot files if you ever need them outside the app.

Older snapshots are pruned automatically so the list doesn't grow forever.

> **WARNING**
>
> Snapshots protect your song information, never your audio files. If a stem is lost or corrupted, the only way back is a real backup of your library folder. Use **Back Up Library** (next section) before any tour.

Backing up your library

Library → Back Up Library… copies your library, audio and all, into a backup location you choose. It's the backup that snapshots are not.

Each library you use has its own backup location. That's handy if you keep a separate library per band or per project: each one keeps its own backups, in its own place, and doesn't crowd the others.

Choosing where backups go

The first time you back up a given library, StemDeck asks you to pick a backup location. Any folder works:

- An **external drive**.
- A folder inside **Google Drive, OneDrive, Dropbox or iCloud Drive**. Those services sync an ordinary folder on your Mac, so StemDeck just writes into it and the service uploads it for you. (Backing up *to* a cloud folder is fine. It's only running your live library *from* one that's risky; see "The library folder".)
- A plain folder on this Mac, ideally on a different drive from the library.

You can change it any time in **Settings → Library → Change Backup Location…**. The backup location can't be inside your library folder, or the other way around.

Settings → Library shows this library's backup location and when it last ran.

What a backup contains, and why later runs are quick

Inside the location you picked, StemDeck keeps one folder called **StemDeck Backup**. Several libraries can share the same backup location; each one's runs live there side by side.

Every backup run adds a **restore point**: a record of exactly what your library looked like at that date and time. Restore points are cheap to add because the audio itself works differently.

Each stem is compressed losslessly, meaning a restored file comes back byte-for-byte identical to the original, and is stored once, by its content rather than by song or by run. If a stem hasn't changed since your last backup, or the same audio shows up in more than one song, StemDeck recognizes that and never stores it twice. In practice this means the first backup of a library does the real work and can

take a while for a big one, but every run after that only adds what's new or changed, plus one small restore point, and usually finishes in seconds. It's also what makes an external drive or a cloud folder a practical destination: you're not re-uploading gigabytes of audio that already made it there last time.

A restore point also carries this Mac's own settings (output device, channel rules, MIDI and remote settings), your snapshots, and the undo history for Volume Leveling and Timeline Edits. None of those live in the library folder, so without them a restored library would lose them.

Running a backup

Choose **Library** → **Back Up Library…**, or **Settings** → **Library** → **Back Up Library Now**. A progress window shows what's being copied, with a **Cancel** button, and a summary at the end showing how much was added.

Before each run, StemDeck makes sure every stem is inside the library (see "Housekeeping commands"), so the backup really captures all your audio. The summary ends with a **completeness checklist**: all audio inside the library, songs, setlists, this Mac's settings, snapshots and undo history. If anything couldn't be included, the summary says so and names it.

- **Only new or changed audio is ever added.** A restore point itself is small; what makes a run quick or slow is how much stem audio changed since the last one.
- **Old restore points are cleaned up, never your only copy.** StemDeck keeps the newest 30 restore points for each library. Older points, and any audio no remaining point still needs, go to the Trash, never a permanent delete.
- **It won't run during a show.** A backup won't start while a song is playing or paused mid-song, and if you start playback while one is running, it pauses and picks up again when you stop. Your stems never compete with a backup for the disk.
- Every file is written to a temporary name, checked, then put in place, so a cancelled or interrupted backup never leaves a half-written file behind.

Reminders

StemDeck reminds you when a library hasn't been backed up for a while: **"Back Up Your Library?"**, with **Back Up Now** and **Not Now**. Set how often in **Settings** → **Library** → **Remind me every** (3, 7, 14 or 30 days, or Off; 7 by default). The reminder only appears when you're not playing, never in the middle of a show.

Restoring from a backup

Library → **Restore from Backup…** (also in **Settings** → **Library**) brings a library back from a restore point. It's the way to set up a new or replacement Mac, or to recover this one:

1. Choose the folder you backed up to (the one that contains **StemDeck Backup**), or the **StemDeck Backup** folder itself.
2. Pick a **restore point** from the list. They're shown newest first, with the newest one already selected, each with its date, library name, song count and size.
3. Choose where to put the library. Pick an empty folder, or create one (a new StemDeck folder inside your Music folder is a good choice). StemDeck won't restore into a folder that already has songs in it.
4. Review what's about to change, then click **Restore**.

Every file is rebuilt from the backup and checked against its original hash before anything is put in place, so what comes back is identical to what was backed up. Along with your songs and setlists, StemDeck brings back this Mac's settings, your snapshots, and the undo history for Volume Leveling and Timeline Edits, so **Revert** still works afterward.

The final screen lists the few things no backup can carry: install StemDeck itself, use **Restore Purchases** for your subscription, approve the remote's security warning once on each phone, and, if the new Mac names your audio interface differently, pick it once in **Settings** → **Audio**.

If you only want the settings back (for example, on a second Mac that already has the library), **Settings** → **Library** → **Restore This Mac's Settings from Backup…** restores just those, with a preview and a safety snapshot first, and never touches your songs.

> **TIP**
>
> Backups made by an older version of StemDeck still show up in the restore-point list, marked "Older backup (uncompressed)," and restore the same way. They just don't get the space savings a newer backup gets from storing each stem once.

When the library is moved or unavailable

If StemDeck can't find your library folder exactly where it left it, or can't read it at all, it stops and asks you before doing anything. Nothing is ever deleted or changed until you make a choice.

"Your library folder has changed" appears when StemDeck finds a different folder than the one it used last time (you renamed or moved it, say). It shows you both: **Last used** and **Found**, each with a song count so you can tell them apart. Four buttons: **Quit StemDeck** if you want to sort it out first, **Choose Another…** to pick a third folder entirely, **Use Folder at Old Path…** to point back at the original location, or **Use Found Folder** to accept the one StemDeck found. Nothing happens until you pick one.

"Library unavailable" appears if the folder can't be reached or read at all. Your choices are **Quit StemDeck**, **Choose Another…**, or **Retry**. You may also see **Use as Empty Library…**, offered only when the folder exists but genuinely has no songs in it yet; be careful with that one; it's meant for a truly fresh start, and StemDeck takes a snapshot before it lets you proceed, but it's not the button to reach for if you were expecting your existing songs to be there.

> **TIP**
>
> If you're not sure which button to press, choose **Quit StemDeck**, reconnect the drive or fix the folder outside the app, then relaunch. None of these dialogs erase anything on their own.

If your library is a network drive or an external disk that goes offline mid-show, you don't lose your place. An amber caption appears under the setlist header reading **"Library offline: changes are kept"**, with a small **Reconnect** button. StemDeck keeps working from what it already loaded; your edits are held and written back once the folder is reachable again. You can also trigger the same check any time from **Library → Reconnect Library**.

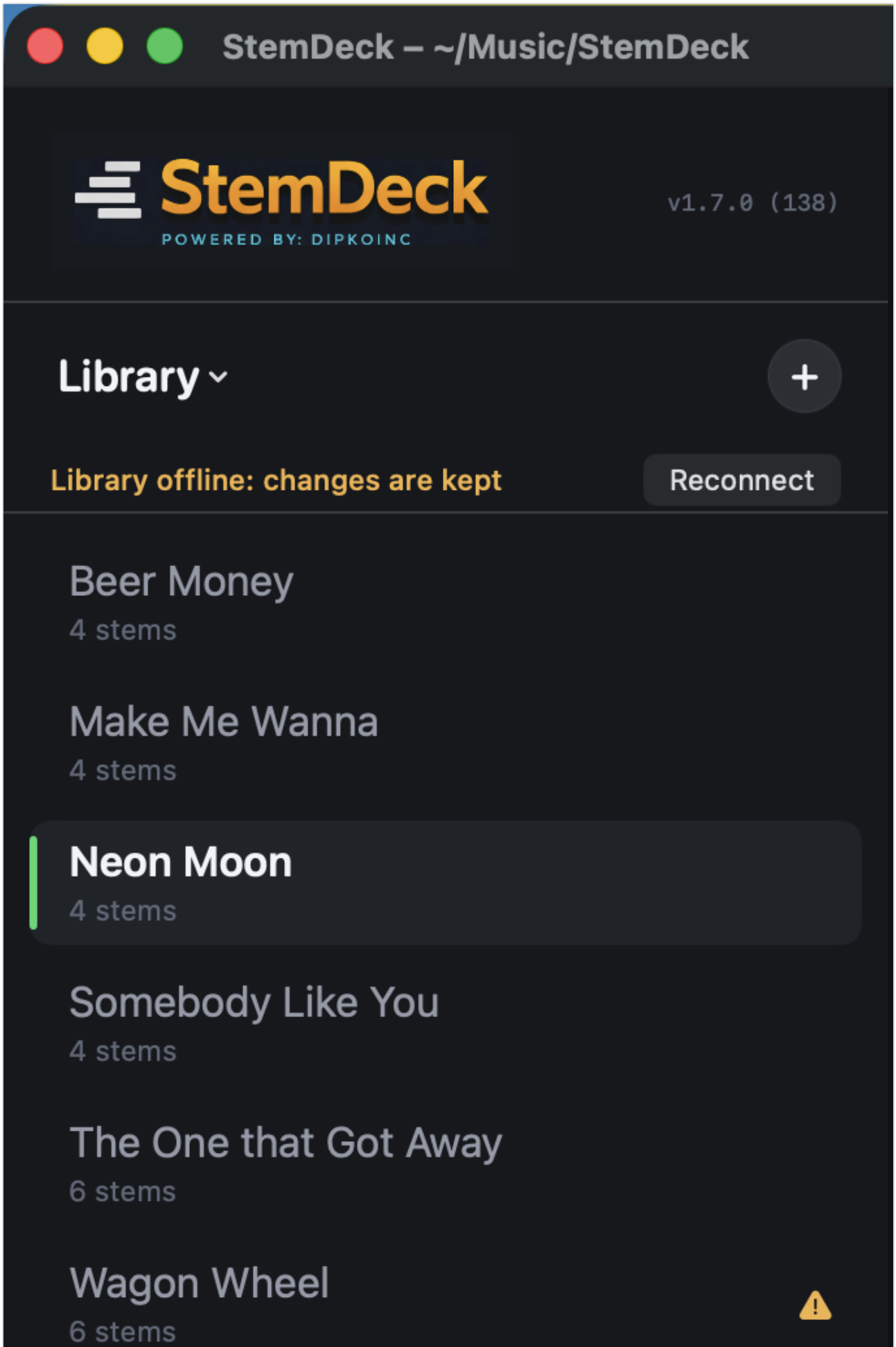

StemDeck – ~/Music/StemDeck
StemDeck
POWERED BY: DIPKOINC
v1.7.0 (138)
Library
Library offline: changes are kept
Reconnect
Beer Money
4 stems
Make Me Wanna
4 stems
Neon Moon
4 stems
Somebody Like You
4 stems
The One that Got Away
6 stems
Wagon Wheel
6 stems

Figure 3.8: The amber “Library offline: changes are kept” caption under the setlist header.

Housekeeping commands

A few Library-menu commands clean up small things. Each one takes a snapshot first.

Stems stored outside your library are copied in automatically. Every stem you add is copied into its song's folder, and older songs from before version 1.6 whose stems still point somewhere else (a Downloads folder, a cloud drive) are fixed at startup: StemDeck copies those files into the song's folder in the background, never while you're playing, and the song switches to the copy once it's verified. Your original files are never moved or deleted. A notice tells you what was copied. If a file can't be copied right now (a cloud file that isn't downloaded, a drive that's unplugged), the song keeps playing from where it is, the notice names it, and StemDeck tries again at the next launch. **Library → Copy Outside Stems Into Library…** runs the same pass on demand.

Library → Repair Stem File Names… renames any stem file that's stuck with an internal, unreadable filename back to something based on its actual name, so it's easy to recognize in Finder.

Library → Keep Hand-Set Outputs as Manual… takes output channels you set by hand in an older version of StemDeck and saves them properly as manual outputs, so they travel with the song from now on.

PART 4

Building Songs

Adding stems to a song

A song is only useful once it has stems in it. With a song selected, look at the end of the stem row: there is an **Add Files** card. Click it to open a file picker, or just drag audio files from Finder and drop them anywhere on the stem row.

StemDeck accepts WAV, AIFF, and MP3 files. Drop in as many as you like at once: a full multitrack session, a single replacement stem, or one new backing vocal.

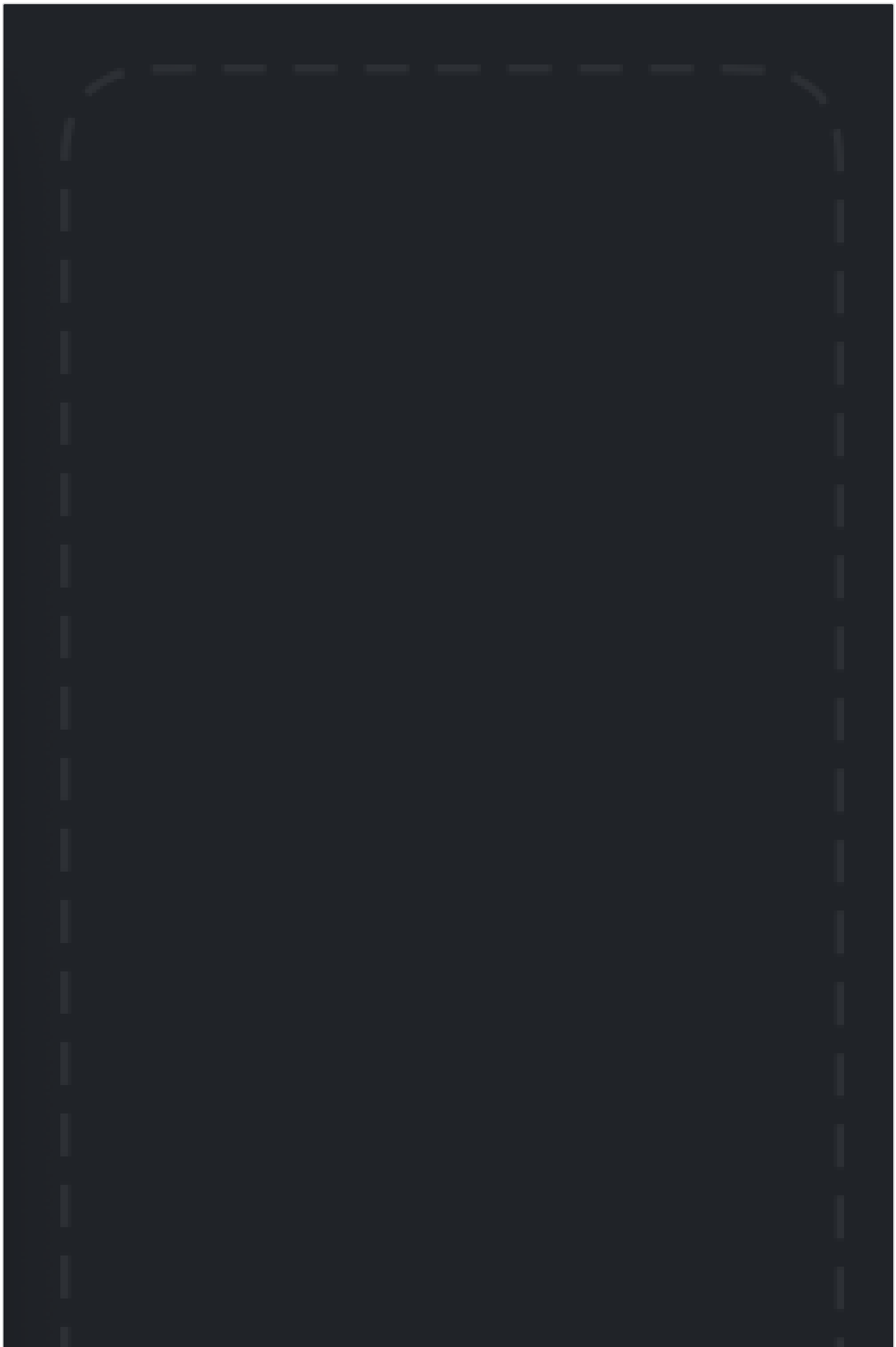


Figure 4.1: The Add Files card at the end of the stem row.

When a stem lands, StemDeck does several things for you automatically:

- **Output channel.** The filename is checked against the routing rules in **Settings** → **Channels** and the stem is routed to the matching output. If nothing matches, it lands on output 1 and is flagged so you notice before the show, not during it. See *Setting an output by hand (the pin)* in Part 7.
- **Color.** Click and metronome stems are tagged cyan, count and guide stems indigo, drum stems orange, and bass stems blue. Anything else is left uncolored until you set a color yourself.
- **Order.** New stems fall into a sensible default order: click or metronome first, then count or guide, then drums, then bass, then keys, then guitar, then vocals. You can always drag a card to a different spot in the row.
- **Display name.** If the file is named with the song title as a prefix, for example “Beer Money - DRUMS.wav” in a song called “Beer Money”, the card shows just “DRUMS.” The file on disk keeps its full name.

If a dropped stem does not match any routing rule, StemDeck asks you to choose an output before it lands on the click bus by accident. This **Assign Outputs** prompt lists the unmatched stem, offers an output field, and lets you pick **Not Now** to defer or **Assign** to lock it in. The full routing story, including how to change the rules that drive this in the first place, is in *Part 7, Routing and Outputs*.

> **TIP**
>
> Adding stems does not touch playback. If the song is loaded, the new stem takes effect the next time you press **GO** or **Play**.

Stem cards

Each stem gets one card in the mixer row. Reading top to bottom: a thin color stripe across the top, the stem's name, an **OUT** field with its pin, a vertical fader with its meter built in, and a row of **M** and **S** buttons for mute and solo.

The **OUT** field shows the current output as a number, with up and down arrows beside it. A pin glyph sits next to the number: filled amber means you set this output by hand and it is saved with the song; hollow gray means the output is still coming from the routing rules on this Mac. Click a filled pin to hand the stem back to the rules. *Full detail on manual outputs is in Part 7.*

Drag a card left or right in the row to reorder the stems. There is no separate "reorder" mode: just pick up the card and drop it where you want it.


bass
OUT
4
+12
+6

Figure 4.2: A single stem card, labeled top to bottom.

Right-click menu

Right-click any stem card for its full set of actions:

- **Rename…** changes the display name only. The file on disk is untouched.
- **Color** opens a submenu of color tags.
- **Mark as Click Track** (or **Unmark as Click Track**) marks the stem as click-like, so it bypasses pitch shifting (it still follows tempo changes).
- **Align…** appears only on click-like stems, and opens a small popover for nudging that stem's timing independently.
- **Start Audio at Playhead** delays this one stem so it begins at the current playhead position instead of song-time zero.
- **Silence All Other Stems at Playhead** is the fast way to isolate one stem for a moment: it stamps a start offset on every other stem at once.
- **Clear All Start Offsets** appears only when at least one stem has a start offset set, and resets them all.
- **Clear Mute Regions (n)** removes every muted span painted on that stem, where *n* is the number of regions currently on it.
- **Keep OUT n as Manual** and **Use Routing Rule (OUT n)** are the menu equivalents of clicking the pin: one locks the current output in, the other hands it back to the rules.
- **Remove Stem** asks "Remove stem ‘’ from this song? The audio file on disk is not deleted." before taking the stem out of the song.

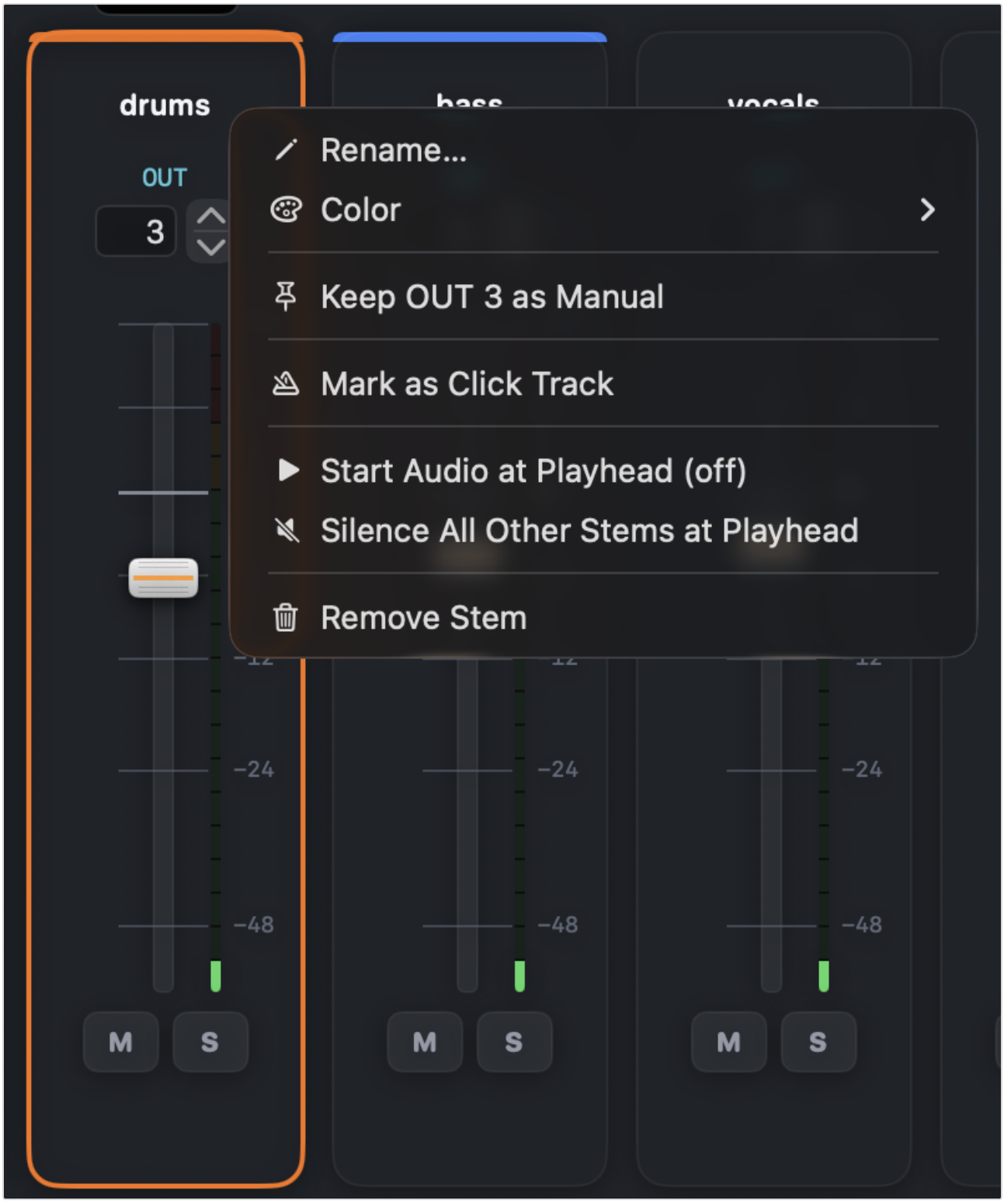


Figure 4.3: The stem card right-click menu.

> **STAGE NOTE**
>
> Removing a stem never deletes the audio file. If you remove the wrong one before a show, drag it back in from Finder or **Add Files**.

Trimming silence: Song Start and Song End

Some source recordings have a few seconds of room tone, a count-in you did not ask for, or talk-back before the song actually starts. Song Start lets you skip past it without editing the audio.

Open **Align Beat Grid**: the flag button on the waveform toolbar, or **Song** → **Align Beat Grid…**. Step 1 is **Song Start (optional)**. Scrub or play to the exact moment the music begins, then click **Set to playhead**. Everything before that point is skipped on playback; song-time zero moves to wherever you marked. Click **Clear** to put it back.

Right below Song Start, the same step has a **Song End (optional)** control, for the opposite problem: a long fade, a dead-air tail, or a false ending you never want to hear during a show. Play or scrub to where the song should stop, click **Set to playhead**, and StemDeck trims playback (and the exported mix) at that point. **Clear** removes it and the song plays to its natural end again.

> **TIP**
>
> Both trims are non-destructive. The source files are never modified, so you can always undo a trim by clearing it, even weeks later.

Setting downbeats and computing BPM

Open the same **Align Beat Grid** popover: the flag button on the waveform toolbar, or **Song** → **Align Beat Grid…**. Steps 2 through 4 mark the beat grid and compute the song's tempo.

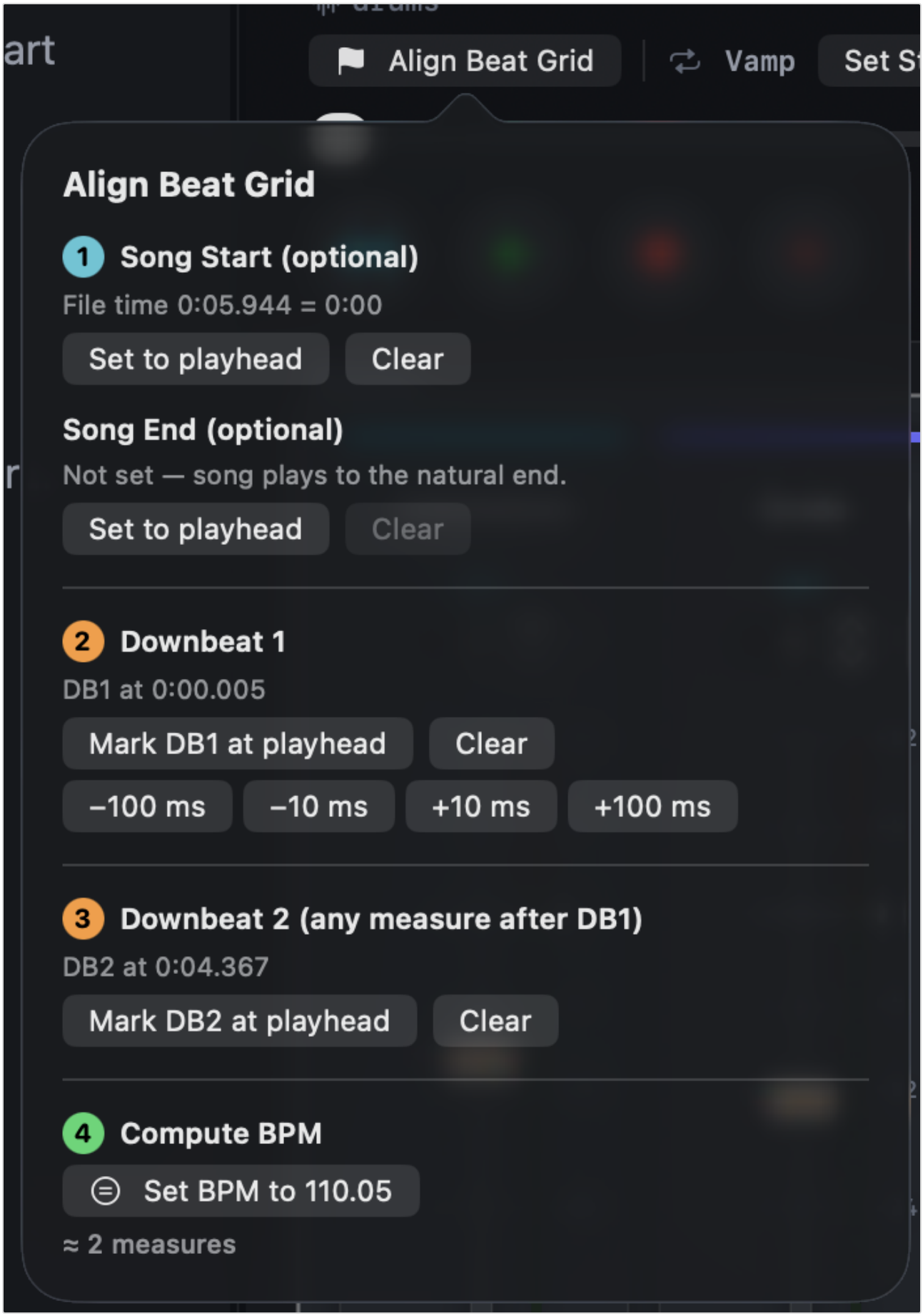

art
Align Beat Grid
Vamp
Set S
Align Beat Grid
1 Song Start (optional)
File time 0:05.944 = 0:00
Set to playhead
Clear
Song End (optional)
Not set — song plays to the natural end.
Set to playhead
Clear
2 Downbeat 1
DB1 at 0:00.005
Mark DB1 at playhead
Clear
−100 ms
−10 ms
+10 ms
+100 ms
3 Downbeat 2 (any measure after DB1)
DB2 at 0:04.367
Mark DB2 at playhead
Clear
4 Compute BPM
Set BPM to 110.05
≈ 2 measures

Figure 4.4: The Align Beat Grid popover, all four steps visible.

Step 2: Downbeat 1

Downbeat 1 is the anchor for the entire beat grid: the waveform grid, the click track, and Guide Builder cues all line up against it. Play or scrub to any clear downbeat, an obvious kick or snare hit on beat 1 of a measure, and click **Mark DB1 at playhead**. Four nudge buttons, **–100 ms**, **–10 ms**, **+10 ms**, **+100 ms**, let you fine-tune the mark without re-scrubbing.

> **STAGE NOTE**
>
> Mark downbeats while the song is paused. The playhead reads a little loosely while playing, and a downbeat you're relying on all night deserves better than an approximate mark.

Step 3: Downbeat 2

Downbeat 2 is a second reference point, used only to compute BPM. Always mark it exactly **two measures** after Downbeat 1: play or scrub to that downbeat and click **Mark DB2 at playhead**.

Step 4: Compute BPM

Once both downbeats are marked, the button reads **Set BPM to** , for example "Set BPM to 127.34." Click it to apply that tempo to the song. Below the button, a caption reports how it got there: **"≈ N measures"** on success.

If the caption reads **"Doesn't add up — move DB2 closer, recompute, repeat."** instead, Downbeat 2 isn't two measures after Downbeat 1 (or one of the marks is off the beat). Re-mark Downbeat 2 exactly two measures after Downbeat 1 and try again.

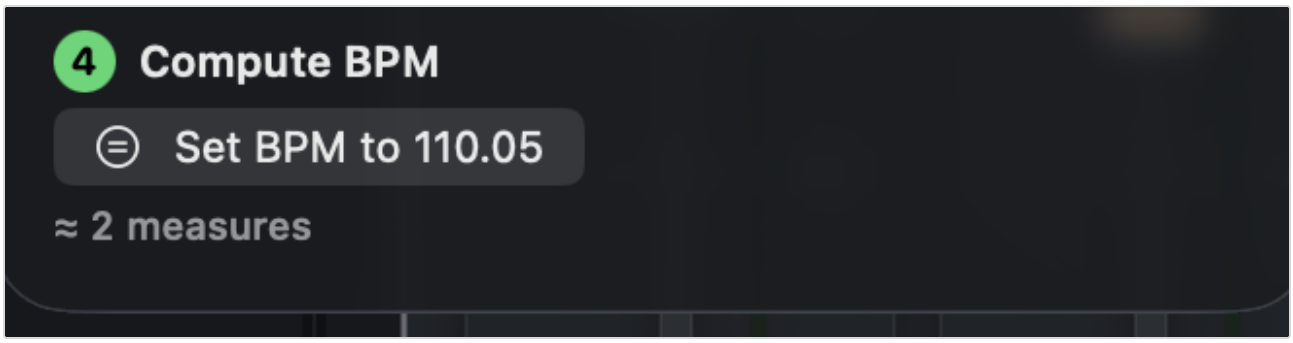


Figure 4.5: BPM computed, with the measure-count caption.

Original BPM, the tempo popover, and Tap tempo

Right-click the tempo pill in the transport to set **Original BPM** directly, useful if you already know the number from a chart or a setlist. The prompt is titled “Original BPM”: “Enter the song’s natural tempo. Changes the display from % to BPM.” Once set, the tempo control shows BPM instead of a percentage, and a **Clear Original BPM** option appears in the same menu.

The **Tempo & Time Signature** popover (the metronome button in the transport, or **Song** → **Generate Click Track…**) also has a BPM field with a **Tap…** button for tap tempo, plus fine nudge buttons (–1, –0.1, –.01, +.01, +0.1, +1) for small corrections.

> **TIP**
>
> Tap tempo is only accurate to about ±1 BPM. It’s a fast way to get in the neighborhood, not a substitute for marking two downbeats when you need a grid that holds up over a whole song.

Adding a click track and a lead-in

Open the **Tempo & Time Signature** popover: click the metronome button in the transport, or choose **Song → Generate Click Track…**. Set the **BPM** and **Time sig** fields first; the click generator needs both.

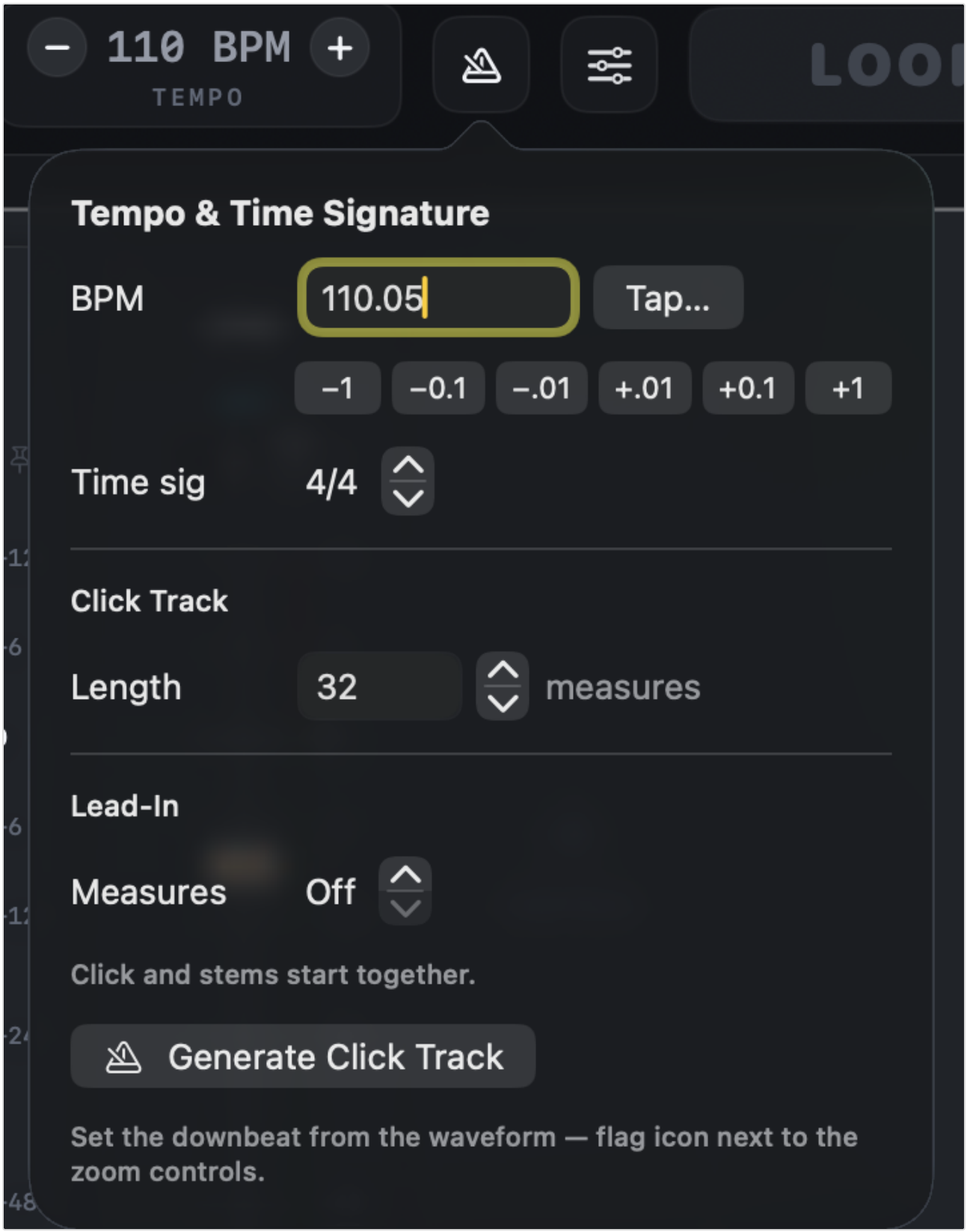


Figure 4.6: The Tempo & Time Signature popover.

Under **Click Track**, **Length** sets how many measures of click to generate, in measures, defaulting to 32. Under **Lead-In**, **Measures** (0 to 8) sets how many measures the click plays alone before the rest of the stems join in. The caption beneath it tells you exactly what will happen:

- At 0 measures: “Click and stems start together.”
- With a click stem already present and a lead-in set: “Click plays N measure(s) before the rest of the stems start.”
- With no click stem yet and a lead-in requested: “Lead-in needs a click stem — generate one below.”

Click **Generate Click Track** (or **Regenerate Click Track**, if one already exists) to write the click. It’s saved into the song’s folder as a new stem, routed to output 1, colored cyan.

> **WARNING**
>
> The click is not regenerated automatically when you change the BPM or time signature. If you retime a song after the click already exists, come back to this popover and click **Regenerate Click Track**.

On stage, a configured lead-in means the click counts the band in before anything else sounds. Both **GO** and **Rewind** arm the lead-in, so pressing either one starts the count exactly where you’d expect. When you export a mix, the lead-in is included, since the band needs it to rehearse to the file the same way they’ll hear it live.

Mute regions

A mute region silences a span of audio without touching the file underneath it. This is the tool for dropping a backing vocal out of one verse, or killing a section your band plays live and doesn't want doubled from the stems.

To paint one, hold **Option** and drag across the waveform where you want silence. A red overlay marks the muted span.

If you're viewing a single stem, the region applies only to that stem. If you're viewing the full mix, it applies to every stem except the click, count, and guide stems, so the band still hears its count-in even while the front-of-house mix goes quiet there.

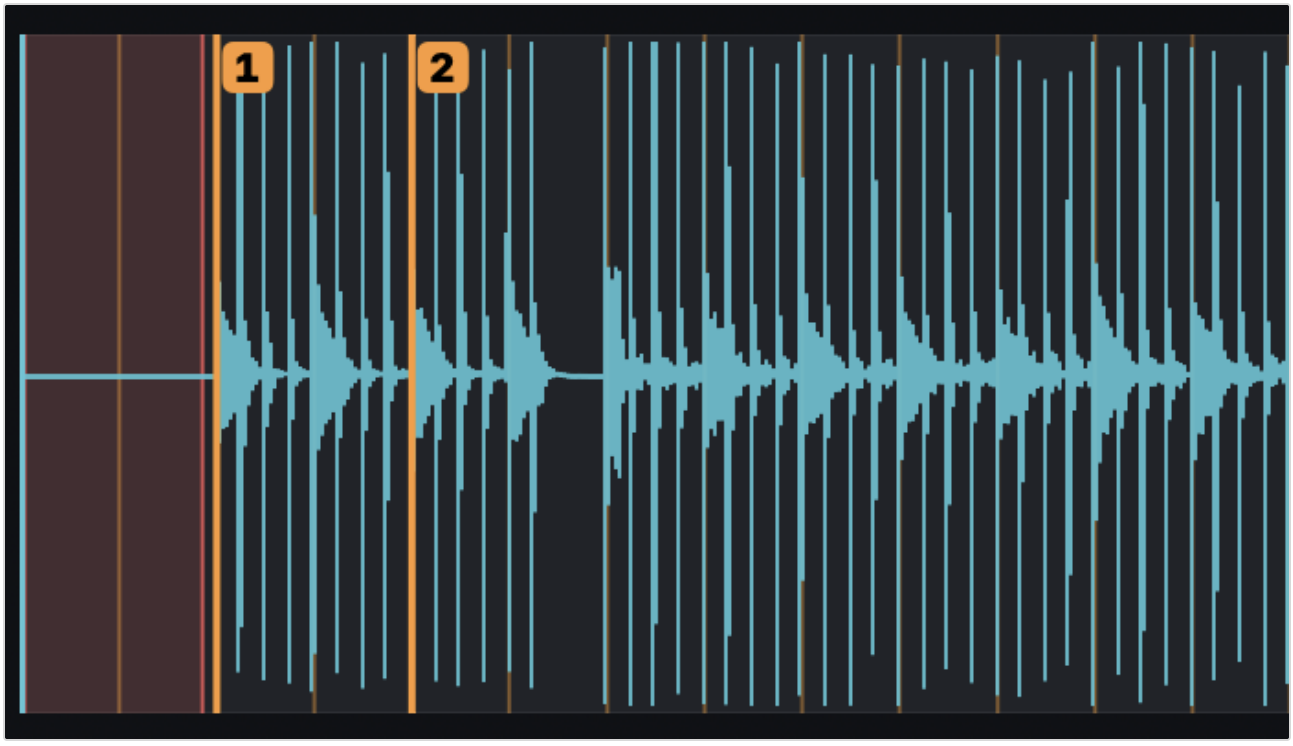


Figure 4.7: A mute region painted on the waveform.

To remove a region, right-click the waveform and use the **Mute Regions** section of the menu, which lists each region and lets you remove it individually or clear them all. You can also clear every mute region on a single stem from that stem's card, via **Clear Mute Regions (n)** in its right-click menu.

The Timeline Editor

Some downloaded stem packs ship with less count-in than you want, say one measure where you'd rather have two. The Timeline Editor solves exactly this: it copies a piece of one stem's audio and pastes it in at the front of the song, so every stem lines up on the beat you actually want to start on.

Open it from **Song** → **Timeline Editor…**. It shows a ruler across the top and one row per stem below it, all sharing the same time axis. Pan with a two-finger swipe, zoom by pinching or with the zoom buttons, and use **Start** or **Fit** to jump to the beginning or fit the whole song in view.

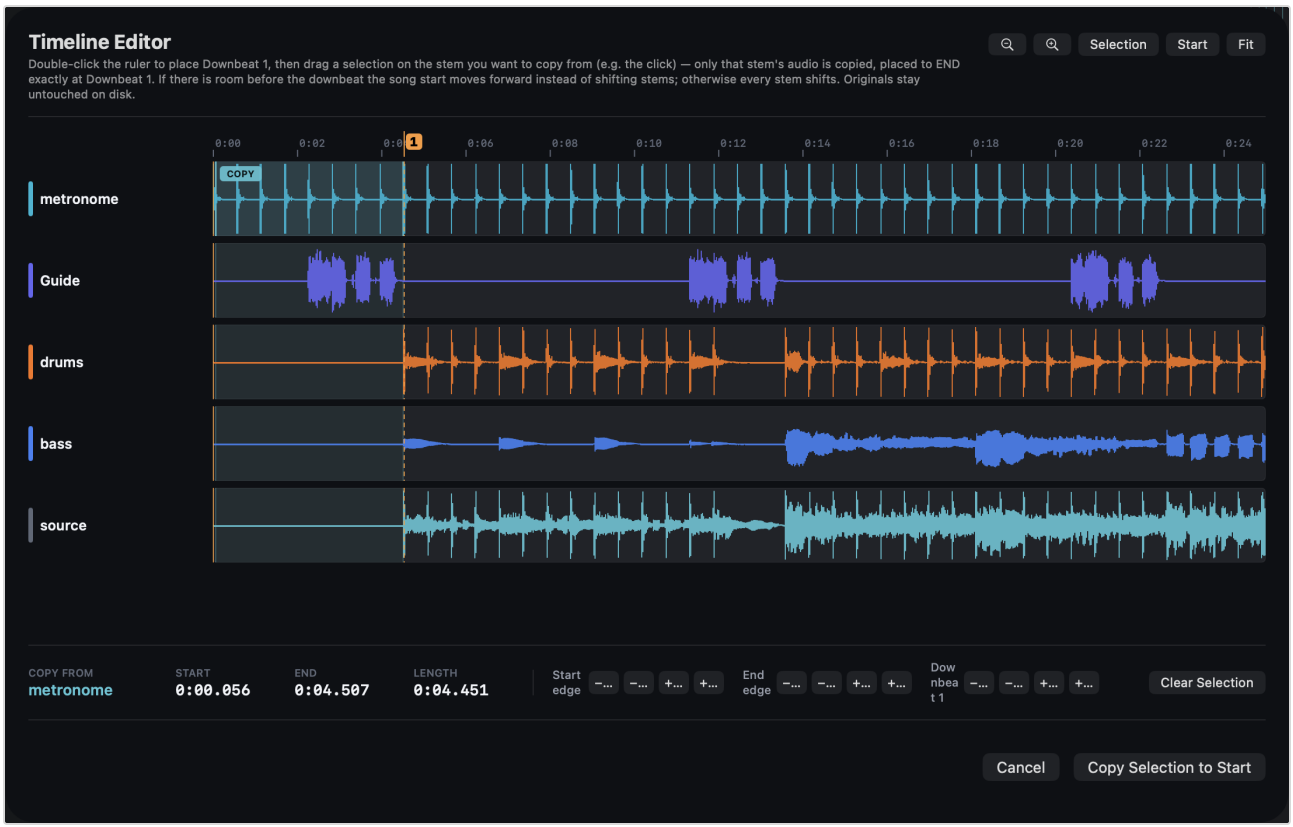


Figure 4.8: The Timeline Editor with a selection made on the source stem.

Downbeat 1 in the editor

Downbeat 1 is the same marker from the Align Beat Grid popover, just editable here too. Double-click the ruler to place it, drag the "1" chip to move it, or use the nudge buttons (–10 ms, –1 ms, +1 ms, +10 ms) for fine adjustment.



Figure 4.9: The Downbeat 1 chip on the Timeline Editor ruler.

Making the selection

Drag across the stem row you want to copy from, typically the click or count stem. That row shows a **“COPY”** tag while every other row shows a dimmer band, meaning it will shift but not be copied. Use the **Start edge** and **End edge** nudges to fine-tune the selection, or **Clear Selection** to start over.

Copy Selection to Start

Click **Copy Selection to Start**. What happens next depends on how much room exists before Downbeat 1:

- If there’s room before the downbeat, the confirm panel says the song start simply moves forward. No stems shift, and any audio hidden before the new start is kept on disk but is no longer part of the song.
- If there isn’t enough room, the panel says every stem shifts to the right and silence is inserted at the front to make space.
- If your selection is an exact fit for the space available, the panel says so: nothing shifts, the count-in slots in cleanly.

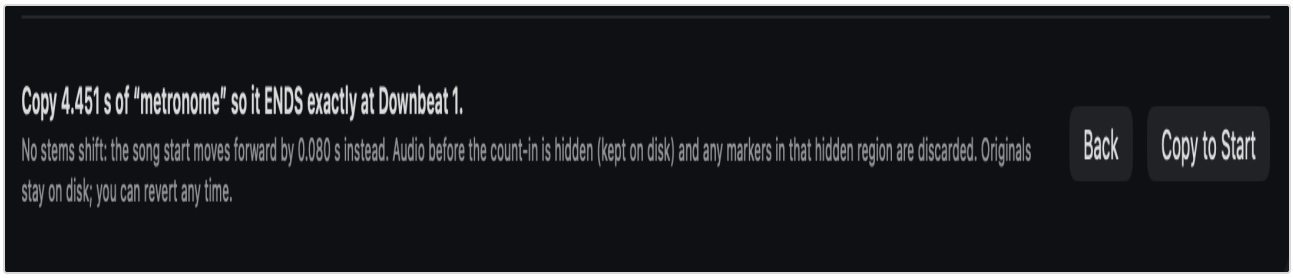


Figure 4.10: The Copy Selection to Start confirmation panel.

Click **Copy to Start** to apply. New audio files are written into the song's folder; the originals are left untouched on disk. The change takes effect the next time you play the song, not immediately.

Reverting

If you change your mind, **Revert edits (restore originals)** puts the stems and markers back the way they were. There is one limit worth knowing: if the edit hid audio ahead of a moved start point, and a marker used to point into that hidden audio, that marker cannot come back. Everything else restores cleanly.

> **STAGE NOTE**
>
> Always listen through a Timeline Editor edit before the gig. It's a precise operation, but "precise" and "what you meant" aren't automatically the same thing until you've heard it.

PART 5

Guide Builder

What a guide track is

A guide track is a spoken cue track: a stem that says “Chorus 2 3 4,” “Intro,” “End 2 3 4,” and so on, timed to the song. It plays through the band’s ears (output 2 by default, alongside the count-in), not to the room, so nobody has to memorize the arrangement by heart. On a song with a long solo, a surprise breakdown, or an arrangement that changes night to night, it’s the difference between the band landing the next section together and someone coming in a bar early because they lost count.

> **STAGE NOTE**
>
> If a guide track drifts or lands on the wrong beat, the band hears it as a bad cue and may come in wrong. Getting the downbeat and BPM right before you build one is what keeps the cues landing where you expect.

The Guide Builder assembles a guide track from a library of spoken cues. You can also record your own voice into the guide stem instead, covered later in this chapter under *“Recording your own cues.”*

Before you start

The Guide Builder needs two things from the song: at least one **stem**, and a **BPM**, either typed in directly or computed from two downbeats in **Align Beat Grid**.

Downbeat 1 is not required to open the Guide Builder, but it is strongly recommended. Without it, cues can still be placed by eye and ear, but you lose the ability to snap a cue to the beat and the measured beat grid described later in this chapter.

Opening the Guide Builder

Choose **Song** → **Guide Builder…**. The window opens with a caption across the top: pick a cue, then drag it onto the timeline to line it up by eye and ear. Build bakes one guide stem; the rest of the song's stems are left alone.

The window sizes itself to the screen it opens on. On a smaller display, the middle of the window (the header, transport, timeline, and inspector) scrolls up and down, while the action bar along the bottom, with **Build**, **Cancel**, and **Clear Guide**, stays pinned in view, so Build is never off the edge of the screen.

At the top right, a **SONG BPM** readout shows the tempo the builder is working at, next to the zoom controls: **Zoom In**, **Zoom Out**, **Start** (jump to the top of the song), and **Fit** (the whole song in view). Below that is a preview transport: **Rewind**, **Play/Pause**, and a forward jump button, with a running time readout, so you can audition the cues exactly as the band will hear them.

Two switches sit alongside the transport:

- **Snap to beat**, off by default. Turn it on and a cue you place or drag locks its start to the nearest beat instead of landing wherever you drop it. It needs Downbeat 1 and a BPM to work.
- **Hear existing guide**, shown only on a song that already has a built guide. Flip it to A/B: the preview plays the guide stem that is already built, instead of the cues you are currently placing, so you can compare the two.

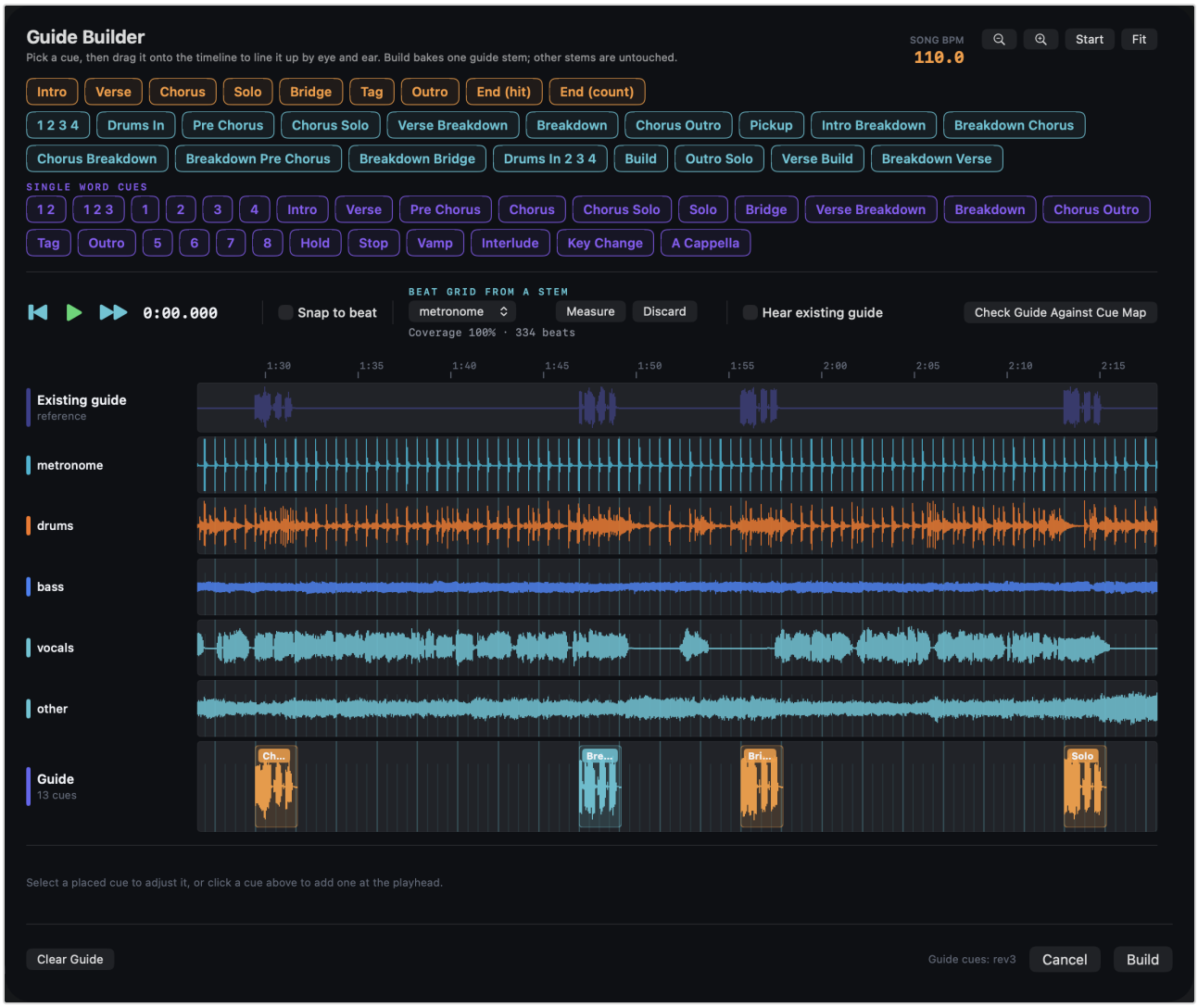


Figure 5.1: The Guide Builder window with the cue palette, preview transport, and timeline.

The cue palette

The palette is organized in three rows, and every cue in it is recorded speech in one consistent voice (the cue library's revision 3), either as a whole phrase or as single words assembled together. **Whole phrases** are complete recordings ("Chorus, two, three, four" said in one breath) stretched to match the song's tempo, and are the ones you'll reach for most. **Single word cues** (the violet row) are built by placing individual recorded words on their own beats, with silence in between, covering what whole phrases don't: bare section names, short counts, and single beats.

The three rows:

1. **Amber, the most-used cues**: Intro, Verse, Chorus, Solo, Bridge, Tag, Outro, End (hit), End (count).
2. **Cyan, the rest of the whole phrases**: 1 2 3 4, Drums In, Pre Chorus, Chorus Solo, Verse Breakdown, Breakdown, Chorus Outro, Pickup, and the phrases added in revision 3: Intro Breakdown, Breakdown Chorus, Chorus Breakdown, Breakdown Pre Chorus, Breakdown Bridge, Breakdown Verse, Build, Verse Build, Outro Solo, and Drums In 2 3 4.
3. **Violet, labeled SINGLE WORD CUES**: the bare section names (Intro, Verse, Pre Chorus, Chorus, Chorus Solo, Solo, Bridge, Verse Breakdown, Breakdown, Chorus Outro, Tag, Outro), plus 1 2, 1 2 3, and single beats 1 through 8. Revision 3 adds **Hold**, **Stop**, **Vamp**, **Interlude**, **Key Change**, and **A Cappella** to this row. Key Change and A Cappella take two beats. Chorus Solo, Verse Breakdown, and Chorus Outro are also two beats here: the two words land on consecutive beats instead of being squeezed into one.

Notice **End** is two separate cues, not one: **End (hit)** is a single stab for a song that ends on one hard hit, and **End (count)** is a full "2 3 4" count for an ending the band plays out to.

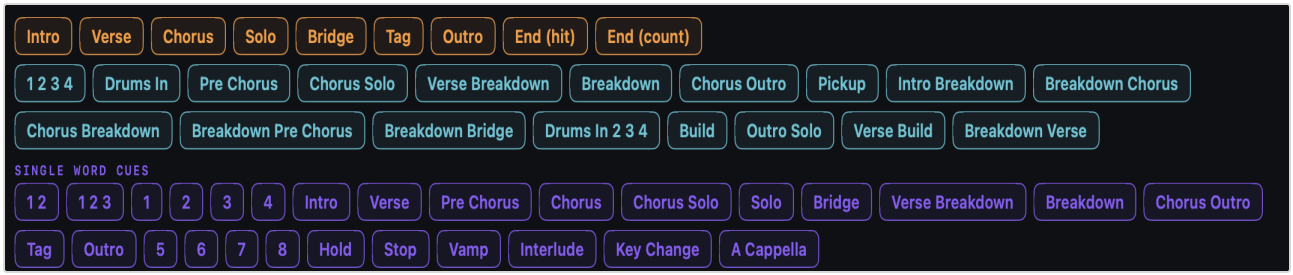


Figure 5.2: The cue palette's three rows: amber featured cues, cyan phrases, and the violet single-word row.

Placing, moving, and deleting cues

Click any cue in the palette to drop it onto the timeline at the current playhead. From there:

- **Drag** a placed cue left or right to move it.
- **Click** a placed cue to select it and open the inspector below the timeline: **CUE** (its name), **DETAIL** (how many beats it takes and what it's built from), and **POSITION** (where it lands in the song).
- **Nudge** the selected cue with the −10 ms, −1 ms, +1 ms, and +10 ms buttons for fine placement.
- **Delete** the selected cue with the trash button in the inspector.

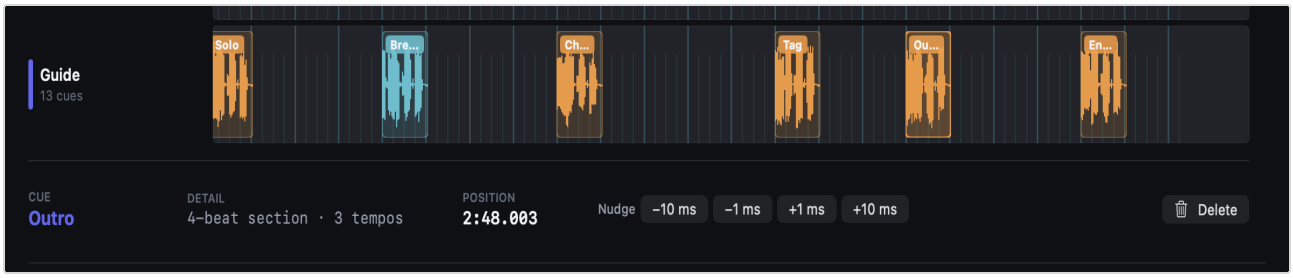


Figure 5.3: A placed cue selected, with the inspector and Nudge buttons.

With **Snap to beat** on, a placed or dragged cue locks to the nearest beat instead of sitting wherever you dropped it.

> **TIP**
>
> Drop a section cue about a measure before the section actually starts, not right on top of it. That gives the band the callout in time to react, the same way a bandleader calls the next section a beat or two ahead.

A beat grid measured from a stem

A metronome BPM is a good starting point, but a live take rarely holds it exactly. The **BEAT GRID FROM A STEM** section measures the real beat positions from an actual stem, so the grid and snapping follow where the band actually played, not just where a fixed BPM predicts.

Pick a stem to measure from (click, count/guide, or drums are good candidates; a bass stem generally isn't, since low, sustained notes give the analyzer no clean attack to lock onto), then click **Measure**. **Discard** throws the measured grid away and returns to the constant-BPM grid.

The caption below the controls tells you what happened:

- **Set Downbeat 1 + BPM first**, if either is missing.
- **Measuring…**, while it works.
- **Coverage 97% · 375 beats**, a successful measurement, with how much of the song it could track.
- **Coverage N% — too low, constant grid**, when the stem didn't give enough usable attacks and StemDeck fell back to the constant grid. A song whose tempo genuinely changes partway through (a slow intro, then the real tempo) also falls back to the constant grid: the measurement follows small drift, not a tempo change.
- **Constant grid from BPM**, if no measurement has been taken at all.

> **TIP**
>
> This only changes what you SEE and what cues SNAP to. It never changes playback, tempo, or anything the audience or the band hears. It exists purely to make placing cues by eye more accurate.

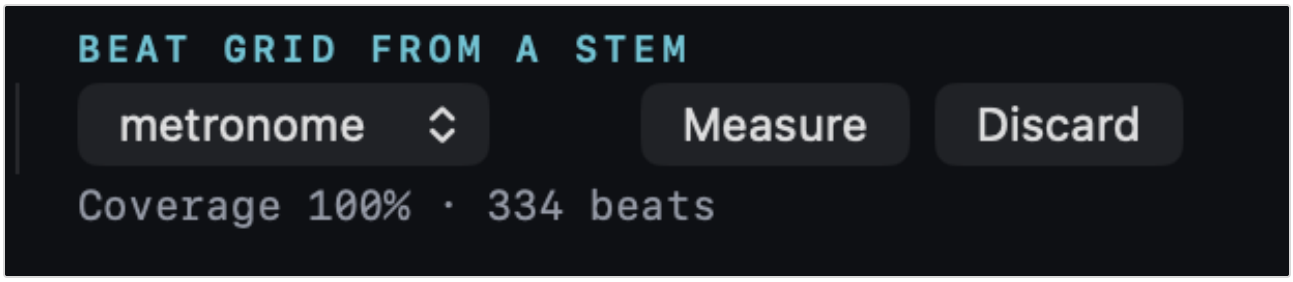


Figure 5.4: The beat grid measured from a stem, with a coverage caption.

Build and re-Build

When your cues are placed the way you want them, click **Build**. StemDeck bakes everything into one new guide stem file inside the song's folder; nothing else about the song changes. Because the new file is a guide file, it's routed like any guide stem, output 2 by default, right alongside the count-in. When it finishes, you'll see **Guide stem built — takes effect on the next play.**

If the song already has a built guide, clicking **Build** again asks you to confirm: **Replace the existing guide?** Confirming keeps the previous guide stem in the song folder, renamed with the date it was replaced, so you can recover it if you change your mind. While a guide exists, a locked **Existing guide** reference lane sits in the timeline for comparison, and a **Clear Guide** button removes it entirely.

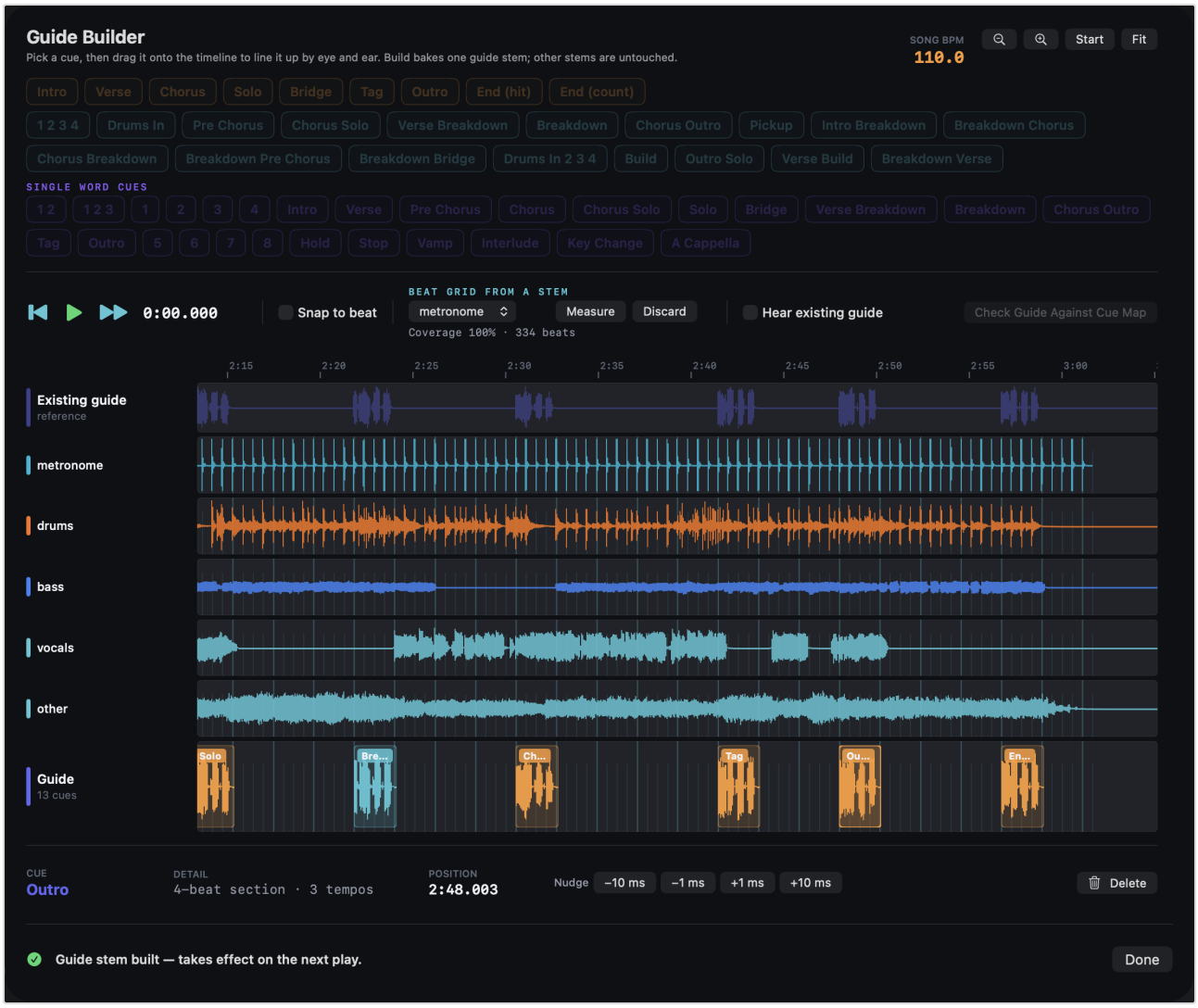


Figure 5.5: The Guide Builder after a successful build.

Cue revisions

The cue recordings themselves get improved from time to time. Each song remembers which set it was built with, shown as **Guide cues: rev N**. The current set is **rev3**, a new library in which every cue shares one consistent voice and which adds the new cues listed under *The cue palette*. A song built on an older set keeps sounding exactly as it always has, so a guide you have already rehearsed to never changes unless you ask.

When a newer set is available for the song, an **Upgrade to rev3** button appears next to the caption. Click it and StemDeck moves each placed cue so it is heard where you heard it before, even though the new recording starts its first syllable at a slightly different moment than the old one. It works that out from the recordings themselves, so the shift is exact for each cue rather than a rough nudge. When it finishes, a green line says **Upgraded to rev3, cues shifted to stay where you hear them. Takes effect on the next Build.** Beside it is a scrolling strip with each cue's shift in milliseconds. Click **Build** afterward to bake the upgrade into a new guide stem.

Sometimes StemDeck cannot place a cue, and it tells you in amber text in that strip rather than guessing:

- **"Cue: not in rev3"** means the new library has no cue by that name. The cue stays where it is, and you will need to replace it by hand.
- **"Cue: shift unknown, not moved"** means StemDeck could not measure that cue's old or new recording. The cue stays where it is. Listen to it against the song before you Build.

> **STAGE NOTE**
>
> Upgrading is never automatic. If a guide is working for your band, leave it on its current revision until you have time to upgrade, Build, and listen through the whole song.

Checking a guide against its cue map

If a song has a built guide and a saved list of placed cues, you'll see **Guide built · N saved cue(s)** and a **Check Guide Against Cue Map** button. This compares the audio in the built guide stem against what you last placed, and reports either **Cue map matches the built guide.**, or a mismatch: most often the song's BPM changed since the guide was built (rebuilding will re-time the cues), or a specific number of cues differ by some number of milliseconds. **Show Differences** shows the details, then choose **Use Cues As Heard** (adopt what the audio actually contains) or **Keep Saved Map** (leave your placements as they are).

If a guide was built on an older version of StemDeck and never saved a cue map, you'll instead see a note that the map wasn't saved, with a **Reconstruct cue map…** button to rebuild one from the audio. Some guides can't be analyzed at all, most commonly a guide recorded by hand rather than built from the cue library: **This guide looks recorded, not built.**

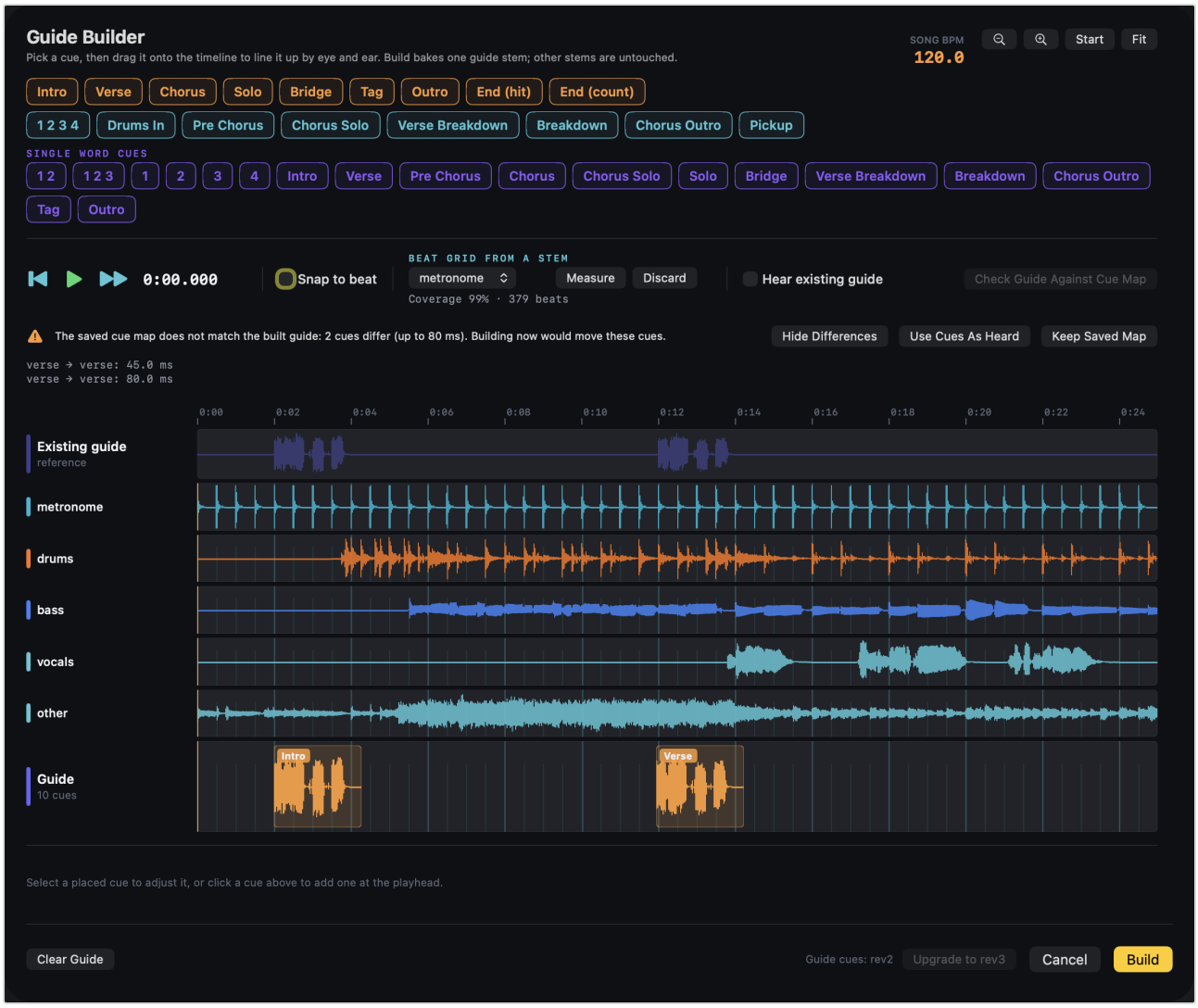


Figure 5.6: A cue map mismatch, with differences shown and the resolution buttons.

Recording your own cues

Instead of, or alongside, the built-in cue library, you can record your own voice into the guide stem, using the **Rec** button on the main transport, not the Guide Builder window.

- Press **Rec** while stopped and it starts playback and recording together from the top of the song (with the click lead-in armed, if you've set one).
- Press **Rec** while playing and it punches in at the current playhead.
- Press **Rec** again while recording and it punches out, splicing that take into the song's guide stem.

The sliders button in the transport row (right of the metronome button, left of **LOOP**) opens the **Record Input** popover: **INPUT**, **CHANNEL** (shown only when the device has more than one input), **GAIN**, and **RECORDING OFFSET**, a slider from −100 to 250 ms (double-click the readout to reset it to 0) that shifts the recording earlier to correct for latency your interface doesn't report on its own.

> **TIP**
>
> Recording through a Soundcraft Ui24R? Its USB channel numbering is offset by 10, so console input N shows up in the CHANNEL picker as channel N+10.

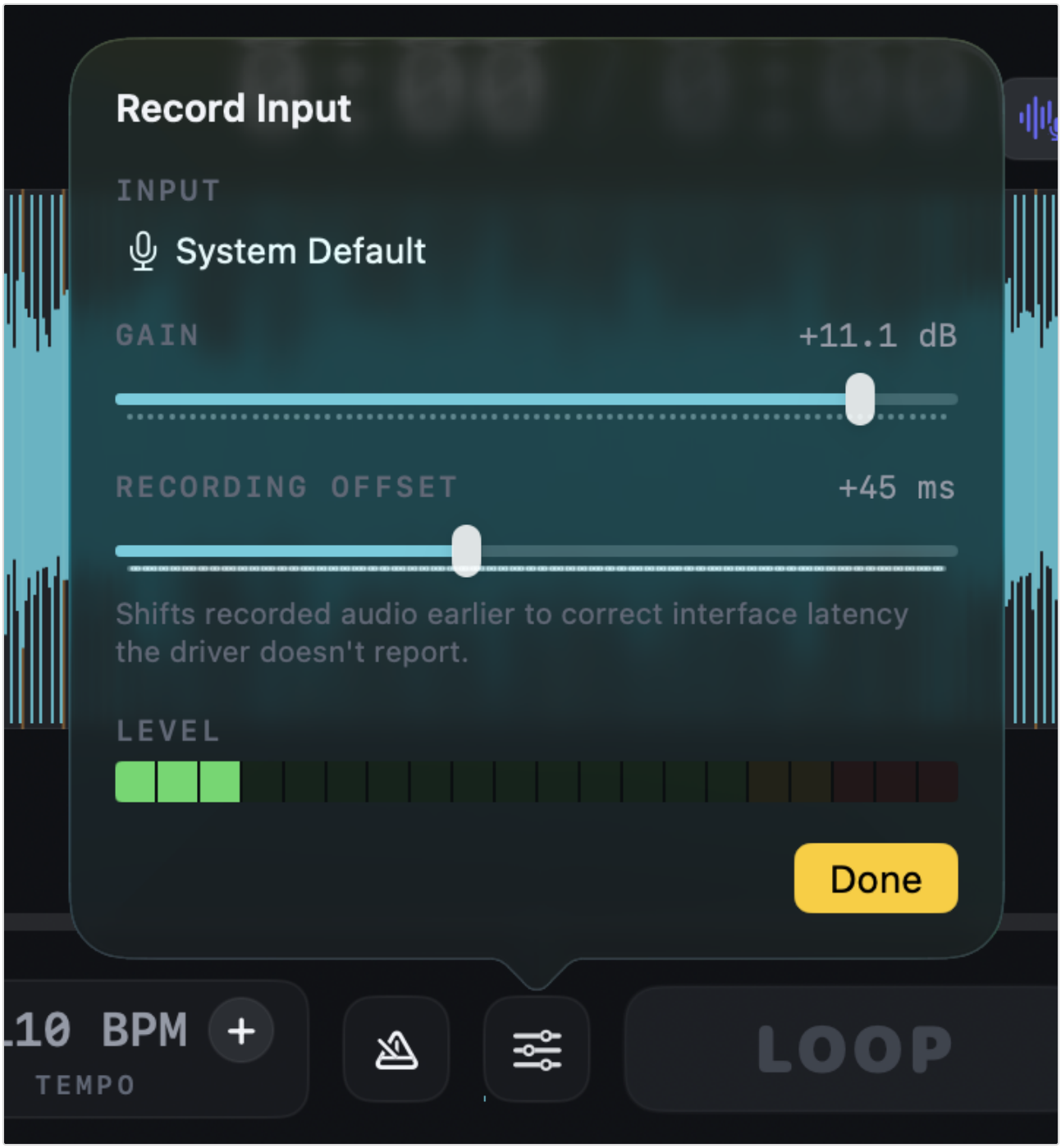


Figure 5.7: The Record Input popover with input, channel, gain, and recording offset.

PART 6

Performing

Transport controls

The transport bar sits above the stem mixer and gives you the controls you touch most on stage: **Rewind**, **Play/Pause**, **Stop**, and **Rec**, plus the seek bar and the big time display.



Figure 6.1: The transport bar during playback, with GO and LOOP to the right.

- **Rewind** (cyan) sends the playhead back to 0:00. If the song is already playing, playback keeps going from the top. If it's stopped or paused, it behaves like Stop.
- **Play/Pause** (green when it will play, amber while playing and showing Pause) starts or pauses the current song from wherever the playhead is. Pause holds position, it does not rewind.
- **Stop** (red) halts playback and rewinds the playhead to 0:00.
- **Rec** (red) arms a punch-in recording into the song's guide stem. It's covered in full in *"Guide Builder"*.

Above the buttons, the seek bar lets you drag the playhead to any point in the song, whether playing or stopped. Next to it, the big time display shows elapsed time over total duration and updates live as the song plays.

Space, Up, and Down

`Space` is your hands-off-the-mouse GO button: press it to start the song from the top. The one exception is when LOOP is on: with a loop armed, `Space` disarms the loop instead of triggering GO. It never arms a loop, only disarms one, so a mistimed press during a show can't trap the band in a loop by accident.

`↑` and `↓` move the selected song up or down the list without touching playback. Use them to line up the next song while the current one is still playing, then hit GO when you're ready.

Transport menu

The Transport menu duplicates GO, Play/Pause, Stop, Record Punch In/Out, and Loop as menu items, for when you'd rather click a menu than the buttons.

> **STAGE NOTE**
>
> None of the Transport menu items carry a keyboard shortcut. That's on purpose. `Space` for GO and `↑` / `↓` for song selection are hardcoded so a stray menu shortcut can never steal them mid-song.

End of song

When a song in a setlist finishes, StemDeck loads the next song in the list and waits at 0:00. It does not start playing on its own. Hit GO (or `Space`) when the band is ready for the next one. Outside a setlist (browsing the full library), the finished song simply stays put at 0:00.

GO and LOOP

GO is the big button to the right of the transport row. Press it (or `Space`) and the song reloads from the very top and starts playing, lead-in and all, no matter where the playhead was left. This is the one button you should train the band to use to start every song: it always begins at zero.

> **STAGE NOTE**
>
> Use GO to start a song, not Play. Play resumes from wherever the playhead happens to be, which can bite you if someone scrubbed the waveform during soundcheck. GO always starts clean, from the top.



Figure 6.2: The GO and LOOP buttons.

LOOP repeats a region of the song for as long as you leave it on. It's built for two real jobs: vamping under a speech or an announcement, and stretching a solo section for the band. LOOP only lights up once a loop region exists on the song.

Setting a loop region

On the waveform toolbar you'll find **Set Start**, **Set End**, and **Clear**, alongside a **Loop** switch and a range label showing the region you've marked (for example, "0:12.500 → 0:34.100").

1. Play or scrub to where you want the loop to begin, then click **Set Start**.
2. Play or scrub to where you want it to end, then click **Set End**.
3. The range label fills in and the LOOP button becomes available.
4. Flip the **Loop** switch, or click **LOOP** in the transport row, to arm it.

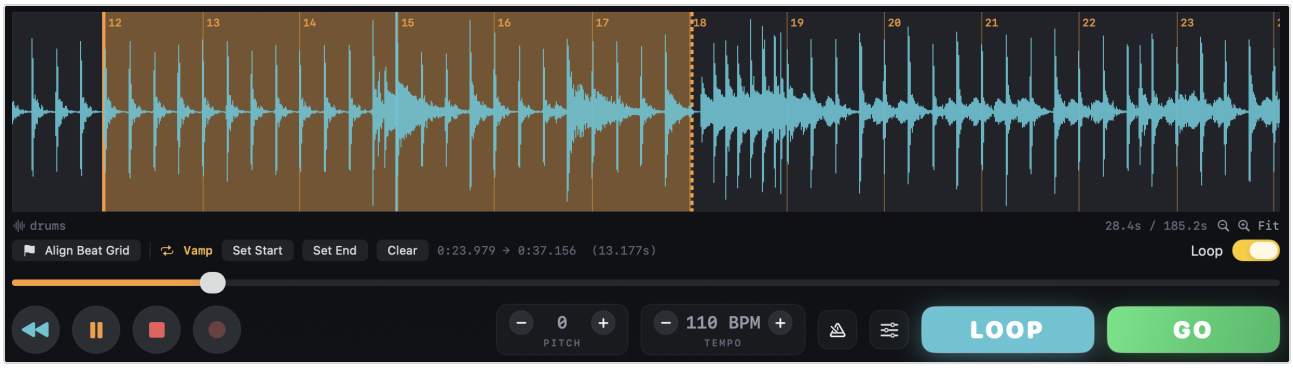


Figure 6.3: The waveform toolbar with Set Start, Set End, the Loop switch, and a loop region armed.

While armed, LOOP is solid cyan and playback wraps from the end point back to the start point over and over. Click LOOP again, or press `Space`, to disarm it. `Space` **only disarms, it never arms a loop** on its own. Once disarmed, playback simply continues past the end point toward the rest of the song, it doesn't stop or jump anywhere.

Click **Clear** to remove the loop region entirely. LOOP is unavailable again until you mark a new Start and End.

> **TIP**
>
> Two common uses: vamp a short instrumental bed under a spoken intro or between-song banter, or extend a guitar solo for a few extra bars if the crowd's into it. Set the region ahead of time during soundcheck so it's ready when you need it live.

Setlists

A setlist is an ordered subset of your library, built for one show or one set. The sidebar dropdown at the top of the song list switches between **Library** (your whole collection) and any setlist you've created.

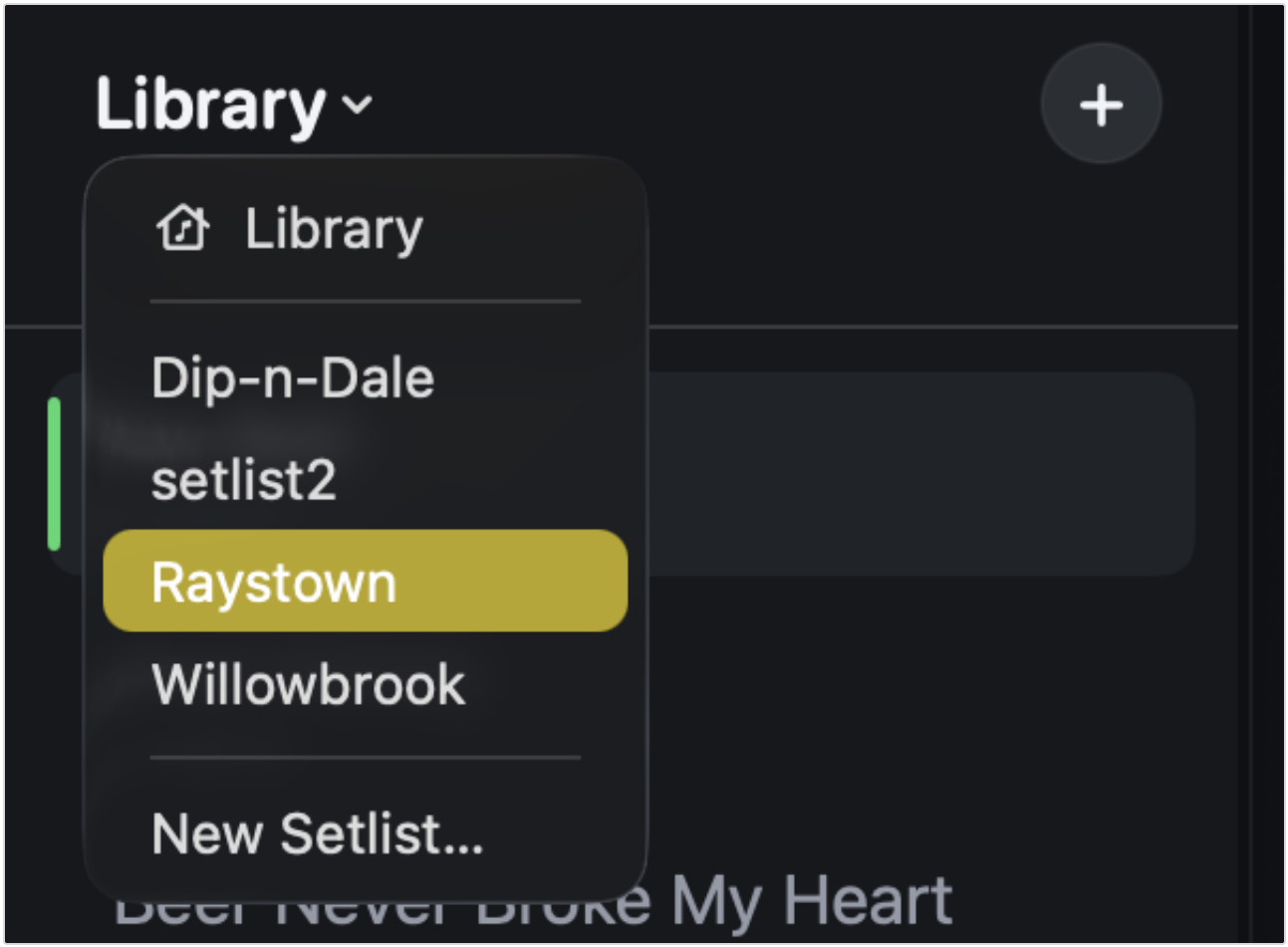


Figure 6.4: The sidebar setlist dropdown, open, showing Library plus two setlists.

The dropdown lists **Library** first, then each setlist by name, with a checkmark on whichever is active. Below that: **New Setlist…**, **Rename…**, and **Delete…** (the last two only appear once a setlist is selected). The setlist you were last viewing is remembered the next time you launch StemDeck.

Building a setlist

To add the song you're currently viewing to a setlist, use the **Setlist** menu's **Add Current Song to** submenu, which lists every setlist (grayed out if the song's already in it). You can also right-click a song in the library and choose **Add to Setlist**.

Reordering a setlist

Drag a song row up or down within a setlist to change the running order. A line shows where the song will land when you let go, and dragging near the top or bottom edge of a long list scrolls it for you. Reordering only changes that setlist: the library and your other setlists are untouched. It works only inside an open setlist, not in the **Library** view.

The **Setlist** menu also carries **New Setlist…**, **Rename Setlist…**, and **Delete Setlist…**, matching the sidebar dropdown, for whichever you have open at the moment.

> **TIP**
>
> Deleting a setlist only removes the list itself. Every song that was in it stays in your library, untouched.

Renaming a song from the list

Right-click a song, in the library or in a setlist, and choose **Rename…**. The song you clicked is renamed without being loaded, so a song that is playing keeps playing. See *Part 3* for what a rename does to the folder.

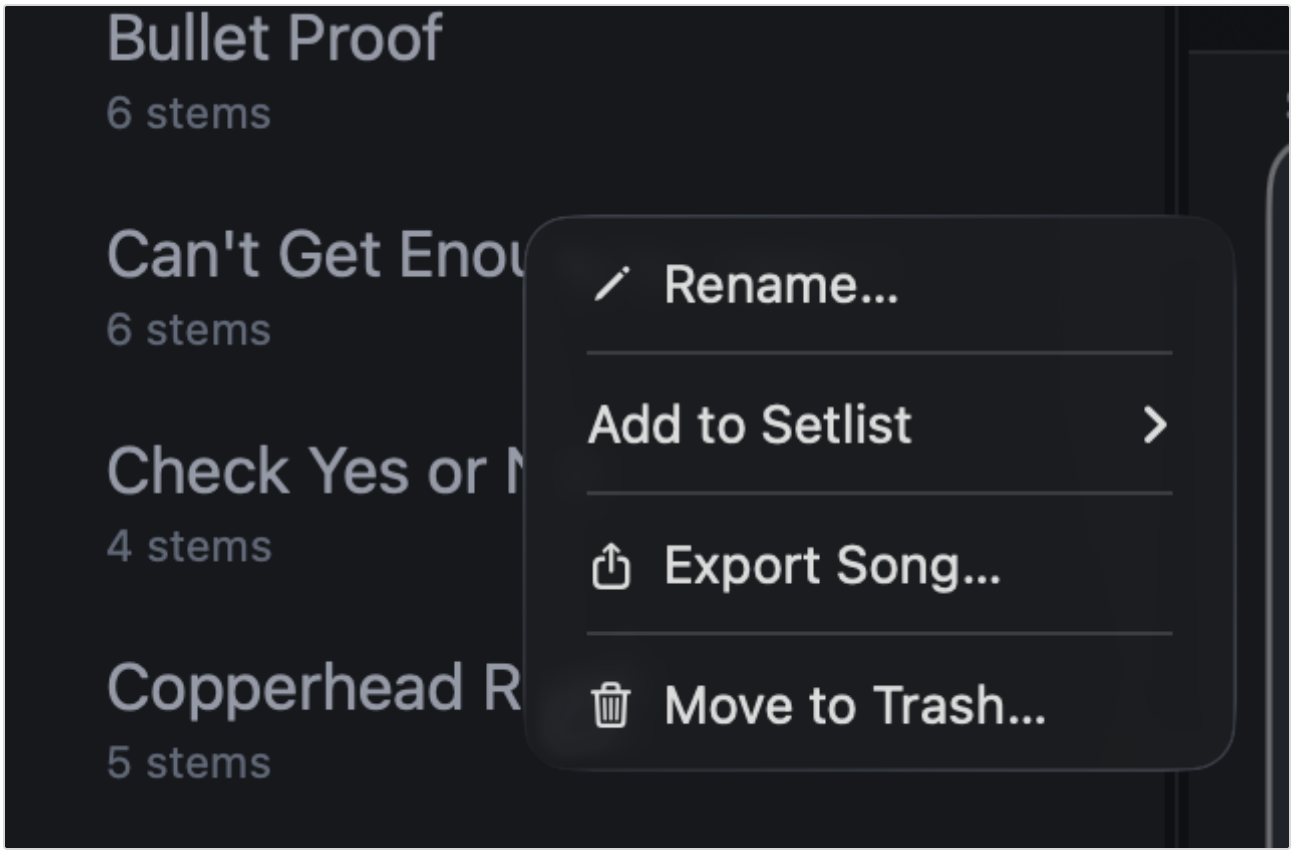


Figure 6.5: Right-clicking a song in the sidebar, with Rename… at the top of the menu.

Update notices

StemDeck checks the Mac App Store for a newer version about ten seconds after launch, then at most once a day. When there is one, a cyan bar with an amber outline appears at the bottom of the window: **StemDeck N is available (you have M)**, with **Update**, **Later**, and **Skip This Version**. **Update** opens the App Store; StemDeck never downloads or installs anything itself. **Later** hides the bar until the next daily check, and **Skip This Version** hides it until a still newer version appears.

The bar never appears while a song is playing, and it floats over the window instead of moving anything. To ask on demand, choose **Help** → **Check for Updates…**, which always answers, even for a version you skipped. If you are playing, or a dialog is open, the item is greyed out.

Sidebar width and narrow windows

Drag the divider between the sidebar and the main window to resize the song list; StemDeck remembers the width you leave it at. If you shrink the window below about 920 points wide, the sidebar becomes a slide-out drawer instead of a fixed column, and **View** → **Toggle Songs** (^ ⌘ S) opens

and closes it. At the normal window width the sidebar is always visible, so Toggle Songs has nothing to do and stays disabled.

Pitch and tempo

The PITCH and TEMPO pills sit in the top bar, next to the transport. Both apply to every stem in the song except click, count, and guide stems.

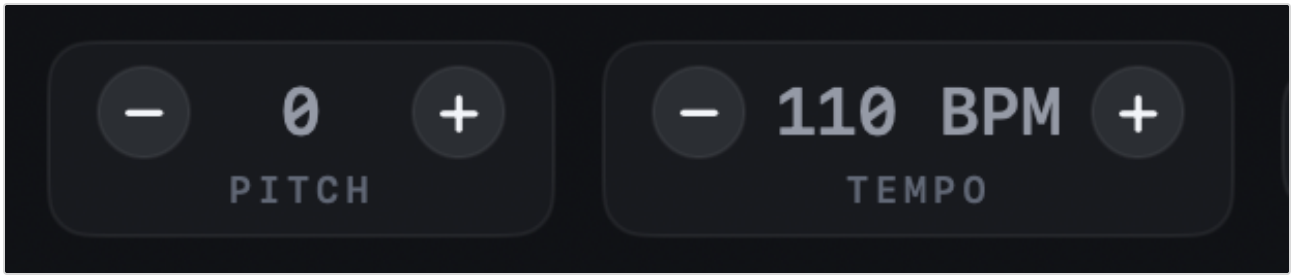


Figure 6.6: The PITCH and TEMPO pills side by side.

PITCH transposes the whole song up or down, in whole semitones, from –12 to +12. Click the + or – arrows to nudge it a semitone at a time, or double-click the value to reset it to 0.

TEMPO changes playback speed from 0.5× to 2.0×. If you've set an **Original BPM** for the song, the pill shows a BPM number instead of a percentage. Double-click the value to reset it to 100% (or the original BPM). Right-click the tempo pill for **Tap Tempo…**, **Set Original BPM…** (or **Edit Original BPM…** once one is set), and, when a BPM is set, **Clear Original BPM**.

Click, count, and guide stems bypass the PITCH transform, so a click track doesn't get an odd tone when you move a song to a different key. They still follow TEMPO, so the click stays locked to the beat when you speed up or slow down the song.

> **STAGE NOTE**
>
> Pitch and tempo are saved per song. If you nudged either one during rehearsal to match a singer's range or a different arrangement, check both pills before you count the song in at the gig.

Channel strips

Each stem gets its own channel strip in the mixer row, modeled on a live console's input channel: a color tag, a name, an output control, a fader with a meter, and Mute/Solo.


drums
OUT
3
+12
+6

Figure 6.7: A single channel strip, showing the fader, meter, OUT control, and Mute/Solo.

Fader law

The fader is marked at **+12, +6, 0, –6, –12, –24, –48**, and unity (0 dB) sits at three-quarters of the way up the fader's travel, matching the feel of consoles like the Behringer X32, Mackie, and Allen & Heath boards. The bottom of the fader is silence.

- Hold ⌥ (Option) while dragging for fine control, a quarter of the normal speed.
- Double-click the fader to snap it back to unity (0 dB).

> **TIP**
>
> If the mix sounds quiet and thin, check that faders are sitting at three-quarters up (unity), not at the halfway mark. Halfway is well below unity on this fader's dB curve.

Mute and Solo

M (red when active) silences the stem without moving the fader. **S** (yellow when active) silences every other stem while it plays; you can solo more than one stem at once.

Meters

The 20-segment LED meter runs alongside each fader. It taps the signal **before** the fader and before mute, so you always see the true source level regardless of where the fader is or whether the stem is muted:

- **Green** below 0 dB
- **Yellow** from 0 dB up to +6 dB
- **Red** above +6 dB

Output and the pin

Above the fader is an **OUT** field showing which output channel the stem plays on, with a pin glyph beside it: filled amber means you've set the output by hand for this stem, hollow gray means it's coming from your routing rules. *Setting an output by hand (the pin)* in Part 7 covers routing in full.

If two stems land on the same output, they simply sum there, which is sometimes what you want (a doubled vocal) and sometimes not (two things you meant to keep separate). Worth a check before a show if you've been moving stems around.

Master

The **MASTER** strip on the right controls the whole mix at once. It uses the same fader law as a channel strip: marks at +12/+6/0/–6/–12/–24/–48, unity at three-quarters up, ⌥-drag for fine control, double-click to reset to unity.

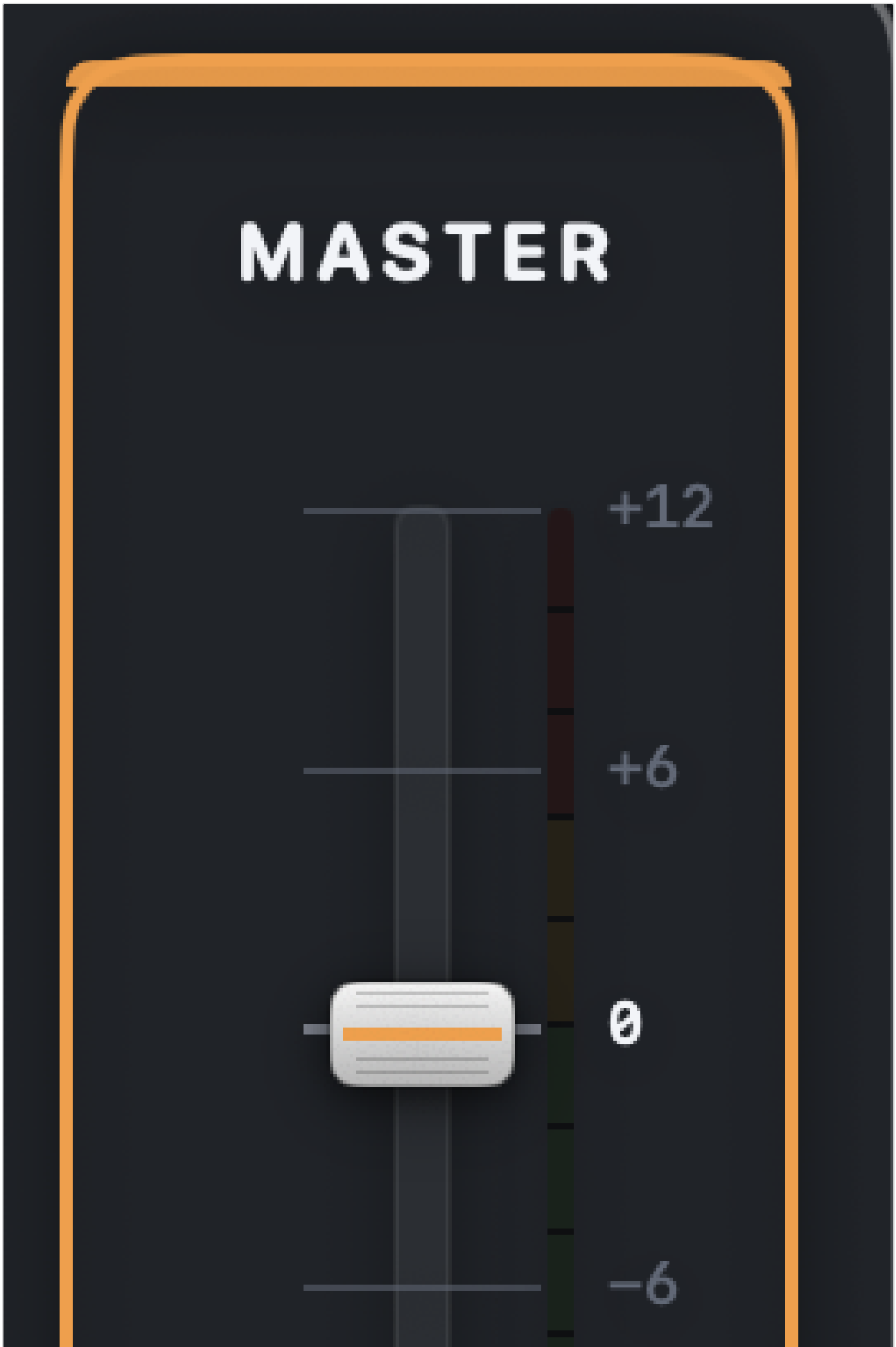

MASTER
+12
+6
0
−6

Figure 6.8: The MASTER strip with the MUTE ALL button and meter.

Instead of a small mute toggle, MASTER has a stage-sized **MUTE ALL** button that reads **MUTED** while it's active, a deliberate kill switch you can hit without hunting for a tiny control. The master meter next to the fader shows the level of the whole mix.

Right-click MASTER for **Export Mix…**, covered in *"Mix Export"*.

> **STAGE NOTE**
>
> In a multi-channel setup, MASTER scales every output together, click included, not just the stereo pair. Leave it at 0 dB and let front-of-house do the mix; only pull it down if you truly need to kill everything from your laptop.

The waveform

The waveform above the transport shows the whole song at a glance, with the playhead, markers, and grid drawn on top of it.

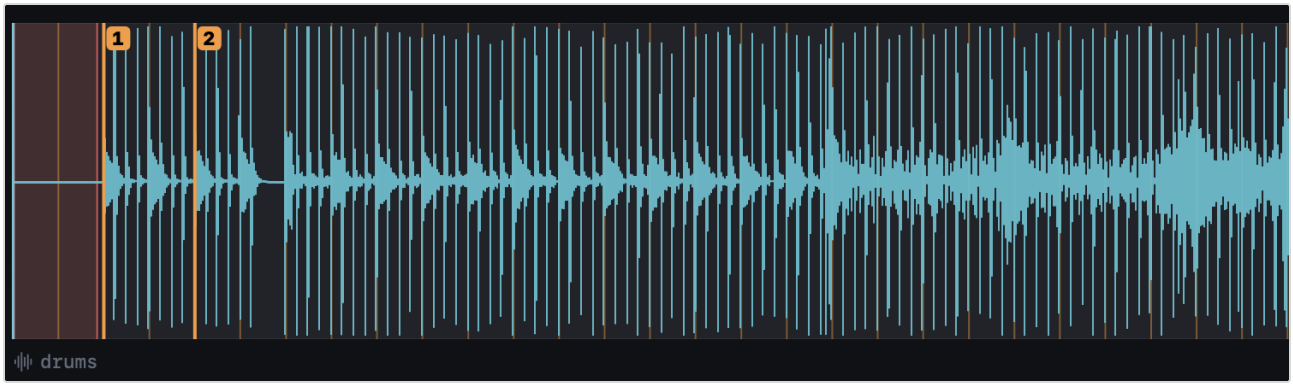


Figure 6.9: The waveform with the amber downbeat markers and cyan playhead.

- **Click** anywhere on the waveform to seek there.
- **Scroll or pinch** to zoom in and out.
- **View → Zoom In Waveform** (⌘ =), **Zoom Out Waveform** (⌘ –), and **Fit Waveform** (⌘ 0) do the same from the menu bar. The zoom controls and a **Fit** button also sit right on the waveform toolbar.

While the song plays, the view scrolls to keep the playhead in sight automatically, you don't need to re-center it yourself.

What's drawn on the waveform:

- **Amber chips** labeled "1" and "2" mark Downbeat 1 and Downbeat 2.
- **Measure lines** mark every downbeat, either from a measured grid (built in the Guide Builder) or a constant grid computed from BPM.
- **Cyan** vertical line is the playhead.
- **Red regions** mark any mute regions you've painted with ⌥ -drag.
- The click stem, if you have one, can be drawn in red instead of its usual color: toggle it in **Settings → Audio → Display**.

The toolbar itself carries **Set Start**, **Set End**, **Clear**, **Loop** (covered above under *“GO and LOOP”*), and **Align Beat Grid**, which opens the downbeat and BPM popover described in *“Setting downbeats and computing BPM.”*

Level Song Volumes

Different songs in your library can end up at noticeably different loudness, even with every fader at unity, simply because the source stems were recorded or mixed differently. **Level Song Volumes** measures how loud each song really plays on every output and proposes one fader move per song and output, so each output sits at the same level in every song. The point: once your sound engineer sets the console channel for the click, the guide, the drums, the bass and so on, that setting stays right for the whole set. Reach it from **Settings** → **Library** or **Library** → **Level Song Volumes…**.

In plain terms, here's what it does:

- It scans every song and measures how loud each output actually sounds, not just where the faders sit.
- Every output is leveled on its own, across all songs: output 1 is matched against output 1 in every other song, output 2 against output 2, and so on for every output your stems use. Outputs are never tied to each other, so a quiet click never pulls the guide, and drums never pull the bass.
- When two stems share one output in a song, they move together and keep their balance relative to each other.
- An output used by only one song has nothing to match against, so it is left as it is.
- Corrections stop at +4 dB, well short of the fader's +12 dB ceiling, so every leveled fader still has real headroom left for you to work with on stage.
- Nothing changes until you review the plan and click Apply. Scanning only reads; it never writes a fader on its own.

Running it

StemDeck scans the whole library and shows "Song N of Total" while it measures. Once scanning finishes, a preview table lists every song and output with its current level and proposed adjustment. A song that can't be fully corrected within the fader's leveling range is flagged **"⚠ couldn't fully level — X dB short"** right in the table, so you can see it before you commit to anything.

Click **Apply**, confirm **Apply Leveling**, and StemDeck writes the new fader positions. A summary reports how many faders were adjusted across how many songs.

Undoing it

Library → Revert Volume Leveling restores every fader that leveling has ever touched, across every leveling run you've applied, not just the most recent one. Faders leveling never touched are left exactly as they were.

> **STAGE NOTE**
>
> Run Level Song Volumes at rehearsal, never right before you walk on stage. It's a great tool for evening out a set list you've built over months, but you want time to listen through the changes first. StemDeck takes a snapshot automatically before it applies anything, so you can always get back to where you started.

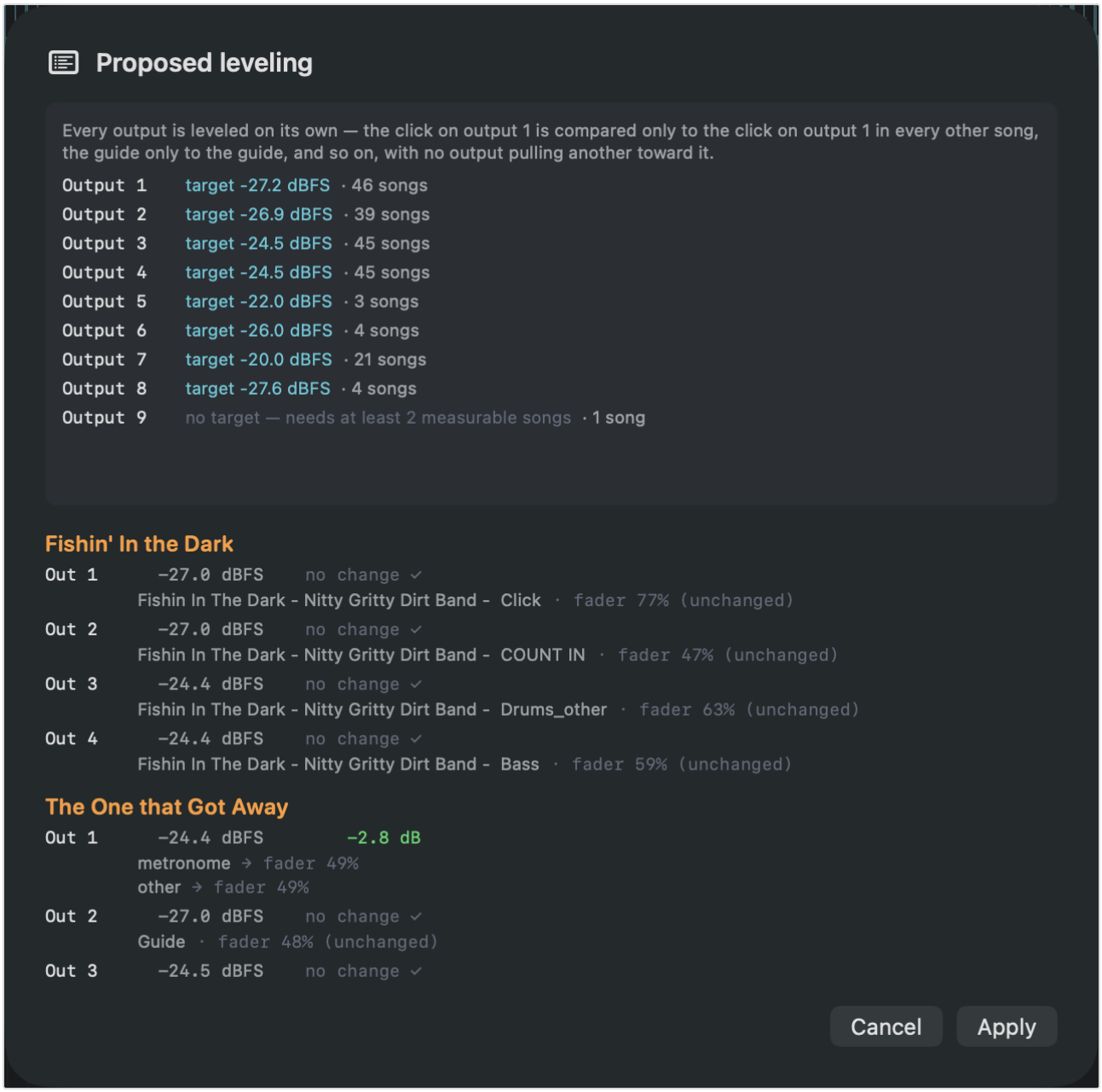


Figure 6.10: The Level Song Volumes preview table with one flagged row.

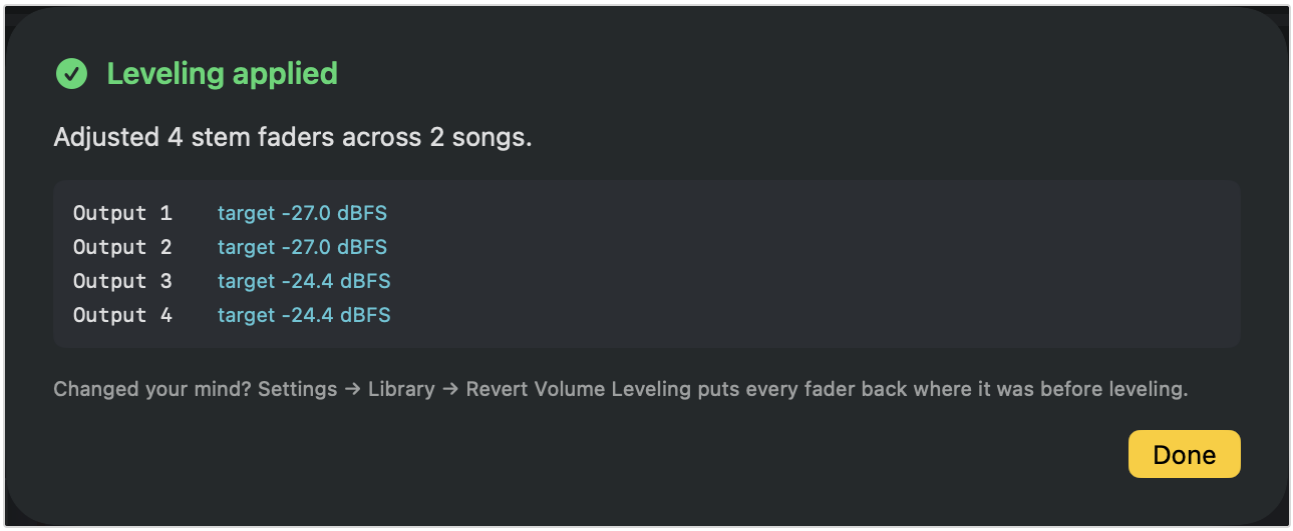


Figure 6.11: The Level Song Volumes success screen after Apply.

PART 7

Routing and Outputs

Choosing the output device

StemDeck plays through whatever output device you pick in **Settings** → **Audio**.

Under “Output Device” you’ll find:

- A **Device** picker. The first entry is always “System Default” (whatever macOS is currently using). Below that, one row per audio device StemDeck can see, labeled with its name and channel count, for example “Behringer X32 (32 ch)”.
- A **Refresh Devices** button, for when you plug something in after opening Settings.

Pick a device and StemDeck switches to it immediately. That choice is remembered on this Mac only. It has nothing to do with your song library, so a laptop dedicated to the practice room and a laptop dedicated to the stage can each remember their own interface without stepping on each other.

Below the picker, a status line tells you what you’re actually going to get:

- A green checkmark and “Per-stem channel routing active (N channels)” means the device has more than two outputs, and each stem’s OUT number is really being sent to its own channel.
- A gray info icon and “Stereo playback — per-stem OUT channels are ignored on a 2-channel device” means you’re on a stereo device (including “System Default” on a laptop), and every stem is being folded down to two channels no matter what its OUT number says.

If the interface you normally use isn’t connected when StemDeck launches, the picker quietly falls back to “System Default” and you get stereo playback. Nothing is lost: your routing choices are still saved, they’re just not being applied until you reconnect the real interface and select it again.

> **WARNING**
>
> Change output devices during soundcheck, never in the middle of a song. Swapping devices interrupts playback while StemDeck reconnects to the new hardware.

Stereo and multichannel

Whether StemDeck routes each stem to its own output, or just plays everything as one stereo mix, comes down to one thing: how many output channels the selected device reports. More than two channels, and per-stem routing kicks in. Two channels or fewer, and everything folds to stereo, OUT numbers and all.

This is why rehearsing on the laptop speakers and playing the gig on the interface look and sound different even though nothing in the song changed. At home you're hearing a stereo fold-down. On stage, on the interface, every stem goes exactly where its OUT number says.

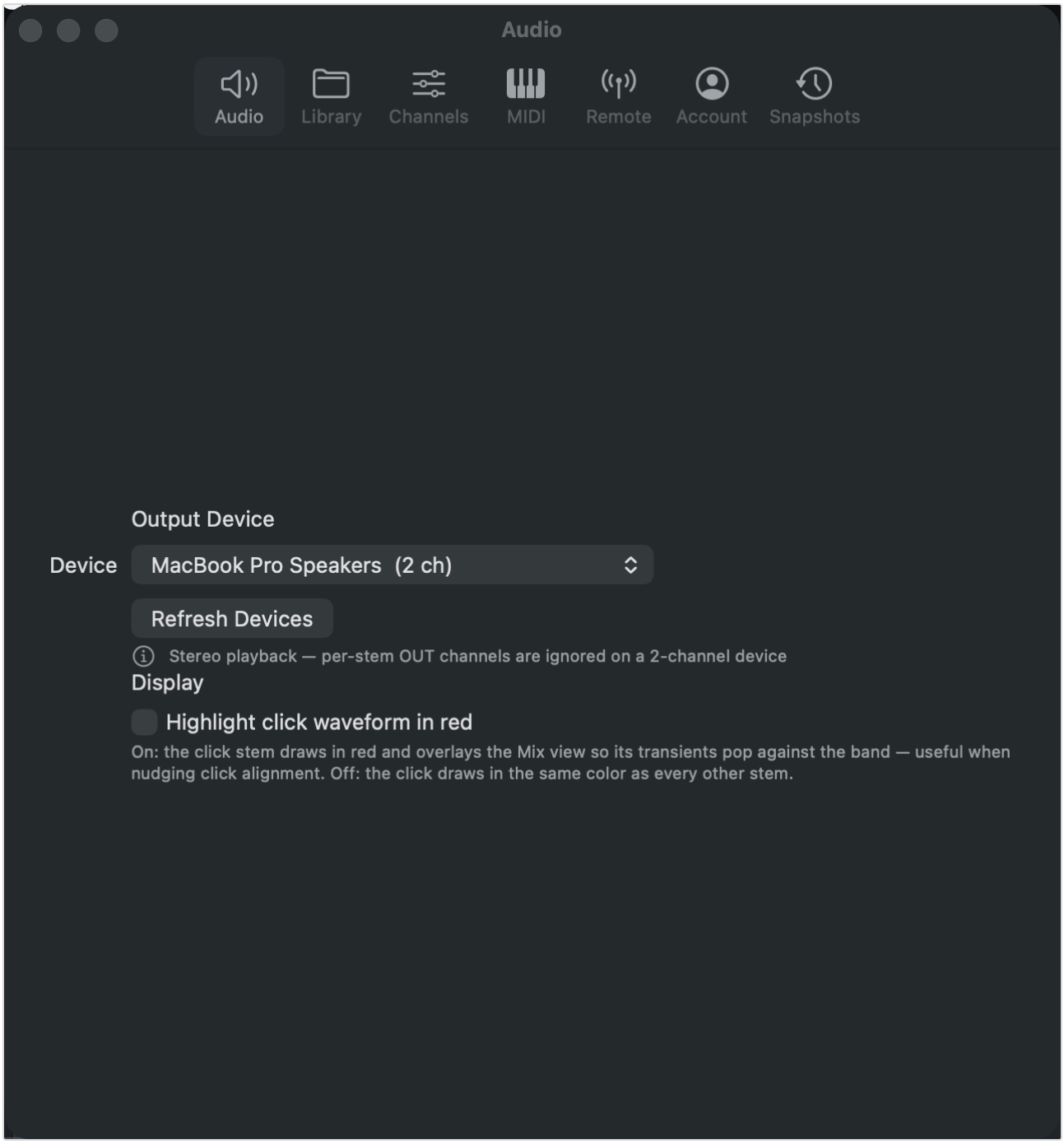


Figure 7.2: Settings → Audio with System Default selected, showing the stereo status line.

How a stem gets its output

Every stem has an output channel number, shown as “OUT” on its channel strip. StemDeck decides that number from three sources, checked in this order:

1. **A manual output**, pinned by hand on that stem and saved with the song. This travels with your library to any other Mac.
2. **The routing rules on this Mac**: a table of filename patterns that assigns an output by matching words in the stem’s file name.
3. **Output 1**, used as a fallback when nothing else applies, with the stem flagged so you notice.

The routing rules are what make dragging in a folder of stems mostly route itself. Out of the box, 1.7.0 ships with these defaults:

Table 7.1 — Default output rules.

Pattern	Output
click	1
metronome	1
count	2
guide	2
drum	3
bass	4
keys	5
guitar	7
vocal	9

“metronome” is just another name for a click track: it’s treated exactly like “click” for output, color, and ordering. Outputs 1 through 4 are the live outputs: click, count-in or guide, drums, and bass, the four things most bands need in the in-ears first.

Because rule-based outputs are re-derived from the filename every time a song loads, the same library folder routes correctly on a different Mac even if that Mac's rules are set up differently, or in a different order. A manual output is the one thing that doesn't get re-derived: once you pin it, it's saved with the song and follows the song wherever it goes.

> **TIP**
>
> Both Macs need to be on StemDeck 1.6 or later for manual outputs to survive. An older version sharing the same library folder doesn't know about pinned outputs and will drop them the next time it saves.

Setting an output by hand (the pin)

Each stem card has a small “OUT” field with up and down arrows, running from 1 to 64. Next to it is a pin glyph:

- **Hollow gray pin**: the output is coming from the routing rules. You can’t click a hollow pin to pin it, but typing a new number or clicking the stepper arrows does the job automatically.
- **Filled amber pin**: the output was set by hand and is now manual.

To go back to the routing rules, click the filled pin, or right-click the stem and choose **Use Routing Rule (OUT n)**. To keep a routing-rule output exactly where it is (protect it from ever being re-derived, even if you edit the rules later), right-click and choose **Keep OUT n as Manual**.



Figure 7.3: A stem card with a manual output, filled amber pin.

The Assign Outputs prompt

When you add a stem whose filename doesn't match any routing rule, StemDeck doesn't silently guess. It shows a sheet titled "Choose outputs for new stems":

> *No routing rule matches this file/these files, so it/they would play on output 1, the click output. Choose an output for each stem.*

Type an output for each row, then click **Assign**, or click **Not Now** to leave it for later. Anything you leave blank stays on output 1, and StemDeck flags it: a warning triangle appears next to that song in the sidebar, and the stem's OUT field tints amber.

Hover the warning triangle to see why it is there. The tooltip reads "Warning: no routing rule matches, so these stems play on output 1," followed by a list of the affected stems by name and file name, and then the fix: set each stem's OUT number on its card, or add a pattern in **Settings** → **Channels**.

You can come back to this later from **Song** → **Assign Outputs…**, which is enabled whenever the selected song has a flagged stem.

> **STAGE NOTE**
>
> An unassigned stem lands on output 1, the click output. If that stem happens to be a lead vocal, your drummer's in-ear click just turned into a vocal track. Clear every warning triangle before a show, not during one.

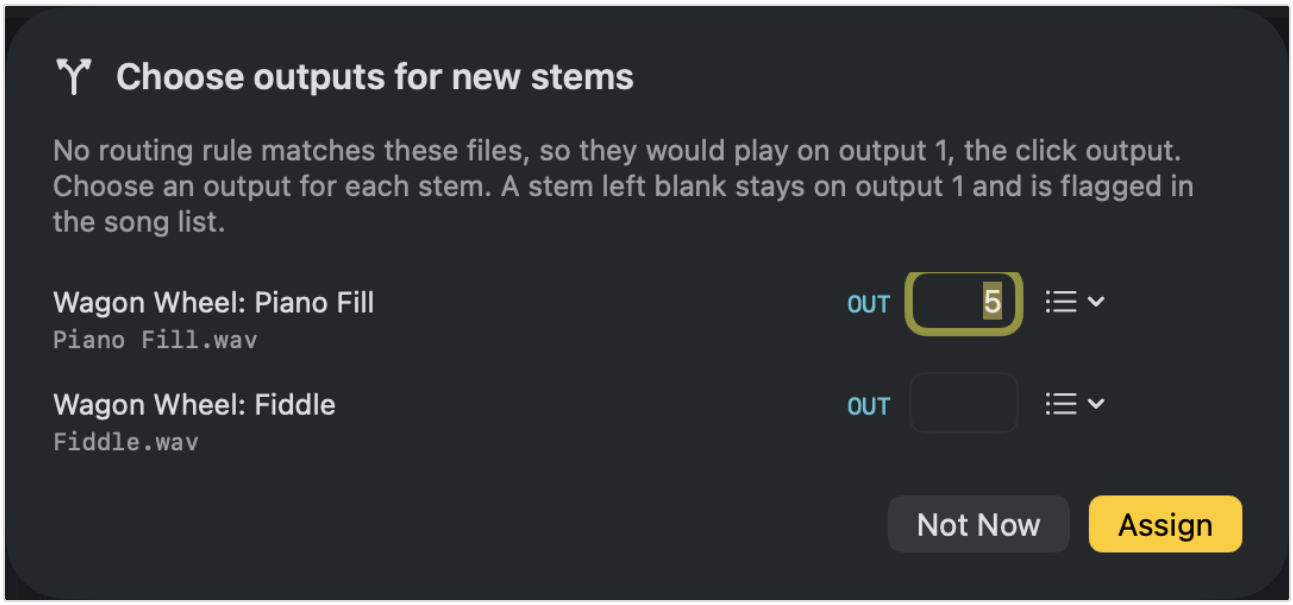


Figure 7.4: The Assign Outputs sheet with two unmatched stems.

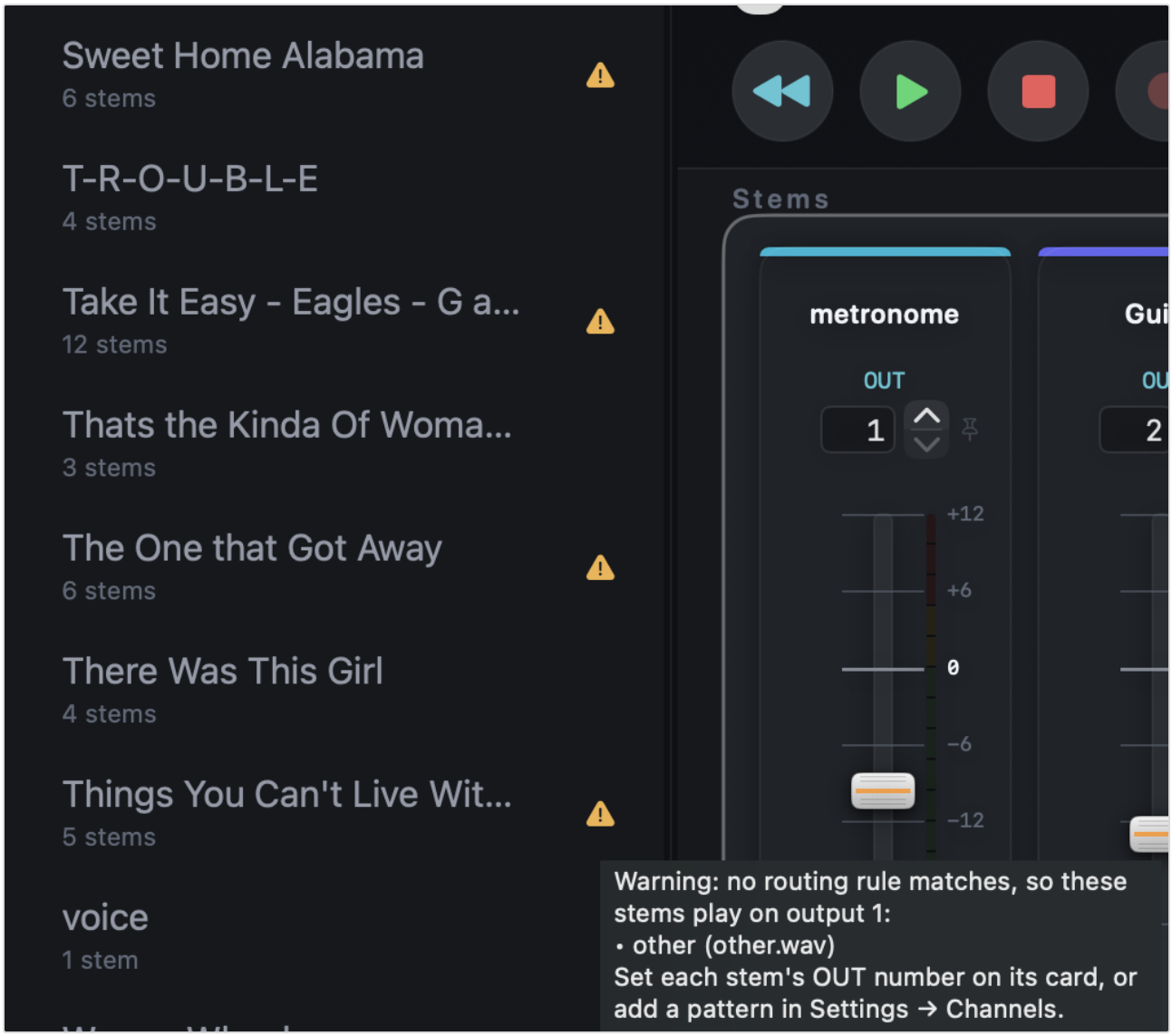


Figure 7.5: The sidebar showing a warning triangle on a song with a flagged stem.

Editing the routing rules

The rules themselves live in **Settings** → **Channels**, as a table of filename patterns and output channels: “Filename patterns drive the default output channel for newly-discovered stems.”

Each row is a pattern (a plain, case-insensitive piece of text to match inside a filename) and the output channel it maps to. Click **Add Pattern** to add a new row, or the delete button on a row to remove it.

Order matters: patterns are checked top to bottom, and the first one that matches wins. If you want a more specific pattern to take priority over a broader one, put it higher in the table.

Once you’ve changed the rules, click **Reapply to All Songs** to re-run them against every stem already in your library. It never touches a manual output. Afterward it reports how many stems moved and how many stayed put, for example “14 stems re-routed, 3 kept their manual output”.

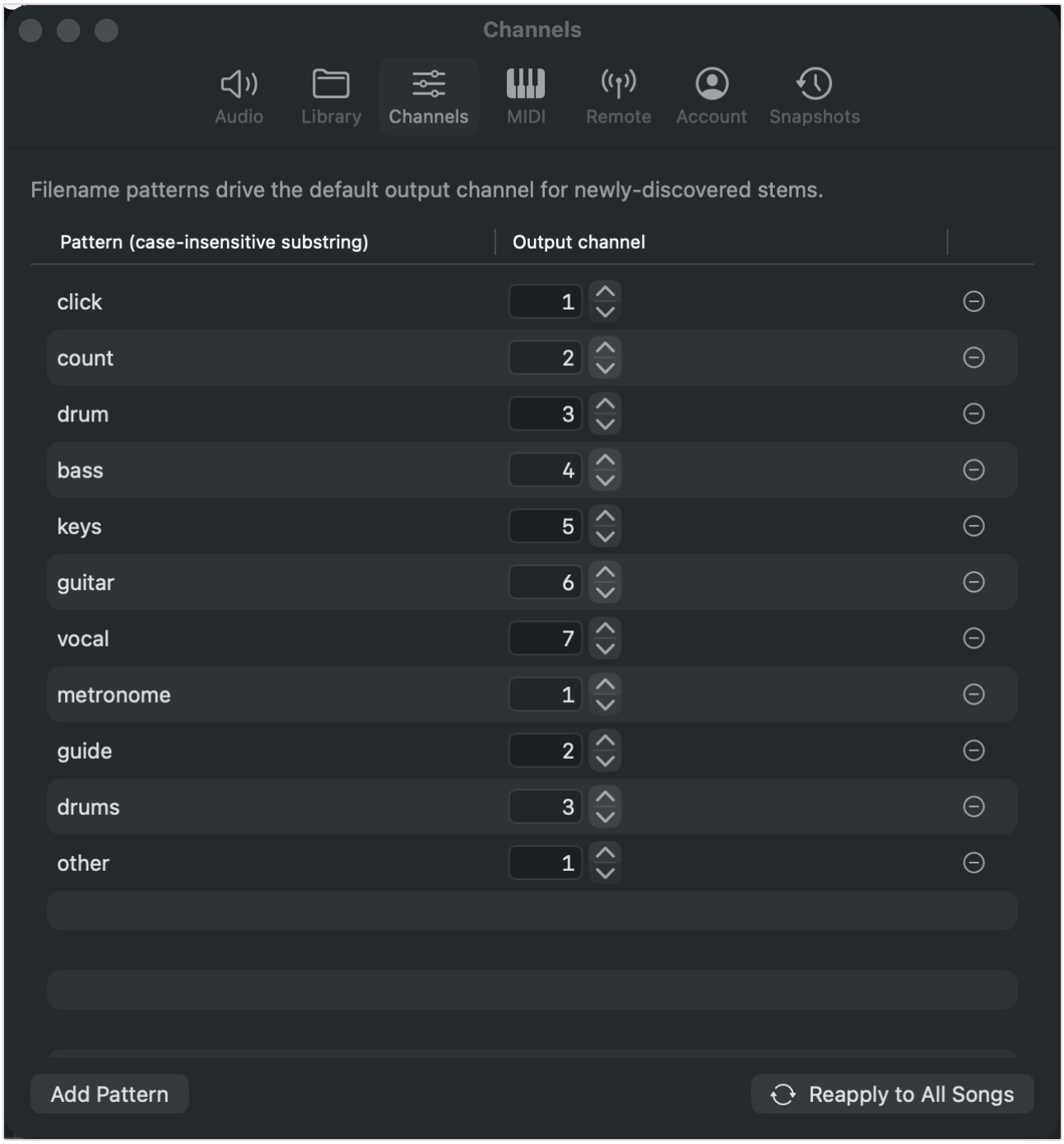


Figure 7.6: Settings → Channels with the default routing rules.

Clearing manual outputs

If you've pinned outputs by hand and want a fresh start, either for one song or your whole library, use **Library → Clear Manual Outputs…**.

Choose a scope, either the currently selected song or the whole library, and StemDeck tells you exactly what will happen: the stems return to the routing rules, and anything that no longer matches a rule falls back to output 1 and gets flagged. A snapshot of your current state is taken first, so you can recover if the result isn't what you expected.

Click **Clear N Manual Output(s)** to confirm, or **Cancel** to back out. Nothing happens until you click the confirm button.

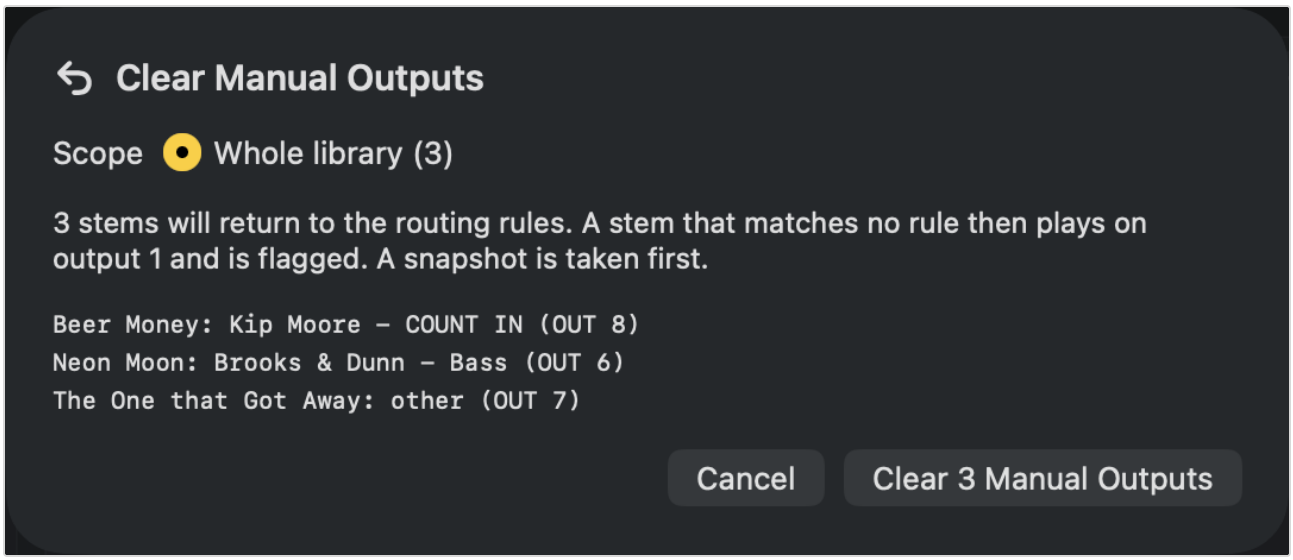


Figure 7.7: The Clear Manual Outputs sheet with library-wide scope selected.

Behringer X32 RACK

The X32 RACK is the reference live rig for StemDeck. StemDeck's outputs arrive at the console over its X-USB card as a block of USB channels. On the console's own Routing pages, patch those "Card" inputs into whichever input channels or buses you want to feed your in-ears from.

Get outputs 1 through 4, click, count-in or guide, drums, and bass, into the in-ears first. Those are the ones the band needs to play together. Everything past that is up to your mix.

StemDeck has no X32-specific settings of its own. The routing happens entirely on the console side, so coordinate with whoever's running front of house before the first song.

Soundcraft Ui24R

The Ui24R exposes 32 USB channels. Playing back from StemDeck, it's one-to-one: StemDeck output N arrives on Ui24R USB return N.

Recording is offset. The console's own USB send layout is fixed: USB 1 and 2 are the Main L/R, 3 through 10 are Aux 1 through 8, and 11 through 32 are the console's input channels 1 through 22. So if you want to record from console input N, pick channel N+10 in StemDeck's record input picker, since that's the raw USB channel the console actually sends it on.

Sample rate, buffers, and latency

Your audio interface, not StemDeck, decides the sample rate and buffer size. Stems play at whatever rate they were recorded in and get converted on the way out to match the device.

StemDeck adds a small, fixed amount of latency to every stem equally, so nothing drifts relative to anything else: your drums and your click stay perfectly locked no matter what the device's own latency happens to be. The transport clock you see on screen already accounts for this, so what it shows is what the room actually hears, not a slightly-ahead internal number.

PART 8

MIDI and Remote Control

Connecting a MIDI controller

StemDeck listens to any Core MIDI source. Foot controllers, keyboard controllers, pad controllers, anything that sends MIDI Control Change (CC) messages will work.

There is no source picker in StemDeck. The app connects to every Core MIDI source your Mac can see and stays connected as controllers come and go.

Setup

1. Connect the controller. A USB class-compliant controller shows up in Core MIDI as soon as it is plugged in, no drivers needed.
2. For a Bluetooth controller, pair it first in macOS's own **Audio MIDI Setup** utility (in Applications → Utilities). Once it is paired there, StemDeck sees it automatically.
3. Open **Settings** → **MIDI**.



Figure 8.1: The Settings MIDI tab with a controller connected.

An iPad running a MIDI app can also reach StemDeck over Wi-Fi, using Core MIDI's Network Session feature. Set that up in Audio MIDI Setup on the Mac and the MIDI app on the iPad; once the session is connected, StemDeck treats it exactly like a wired controller.

Because StemDeck listens to every source at once, you do not need to tell it which controller to use. Plug something in, send it a CC message, and it works.

Default MIDI commands

Out of the box, StemDeck responds to these Control Change messages, all on MIDI channel 16:

Table 8.1 — Default MIDI commands.

CC	Command
119	Play
120	Stop
121	Next song
122	Previous song
1–99	Select song N in the active setlist

A message only triggers a command when its value is 64 or higher. That matches how most foot controllers and pad controllers send button presses, including one that sends 127 on press and 0 on release: only the 127 fires anything.

> **STAGE NOTE**
>
> Play is Play, not **GO**. It loads the song if it is not already loaded, arms the count-in, and starts playback exactly like clicking the transport's Play button. Next and Previous only change which song is selected. They do not start it. If your foot controller needs to both select and start a song in one press, send a song-select CC and a Play CC together.

CC numbers 1 through 99 double as song-select triggers: CC 1 loads the first song in the currently active setlist, CC 2 the second, and so on. This range is fixed and is not one of the steppers in Settings, so if you remap the transport CCs, keep them above 99 or you will collide with a song-select number.

Changing the mapping

Open **Settings** → **MIDI**. Five steppers control everything:

- **Channel** (1 to 16, default 16). Messages on any other channel are ignored.
- **Play CC** (default 119)
- **Stop CC** (default 120)
- **Next CC** (default 121)
- **Previous CC** (default 122)

There is no learn mode. Click a stepper's arrows, or type a number, to set the CC it responds to. Changes take effect immediately, no restart needed.

> **TIP**
>
> Keep the four transport CCs at 100 or above. The 1–99 range always means "select song N," and a transport CC that lands inside it will fire the song-select command instead of the one you meant.

Remote control from a phone or tablet

StemDeck can run a small web page from your Mac that a phone or tablet can open in its browser. From that page you can hit **GO**, arm **LOOP**, hit **Stop**, and pick a setlist and song, all without walking over to the laptop. The page updates live as the song changes.

This is handy for a singer who wants to drive the show from the front of the stage, or a second player who needs to see what is coming up next.

> **The phone and the Mac must be on the same network.** The remote talks to your Mac directly over the local network, not over the internet. Join the phone or tablet to the same Wi-Fi network as the Mac. A phone on cellular data, or on a different Wi-Fi (a venue's guest network, for example), cannot reach it. Some guest and public networks also block devices from seeing each other even when they're on the same network; if the page won't load, that's the usual reason, and your own router or a hotspot fixes it.

Turning it on

Open **Settings** → **Remote**.

1. Set a PIN first. It needs to be 8 to 12 characters. Until you set one, the toggle below is disabled and the tab tells you why.
2. Turn on **Enable remote control**. The status dot changes to "Server running."
3. Optionally set a **Service name**, so the server is easy to recognize if more than one Mac is running StemDeck nearby. If you leave it blank, StemDeck uses your Mac's own name.
4. The **Port** defaults to 8080. Leave it unless something else on your network already uses that port.



Figure 8.2: Settings → Remote with the server running.

Once the server is running, a **URL** row appears with an **Open** button. That is the address to type into the phone or tablet's browser, on the same Wi-Fi network as the Mac.

Connecting a device

The quickest way is the **QR code**:

1. Make sure the phone or tablet is on the **same Wi-Fi network** as the Mac.
2. In StemDeck's main window, click the **Wi-Fi icon** at the far right of the top bar. It's cyan while remote control is running (dimmed when it's off; clicking it then opens Settings → Remote). A **Connect a phone** popover opens with a QR code.
3. Point the phone's camera at the QR code and tap the link that appears. The remote opens in the browser and **signs in automatically**: the PIN is built into the code, so there's nothing to type.
4. The first time, the browser shows a security warning before the page loads. This is expected: the connection is encrypted, and the certificate that encrypts it was generated on your own Mac rather than issued by an outside authority, so the browser cannot already vouch for it. Tap through the warning. It is your Mac.

> Because the QR code carries the PIN, anyone who scans it can control the show. Show it to your own band, not the room.

To connect by hand instead, the same popover (and **Settings** → **Remote**) shows the address and the PIN underneath the QR code. Type the address into the phone's browser, tap through the security warning, and enter the PIN.

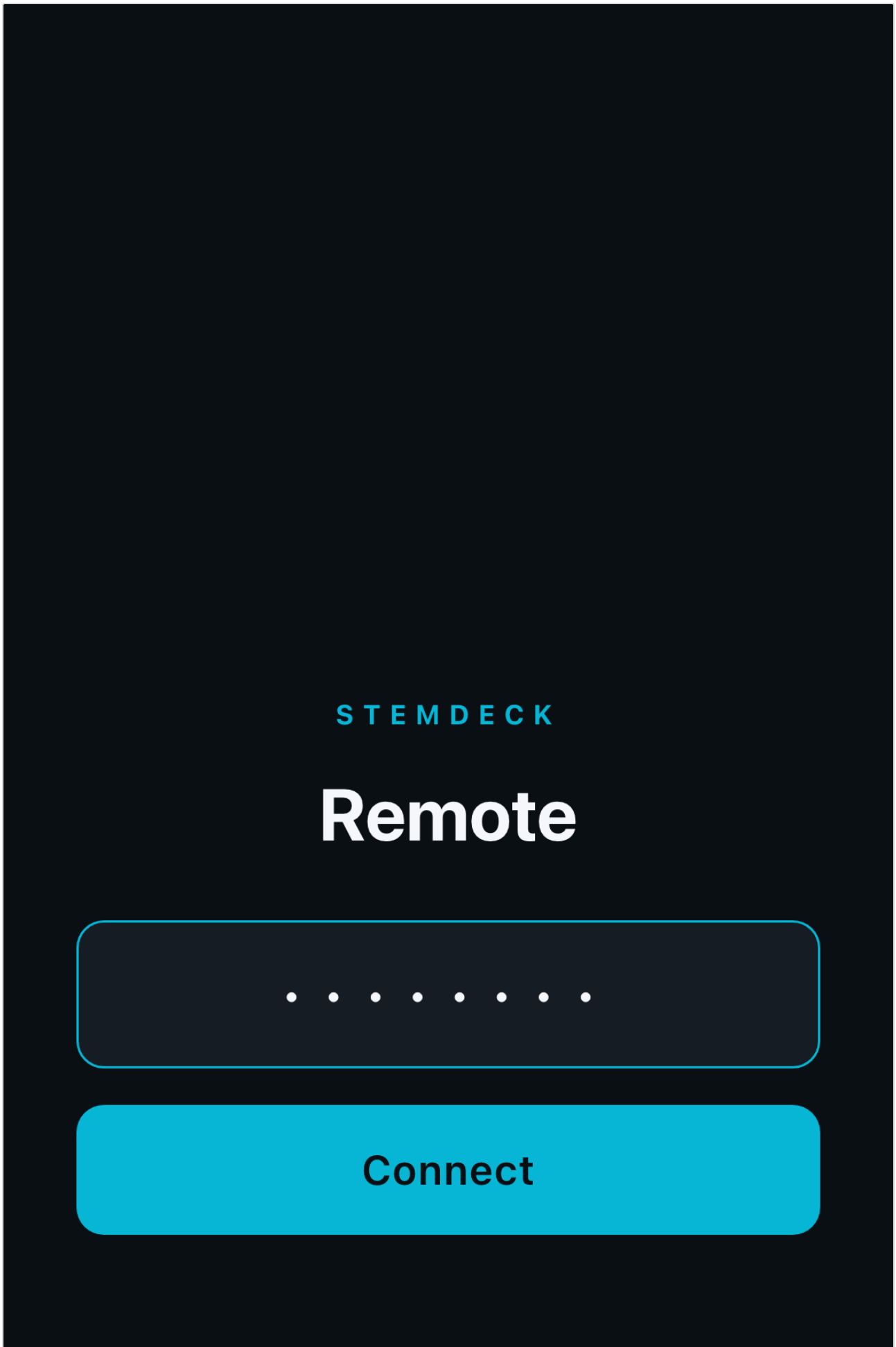

STEMDECK
Remote
Connect

Figure 8.3: The remote login screen on a phone.

Once a device is signed in, it stays signed in on that phone or tablet for 24 hours, so nobody has to re-enter the PIN at every soundcheck. Enter the wrong PIN a few times in a row and that device gets locked out for a while before it can try again, so a mistyped PIN cannot be brute-forced.

What the remote can do

From the phone, the remote page shows the same essentials as your transport: the current and next-up song, a **GO** button, a **LOOP** switch, and a **Stop** button. A separate screen lets you open a setlist and tap a different song to load it.

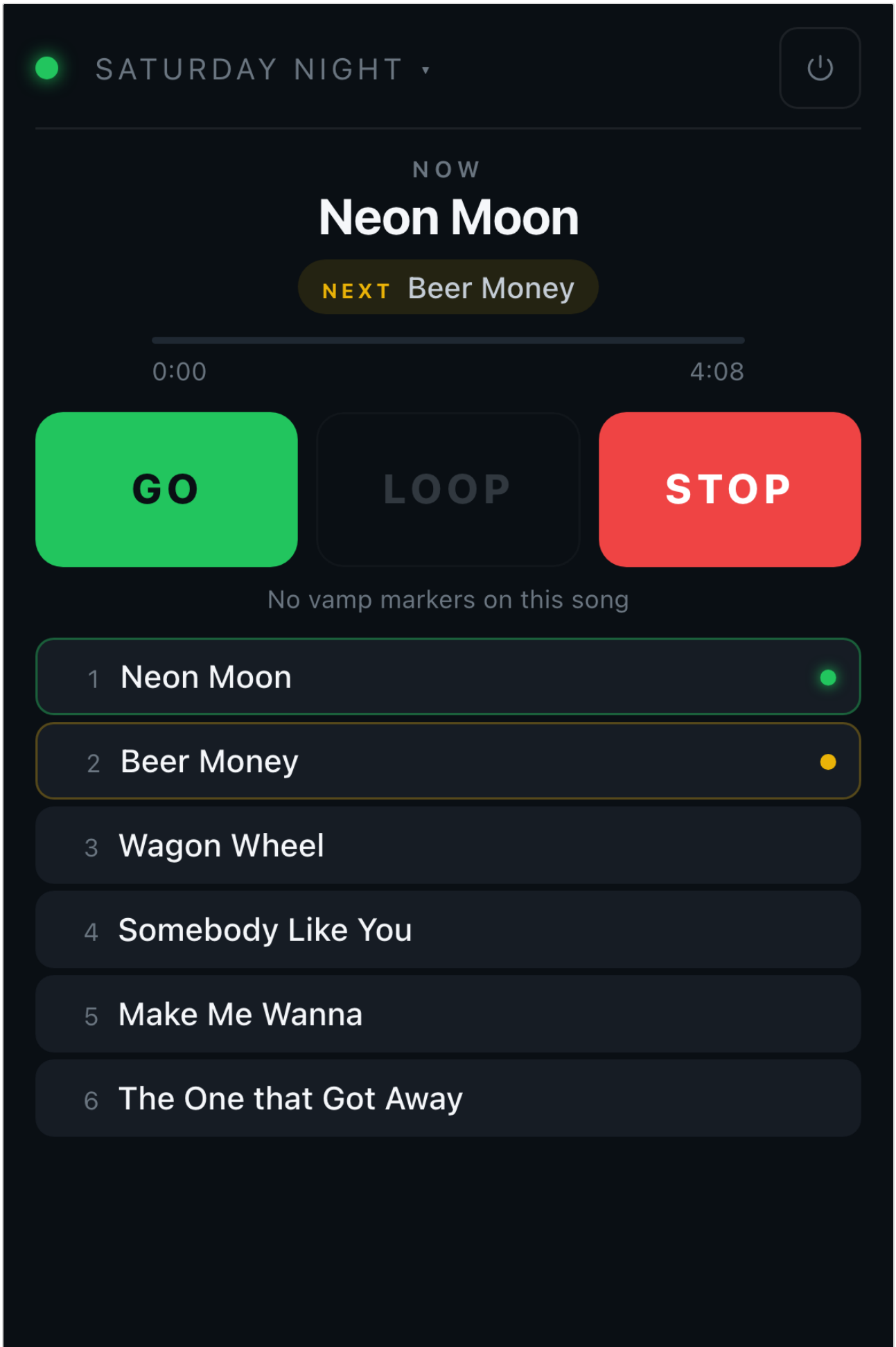

SATURDAY NIGHT
NOW
Neon Moon
NEXT Beer Money
0:00
4:08
GO
LOOP
STOP
No vamp markers on this song
1 Neon Moon
2 Beer Money
3 Wagon Wheel
4 Somebody Like You
5 Make Me Wanna
6 The One that Got Away

Figure 8.4: The remote’s transport screen.

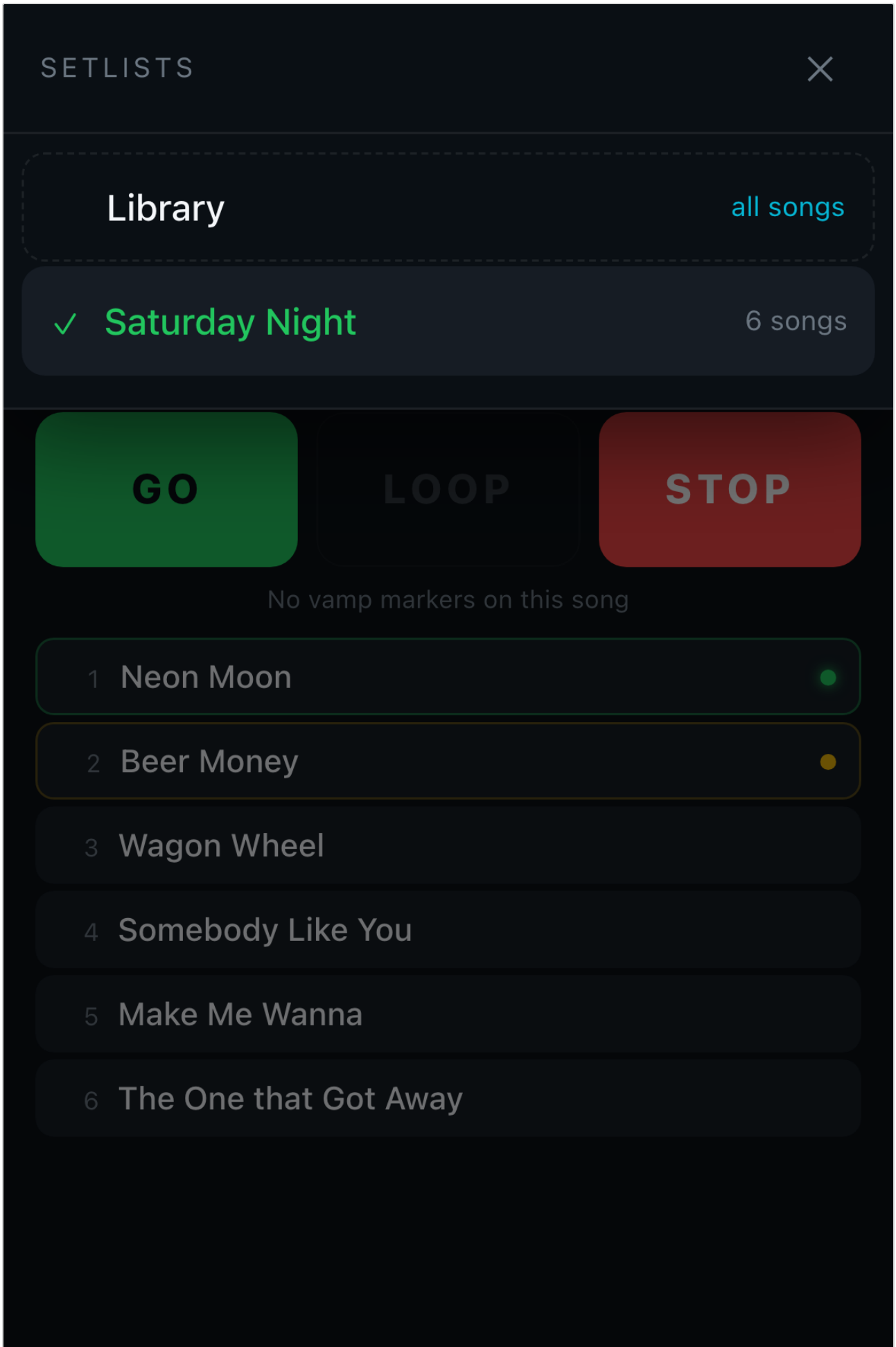

SETLISTS
Library
all songs
✓ Saturday Night
6 songs
GO
LOOP
STOP
No vamp markers on this song
1 Neon Moon
2 Beer Money
3 Wagon Wheel
4 Somebody Like You
5 Make Me Wanna
6 The One that Got Away

Figure 8.5: Picking a setlist and song from the remote.

> **WARNING**
>
> The remote's **Stop** is a real stop, the same as the Stop button on the transport. It is not a mute. If you want to silence the mix without losing your place in the song, use **MUTE ALL** at the Mac instead, not the remote.

Turning **Enable remote control** off at the Mac immediately logs out every connected phone and tablet. There is no partial state, off means off for everyone.

> **STAGE NOTE**
>
> Run the remote on a band-only Wi-Fi network where you can, not the venue's open guest network. Test it at soundcheck, from the actual phone the singer or player will use on the night, so the one-time certificate warning and PIN entry are already behind you before doors.

PART 9

Mix Export

Why export a mix

StemDeck's job on stage is live playback through a multi-channel interface. But the band still needs a way to rehearse the material at home, on a phone or in a car, without hauling the rig along.

Export Mix renders the song to a single stereo file that sounds like what comes out of the Mac on stage: every fader, mute, solo, pitch shift and tempo change baked in.

It is a render, not a live pass through the outputs. StemDeck reads each stem's audio directly and mixes it offline, so there is no chance of the file catching a dropout, a click, or a stutter the way a real recording of the room might. What you get back is exactly what the faders say, every time.

> **STAGE NOTE**
>
> The export includes the click lead-in on purpose. Whoever rehearses to this file needs to count in exactly the way the band does live. Do not think of the lead-in as something to trim off to make the file "cleaner." It is the count-in.

Exporting

Open the song you want to export, then choose **File** → **Export Mix…** (⇧ ⌘ E), or right-click **MASTER** and pick **Export Mix…** from there.

Either way brings up the **Export Mix** sheet. Its subtitle is a plain description of what you are about to get: a render of the song as you'd hear it on stage, with faders, mute, solo, pitch, tempo, and the click lead-in all honored.

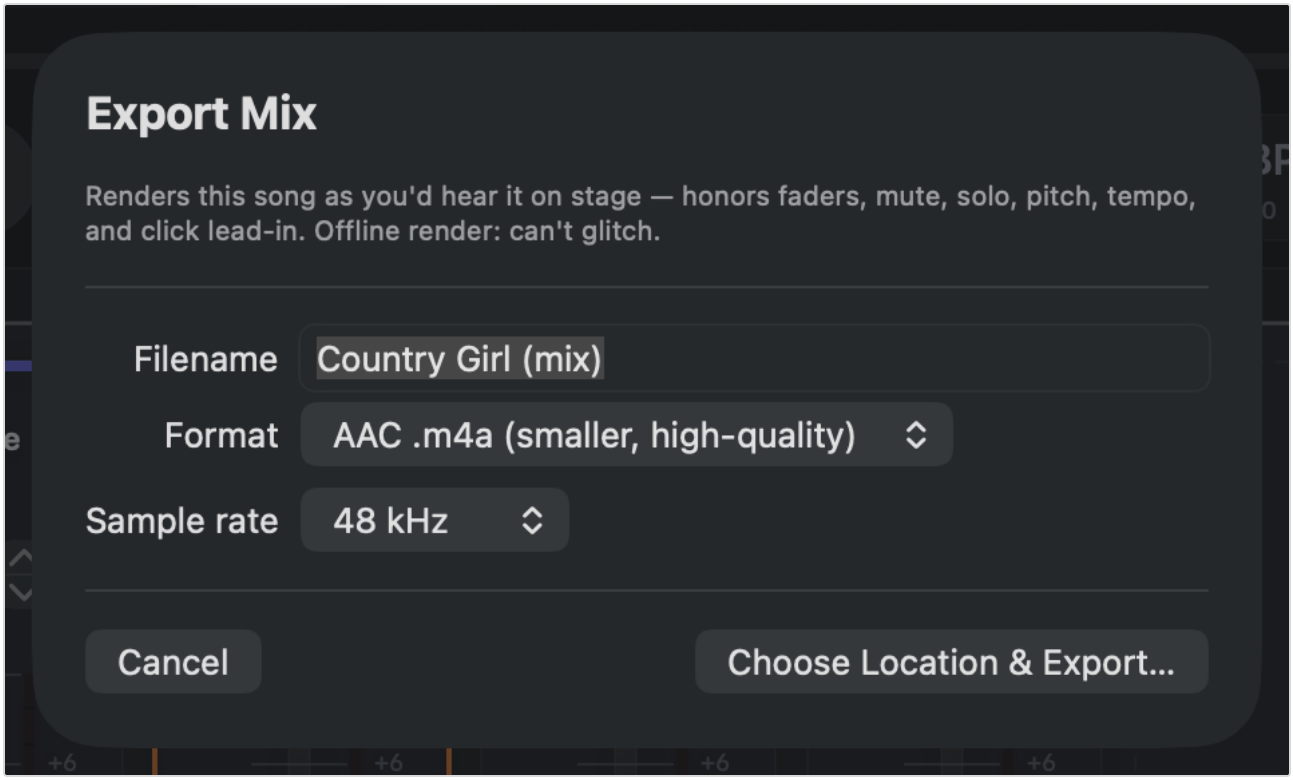


Figure 9.1: The Export Mix sheet.

The sheet has two choices to make:

- **Format.** Either **WAV (24-bit, lossless)** or **AAC .m4a (smaller, high-quality)**. AAC is selected by default, since it is small enough to text or email and still sounds excellent. Pick WAV if a bandmate wants to drop the file straight into a DAW, or if you want an archival copy with nothing compressed away.

kHz only matters if every stem in the song was recorded at that rate to begin with.

Click **Choose Location & Export…**, pick a folder in the save panel, and StemDeck starts rendering. A progress readout tracks the render as it happens.

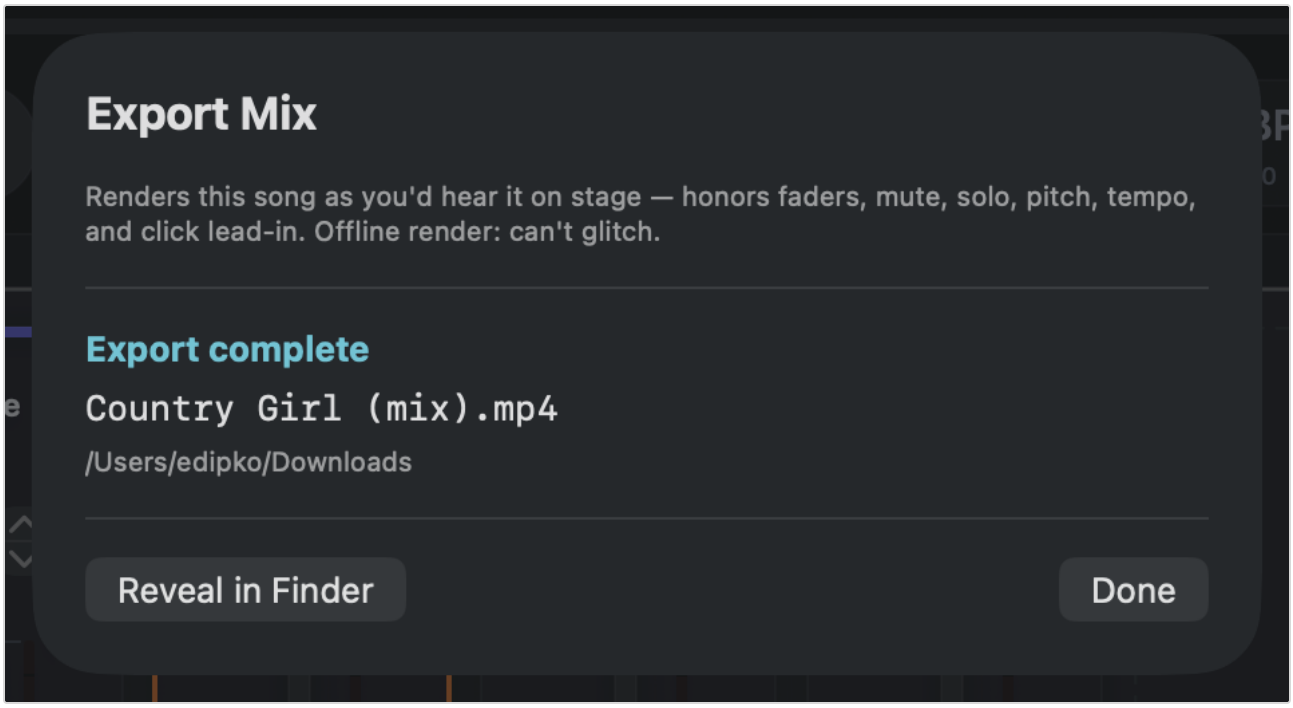


Figure 9.2: A finished export, with Reveal in Finder.

When it finishes, click **Reveal in Finder** to jump straight to the file.

What the export contains

The exported file matches the song exactly as you have it set up:

- Every stem's fader level.
- Mute and solo, as currently set.
- Pitch (the transpose you've dialed in).
- Tempo (the playback rate you've dialed in).
- The click lead-in, if the song has one.
- Each stem's start point and alignment offset.

It is a stereo file, not a multi-channel one. Whatever output each stem is routed to on stage, the export folds everything down to two channels, the way it would sound through a pair of headphones or a phone speaker.

There is no MP3 option. Export WAV and convert it with any converter you already have, such as the Music app or a third-party tool, if you specifically need an MP3.

> **TIP**
>
> Export a fresh mix any time you change a fader, a mute, the pitch, or the tempo for a song. The file does not update itself. If a bandmate is rehearsing from an old export while you've since re-leveled the song, they are practicing to the wrong balance.

PART 10

Reference

Menu bar

StemDeck's menu bar follows macOS conventions, with a few app-specific menus for the stage. This chapter lists every item, its shortcut, and when it is greyed out.

StemDeck menu

- **About StemDeck**: version and credits. Always available.
- **Settings…** ⌘ , : opens the Settings window. Always available.

File menu

- **New Song from Files…** ⌘ N : pick audio files and create a new song. Unavailable without an active subscription, or while another sheet is open.
- **Import Folder…** ⇧ ⌘ N : import one song folder into your library. Same availability as New Song from Files.
- **Rescan Library**: re-reads every song folder from disk. Unavailable while the library is offline or a library decision is pending.
- **Reveal Library in Finder**: opens your library folder. Unavailable while a library decision is pending.
- **Change Library Folder…**: point StemDeck at a different folder. Unavailable while the library can't currently be changed, or another sheet is open.
- **Save Snapshot** ⇧ ⌘ S : saves your work and records a manual snapshot. Always available.
- **Import Song or Setlist…**: import one or more `.stemdeck` packages. Needs an active subscription; works even before a library folder is set.
- **Export Song…**: export the selected song as a package. Needs a song selected.
- **Export Setlist…**: export the active setlist as a package. Needs an active setlist.
- **Export Mix…** ⇧ ⌘ E : bounce the current song to a file. Needs a song with stems, and an active subscription.

Edit menu

View menu

- **Toggle Songs** ^ ⌘ S: shows or hides the library sidebar. Only meaningful, and only enabled, when the window is narrow enough that the sidebar can hide. At a normal window width the sidebar is always visible and this item stays disabled.
- **Zoom In Waveform** ⌘ =, **Zoom Out Waveform** ⌘ –, **Fit Waveform** ⌘ 0: zoom the waveform. All three need a song with stems loaded.

Transport menu

None of the Transport items carry a keyboard shortcut. That is deliberate: Space and the arrow keys are wired directly to the window so nothing you assign later in a menu can steal them mid-song. Every item here needs a song that's loaded and ready.

- **GO**: load the song from the top and start it, same as pressing Space.
- **Play** / **Pause**: the label changes with playback state.
- **Stop**: stop and rewind to the start.
- **Record Punch In** / **Record Punch Out**: the label changes depending on whether a take is already armed or in progress.
- **Loop**: a checkable item that arms or disarms the vamp loop. Disabled unless the song has a loop region (Start and End both set).

Song menu

- **Rename Song…**: no shortcut, on purpose, since it's a step you don't want to trigger by accident. Needs a song selected, an active subscription, and the song not mid-recording.
- **Tap Tempo…**: opens the tap-tempo popover. Needs a song selected.
- **Align Beat Grid…**: opens the downbeat and BPM popover. Needs a song with stems.
- **Generate Click Track…**: opens Tempo & Time Signature. Needs a song with stems that isn't mid-recording.
- **Guide Builder…**: needs a song with stems and a BPM set, and the song not mid-recording.
- **Timeline Editor…**: needs a song with stems that isn't mid-recording.
- **Assign Outputs…**: needs the selected song to have at least one stem flagged for landing on output 1 with no rule match.

Setlist menu

- **Library**: a checkable item, switches to viewing your whole library instead of a setlist. Always available.
- One checkable row per setlist, switches to that setlist.
- **New Setlist…**: needs an active subscription and no other sheet open.
- **Rename Setlist…**: needs an active setlist.
- **Delete Setlist…**: needs an active setlist.
- **Add Current Song to** (submenu): lists your setlists, each disabled if the current song is already in it. Shows a disabled placeholder when you have no setlists yet.

Library menu

- **Level Song Volumes…**: needs a subscription and a library you can write to.
- **Revert Volume Leveling**: needs a leveling run to revert.
- **Back Up Library…**: needs a subscription and a library you can write to. Refuses while a song is playing.
- **Restore from Backup…**: needs a subscription. Works on a new Mac with no library yet. Refuses while a song is playing.
- **Copy Outside Stems Into Library…**: runs the startup copy-in on demand. Needs stems currently living outside your library folder.
- **Clear Manual Outputs…**: needs at least one stem with a manual output set.
- **Keep Hand-Set Outputs as Manual…**: needs outputs that were hand-set in an older version of StemDeck and haven't been converted yet.
- **Repair Stem File Names…**: available unless a library decision is pending.
- **Reconnect Library**: needs the library to currently be offline.
- **Snapshots…**: opens Settings at the Snapshots tab. Needs an active subscription.

Window menu

Standard macOS window commands.

Help menu

- **StemDeck User Guide**: opens this guide in your browser.

- **Join the StemDeck Mailing List…**: opens the mailing list signup form (tips, beta builds, a vote on what gets built next). Optional; see *Joining the mailing list* in Part 1.
- **Check for Updates…**: asks the Mac App Store whether a newer StemDeck is out and tells you the answer. Greyed out while a song is playing or a dialog is open.
- **Contact Support…**: opens a pre-addressed email to support@edipkoinc.com.
- **StemDeck Website**: opens www.stemdeck44.com.

> **TIP**
>
> Menu items that need a subscription are greyed out while StemDeck is unsubscribed or a grace period has run out. If most of the Transport and Song menus are grey, check **Settings** → **Account** first.

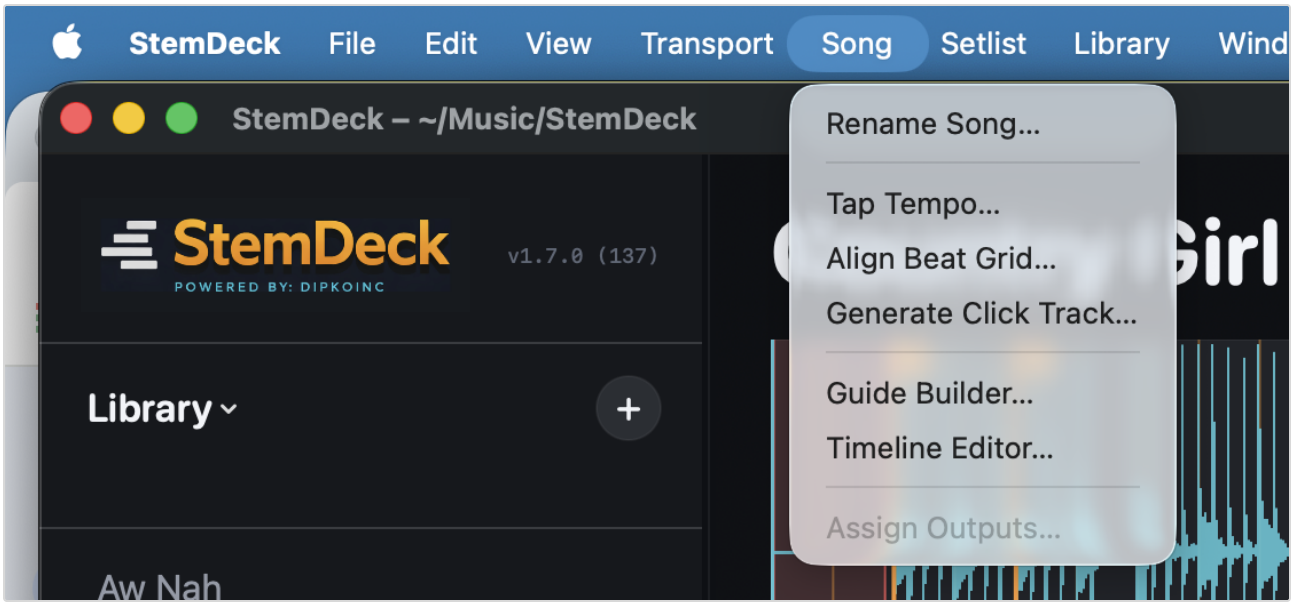


Figure 10.1: The Song menu, showing Align Beat Grid and Guide Builder.

Keyboard and mouse shortcuts

Table 10.1 — Keyboard shortcuts in StemDeck 1.7.0.

Shortcut	Action
Space	GO, or turn Loop off if it's on
↑ / ↓	Select the previous / next song, without changing playback
⌘ N	New Song from Files…
⇧ ⌘ N	Import Folder…
⌘ R	Rescan Library
⇧ ⌘ S	Save Snapshot
⇧ ⌘ E	Export Mix…
^ ⌘ S	Toggle the library sidebar (narrow windows only)
⌘ = / ⌘ – / ⌘ 0	Zoom waveform in / out / to fit
⌘ ,	Settings…
⇧ ⌘ ?	Show Welcome Tour
⌘ Q / ⌘ W / ⌘ M / ⌘ H	Quit / close window / minimize / hide StemDeck
Esc / Return	Dismiss / confirm a sheet or alert

Table 10.2 — Mouse and trackpad gestures.

Gesture	Result
Double-click a fader, or MASTER	Reset that fader to unity (0 dB)
Option-drag a fader	Fine control, quarter speed
Double-click PITCH or TEMPO	Reset to 0 semitones / 100%

Option-drag the waveform	Paint a mute region
Right-click MASTER	Export Mix…

These two tables cover every shortcut and gesture in the app. Most controls, including seek, mute, solo, and the OUT field, are mouse-only by design: they’re things you set up before the show, not things you touch mid-song.

Settings

Open Settings with ⌘ , . It has seven tabs.

Audio

Device picker, default **System Default**, other entries show name and channel count (“Behringer X32 (32 ch)”), per-Mac only. **Refresh Devices**. A status line reports whether per-stem routing is active. **Highlight click waveform in red**, off by default.

Library

Library Folder path with **Change…**, **Reveal in Finder**, **Rescan**, and a song count. **Folder Name Patterns**, the patterns StemDeck uses to read a BPM from a folder name (for example “Neon Moon (110)”), first match wins, with **Restore Defaults**. **Clear All Stems From Every Song**, a maintenance button that never touches the files on disk. **Level Song Volumes…** / **Revert Volume Leveling**, same tools as the Library menu.

Channels

The routing rules table, filename pattern to output number (1 to 64), checked in order. **Add Pattern** adds a row. **Reapply to All Songs** re-runs every rule, without moving a stem that has a manual output.

MIDI

Five numbered steppers, **Channel** (1 to 16, default 16), **Play CC**, **Stop CC**, **Next CC**, **Previous CC** (each 0 to 127, defaults 119/120/121/122). Listens on every visible MIDI source; no separate device picker.

Remote

Account

Shows your subscription status, plus **Subscribe Now**, **Manage Subscription**, and **Restore Purchases** as appropriate. See *“Subscription and account”* below.

Snapshots

A list by date with a **Restore…** button each, empty state “No snapshots yet.”, and **Take Snapshot Now**, **Refresh**, **Show in Finder**.

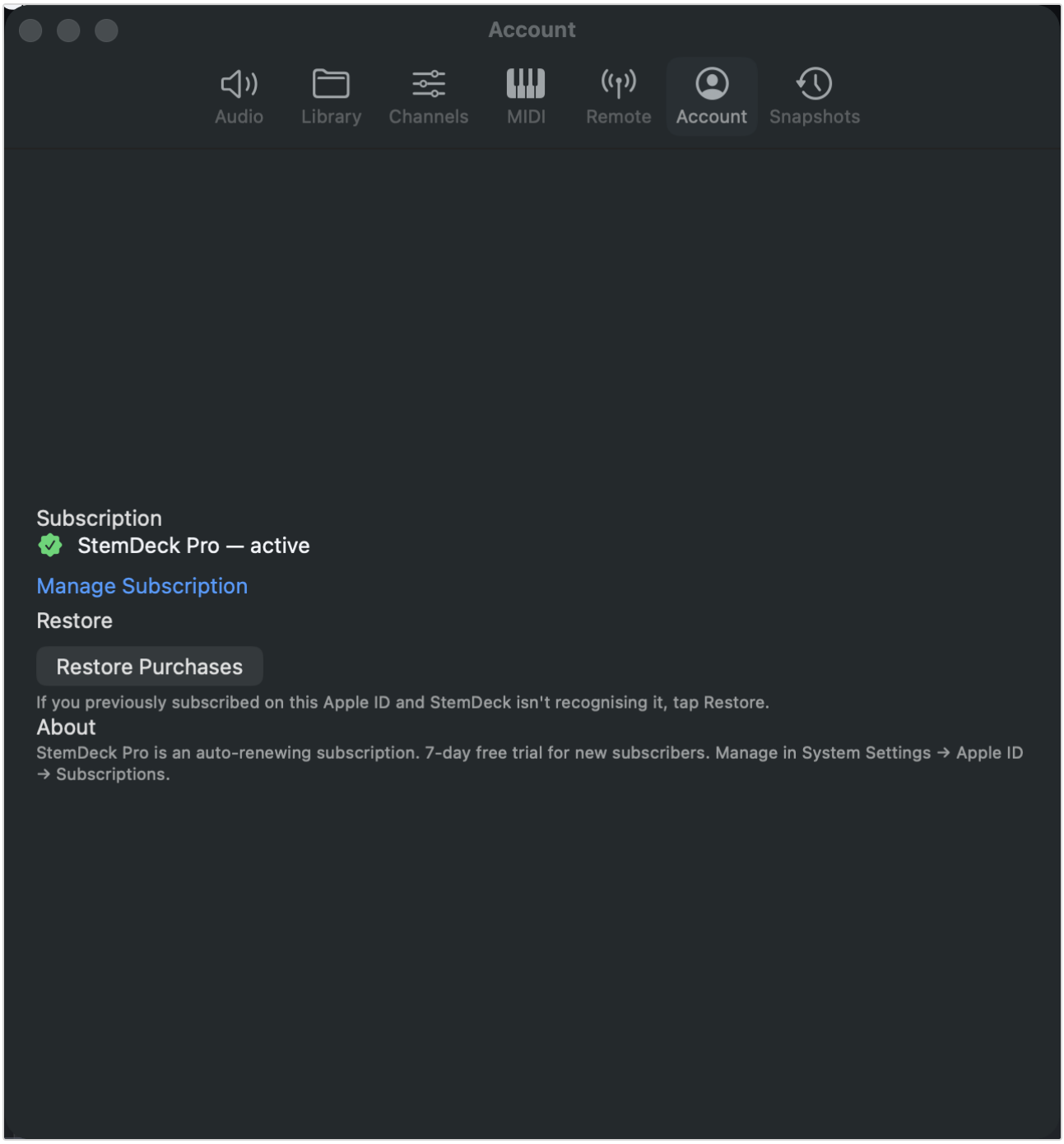


Figure 10.2: Settings, Account tab, showing an active StemDeck Pro subscription.

Where StemDeck keeps things

Your songs, stems, and setlists live in your library folder, wherever you chose it (the default is `~/Music/StemDeck`). It looks like this:

```
~/Music/StemDeck/
├── Neon Moon (110)/
│   ├── .stemdeck.json       (hidden, per-song metadata)
│   ├── Click.wav
│   ├── Drums.wav
│   └── Bass.wav
├── Foreplay - Long Time (92)/
│   └── ...
├── setlists/
│   └── jimmyts-XXXXXXXX.json
└── .stemdeck-library.json   (hidden cache, rebuilt from a Rescan)
```

Each song is a folder. Inside it are the stem files and a single hidden file that carries everything StemDeck knows about the song: markers, tempo, output pins, cue placements. You never need to open or edit that file yourself.

Anything StemDeck generates for a song, a click track, a built guide, a Timeline Editor bake, lands right inside that song's own folder alongside your stems. If you replace a built guide, the old one isn't thrown away: it's kept in the folder labeled "Guide (replaced `<date>`)" so you can go back to it.

A deleted song's folder goes to the Trash, not straight to the void, you can recover it in Finder the same way you'd recover anything else you deleted by mistake.

Your per-Mac settings, the audio device you picked, your routing rules, MIDI mappings, remote-control setup, master volume, live outside the library folder entirely, in StemDeck's own app data. That's why they don't travel when you move your library to another Mac. Snapshots live there too; **Settings** → **Snapshots** → **Show in Finder** opens that location for you.

> **TIP**
>
> Because per-Mac settings aren't in the library folder, moving your library to a second laptop won't carry over your audio device choice, routing rules, or MIDI mappings. Set those up once on each Mac.

Subscription and account

StemDeck Pro is required to perform with StemDeck: transport, song tools, library tools, and export are all unavailable without an active subscription. The library and Guide Builder are also on the subscription; a locked copy of StemDeck can look at your songs but can't run a show.

Two plans, both with a 7-day free trial for new subscribers:

- **Monthly**, $12.99
- **Annual**, $129.99

Family Sharing is supported: one subscription can cover your whole Apple ID family group.

Settings → **Account** shows exactly where you stand:

- "StemDeck Pro — active"
- "Grace period — N launch(es) left"
- "Not subscribed"

Below that: **Subscribe Now** (opens the subscribe screen), **Manage Subscription** (opens Apple's own subscriptions page, where you can cancel or change plans), and **Restore Purchases**, with a caption explaining what it's for: if you previously subscribed on this Apple ID and StemDeck isn't recognizing it, Restore Purchases re-checks with Apple.

> **STAGE NOTE**
>
> StemDeck confirms your subscription with Apple over the network. If it can't reach Apple (no signal or Wi-Fi at the venue), you get a grace period of 3 launches before StemDeck locks. Launch StemDeck once on venue Wi-Fi, or at home the day before a show, so the check has already succeeded and the grace period isn't what's standing between you and the downbeat.

PART 11

Stage Notes and Troubleshooting

Pre-show checklist

Run this list before every show. It takes about five minutes and it has saved more than one opening song.

The day before

- ☐ Launch StemDeck once with internet access, so the subscription check succeeds. Without it you get a short grace period, not an unlimited one.
- ☐ Open every song in the set and press **GO** on each. A song that has been edited since the last gig (new click, new guide, a Timeline Editor change) takes effect on its next play, and you want that play to happen at home, not on stage.
- ☐ Choose **File** → **Save Snapshot** (⇧ ⌘ S).
- ☐ Run **Library** → **Back Up Library…** to this library's backup location (external drive, cloud-synced folder, or a backup folder). Snapshots hold your markers and setlists, not the audio; the backup is what protects the audio, and after the first run it's quick, since only new or changed stems are added.
- ☐ If two laptops share a library, confirm both run StemDeck 1.6 or later so hand-set outputs survive.

At the venue, before soundcheck

- ☐ The Mac is on mains power, not battery.
- ☐ The audio interface is powered on and connected before you launch StemDeck. If you launched first, choose **Refresh Devices** in **Settings** → **Audio** and select the interface.
- ☐ The status line under the device picker reads *Per-stem channel routing active* with the channel count you expect. If it says *Stereo playback*, every stem is going to the same two channels.
- ☐ The caption under the setlist header does not say *Library offline* or *Library could not be read*. If it does, see the next chapter before you do anything else.
- ☐ No song in the list shows a warning triangle. A triangle means a stem is parked on output 1, the click output. Select the song and choose **Song** → **Assign Outputs…**.
- ☐ The correct setlist is selected and the first song is highlighted.
- ☐ **MASTER** is at 0 dB and **MUTE ALL** is off.

- ☐ Sleep is off: **System Settings** → **Lock Screen** and **Energy Saver** set to never sleep, never start the screen saver.
- ☐ Notifications are off (Focus mode on). A FaceTime call in the middle of the bridge is not a good look.

Soundcheck

- ☐ Play one full song with every stem up. Have the engineer mute each console channel in turn and confirm the right thing disappears.
- ☐ The click reaches the drummer's ears and nothing else does.
- ☐ If a song has a guide track, the singer hears it and the house does not.
- ☐ The count-in plays on any song that has a lead-in, and only once. Two count-ins stacked (one inside the files, one generated) is the most common first-song mistake.
- ☐ Pitch and tempo on every song match what the band rehearsed. Both are saved per song and easy to leave changed after a rehearsal experiment.
- ☐ Loop regions are set only on songs that need them, and **LOOP** is off when the set starts. Remember `Space` turns a loop off but never on.
- ☐ If you use the phone remote, connect the phone now, accept the one-time certificate warning, enter the PIN, and press **Stop** once to prove it works.
- ☐ If you use a MIDI foot controller, press each switch once and watch the transport respond.

> **STAGE NOTE**
>
> Do not change the output device, the routing rules, or run **Level Song Volumes** or any Library-menu housekeeping command between soundcheck and the show. Every one of them is safe, and every one of them changes what the band hears. Do them at rehearsal.

If the library shows moved or unavailable

StemDeck never guesses about your library. If the folder it used last time is not where it expects, or cannot be read, it stops and asks. It does not delete or change anything until you choose. Here is what each prompt means and what to do at a gig.

“Your library folder has changed”

StemDeck found a folder in a different place from the one it used last time. The sheet shows **Last used:** and **Found:** with the song count in each.

- If you moved or renamed the library on purpose and the **Found:** folder has your songs, choose **Use Found Folder**.
- If the old location still exists (for example, an external drive you just plugged in), choose **Use Folder at Old Path…** and confirm the folder in the picker.
- If neither is right, choose **Choose Another…** and point StemDeck at the folder that holds your songs.
- **Quit StemDeck** is always available if you want to sort it out in Finder first.

“Library unavailable” or “Library could not be read”

The folder StemDeck used last time is not reachable. The usual reasons: the library lives on an external drive that is not connected, on a network share that is not mounted, or in a cloud-synced folder whose files have been moved to the cloud to save space.

1. Plug in the drive or connect to the share, then choose **Retry**.
2. If the songs are somewhere else on this Mac (a backup copy, a folder you restored), choose **Choose Another…**.
3. Do not choose **Use as Empty Library…** at a gig. It starts a new, empty library at that location. It takes a snapshot first and your old songs are not deleted, but you would be walking on stage with nothing loaded.

The amber caption under the setlist header

If the library goes offline while StemDeck is running (a drive is ejected, the network drops), the caption reads *Library offline: changes are kept* and a **Reconnect** button appears. Songs already loaded keep playing. Reconnect the drive and click **Reconnect**, or choose **Library** → **Reconnect Library**. Changes you made while offline are written once the library is back.

> **WARNING**
>
> Keep the library on the Mac's own disk for shows. External drives get kicked, network shares drop, and cloud services move audio out from under you. `~/Music/StemDeck` on the internal disk has none of those failure modes.

Backups that actually restore

Two different things need backing up, and StemDeck only does one of them for you.

Song information (markers, downbeats, BPM, guide cue maps, faders, manual outputs, setlists) is covered by snapshots. One is taken at every launch and before every bulk change, and **File → Save Snapshot** takes one whenever you like. Restore from **Settings → Snapshots**; StemDeck shows what would change and snapshots the current state first, so a restore is reversible.

Audio is never in a snapshot. Your stems, generated clicks, built guides, and Timeline Editor bakes live in the library folder and nowhere else. Back it up with **Library → Back Up Library…** (see “Backing up your library” in Part 3), to an external drive, a cloud-synced folder or a separate backup folder. Each run adds a dated restore point; only new or changed stems are added, so after the first run a backup is quick. If a stem file is lost and you have no backup, StemDeck cannot bring it back.

A good habit before a run of shows: **Save Snapshot**, then **Back Up Library**. If you ever need to run from the backup (on this Mac, or on another one), use **Library → Restore from Backup…**: pick a restore point and it brings back the library, the output device, channel rules, MIDI, snapshots and undo history in one step.

Troubleshooting

No sound at all

1. **MUTE ALL** reads *MUTED*. Click it.
2. **MASTER** is at the bottom. Double-click it for 0 dB.
3. **Settings** → **Audio** shows *System Default* or the wrong device. Choose **Refresh Devices** and pick the interface.
4. Every stem is muted or one stem is soloed. Look for a lit **M** or **S**.
5. Play something in another app through the same interface. If that is silent too, the problem is the cable, the interface, or the console, not StemDeck.

Some stems play, others do not

- The stem's **OUT** number is higher than the interface has channels. Set it to a real output.
- The stem is routed to an output the console has patched somewhere unexpected. Check the OUT number against the console's patch.
- The stem is muted, or another stem is soloed.
- Song Start is set later than the point where this stem ends. Open **Align Beat Grid** and check Step 1.
- The stem's file is missing. Its card shows a warning. Restore the file to the song folder from your backup and choose **File** → **Rescan Library**.

Everything is coming out of two channels

The status line in **Settings** → **Audio** says *Stereo playback*. The selected device has two outputs (or is *System Default*). Select the multichannel interface.

A vocal or keys stem is in the drummer's click ear

The stem is on output 1, the click output, because its filename matched no routing rule. The song shows a warning triangle in the list. Choose **Song** → **Assign Outputs…** and give it a real output, or type the output on the card. The filled pin means it will stay put.

The click drifts from the band

1. Downbeat 1 is off. Open **Align Beat Grid**, mark it again while paused, and nudge with the ±10 ms buttons.
2. The BPM is off. Use the calculator: mark Downbeat 2 far from Downbeat 1 and choose **Set BPM to …**. A published BPM is usually rounded and drifts over three minutes.
3. Regenerate the click. Changing BPM or Downbeat 1 does not regenerate it for you.

Two count-ins play

The stem files already contain a count-in and you also set Lead-In measures. Either set **Song Start** to the first downbeat (hiding the recorded count-in) or set Lead-In to *Off*. Use the Timeline Editor if you want to extend the recorded count-in instead.

GO does not start from the top

GO always starts from song time zero with the lead-in. If it seems not to, **LOOP** was on: `Space` turns the loop off first and does nothing else. Press it again, or click **GO**.

The song I edited sounds the same as before

Generated clicks, built guides, and Timeline Editor edits take effect on the next play from the top. Press **Stop**, then **GO**.

Guide cues sound late or early

If the song's BPM changed since the guide was built, open **Song → Guide Builder…** and Build again. If the Builder offers **Upgrade to rev N**, the cue library has improved; upgrading shifts your cues so they still land where you placed them (any cue it cannot place is flagged in amber and left where it was), then Build. Use **Check Guide Against Cue Map** if you are not sure the built file matches the cues you see.

The phone remote will not connect

1. Phone and Mac are on the same Wi-Fi. Venue guest networks often isolate devices; use the band's own router.

2. **Settings** → **Remote** shows *Server running*. It only runs with a PIN of 8 to 12 characters and the toggle on.
3. Type the URL exactly as shown, including *https://* and the port.
4. Accept the one-time certificate warning. The certificate is made on your Mac, which is why the phone does not recognise it.
5. Too many wrong PINs lock that phone out for a while. Wait, or turn the server off and on to clear it.

The MIDI controller does nothing

1. **Audio MIDI Setup** → **MIDI Studio** shows the controller.
2. It sends on the channel set in **Settings** → **MIDI** (default 16).
3. The switch sends a Control Change with a value of 64 or more. Note-on messages are ignored.
4. The CC number matches Play (119), Stop (120), Next (121), or Previous (122), or is 1 to 99 to select a song in the active setlist.

StemDeck asks about the library every launch

The library is on a drive that mounts after StemDeck starts, or in a cloud folder. Move the library to `~/Music/StemDeck` with **Settings** → **Library** → **Change…** (StemDeck takes a snapshot first), or make sure the drive is mounted before launch.

Getting help

- **Help → StemDeck User Guide** opens the latest version of this guide.
- **Help → Check for Updates…** tells you whether a newer StemDeck is on the Mac App Store.
- **Help → Contact Support…** starts an email to support@edipkoinc.com. Include your StemDeck version (StemDeck → About StemDeck), your Mac and macOS version, the audio interface, and what you expected to happen versus what happened. If a song misbehaves, **File → Export Song…** and attach the package.
- **Help → StemDeck Website** for news and updates.

StemDeck is made by a working musician who runs it on stage every week. Bug reports with steps to reproduce get fixed.

Glossary

Alignment offset. A small per-stem time nudge, in milliseconds, used to bring a click or count stem into exact phase with the rest of the band after a click track has been generated.

Assign Outputs. The prompt that appears after you add or import stems whose filenames don't match any routing rule. It lets you pick an output for each one instead of leaving them on output 1.

Beat grid. The measure lines drawn on the waveform, anchored at Downbeat 1. Either a plain constant-BPM grid, or a measured grid if you've built a guide from a stem (see *Measured beat grid*).

BPM. Beats per minute. A song can show tempo as a percentage, or, once you've entered or computed a BPM, as a real BPM value.

Click lead-in. Measures of click-only count-in that play before song time zero. Set in the Tempo & Time Signature popover.

Click-like stem. A stem whose name contains "click", "metronome", "count", or "guide". These bypass pitch transposition, sort first, and get their own default routing.

Count-in. The beats of click before the band comes in, whether that's a lead-in StemDeck generated or a count-in already baked into your stem files.

Cue (guide cue). One spoken callout placed in the Guide Builder, for example "Chorus 2 3 4", timed to a beat in the song.

Downbeat 1. The song-time marker that anchors the beat grid, click generation, and vamp alignment. Set from the Align Beat Grid popover or right in the Timeline Editor.

Downbeat 2. A second marker, anywhere later in the song, used only to help StemDeck compute BPM from the distance between the two downbeats.

File time. A position measured from the very start of an audio file on disk. Contrast with *Song time*, which is what you actually see and hear.

GO. The stage button (and the `Space` key) that loads the selected song from the top and starts it.

Guide track. A stem of spoken callouts built in the Guide Builder, meant for an in-ear monitor rather than the house mix.

Library folder. The folder on disk holding every song folder and setlist. Portable: copy or sync this folder and your whole library goes with it.

LOOP / Vamp. A region between a Start and an End point on the waveform that StemDeck can repeat on command, useful for a vamp section that runs as long as the singer needs it to.

Manual output (pin). An output channel set by hand on a stem, shown with a filled amber pin. It's saved with the song and travels with your library, unlike a channel picked automatically by the routing rules.

Measured beat grid. A beat grid built from listening to an actual stem (via the Guide Builder), rather than assumed from a constant BPM. More accurate over a long song.

Mute region. A stretch of a song's waveform you've silenced by Option-dragging across it. Painted on the Mix view it applies to every stem except click-like ones, so the band still hears its count-in; painted on a single stem it applies to that stem only.

Output (channel). One numbered output on your audio interface that a stem plays through, 1 to 64.

Package (.stemdeck). A single exportable file holding one song or one setlist, everything about it, used to move a song or setlist between Macs.

Pin. See *Manual output*.

Routing rule. A filename pattern in Settings → Channels that decides which output a newly discovered stem lands on, for example anything containing "drum" goes to output 3.

Setlist. A named, ordered list of songs. You can have several; the active one controls Next/Previous and MIDI song selection.

Snapshot. A saved copy of your song information, markers, tempo, cue maps, faders, and setlists, taken automatically at launch and before any bulk change. Never includes audio.

Song End. An optional marker that trims where a song stops playing, set the same way as Song Start.

Song folder. One song, as a folder on disk: its stems plus a hidden metadata file.

Song Start. An optional marker for where song time zero begins inside the file, used to trim a silent or noisy lead-in without editing the audio file itself.

Song time. The position you see on the transport clock and the waveform, counted from Song Start (or the top of the file if none is set).

Start offset. A per-stem delay: the stem stays silent until playback reaches that point in the song.

Stem. One audio file that plays as one part of a song, drums, bass, click, guide, and so on, each shown as its own channel strip.

Tempo rate. The playback speed multiplier applied to a song, shown as a percentage or, once a BPM is set, as BPM.

Timeline Editor. The tool for splicing audio inside a song, most often used to copy an existing count-in so it plays twice instead of once.

Credits

StemDeck is developed by Dipko Services LLC.

Built with Apple's AVFoundation, Core Audio, Core MIDI, and SwiftUI frameworks.

Guide cue voices are a mix of studio recordings and synthesized speech.

This guide was produced with Pandoc and Paged.js, and typeset in Inter.

Support: support@edipkoinc.com

Website: www.stemdeck44.com

Version history

1.8.0. An optional StemDeck mailing list: a one-time invitation after the Welcome Tour and Help → Join the StemDeck Mailing List…, with email confirmation and one-click unsubscribe. A fix for a prompt that could vanish when it was queued behind another one.

1.7.0. A new guide cue library, revision 3, with every cue in one voice and new cues (counts 5 to 8, Hold, Stop, Vamp, Interlude, Key Change, A Cappella, and a set of new breakdown and build phrases). Upgrade a song's guide to it and each cue keeps its place. A Guide Builder that fits smaller screens. Drag to reorder songs in a setlist. Rename from the song list's right-click menu. A warning triangle you can hover to see which stems are unrouted. An update notice and Help → Check for Updates….

1.6.2. A four-segment fader law with taller faders on screen, Option-drag for fine control, double-click to snap back to unity. A proper About panel. A Help menu with a direct link to this guide.

1.6.1. Trackpad gestures in the Timeline Editor: swipe to pan, pinch to zoom. Click-like stems now draw correctly in the Guide Builder.

1.6.0. A round of library integrity work: safer prompts when your library folder has moved or gone missing, loose audio files always copied into a new song folder, readable stem file names inside exported packages, snapshots that actually protect your songs, manual outputs with the pin control, the Assign Outputs prompt, Clear Manual Outputs, "metronome" recognized as a click synonym, and a Guide Builder check that finds and rebuilds a damaged cue map.

Earlier 1.x releases, roughly in order:

Batch import let you drop several song folders at once instead of one at a time. Level Song Volumes measured and evened out loudness across your whole library. A proper menu bar arrived, with Transport, Song, Setlist, and Library menus, and Rename Song. Guide timing got a lot more accurate, with a measured beat grid and a second, better-timed cue revision. Downbeat-anchored Copy Selection to Start let you extend a count-in without the timing drifting. The Guide Builder itself, and its spoken cue library, shipped. Mute regions let you silence a stretch of a song without touching the file. The library folder arrived, songs as folders you can see and back up in Finder. Remote control from a phone or tablet, with a PIN and an encrypted connection. MIDI transport control. Mix export, so your band can rehearse to exactly what they'll hear on stage.

1.0. Initial release.