

Elospeed StemMaker

User Manual

Version 2.5 · November 2026

Split music into Traktor stems, preview them and play them out. With StemPlayer, StemTagger and StemPacker.

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1 What StemMaker does

1.1 Stems in two sentences

A **stem** is a track that holds only one part of a song, for example just the drums or just the vocals. A **stem file** (`.stem.mp4`) packs the finished song and four such tracks into a single file, so that while DJing you can turn down, mute or add effects to each part separately.

StemMaker turns your normal audio files (MP3, WAV, FLAC, AIFF, M4A, AAC, OGG, Opus) into such stem files with four parts:

Drums	Bass	Other	Vox
drums, percussion	bass, sub bass	melody, synths, the rest	vocals

Traktor Pro 4 and Mixxx 2.6 play them directly in a stem deck.

1.2 How it works

StemMaker is a Windows program that does every step for you. You drag files into the window and click **Start**; the program does the rest:

1. Unpack
ffmpeg turns the song into an uncompressed WAV file.

2. Separate
An AI model (Demucs) listens to the song and splits it into drums, bass, other and vocals, with Turbo on the CPU or graphics card.

3. Polish
Club level raises quiet songs, the bass fix moves sub bass from Other into the bass stem.

4. Pack
Master and four stems go into one `.stem.mp4` with tags, cover art and stem info.

The separation runs **on your PC**: with the Turbo engine on the processor (CPU) or, if it works, on the graphics card (chapter 5). Your music never leaves your computer: no account, no cloud, nothing running in the background. StemMaker only goes online on the first start (to download ffmpeg and the separation model) and to check for updates.

> **Good to know:** A normal music player plays a stem file like any MP4 and only plays the finished song (track 1). You hear the individual stems in your DJ software or in the included **StemPlayer** (chapter 8).

1.3 What you need

- Windows 10 or 11, 64-bit
- at least 8 GB of RAM, 16 GB or more is better
- about 320 MB for the program, the Turbo engine, ffmpeg and the model, plus room for the stem files (about three times the size of a 320 kbit/s MP3)
- an internet connection on the first start
- music you have the rights to, for example tracks you bought yourself

1.4 How long it takes

Separating is hard work for the computer. Since version 2.0 the **Turbo engine** separates about **5 to 8 times faster** than before, depending on the PC, with the same quality. With a graphics card that works, a song is done in **under a minute**. StemMaker measures how fast your PC is in the pre-test on the first start (section 5.2).

Computer (4-min song, default model)	Turbo (from 2.0)	Classic (up to 1.9)
NVIDIA RTX 4060 Ti (graphics card)	approx. 35 s	–
Laptop with Intel Iris Xe (graphics card)	approx. 2–3 min	–
Intel i5-2500 from 2011 (CPU only)	approx. 4–6 min	approx. 27 min

The best model (htdemucs_ft) takes about three times as long as the default model. For large batches it is still worth letting the list run overnight (section 4.4). Laptops on battery are slowed down; StemMaker then shows a note.

2 Installation and first start

2.1 Setup or ZIP

The project page https://elospeed.github.io/StemMaker/ and the GitHub release page offer two downloads with the same program:

- `StemMaker-2.5-Setup.exe` (installer): installs StemMaker for your Windows user only, without administrator rights, with a Start menu entry. Uninstall it as usual under *Settings* → *Apps*.
- `StemMaker-2.5.zip` (portable): unzip it anywhere, for example to `C:\Tools\StemMaker` or a USB stick. Nothing is installed.

Either way you start `StemMaker.exe` (after the installer, via the Start menu entry "StemMaker").

2.2 Linux (beta)

For Linux the release page offers an **AppImage** file. It brings everything StemMaker needs on Linux (Wine), nothing is installed: make the file executable and start it. On Linux Turbo always runs on the CPU. If the AppImage does not start, install the package `libfuse2`.

2.3 Windows warning on first start

StemMaker is not digitally signed, because signing certificates cost money every year. So on the first start Windows shows a blue window **"Windows protected your PC"** with publisher "Unknown". This is normal for many small open source programs.

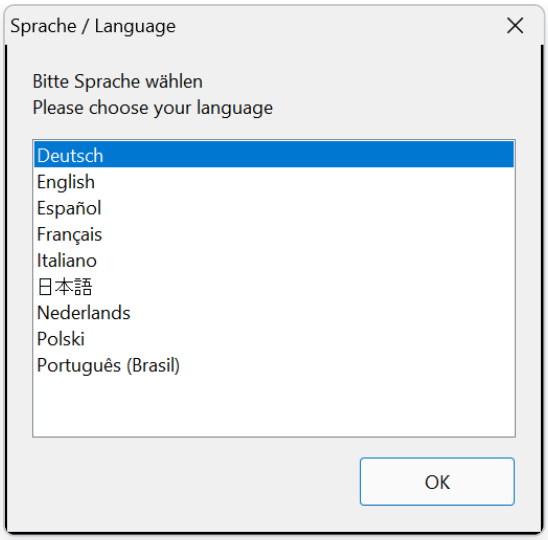
1. Click **More info** in the blue window.
2. Click **Run anyway**.

Windows remembers this; the warning appears only once per program.

> **Tip for the ZIP version:** Before unzipping, right-click the ZIP file → **Properties** → tick **Unblock** at the bottom → OK. Then Windows usually doesn't warn at all.

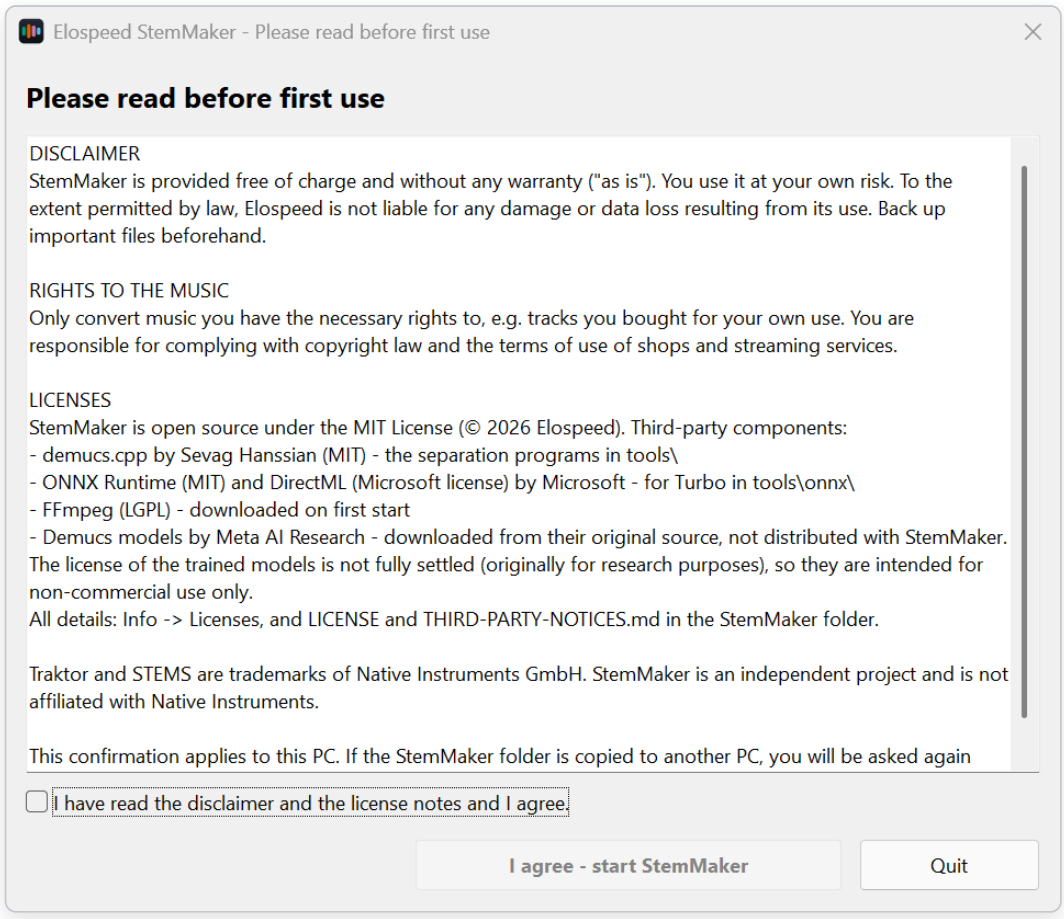
2.4 Choose the language and accept the license

On the very first start StemMaker asks for the language. You can choose German, English, Spanish, French, Portuguese (Brazil), Italian, Japanese, Dutch and Polish; your Windows language is already selected. You can change it later under **More settings**. This guide exists in German, English and Spanish; for the other languages the English one opens.



Language selection on first start

Next you see the disclaimer and the license notes. Read them, tick the box at the bottom and click **I agree - start StemMaker**. This happens once per PC. You can read the text again at any time under **Info → Licenses**.

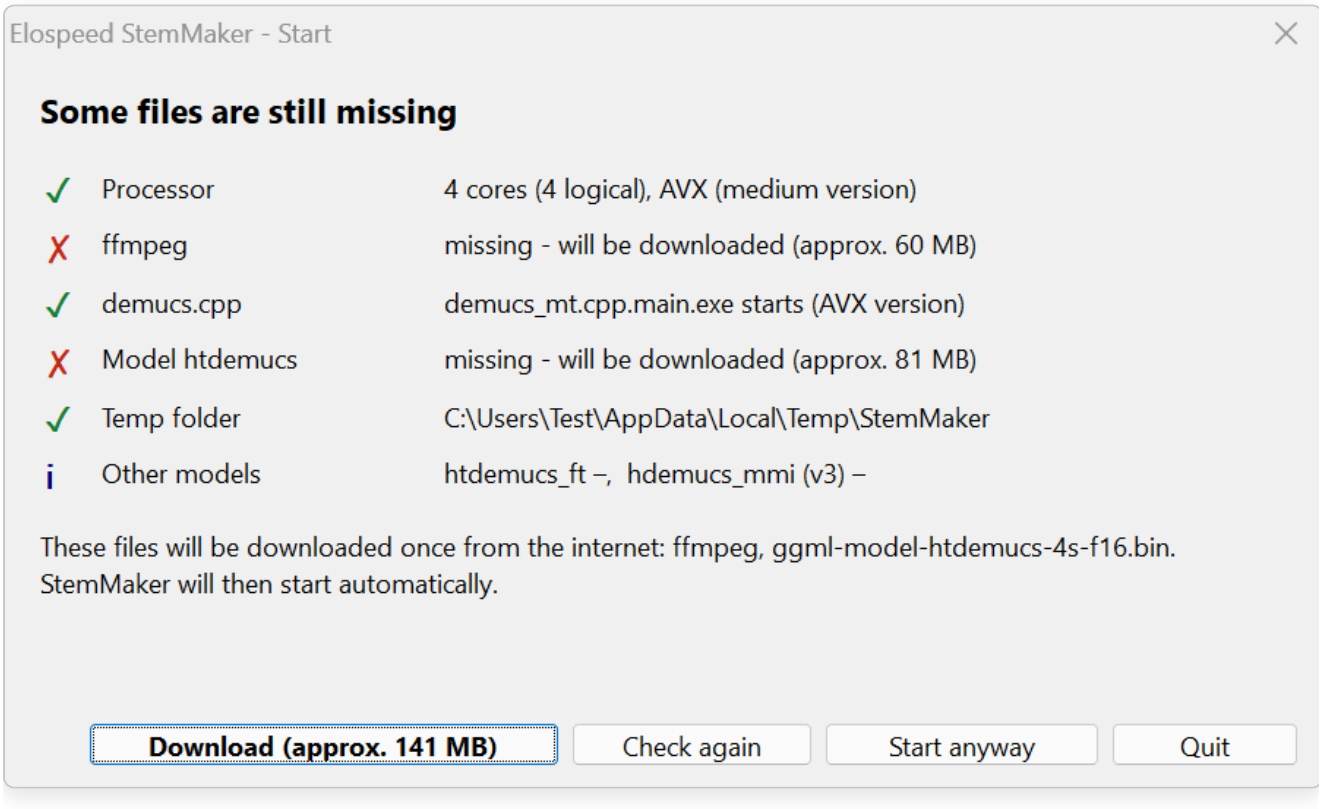


Disclaimer and license notes

2.5 Check window and first download

On every start StemMaker quickly checks that everything is in place: processor, ffmpeg, the separation programs, the separation model and the temp folder. If everything is green, the main window opens after about a second.

On the **very first start**, ffmpeg (approx. 60 MB) and the separation model (approx. 81 MB) are still missing. Clicking **Download** fetches both with a progress bar. Every file is verified with a checksum; a damaged file is rejected. StemMaker then starts by itself and measures once in the **Turbo pre-test** how fast your PC separates (section 5.2).



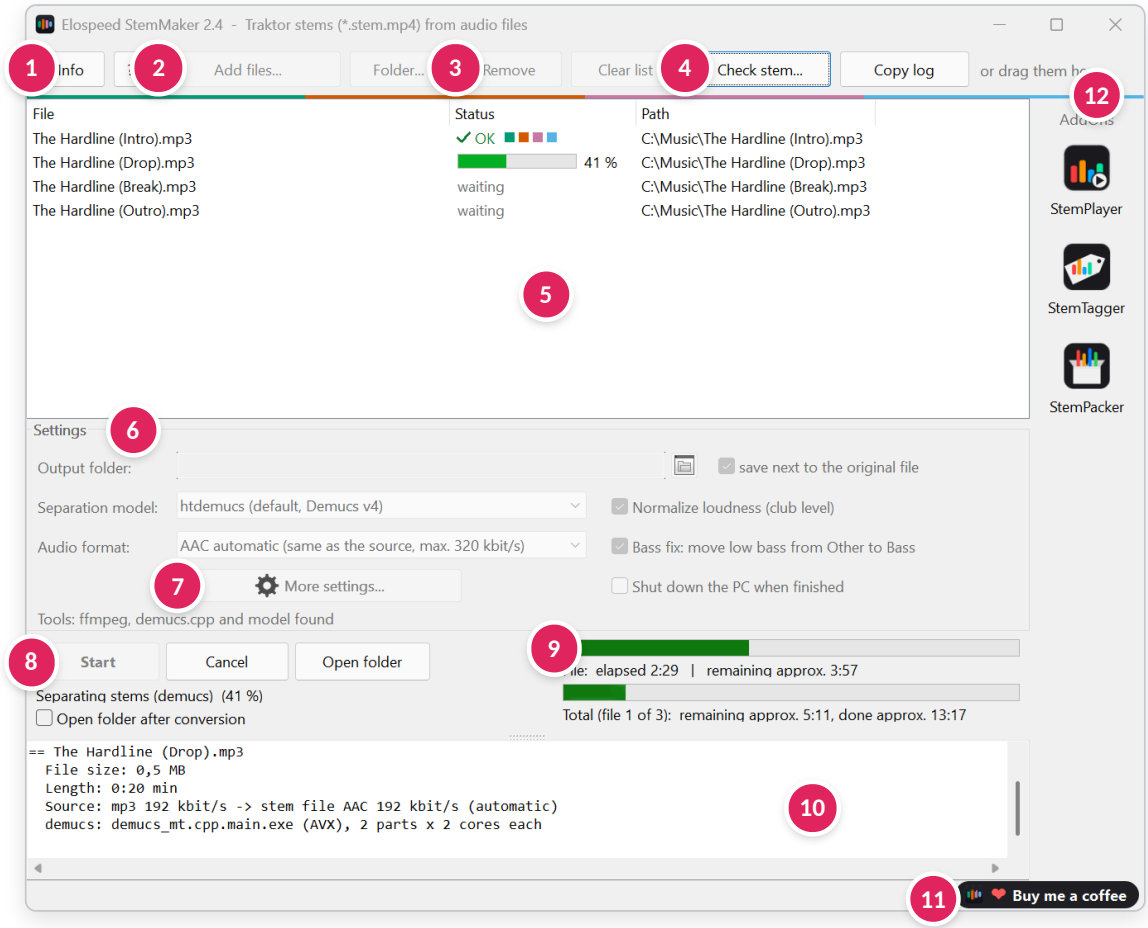
First start: ffmpeg and the model are still missing

> **Something stays red?** Hover the mouse over the red line to see the exact reason. If a file in the `tools` folder is missing, please unzip the ZIP file again completely. If the download fails, check your internet connection, firewall or proxy (chapter 12).

3 The main window

3.1 Overview

At the top is the list of files with the AddOn bar next to it on the right, below it the settings for the next conversion, and at the bottom the progress and the log.



The main window during a conversion

1. **Info**: version, updates, error report and logs (chapter 11). Next to it **?**: opens this guide. The F1 key does the same in every window, each time at the matching section.
2. **Add files...** and **Folder...**: add single songs or whole folders (including subfolders) to the list. Even easier: drag files and folders from Explorer straight into the window.
3. **Remove** and **Clear list**: delete selected entries or the whole list. The music files themselves are not touched.
4. **Check stem...** and **Copy log**: check a finished stem file (section 7.3) and copy the log to the clipboard.
5. **The file list** with name, status and path of every file. Double-clicking a finished file plays it in the StemPlayer, right-clicking opens a menu (section 3.2).
6. **Settings** for the next conversion: output folder, separation model, audio format and the switches for club level, bass fix and shutdown (chapter 6).
7. **More settings...** (gear): everything you set up once.

8. **Start**, **Cancel** and **Open folder**: start or stop the conversion, open the folder with the finished files.
9. **Two progress bars**: the current file on top, the whole list below, each with elapsed and estimated remaining time and the clock time when everything will be done.
10. **Log**: what StemMaker is doing right now. If something goes wrong, the reason is shown here.
11. **Buy me a coffee**: opens Elospeed's Ko-fi page. Entirely voluntary; StemMaker stays free.
12. **AddOn bar**: StemPlayer, StemTagger and StemPacker with one click (section 3.3).

3.2 The file list

The **Status** column shows how far each file has got:

Status	Meaning
waiting	will be converted on the next **Start**
bar with 45 %	is being converted right now
OK (6:12)	done, the conversion time in brackets; the four coloured dots stand for the four stems
already exists	a stem file with this name already exists, the file was skipped
cancelled	the conversion was stopped with **Cancel**
waiting (interrupted)	StemMaker was closed in the middle of this file; it will be done again
Error	did not work, the reason is in the log

Right-click a row for **Listen** (play a finished file in the StemPlayer), **Edit tags…** (open the selected finished files in the StemTagger) and **Remove from list**. The Del key also removes the selected rows; finished stem files are kept.

The list is saved continuously. If you close StemMaker or the power fails, it is back on the next start, and **Start** continues where it stopped.

> **Tip:** Rather let one long list run overnight than convert single songs in between. Even before you start, the line under the lower bar shows roughly how long the whole list will take.

3.3 The AddOn bar

To the right of the file list are the AddOns, one button each with icon and name. They live in the `AddOns` folder and come with StemMaker:

AddOn	What a click does
StemPlayer	plays the selected or the last converted stem file (chapter 8)
StemTagger	opens the selected finished files to set title, artist, cover and more (chapter 9)
StemPacker	packs ready-made separate tracks into stem files, without AI (chapter 10)

If the window is small or the display scaling is large, the buttons get smaller; the name is then shown in the tooltip.

4 Converting files

4.1 Step by step

1. **Add files to the list:** drag songs or folders from Explorer into the window, or click **Add files...** or **Folder...**. You can also drop files directly onto `StemMaker.exe`.
2. **Choose the output folder:** by default every stem file is saved next to its song. If you want all stems in one place, untick **save next to the original file** and pick an output folder with the folder button.
3. **Check the settings:** the defaults are fine to begin with (model htdemucs, AAC automatic, club level and bass fix on).
4. **Click Start.** StemMaker works through the list from top to bottom. The bars show how long it will take.
5. **Done:** the row shows "OK" and the four stem colours. **Open folder** shows the finished files in Explorer; from there you drag them straight into Traktor. If you want Explorer to open by itself every time, tick **Open folder after conversion**.

Cancel stops immediately. The file in progress is discarded and the temp files are cleaned up; finished files stay.

4.2 Where the stem file goes

`Title.mp3` becomes `Title.stem.mp4`:

- **next to the original file** (default): in the same folder as the song.
- **in the output folder**: all stem files in one folder. If you add a whole folder and "Recreate subfolders in the output folder" is on under **More settings**, the folder structure is kept: `D:\Music\House\2024\track.mp3` becomes `<output folder>\House\2024\track.stem.mp4`.

If the stem file already exists, the song is skipped. To make it again, switch on "overwrite existing stem files" under **More settings**.

4.3 What is carried over

StemMaker copies the tags and the **cover art** from the source file: title, artist, album, album artist, composer, genre, year, track and disc number, comment, grouping and lyrics, plus **BPM**, **key**, **label** and **ISRC**. Traktor shows title, artist, album, genre, label and cover right after import; Traktor works out BPM and key itself when it analyses the track.

4.4 A whole collection overnight

- **Time estimate before you start:** under the lower bar you see for example "87 files pending, 6:12:40 of music - approx. 11:30:00", followed by when the list will be done, such as "done approx. 06:40" or "tomorrow 03:10". "(rough estimate)" means StemMaker doesn't know your PC's speed yet; after the first finished song it says "(this PC's speed)", and the estimate gets more accurate with every song.
- **The list is remembered:** a crash, a power cut or closing the program costs at most the song in progress. On the next start the list is back and **Start** carries on.
- **Shut down the PC when finished:** when all files are done, a 60-second countdown with **Cancel** appears, then Windows shuts down. The tick applies only to the next run. If the conversion was cancelled, the PC

does not shut down.

- **Keep the PC awake** (under **More settings**, on by default): Windows does not go to sleep during the conversion; the screen may turn off.

4.5 Icon next to the clock

During a conversion StemMaker shows an icon in the notification area of the taskbar. Hover over it to see the progress, for example “StemMaker - 45 % (file 3 of 12)”; a click brings the window to the front. When everything is done and StemMaker is not in the foreground, a notification shows how many files succeeded, were skipped or failed.

5 Turbo: faster separation

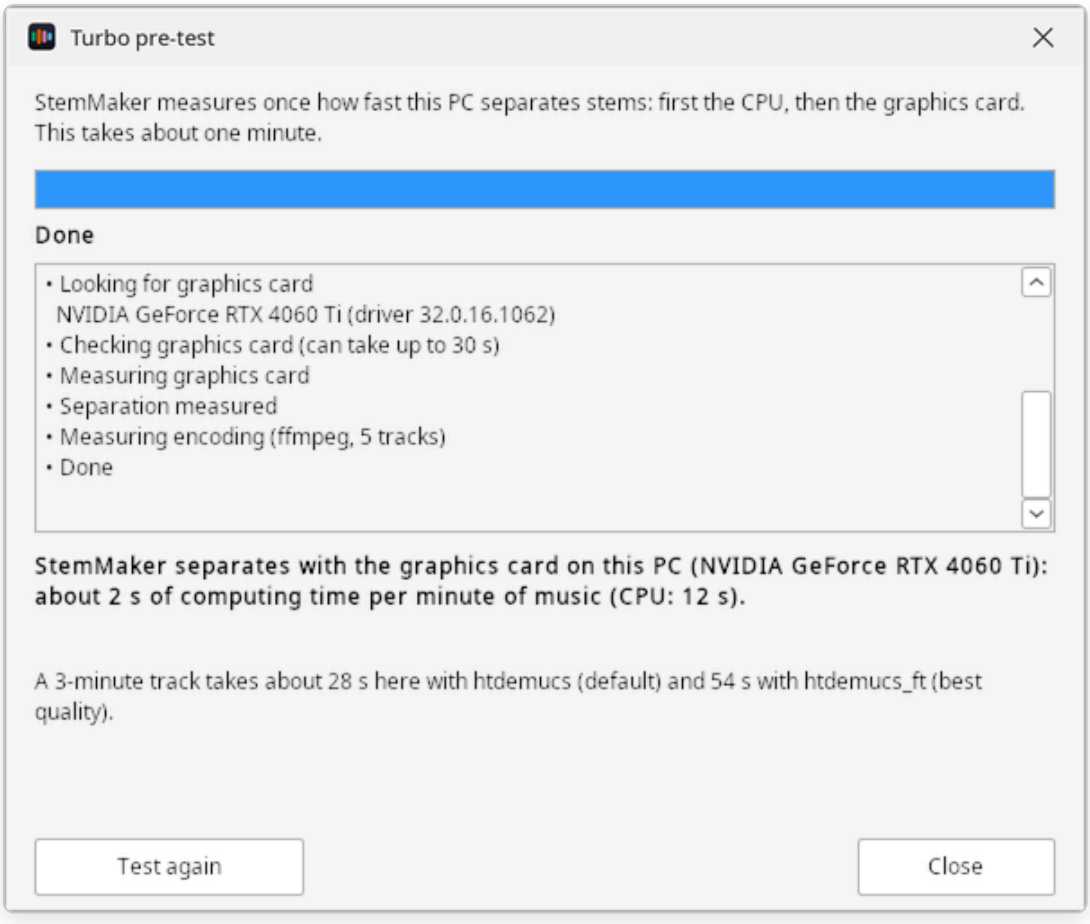
5.1 What Turbo is

Since version 2.0 StemMaker separates the stems with the **Turbo engine** (StemOnnx). It runs the same Demucs model as before, so the stems are just as good, but it uses **ONNX Runtime** by Microsoft. That is much faster on the processor than the previous engine demucs.cpp and can also use the **graphics card** (NVIDIA, AMD or Intel, via DirectML, nothing extra to install).

Turbo is the default, you don't have to do anything. The previous engine stays on board as **Classic**: StemMaker uses it by itself when Turbo does not work for a file, and for the v3 model, which Turbo can't run.

5.2 The pre-test

On the first start with Turbo, StemMaker measures once how fast your PC separates stems: first the CPU, then the graphics card. This takes about a minute. The pre-test comes back by itself when you put in a different graphics card or the graphics driver is new, and you can start it any time under **More settings → Pre-test ...**.



The Turbo pre-test on a PC with a graphics card

- The **bar** and the keywords show what is being tested right now.
- At the end the **bold line** says what StemMaker computes on with this PC, and how many seconds of computing one minute of music needs.

- Below it you see roughly how long a **3-minute track** takes, with the default model and with the best model. The number is there during the test already and gets more precise with every measurement.

The result goes straight into the time estimate in the main window. After the first real song, StemMaker uses the measured speed anyway.

5.3 Graphics card (beta)

The graphics card is only used if it delivers **the same stems** as the CPU in the pre-test and is **faster**. Otherwise StemMaker separates on the CPU, and the pre-test says why, for example “is not faster than the CPU” or “crashed during the test”. Older or weak graphics cards (for example without DirectX 12) are skipped this way by themselves.

If the graphics card drops out in the middle of a song, StemMaker finishes that song on the CPU. For every file the log says whether Turbo computed on the graphics card or the CPU, or Classic.

> **Beta means:** With NVIDIA RTX and Intel Iris Xe it works on the tested PCs. An AMD Vega 8 and a GeForce GT 1030 were excluded by StemMaker in the test, which then correctly used the CPU. Not every combination of graphics card and driver has been tried. If the graphics card causes trouble, set the device to **CPU only** under **More settings**.

5.4 Setting engine and device

Under **More settings** in the **Engine** area (section 6.2):

Setting	Choice
Engine	**Turbo (fast, default)** or **Classic (demucs.cpp, as up to 1.9)**
Device	**Automatic (graphics card if it works)** or **CPU only**
Pre-test ...	measures CPU and graphics card again

You normally don’t need Classic. It is meant for the case that Turbo does not run on a PC at all.

6 Settings

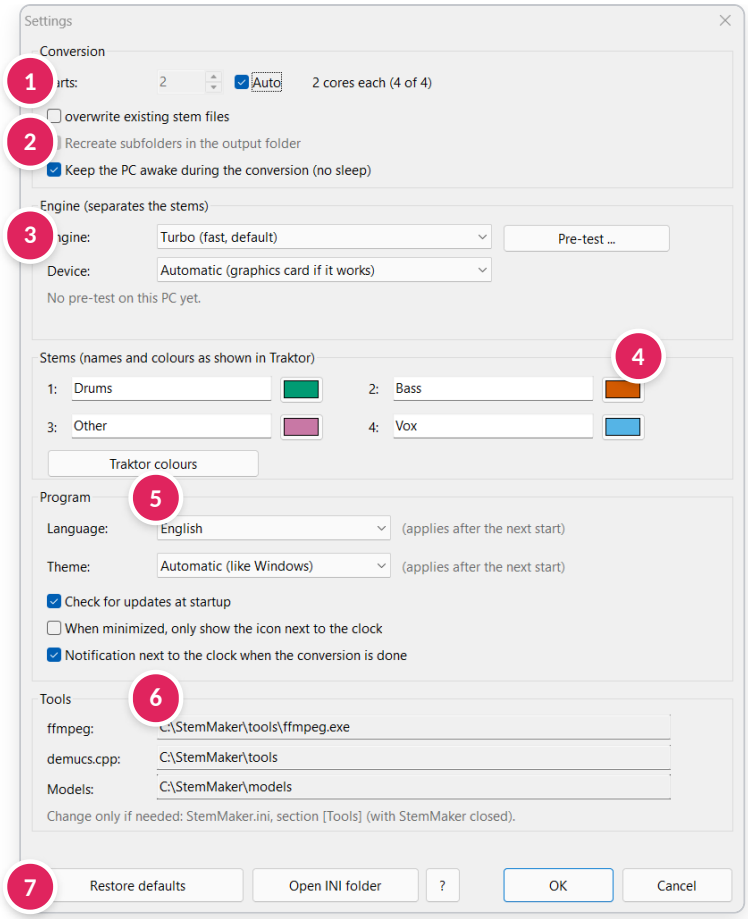
6.1 In the main window

The main window only holds what you change per conversion:

Setting	Meaning
Output folder	where the stem files go, or with the tick **save next to the original file**
Separation model	quality versus speed, see section 6.4
Audio format	**AAC automatic** (default): the stem file gets the bitrate of the source, e.g. MP3 320 → AAC 320; sources below 192 kbit/s get 192, lossless sources 320. **AAC 256** is the NI standard, **AAC 320** fixed, **ALAC** lossless and very large (only useful for WAV/FLAC).
Normalize loudness (club level)	On by default. Quiet files are raised until the loudest peak sits at about −1 dB. All five tracks get the same gain, no limiter, the dynamics stay. In Traktor the waveforms are then large and easy to read.
Bass fix	On by default. StemMaker moves the sub bass below 80 Hz that the separation leaves in the “Other” stem into the bass stem. The bass stem sounds fuller, all stems together stay the same. Skipped for files over 20 minutes (DJ mixes).
Shut down the PC when finished	only for the next run, see section 4.4
Open folder after conversion	opens Explorer with the finished file

6.2 More settings (gear)

Everything you set up once is behind the gear button **More settings…**.



The “Settings” window

1. **Parts / Auto**: how many parts of the song are separated at the same time. **Auto** (default) uses as many parts as the processor has real cores (at most 4), and only as many as the RAM can handle (a good 2 GB per part). Next to it you see how the cores are shared out. This only applies to Classic; Turbo spreads the work over all cores by itself.
2. **Overwrite, subfolders, keep awake**: redo existing stem files, recreate the folder structure in the output folder, prevent sleep during the conversion.
3. **Engine**: Turbo or Classic, the device (Automatic or CPU only) and **Pre-test ...**; below it the result of the last pre-test (chapter 5).
4. **Stems**: name and colour of the four stems as Traktor shows them. **Traktor colours** uses the colours from Traktor’s own stem files. Traktor always shows the icons (drum, speaker, wave, microphone) by slot 1 to 4.
5. **Program**: language and theme (light or dark, both apply after a restart, which StemMaker offers right away), update check at startup, icon next to the clock when minimized, and a notification when the conversion is done.
6. **Tools**: where ffmpeg, the separation programs and the models are (display only; change them in `StemMaker.ini`, see appendix).
7. **Restore defaults** resets all values in this window; **Open INI folder** shows where `StemMaker.ini` is; **?** opens this section.

6.3 Light or dark

Under **More settings → Program → Theme** you choose how StemMaker looks:

Theme	Meaning
Automatic (like Windows)	Default. StemMaker follows the Windows setting *Personalization → Colors → Choose your default app mode*.
Light	always light
Dark	always dark: windows, lists, buttons and title bars

The choice applies after a restart; StemMaker asks right away whether to restart. The dark theme needs Windows 10 version 1809 or later, or Windows 11; on older Windows StemMaker stays light. On Linux (AppImage), “Automatic” follows the desktop. StemTagger and StemPacker follow the same setting (the next time they open), the StemPlayer always stays dark.

6.4 Which separation model?

Model	Quality	Speed	When to use
htdemucs (default)	very good	fast (with Turbo)	almost always
htdemucs_ft	best	approx. 3× slower than htdemucs	single important tracks, especially clean vocals
hdemucs_mmi (v3)	good	Classic only	only if Turbo does not run on your PC

v3 can’t run on Turbo and always computes with Classic. With Turbo the default model is therefore faster than v3, and better.

If you choose a model that is not installed yet, StemMaker asks whether to download it now.

7 Stem files in DJ software

7.1 Traktor Pro 4

Drag finished `.stem.mp4` files from Explorer into the Traktor collection or straight onto a deck. A deck set to **Stem Deck** shows the four parts with names and colours. Each part can be muted, turned down and given a filter or effect on its own.

> **Tip: Open folder** in the main window takes you straight to the folder with the finished files.

7.2 Mixxx 2.6

Mixxx reads stem files from version 2.6 (currently beta). StemMaker's stem files work there without changes, with the same default colours. Mixxx always plays the sum of the four stems, not the master track.

Other programs such as rekordbox, Serato or VirtualDJ currently don't read the Traktor stem format as stems; at most they play the master track.

7.3 Check stem

With **Check stem...** in the main window you pick a `.stem.mp4`. The log then shows how many audio tracks the file has (a stem file has 5) and whether the stem metadata block with names and colours is present. This also works with stems bought in the Native Instruments format.

8 StemPlayer: listen before you play

The **StemPlayer** (`AddOns\StemPlayer.exe`) plays a finished stem file without any DJ software. You can mute each stem, solo it and turn it down, compare with the original and repeat a section in a loop. That way you quickly hear whether the separation worked well.

8.1 Opening a file

- Click **StemPlayer** in the AddOn bar: it plays the selected or the last converted file right away.
- Or double-click a finished file in the file list (or right-click → **Listen**).
- Or click **OPEN** in the StemPlayer (Ctrl+O) or drag a `.stem.mp4` onto the window.

The StemPlayer speaks the same language as StemMaker. It needs `tools\ffmpeg.exe` from the StemMaker folder.

At the top right you choose the **view**: **COMPACT** (faders only), **WAVEFORM** (with a wave under each stem; the window can be enlarged) or **CD PLAYER** (DJ look with jog wheel, CUE, Play and big stem pads). All three can do the same; your choice is kept for the next start.

8.2 Overview



The StemPlayer with waveforms and an active loop

1. **OPEN** and file name, on the right **?** for help and the **view** (COMPACT, WAVEFORM or CD PLAYER).
2. **Playback**: play/pause, stop (back to the start), time and length.
3. **Original waveform**: click or drag to jump there; the red line shows the current position.
4. **Magnifier**: shows a few seconds around the red line, for setting the loop precisely and for scrubbing.
5. **LISTEN**: mode STEMS, ORIGINAL or REST; next to it **LOOP** with A, B, ON and ×, on the right **RESET**.
6. **The four stems**: one row each with name, M (mute), S (solo), volume, level meter and waveform.
7. **MASTER**: overall volume and output level; **CLIP** lights up red if the sum overloads.
8. **Help line** with the most important keys, below it the status line.

8.3 Mute, solo and volume

- **M** (or key 1 to 4): mute a stem. Muted stems are drawn in grey.
- **S** (or Shift + 1 to 4): hear only this stem. Ctrl + click on S adds more stems (several solos).
- **Fader**: volume of each stem.
- **RESET** (0): everything back, mute and solo off, faders at 100 %, mode STEMS.

8.4 Compare stems, original and rest

Mode	Key	What you hear
STEMS	S	the four stems mixed, with mute, solo and faders
ORIGINAL	O	the original mix from the file, for A/B comparison
REST	R	original minus the sum of all stems: what got lost or sounds different in the separation (ideally almost silence)

8.5 Loop A-B and magnifier

A loop repeats a section endlessly, for example to hear with mute and solo whether drums still bleed into the vocals.

- **With keys:** press A at the start point and B at the end point. From B playback jumps back to A seamlessly.
- **With the mouse:** drag with the **right** mouse button in a waveform from the start point to the end point. The loop runs right away.
- L turns the loop off and on again; Backspace or × deletes it.
- The loop area is highlighted green in all waveforms.

Use the **magnifier** to set the loop precisely:

- Drag with the right mouse button: new loop; start and end snap to the time grid (free with Shift).
- Grab the A and B markers with the left mouse button and move them.
- Mouse wheel: zoom in (down to ¼ second) or out (up to 1 minute).
- With an active loop, ← → move the whole loop, Shift + arrow makes it wider, Ctrl + arrow narrower.

8.6 Scrubbing: find the spot by hand

If you drag the waveform in the **magnifier** left or right with the left mouse button, the red line stays put and the music moves underneath it, like a record under your hand: dragged fast it sounds high, slowly it sounds low, backwards it plays backwards, and if you hold the mouse still it is silent. When you let go, playback continues from there. That way you can find, say, the first beat of a bar exactly.

8.7 Keyboard shortcuts

Key	Function
Space	play / pause
1 – 4	mute stem on/off
Shift + 1 – 4	solo (replaces another solo)
Ctrl + Shift + 1 – 4	add a solo
0	reset everything
S / O / R	mode stems / original / rest
← / →	5 seconds back / forward (with an active loop: move the loop)
Home	to the start
A / B	set loop point A / B
L	loop on / off
Backspace	delete loop
Shift / Ctrl + arrow	loop wider / narrower
W	view compact / waveform
Ctrl + O	open file

9 StemTagger: tags and cover

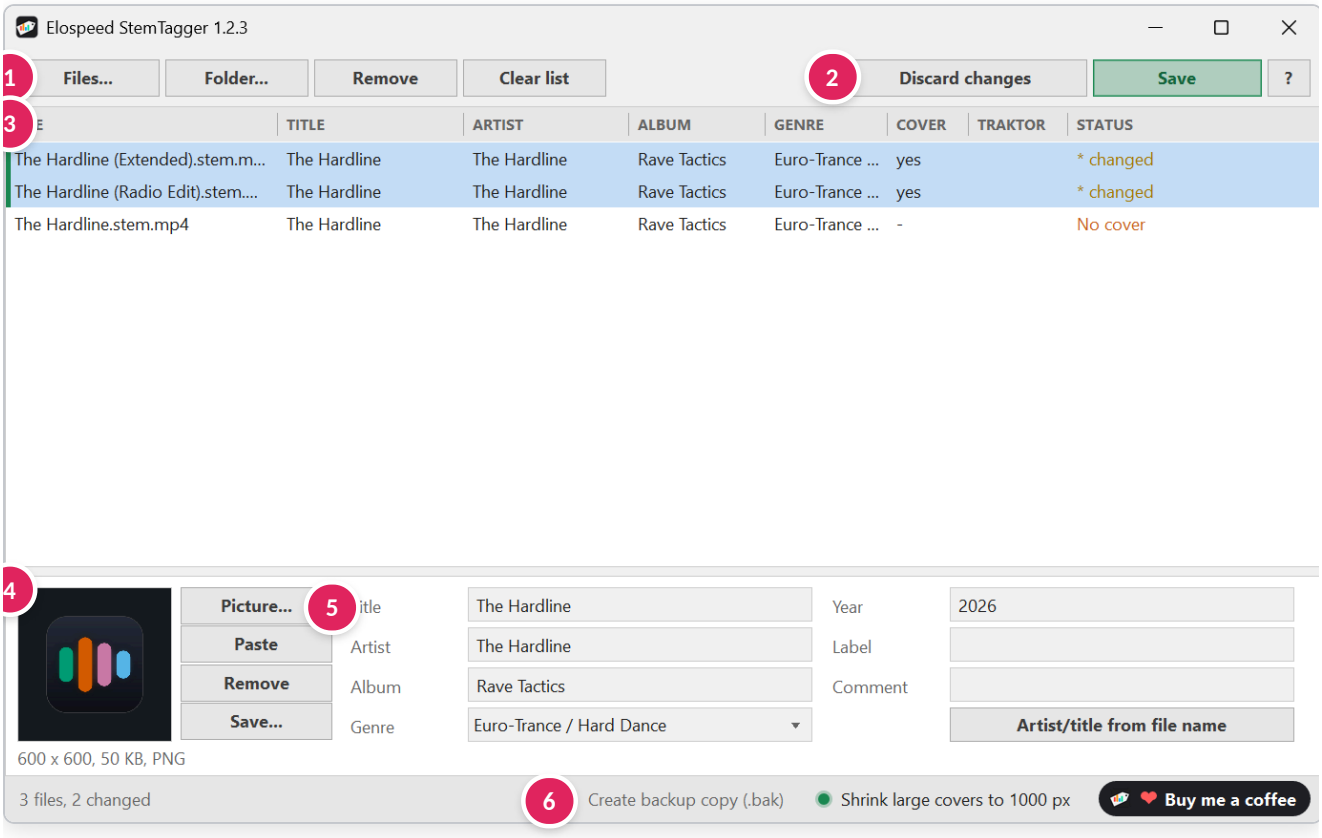
The **StemTagger** (`AddOns\StemTagger.exe`) sets what Traktor and Mixxx show and search for in finished stem files and MP3s: title, artist, album, genre, year, label, comment and the cover. It is meant mainly for files without tags, for example from the StemPacker.

9.1 Opening

- Click **StemTagger** in the AddOn bar or right-click in the file list → **Edit tags…**: it loads the selected finished files.
- In the StemTagger itself you load more files with **Files…** or **Folder…**, or drag them onto the window.

It speaks the same language as StemMaker and follows its design (light or dark). **?** at the top right or F1 opens this chapter.

9.2 Overview



The StemTagger with three files, two of them selected

1. **Files…**, **Folder…**, **Remove** and **Clear list**: load files or take them off the list (the files themselves stay).
2. **Discard changes** and **Save**: Save lights up green as long as there is something to save. Next to it **?** for help.
3. **The list**: file, title, artist, album, genre, cover, Traktor and status. Clicking a column header sorts. “Traktor” shows which MP3s already contain Traktor data (cues, beatgrid).
4. **Cover**: preview with **Picture…**, **Paste** (Ctrl + V), **Remove** and **Save…** (save the cover as a picture file).

5. **The fields**: title, artist, album, genre, year, label and comment. **Artist/title from file name** fills both fields from names like “Artist - Title.stem.mp4”.
6. **Switches**: **Create backup copy (.bak)** and **Shrink large covers**. Green is on, red is off.

9.3 Many files at once

If you select several rows, every entry applies to all selected files, for example the same album or cover. Fields with different values show “” and are kept per file as long as you don’t change them. Nothing is written until you click **Save**, and only files with changes are written.

9.4 What changes and what doesn’t

- Only the tags are rewritten. Audio, stems, stem info and Traktor’s own data (cues, beatgrid) stay the same, in MP3s too.
- With the **backup copy** switch it creates `Name.stem.mp4.bak` before the first save. The copy is never overwritten and stays the real original.
- Cover: drag a picture onto the window, copy it in the browser and paste it, or choose a file. If you like, large pictures are shrunk to 1000 pixels.

Traktor and Mixxx work out BPM and key themselves when they analyse a track. The StemTagger is also available on its own as a small ZIP on the release page.

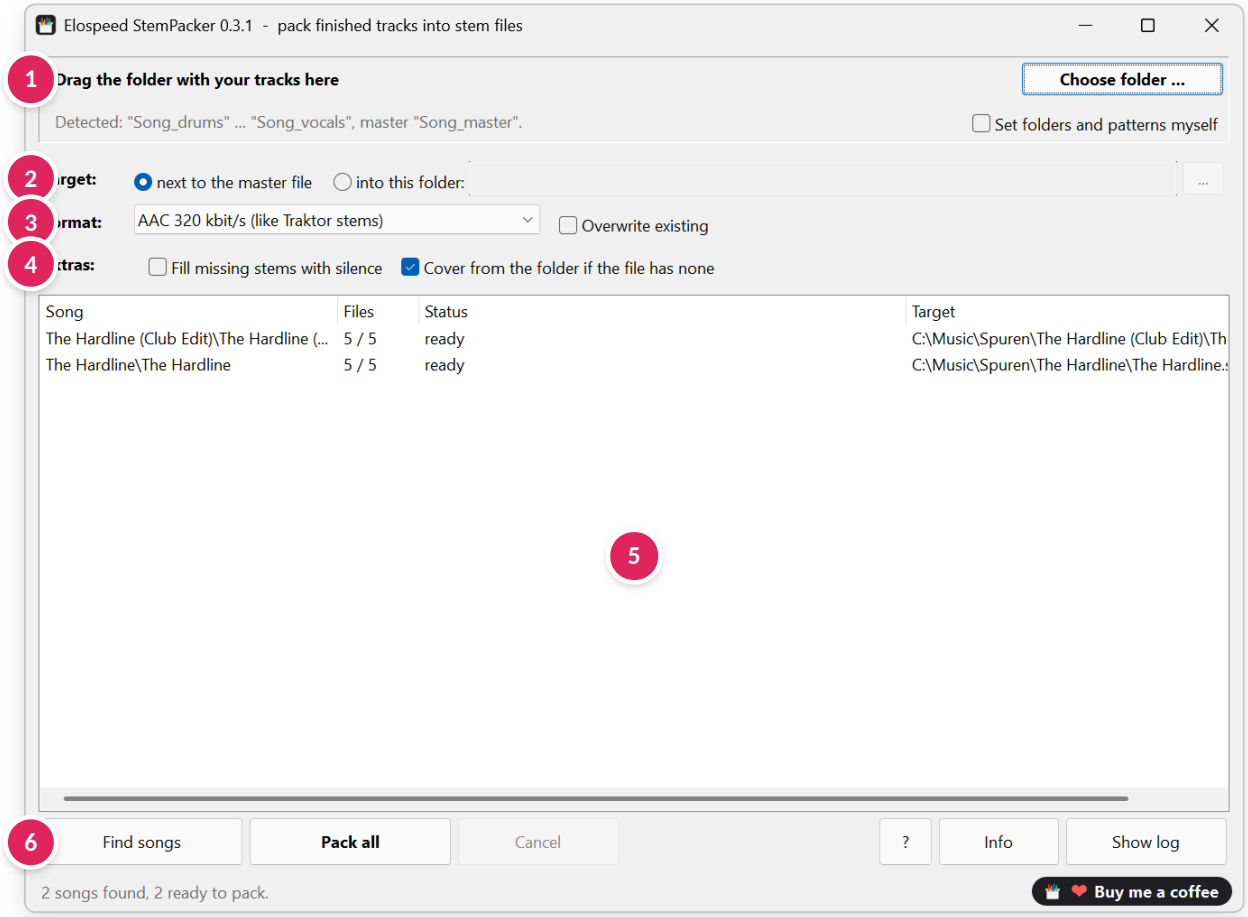
10 StemPacker: pack ready-made tracks

The **StemPacker** (`AddOns\StemPacker.exe`) makes stem files from tracks that are already separated, without any AI: for example separate tracks from your own DAW, from a 5.1 DVD or from another separation program. For each song it needs the master and up to four stems.

10.1 Opening

Click **StemPacker** in the AddOn bar or use the Start menu. It uses StemMaker's ffmpeg and language files and follows its design (light or dark). **?** at the bottom right or F1 opens this chapter.

10.2 Overview



The StemPacker after dragging in a folder

1. **Drag in a folder** or **Choose folder ...**: it works out from the file names which file is the master and which track is drums, bass, other or vox. With **Set folders and patterns myself** you set the folder and name pattern for each track yourself.
2. **Target**: next to the master file or into a folder of your own (subfolders are kept).
3. **Format**: AAC 320 kbit/s like Traktor stems, ALAC lossless 16 bit or ALAC 24 bit (test). Next to it **Overwrite existing**.

4. **Extras**: **Fill missing stems with silence** (a missing track is replaced by silence) and **Cover from the folder** if the file has none.
5. **The list**: for each song the number of files, the status (“ready”, “missing: …”, “already exists”) and the target.
6. **Find songs**, **Pack all** and **Cancel**; on the right **?**, **Info** and **Show log**.

10.3 How to do it

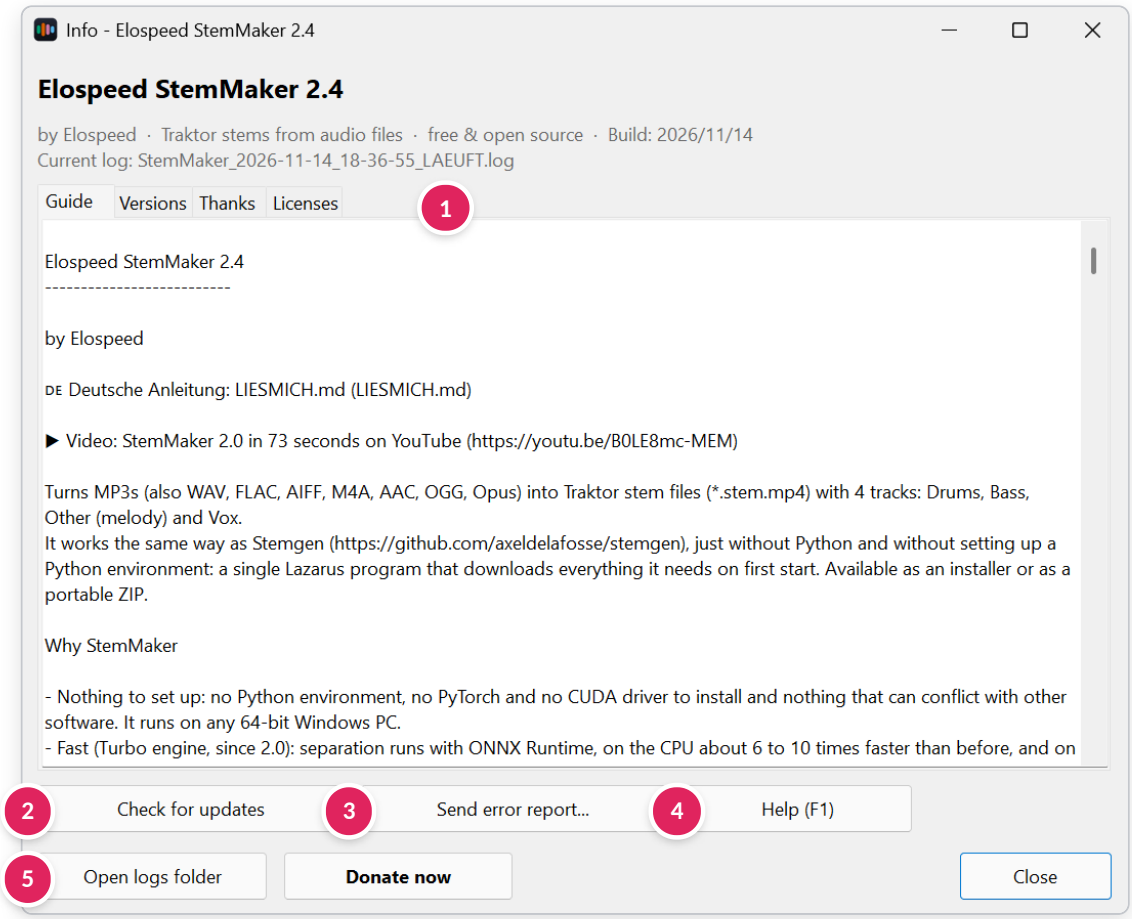
1. Drag the folder with the tracks onto the window. The list shows all songs it found.
2. Check the status: “missing: …” names the file it looked for and a similar one, if there is one. Anything it can’t tell for sure you set with **Set folders and patterns myself** (star `*` = song name).
3. **Pack all**. Stem names, colours and tags are added as in StemMaker; tags and cover come from the master.

A detailed English guide comes as `AddOns\StemPacker-User-Guide.pdf`.

11 Info, updates and help

11.1 The Info window

The **Info** button at the top left opens the Info window with version, build date and the name of the current log.



The Info window

1. **Guide**, **Versions**, **Thanks** and **Licenses**: the short version (README), what each version brought, everyone who helped, and the disclaimer and license texts.
2. **Check for updates**: check right now whether there is a newer version.
3. **Send error report...**: send a log to Elospeed (section 11.5).
4. **Help (F1)**: opens this guide in the browser (section 11.2).
5. **Open logs folder**, **Donate now** and **Close**.

11.2 Help and manual

This guide is in the `hilfe` folder next to `StemMaker.exe` and opens without internet, in your browser:

- **?** at the top left of the main window and in the settings, **Help (F1)** in the Info window.
- The F1 key in every StemMaker window jumps straight to the matching section, for example from the pre-test to the section about the pre-test.

It is available in German, English and Spanish; the other languages get the English one. If the `hilfe` folder is missing (for example because only the exe was copied), the same page opens on the project page. On Linux, StemMaker always opens the page on the project page, because that reliably opens the browser. For printing, the guide is also available there as a PDF: https://elospeed.github.io/StemMaker/handbuch/StemMaker-Handbuch-en.pdf

11.3 Updates

On start StemMaker checks in the background whether there is a newer version. If so, you can choose **Update now**, **Later** or **Skip this version**. The update is verified with its checksum. Settings, file list, logs, models and ffmpeg are kept. StemMaker never updates during a conversion, and if something goes wrong while copying, the old version stays.

Check by hand: **Info → Check for updates**. Turn it off under **More settings** ("Check for updates at startup").

11.4 Logs

Every start writes a log to the `logs` folder (the last 20 are kept). The file name tells you how the session ended:

Ending	Meaning
`_LAEUFT.log`	StemMaker is running
`.log`	ended normally
`_FEHLER.log`	ended normally, but there was an error along the way
`_ABSTURZ.log`	ended unexpectedly (crash, power cut)

In addition StemMaker writes one line per converted file to `logs\statistik.csv` (date, file, length, model, conversion time, speed and more). The file opens with a double-click in Excel or LibreOffice.

11.5 Sending an error report

After a crash, StemMaker asks on the next start whether you want to send an error report. You can also do it at any time via **Info → Send error report…**. Nothing is sent automatically: the window shows exactly the text that will leave your PC. Your user folder is replaced by `%USERPROFILE%`.

- **Send by e-mail:** the report is saved as a file and a ready-made e-mail to elospeed.dev@gmail.com opens. You attach the file yourself.
- **As GitHub issue (public):** opens a pre-filled issue in the browser (GitHub account needed).

12 Troubleshooting

Windows blocks the start completely, without “Run anyway”. Then *Smart App Control* is switched on in Windows 11. StemMaker only starts once you switch it off under *Windows Security → App & browser control*. Only do this if you trust the source.

The download on first start fails. Check your internet connection, firewall or proxy. If needed, do it by hand: download ffmpeg from https://www.gyan.dev/ffmpeg/builds/ (“release essentials”) and copy `ffmpeg.exe` to `tools\`; download the models from https://huggingface.co/datasets/Retrobear/demucs.cpp/tree/main and put the `.bin` files in `models\`.

A file shows “Error”. The log at the bottom gives the reason. Common causes: unusual characters in the path (e.g. Japanese; accented letters are fine) or a path longer than 259 characters. Move the file to a shorter, simple folder and start again.

The conversion is very slow. Check under **More settings** that the engine is set to **Turbo**, and measure again with **Pre-test …**. For every file the log says whether Turbo or Classic separated it. Plug laptops in and close other big programs. Large batches are best left to run overnight.

The graphics card is not used. The pre-test says why (section 5.2): the card is not faster than the CPU, computes inaccurately or can’t be switched on. A current graphics driver from the manufacturer often helps; the pre-test then comes back by itself on the next start. If it runs reliably on the CPU, that is not an error.

The log says “Turbo did not work”. Then StemMaker automatically separated this file with Classic, and the stem file is fine anyway. If it happens with every file, please send an error report (section 11.5).

The dark theme doesn’t appear. Is the theme under **More settings** set to **Automatic** while Windows is light? Then choose **Dark** and restart StemMaker. Dark needs Windows 10 version 1809 or later, or Windows 11.

The Linux AppImage doesn’t start. Install the package `libfuse2` (Ubuntu, Debian, Mint: `sudo apt install libfuse2`).

My music player only plays the normal song. That is expected: normal players only play the master track. You hear the stems in Traktor, Mixxx or the StemPlayer.

Traktor shows a different BPM or key than my file. Traktor overwrites BPM and key with its own analysis. StemMaker still writes the values into the file.

I have a question or an idea. Ask in the GitHub Discussions: https://github.com/Elospeed/StemMaker/discussions. Reading works without an account, writing needs a GitHub account. Or send an e-mail to elospeed.dev@gmail.com.

13 Appendix

13.1 Folder structure

```
StemMaker\
  StemMaker.exe          program
  StemMaker.ini          settings
  StemMaker_queue.txt    saved file list
  logs\                  logs and statistik.csv
  hilfe\                 this guide (de.html, en.html, es.html)
  AddOns\
    StemPlayer.exe       test player for stem files
    StemTagger.exe       set tags and cover
    StemPacker.exe       pack ready-made tracks into stem files
    StemCLI.exe          command line version
  tools\                 ffmpeg.exe and the separation programs (demucs.cpp)
    onnx\                Turbo engine: StemOnnx.exe, ONNX Runtime, DirectML
  models\                separation models (downloaded on first start)
  lang\                  language files
```

13.2 Command line (StemCLI)

For batch files and the Windows Task Scheduler there is `AddOns\StemCLI.exe`. It uses the same tools and settings as StemMaker; StemMaker must have run once before.

```
AddOns\StemCLI.exe "D:\Music\New" -o "D:\Music\Stems" -m ht -t 4
AddOns\StemCLI.exe track.mp3 -f alac --overwrite
AddOns\StemCLI.exe --check "track.stem.mp4"
```

Options: `-o folder`, `-m ht|ft|v3`, `-t parts`, `-f aac|alac`, `-b auto|kbit`, `--overwrite`, `--keep`, `--no-awake`, `--no-normalize`, `--no-bassfix`. The first time, StemCLI wants the license accepted once with `--accept`.

13.3 StemMaker.ini for advanced users

```
[Tools]
FFmpeg=D:\Programs\ffmpeg\bin\ffmpeg.exe   ; use an existing ffmpeg
ModelsDir=D:\Models                         ; keep the models elsewhere

[Main]
Design=dunkel                               ; auto (default), hell (light) or dunkel
(dark)

[Update]
AutoCheck=0                                 ; don't check for updates at startup

[Turbo]
Engine=klassisch                            ; turbo (default) or klassisch (Classic)
Geraet=cpu                                  ; auto (default) or cpu
```

13.4 Licenses and thanks

- StemMaker: © 2026 Elospeed, MIT License.
- demucs.cpp by Sevag Hanssian (MIT); Demucs models by Meta AI Research (downloaded from their original location, not redistributed by StemMaker); ONNX Runtime (MIT) and DirectML (Microsoft license) by Microsoft for Turbo; FFmpeg (LGPL); principle and metadata based on Stemgen by axeldelafosse (MIT).
- Dark theme with metadarkstyle by Andrey Zubarev (LGPL with a linking exception), partly from Double Commander.
- Traktor and STEMS are trademarks of Native Instruments. StemMaker is an independent project.
- Thanks to **David GJ** for the Spanish translation.
- StemMaker comes without any warranty. Please only convert music you have the rights to.

StemMaker is free and will stay free. If it saves you an evening of manual work, Elospeed is happy about a coffee at https://ko-fi.com/elospeed or a star on GitHub.