

# Interchanger

## User Guide

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A native macOS application that converts sessions between four DAW project formats: Avid Pro Tools (.ptx), Cockos Reaper (.rpp), Steinberg Cubase (.cpr) and Steinberg Nuendo (.npr). Drop a session in any of the four formats and convert it to any other — the app auto-detects the source and offers the remaining three as targets. Runs entirely on the Mac — no Wine, no virtual machine, no DAW licence required for the conversion itself. Available as a standalone app from [filmsound.ai](https://filmsound.ai) (direct DMG, includes two Reaper extensions) or from the Mac App Store (sandboxed, no extensions). Both builds perform the same conversion. (Interchanger is the new name of PT Reaper Converter — same app, same licence keys.)

**Three ways to use it.** The **standalone app** is the core — it does all the conversion, and everything in [The Interchanger app](#) below describes it. The direct DMG **also** bundles two independent, **optional** Reaper extensions; you never need them (the app does everything), they are just shortcuts that live inside Reaper. The Mac App Store build has neither.

|                                                              |                 |                                                                                                                                                                                                |
|--------------------------------------------------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>The app</b> (standalone)                                  | DMG · App Store | Converts .ptx · .rpp · .cpr · .npr, any direction. The whole <b>Interchanger app</b> section is about this.                                                                                    |
| <b>Reaper extension 1</b><br><b>Import PTX</b>               | DMG only        | Opens a .ptx straight from Reaper's Action list — skips the “convert to .rpp, then File → Open” round-trip.                                                                                    |
| <b>Reaper extension 2</b><br><b>Spot to Pro Tools</b> (Beta) | DMG only        | Spots clips live between the two DAWs, both apps open — sends the clips you selected in Reaper onto a Pro Tools track, and the other way: brings the Pro Tools clips you selected into Reaper. |

### One key difference — baking item FX

Only the **Spot** extension can **bake** Reaper item-level processing — item / take FX, playrate, pitch-shift, stretch, reverse — into the audio **for you**, from inside Reaper, as part of the spot. Converting a Reaper session to Pro Tools the ordinary way (the **standalone app**) does **not** bake it: those transforms live inside the Reaper items, not in the audio on disk, so you must bake the affected items in Reaper **yourself first** (see the **item-level processing** tip in [The Interchanger app](#)). This concerns the **Reaper → Pro Tools** direction only — a Pro Tools session coming the other way has no Reaper item FX. The app converts what's already baked; only Spot bakes for you.

## Quick start

1. Drop a .ptx, .rpp, .cpr or .npr file onto the input slot, or use **Browse**. The converter auto-detects the source format and shows the other three formats as target buttons — pick one.
2. Pick an **Output** mode — **Link to source** (light, references originals) or **Copy Media (Standalone)** (self-contained bundle). The output path preview updates underneath.

3. Click the **funnel** icon to filter what gets converted (defaults convert everything). The filter matches the direction: for a Pro Tools input — automation, playlists, markers and more; for a Reaper input — fixed item lanes → playlists, takes → playlists, markers, tempo map. Each direction remembers its own checkboxes. Click the **gear** in the top-right corner to customise default folder names for processed audio / video files (used in both Link and Standalone modes; in Link mode for any derivatives the converter has to create, in Standalone for everything copied into the bundle).
4. Click **Convert**. The output file appears in the chosen folder, ready to open in the destination DAW.

## Installation

**Direct DMG.** The disk image contains the app, two Reaper extensions, and two drop targets:

|                                |                                                                                                                                                                                                                           |
|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Interchanger.app</b>        | Drag onto <b>Applications</b> (the symlink on the right side).                                                                                                                                                            |
| <b>reaper_ptx_import.dylib</b> | The <b>import</b> extension — opens a .ptx straight into Reaper (PTX → Reaper). Drag onto <b>REAPER UserPlugins</b> (the alias on the right side). The alias points at ~/Library/Application Support/REAPER/UserPlugins/. |
| <b>reaper_pt_spot.dylib</b>    | The <b>Spot to Pro Tools</b> extension — sends selected Reaper clips into a running Pro Tools session (see <a href="#">Spot to Pro Tools</a> below). Drag onto <b>REAPER UserPlugins</b> as well.                         |

Both extensions are optional and independent — install whichever workflow you use, or both. The drag targets (**Applications**, **REAPER UserPlugins**) are aliases shown on the right side of the DMG window.

If macOS Gatekeeper blocks the first launch (“the developer cannot be verified”), Control-click the app in Applications and choose **Open** once. From then on it launches normally. The DMG and app are notarized by Apple, so on macOS 14+ this prompt should not appear.

**Mac App Store.** Install like any other app. The App Store build is sandboxed and does **not** include the Reaper extensions — use the standalone-app workflow (convert in the app, then open the resulting .rpp in Reaper).

**Requirements.** macOS 14 Sonoma or later (the **Spot to Pro Tools** extension requires macOS 15 Sequoia or later). Universal binary — Apple Silicon and Intel. Reaper 6 or later for the extensions (Reaper 7 recommended for the most accurate fade and lane rendering).

## Trial and licence

The unlicensed (Trial) build trims clips, fades and automation past the **first two minutes** from the earliest clip. Track count, bus structure, routing, channel layout, panning, markers and tempo are **not** limited — you see the full session structure even in Trial, just with shortened audio.

Activation works differently depending on where you got the app:

- **Direct DMG.** Open the licence sheet (the **Activate License** button at the bottom of the main window), paste the key you received by email after purchase on filmsound.ai, and click **Activate**. The key is tied to your machine and is verified online once; afterwards the app runs offline.
- **Mac App Store.** The purchase is handled by Apple — there is no licence-key field. After buying through the in-app **Buy** button, the app is licensed for any Mac signed in with the same Apple ID.

 **Already bought on the App Store? Use it on the Direct DMG too.**

The Reaper extensions and the earliest updates are Direct-only, so you may want the Direct build even after buying in the App Store — and you don't need to buy again. The App Store app shows your **licence key** in **Preferences** → **Account** (a copyable XXXX-XXXX-XXXX-XXXX). Copy it, download the Direct DMG from [filmsound.ai](https://filmsound.ai), open its licence sheet and **Activate** with that key — exactly like a direct purchase. The same key works on your machines up to its device limit.

## Reaper extension 1 — Import PTX into Reaper

**Optional · direct DMG only · reaper\_ptx\_import.** The first of the two bundled Reaper extensions. It adds an action that opens a .ptx straight into Reaper, so you skip the “export an .rpp from the app, then File → Open” round-trip. The standalone app does the **identical** conversion — this extension is purely a convenience, and you don't need it to convert.

The extension installs an **action**, not a File-menu entry. Cockos Reaper does not let third-party extensions modify the built-in menus directly, so the entry point is added through Reaper's Action list — from there you can run it, bind a shortcut, or place it in a menu yourself.

1. Quit Reaper completely (menu → Quit Reaper, or ⌘Q) if it was running when you copied the dylib.
2. Re-launch Reaper. Open **Actions** → **Show action list...**
3. In the filter field type **PTX**. You should see **Import PTX Session Data...** in the results.
4. Select the action and choose one of:
  - **Run** — executes the action once.
  - **Add shortcut** — bind a keystroke for repeat use.
  - **Customize menus / toolbars** (under the Action list's gear menu) — add the action to the **File, Extensions** or any custom menu.

If the action does not appear in the list, the extension didn't load. Check:

- The dylib is in ~/Library/Application Support/REAPER/UserPlugins/. The DMG alias points there, but if you dragged it elsewhere by mistake, Reaper won't find it.
- Reaper was fully quit (not just closed) before the dylib was copied. New extensions are only scanned at launch.
- **REAPER** → **About REAPER** → **Plug-ins** lists reaper\_ptx\_import and shows it as loaded. If it appears with an error, send the error text to support.

## Reaper extension 2 — Spot to Pro Tools (Beta)

 **Beta feature**

This is an early-access tool under active development. It works on real sessions today, but the option set is still growing and the behaviour may change between builds. Feedback welcome at [filmsound.ai](https://filmsound.ai).

**Optional · direct DMG only · reaper\_pt\_spot.** The second bundled Reaper extension. It sends the clip(s) you have selected in Reaper straight onto a track in a **running** Pro Tools session — no manual

export, no file dialog. Both apps stay open. The clips arrive in Pro Tools carrying their **clip gain**, **volume / pan / surround-panner automation**, and **fades and crossfades**, and the Pro Tools routing is left untouched. Unlike the standalone app, it can also **bake** Reaper item-level processing for you before sending (see **Baking item FX before the spot** below).

What it needs:

- **macOS 15 (Sequoia) or newer.** The Spot extension requires macOS 15+ — note this is higher than the rest of the app, which runs on macOS 14+. On macOS 14 the converter and the import extension work normally, but Spot will not load.
- **Interchanger installed** (the app from this same DMG — the extension reaches Pro Tools through it).
- **Pro Tools running with a session open** — the spot uses Pro Tools’ own Import Session Data under the hood.
- `reaper_pt_spot.dylib` in `~/Library/Application Support/REAPER/UserPlugins/` (the DMG installs it alongside `reaper_ptx_import`).

## Opening the panel

Like the import extension, this adds an **action** — it does not touch Reaper’s menus. Open **Actions** → **Show action list...** and search for **PT/RPP: Spot selection to Pro Tools**. Its default shortcut is the grave / backtick key (top-left of the keyboard, next to the **1** key), unmodified and rebindable. Running the action:

- **with clip(s) selected** — spots them immediately, using your saved options;
- **with nothing selected** — opens the **Spot to Pro Tools** panel so you can set options first.

The panel header shows the connected session — Pro Tools version, sample rate, frame rate and session name. If it reads “**Pro Tools: not reachable (open a session?)**”, bring a Pro Tools session into focus and it reconnects on its own.

At the top of the panel is a **direction selector** — **To Pro Tools** (Reaper → Pro Tools, described next) and **From Pro Tools** (Pro Tools → Reaper, see [Spot from Pro Tools](#) below). The options and the Spot button swap to match the chosen direction, and each direction keeps its own settings. The single shortcut opens the panel when it is closed, or acts as the Spot button — in whichever direction is selected — when it is already open.

## The three-step spot

1. In **Pro Tools**, click the target track at the position you want — that track selection plus the edit cursor are where the clips land.
2. In **Reaper**, select the clip(s) to send.
3. Press the shortcut (or the **SPOT to Pro Tools** button in the panel).

A **Preflight** readout above the button tells you, before you commit, exactly what will happen — green is ready, orange is an automatic adjustment you should know about, red needs your attention.

## Panel options

|                                 |                                                                                                                                                                                                                                       |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Spot mode</b>                | <b>Free</b> — the clips land on the track(s) you have selected in Pro Tools, in order. <b>Match by track name</b> — each Reaper track’s clips land on the Pro Tools track of the same name (like PT’s own Import Session Data match). |
| <b>Create missing PT tracks</b> | When on, any Reaper track without a Pro Tools target is created as a new Pro Tools track instead of being skipped.                                                                                                                    |

|                                          |                                                                                                                                                                                                                            |
|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                          | New tracks come in without an output assignment — set their output in Pro Tools afterwards (the preflight flags this in orange).                                                                                           |
| <b>Spot position</b>                     | <b>At cursor</b> — clips land at the Pro Tools edit-cursor timecode. <b>Reaper TC</b> — clips land at their own Reaper timeline position, for conforming a mirror session.                                                 |
| <b>Pro Tools follows Reaper’s cursor</b> | Live link: while on, moving Reaper’s edit cursor moves the Pro Tools timeline in real time (one-way, Reaper → Pro Tools). Off by default; turns off when you close the panel.                                              |
| <b>Media</b>                             | <b>Link</b> — Pro Tools references the source audio where it lives. <b>Copy</b> — Pro Tools copies it into the session’s Audio Files folder. Non-Pro-Tools-native files are converted to WAV and force Copy automatically. |
| <b>Existing clips</b>                    | <b>Overlay</b> — keeps what is already on the target track.<br><b>Replace</b> — clears the target track first.                                                                                                             |

## Baking item FX before the spot

The spot links each clip’s **raw** source file, so anything Reaper computes on playback — item / take FX, playrate, pitch-shift, stretch markers, a reversed take, or an inverted polarity — would be lost on the Pro Tools side. The panel detects these clips and offers to **bake** them first: each is rendered to a **new take** at its **own** channel count (mono stays mono), committing those effects while leaving track FX out and keeping clip gain as a separate value. A short **handle** is rendered around each clip so effect tails and edges stay clean. This is non-destructive — the original take is kept alongside the new one, your source files on disk are untouched, and the bake is undoable with ⌘Z. Rendered files go to a **PT Spot Baked** folder next to the project.

- The **Bake** button lights orange when the current selection has clips that need it, and is greyed when there is nothing to bake.
- Tick **Auto-bake before spot** to have it happen silently as part of each spot.
- **Settings...** sets the **Handle** length (pre/post-roll) and offers **Clean up baked files** to remove the **PT Spot Baked** folder when you are done.

This automatic baking is **unique to the Spot extension**. When you convert a Reaper session to Pro Tools with the standalone app instead, those item-level transforms are not baked — bake the affected items in Reaper yourself first (see the **item-level processing** tip in [The Interchanger app](#)).

## Spot from Pro Tools (Pro Tools → Reaper)

With the direction selector set to **From Pro Tools**, the spot runs the other way: select the clip(s) in **Pro Tools**, press the shortcut, and they appear in **Reaper** — carrying their **clip gain, volume / pan / surround-panner automation** and **fades and crossfades**. Routing is not converted; you get the clips and their attributes only. Reading the Pro Tools selection **saves your Pro Tools session in place** first (so it can read the current edit) — no dialog, no session switch.

The three steps mirror the forward spot: in Reaper choose where the clips should land (a target track and the edit cursor), in Pro Tools select the clip(s), then press the shortcut. A live **Preflight** — with category dots for **Tracks, Files** and **Format / media** — updates from the Pro Tools selection as you work, so you see sample-rate / frame-rate mismatches, surround width and offline-source warnings before you commit.

|                                         |                                                                                                                                                                                                                |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tracks</b>                           | <b>Free</b> — the clips land on the Reaper track(s) you have selected, in order. <b>Match by name</b> — each Pro Tools track's clips land on the Reaper track of the same name.                                |
| <b>Create missing Reaper tracks</b>     | When on, a Pro Tools source with no Reaper target is created as a new Reaper track instead of being skipped.                                                                                                   |
| <b>Spot position</b>                    | <b>At cursor</b> — clips land at the Reaper edit cursor (anchored to the start of the Pro Tools selection). <b>Pro Tools TC</b> — clips land at their own Pro Tools timecode, for conforming a mirror session. |
| <b>Media</b>                            | <b>Link</b> — Reaper references the Pro Tools source audio where it lives. <b>Copy</b> — the audio is copied next to the Reaper project.                                                                       |
| <b>Existing clips</b>                   | <b>Overlay</b> — keeps the clips and automation already on the target track and lays the spotted ones in alongside. <b>Replace</b> — clears the target's clips and automation inside the spot range first.     |
| <b>Reaper follows Pro Tools' cursor</b> | Live link: while on, moving the Pro Tools cursor moves Reaper's edit cursor in real time (one-way, Pro Tools → Reaper). It does not block you moving Reaper's cursor by hand.                                  |

The spotted automation is bounded to the clips — interpolated only at the outer edges of the spot so nothing bleeds left or right — and merges onto an existing target track without wiping what is already there.

## Settings — what rides along

The **Settings...** popover (under **Options & Filters**) holds the **What to spot** switches. With **Main output routing** left off (the default) the Pro Tools track's routing is preserved. Currently available:

- **Clip gain**
- **Volume automation**
- **Pan automation**
- **Surround panner automation**

Further switches (clip effects, plug-in assignments, sends) are shown greyed — they are not yet available in this beta.

## Good to know

- **Clip format must match the target track** — mono onto a mono track, stereo onto stereo, 7.1.2 onto 7.1.2, and so on. A mismatch is flagged red in preflight and Pro Tools may reject it.
- **Video clips are skipped** — the spot is audio-only (the preflight reports how many were left out).
- A **sample-rate or frame-rate difference** between the two sessions is reported in preflight: clips still land by time, but timecode may not match frame-for-frame, and Pro Tools may sample-rate-convert the material.

# The Interchanger app

The sections from here on describe how conversion behaves — output modes, automatic file handling, the preflight, and exactly what carries across in each direction. The engine is the same however you

trigger it: the standalone app, the import extension, or the Spot extension all convert identically. (Spot adds the **bake** step described in [Extension 2](#) everything else is shared.)

## Output mode: Link vs Standalone

Both directions of conversion have the same two file-handling modes, picked via the **Link to source / Copy Media (Standalone)** tabs in the Output section. Both the standalone app and the Reaper extension share this control.

**Link to source.** The output project references the original files at their current absolute paths; originals are never touched. This works even when your audio is spread across several different folders, or across different drives — a shared sound library on another drive, a separate rendered or bounced folder, and your project media can all be in different places, and each file is referenced at its own real path. Files that are offline at conversion time keep their paths too, so the destination DAW can relink them later. Output is small, no copy step. By default the converter saves the output project right next to the source (toggle off “Save in same folder as source” to pick a different folder). The session file name auto-fills from the source name and is editable. Pick this for in-house work where the audio doesn’t travel.

**Copy Media (Standalone).** Self-contained bundle: a new folder named after the source session is created at the chosen output path, containing the project file plus an audio sub-folder (defaults: *Media/* for Reaper output, *Audio Files/* for Pro Tools output). On the Pro Tools side the converter stamps an Avid Unique ID into each WAV’s BWF + UMID chunk so PT relinks correctly even after the bundle is moved. A separate **Copy video files** checkbox copies video into the bundle too — leave it off (default) for multi-GB clips that can stay on external storage. The bundle name auto-fills from the source name and is editable.

Folder names for audio + video are user-configurable — click the **gear** icon in the top-right corner of the main window to set defaults per direction (Pro Tools side: typically *Audio Files* + *Video Files*; Reaper side: typically *Media*; Cubase / Nuendo side: typically *Audio*). These names are used in BOTH modes: in Link mode for any processed derivative files the converter has to create (split-mono merges, resamples, transcodes), and in Standalone for everything copied into the bundle. Setting audio and video to the same value collapses both into one folder, useful for editors who keep everything under *Audio Files/*. Preferences apply to both the standalone converter and the Reaper extension automatically.

When Standalone is on AND the output folder collides with the source audio folder, the conversion is blocked in preflight to prevent overwriting originals; switch to Link mode or pick a different output folder.

**Automatic conversions in both modes.** Some sources are not directly playable by the destination DAW. The converter normalises all of those automatically — you don’t need to toggle anything for it to happen. Converted files land in the project’s audio folder regardless of Standalone state; the originals stay untouched.

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Both directions</b>  | Split-mono channel pairs (name.L.wav + name.R.wav) are merged into a single interleaved file. The merged file uses the stripped base name (no .L/.R suffix). On the PT side, AIF source files are forced to WAV at merge time.                                                                                                                                                                                                                                                             |
| <b>Reaper → PT only</b> | Sample-rate mismatches with the session: the file is resampled to the session rate and saved with a <code>_sr&lt;kHz&gt;</code> suffix (e.g. <code>kick_sr48.wav</code> for a 44.1 → 48 kHz conversion). Lossy and non-native formats (FLAC, OGG, MP3) are transcoded to WAV with a <code>_pt</code> suffix (e.g. <code>vox.flac</code> → <code>vox_pt.wav</code> ). Reaper plays Pro Tools’ WAV / AIF natively at any rate, so no equivalent step is needed in the PT → Reaper direction. |

In Standalone mode these conversions happen alongside the verbatim copies of every other file. In Link mode only the files that actually needed conversion appear in the output's audio folder; everything else is referenced in place.

### **Get the cleanest Link-mode output**

Before converting, consolidate your source audio so that every file is **interleaved WAV at the session's sample rate**. With nothing to merge, resample or transcode the converter has zero work to do in Link mode — no extra files are created, no `Audio Files/ /Media/` folder appears next to the output, and the resulting project links directly at every original source.

### **Cleanest Pro Tools → Reaper preparation: Save Copy In**

Before converting, let Pro Tools normalise every source file to a single uniform format. In Pro Tools: **File → Save Copy In...**, set **Audio File Format** to **BWF (.WAV)**, pick one bit depth and one sample rate for the whole session, and tick **Interleaved** (not split-mono). Pro Tools then writes a fresh copy of every audio file with a proper WAVEFORMATEXTENSIBLE channel mask for any multichannel material. Point the converter at this freshly-saved session. The choice of bit depth or sample rate doesn't matter — what matters is that Pro Tools itself normalises every file in one pass, so Reaper sees a consistent, mask-tagged set of sources with no out-of-band quirks left over from imported / older material.

### **Bounce Reaper item-level processing before converting (Reaper → Pro Tools)**

The converter translates timeline / track structure, clip placement, fades, clip gain, clip mute / colours / names, track and clip-level pan automation, ReaSurroundPan, and item channel-mode (CHANMODE) selection of a single source channel (**Mono (Left)**, **Mono (channel N)**) or a stereo pair (**Stereo 1/2**, **Stereo N/N+1**). It does **not** yet translate per-item processing that lives inside Reaper items — **Item FX** (per-clip plug-in chains), **take FX**, **take envelopes**, **stretch markers and time-stretching**, **per-item pitch shift**, **PLAYRATE** (item playback rate), **Mono (downmix)** and **Reverse stereo** channel modes, and **reversed items**. Anything in this list is silently dropped or flattened on conversion. (**Looped items** and **multiple takes** are the exceptions — they convert: see **Looped clips** and **Playlists / comping** in the Reaper → Pro Tools table.) The clean solution for the rest is to bake it into the audio in Reaper first: **Item → Render items as new take (including take FX)** for each affected item, then convert from the rendered result. This freezes every Reaper-specific transform into a fresh take, so what Pro Tools sees is exactly what plays back in Reaper.

**Video.** In Standalone mode the **Copy video files** checkbox controls whether video tracks are copied into the bundle's video folder (default `Video Files/`, configurable in Preferences) or left referenced at their original path. Default off — video is typically multi-GB and the destination DAW can link by absolute path even when video lives on an external drive.

## **Preflight and Relink**

Before every conversion the app reads the source session, walks every clip and pool entry, and shows a **Preflight Report** with the session's vital statistics (sample rate, frame rate, tempo, length, track counts, file counts, Pro Tools or Reaper version) and any compatibility warnings: missing audio files, missing video files, unsupported plug-ins, mixed-format tracks that will be auto-split, tracks above 12

channels, etc. Nothing is written to disk at this stage — you can change settings or cancel without consequences.

If files are reported missing or in the wrong location, click **Relink...** on the preflight panel to open the **Relink** dialog. The dialog lists every unresolved file and lets you point at its current location on disk (file-by-file or by choosing a single replacement folder that the app searches recursively). A replacement can live anywhere, including a different drive; the location you pick is written into the converted session, so even a file that is still offline relinks correctly on the other side. Resolved files are remembered for this conversion only — the source .ptx / .rpp itself is never modified.

This is especially useful when you don't have a Pro Tools licence at hand: you can take a .ptx from a colleague, verify in seconds that every audio and video file is reachable, relink whatever moved between machines, and then convert without any “missing media” surprises on the other side. The same applies in the opposite direction — checking a .rpp for missing renders / take pools before producing the .ptx avoids silently-incomplete sessions reaching Pro Tools.

The Preflight Report also flags structural issues the converter cannot fix automatically — for example a Reaper track holding clips in two incompatible channel layouts will be split into separate tracks in Pro Tools, and the preflight tells you which tracks and how. Address those in the source DAW before converting if the auto-handling isn't what you want.

## Pro Tools → Reaper

The converter reads the .ptx directly (no AAF or OMF round-trip needed) and emits a .rpp project file. Audio is either referenced in place from Pro Tools' Audio Files folder (Link mode) or copied into a Media/ folder next to the .rpp (Standalone mode) — see **Standalone vs Link mode** above.

## What converts

|                           |                                                                                                                                                                                                                                                                                            |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tracks &amp; clips</b> | Audio, Aux Input, Routing Folder and Video tracks. Clips with positions, lengths, mute, colours, names.                                                                                                                                                                                    |
| <b>MIDI</b>               | MIDI and Instrument tracks become Reaper MIDI tracks — notes, controllers (CC, pitch bend, program change, aftertouch), clip names and lengths, track comments and mute automation.                                                                                                        |
| <b>Tick-based tracks</b>  | Per-track and per-clip tick (musical) timebase: clips, fades, automation and Bars Beats markers stay tempo-locked, the tempo map, meter changes and the timeline ruler carry over.                                                                                                         |
| <b>Fades</b>              | Fade-ins, fade-outs and crossfades, with the original curve shape preserved (concave / linear / convex).                                                                                                                                                                                   |
| <b>Clip gain</b>          | Both static dB values and dynamic breakpoint envelopes.                                                                                                                                                                                                                                    |
| <b>Automation</b>         | Track Volume, Pan, Mute and send automation (slots A–J).                                                                                                                                                                                                                                   |
| <b>Routing</b>            | Output, input and send routing. Sub-path buses (5.0, LCR, LFE). Folder-based routing with full nesting.                                                                                                                                                                                    |
| <b>Surround</b>           | 5.1, 7.1 and 7.1.2 surround panners as ReaSurroundPan, with both static positions and dynamic automation.                                                                                                                                                                                  |
| <b>Playlists</b>          | Pro Tools playlists become Reaper Fixed Item Lanes (audio and video).                                                                                                                                                                                                                      |
| <b>Timeline</b>           | Markers (Memory Locations with names and colours), tempo map, time signature changes.                                                                                                                                                                                                      |
| <b>Visual</b>             | Track colours, clip colours, track notes (via the SWS extension), solo state, solo safe. Hidden Pro Tools tracks arrive hidden in Reaper and inactive tracks arrive muted — or skip either kind entirely with the <b>Skip Hidden / Skip Inactive Tracks</b> switches in the funnel filter. |

|                    |                                                                                                                           |
|--------------------|---------------------------------------------------------------------------------------------------------------------------|
| <b>Audio files</b> | WAV, AIF and RF64. Split-mono pairs (.L/.R) merged into interleaved stereo. Polyphonic files use iXML for channel naming. |
|--------------------|---------------------------------------------------------------------------------------------------------------------------|

## Routing

Pro Tools' mixer hierarchy is mapped to Reaper folder tracks: tracks sharing an output bus are grouped under a single folder track in the destination project. This handles sub-paths, multi-receiver buses, and nested folders faithfully for film and music sessions alike — no user toggle needed.

## Reaper → Pro Tools

Conversion in this direction writes a complete Pro Tools session bundle that opens in Pro Tools 11 and later. The bundle contains the .ptx, an Audio Files folder, and (if your project uses video) a Video Files folder or a path reference to the original.

## What converts

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tracks</b>              | Audio, Folder and Video tracks. Reaper tracks that receive sends are converted as Pro Tools Aux Input tracks automatically.                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>MIDI</b>                | Reaper MIDI tracks (and the MIDI from instrument tracks) become Pro Tools MIDI tracks — notes, controllers, clip names and lengths, track comments and mute automation. Mixed audio + MIDI sessions convert in one pass. The virtual instrument itself cannot transfer.                                                                                                                                                                                                                                       |
| <b>Tick-based tracks</b>   | Per-track and per-clip musical (beat-locked) timebase, tempo map, meter changes and Bars Beats markers carry over, so tempo-locked material keeps following tempo in Pro Tools.                                                                                                                                                                                                                                                                                                                               |
| <b>Clips</b>               | Positions, lengths, mute, colours, names. Fades and crossfades with curve shape preserved.                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Looped clips</b>        | A Reaper looped item (one that repeats its source to fill a longer item) is recreated in Pro Tools as the equivalent run of consecutive clips, since Pro Tools has no per-clip loop. The repeats carry the same audio, the original fade-in stays on the first clip and the fade-out on the last, and the clip gain — static or dynamic — is reproduced across the whole run.                                                                                                                                 |
| <b>Playlists / comping</b> | Reaper <b>fixed item lanes</b> become Pro Tools playlists on the same track — the active lane becomes the main playlist, every other lane an alternate playlist with its own clips, and empty named lanes carry over as empty playlists. <b>Multiple takes within one item</b> (on a track without lanes) convert the same way: the active take plays on the main playlist, the others become “Take N” playlists. The funnel filter can switch either source off — then only the active lane / take converts. |
| <b>Clip gain</b>           | Static and dynamic. The value shown over the clip in Reaper (the gain handle) and the volume set in the clip's <b>Item Properties</b> window are combined into one Pro Tools clip gain.                                                                                                                                                                                                                                                                                                                       |
| <b>Automation</b>          | Track Volume, Pan (including dual-pan and static knob positions), Mute on all converted tracks.                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Sends</b>               | Reaper track-to-track sends (receives) become Pro Tools sends A–J on the source track, with level, pan, mute and their automation; the destinations become the matching buses.                                                                                                                                                                                                                                                                                                                                |
| <b>Routing</b>             | The Reaper folder hierarchy is recreated as Pro Tools routing folders with the same nesting; buses are auto-created where needed. The Reaper <b>Master</b> track always becomes a Pro Tools <b>Master Routing Folder (RF)</b> .                                                                                                                                                                                                                                                                               |

|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                | Multichannel routing follows the Reaper master / parent channel count. Tracks routed straight to hardware outputs become named hardware buses in the Pro Tools I/O Setup — or plain internal buses if you switch <b>Hardware Output Buses</b> off in the funnel filter. A track feeding specific parent channels (say 3-4 of a 5.1 folder) is routed to a matching sub-path on the parent bus (for 3-4 that is C+LFE), with its stereo placement carried into the Pro Tools pan knobs. |
| <b>Surround</b>                | 3.0 / 4.0 / 5.0 / 5.1 / 7.1 / 7.1.2 via ReaSurroundPan, with both static slider positions and full automation. For LFE the converter reads the value from the first channel only of the Reaper panner and writes it into the Pro Tools panner's single LFE knob (Pro Tools has one LFE control even for stereo sources, so the Right-channel LFE in Reaper is intentionally ignored).                                                                                                  |
| <b>Audio &amp; video files</b> | See <b>Standalone vs Link mode</b> above. The converter auto-normalises mixed-rate audio, FLAC / OGG / MP3 and split-mono pairs in both modes. Video formats actually supported by Pro Tools on Mac: .mov, .mp4, .m4v, .mxf.                                                                                                                                                                                                                                                           |
| <b>Timeline</b>                | Tempo, time signatures, project markers (with names and colours) become Pro Tools Memory Locations.                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Visual</b>                  | Track notes, colours, solo state, solo safe. Hidden Reaper tracks arrive hidden in Pro Tools — or are skipped entirely with the <b>Skip Hidden Tracks</b> switch in the funnel filter.                                                                                                                                                                                                                                                                                                 |
| <b>Preflight</b>               | Before conversion the app shows a report of incompatible features, missing files and warnings. A Relink dialog lets you point at moved sources without touching the project.                                                                                                                                                                                                                                                                                                           |

## Cubase / Nuendo (.cpr / .npr)

New in version 1.7.8: Steinberg Cubase and Nuendo project files are a third and fourth format alongside Pro Tools and Reaper. Any of the four formats converts to any other through the same engine — drop a .cpr on the input and turn it into a .ptx, take a Pro Tools session to Nuendo, or move a Cubase project into Reaper. The Link / Standalone output modes, the preflight report and the Relink dialog work exactly as described above, in every direction.

**Reading** (.cpr / .npr → any format): both the classic RIFF container (Cubase, Nuendo 12 and earlier) and the newer RIF2 container (Nuendo 13+ large-project format) are read. **Writing** (any format → .cpr / .npr): the file is written in the classic RIFF container, which every current Cubase and Nuendo version opens. Projects whose media would push the project file past the RIFF size ceiling (≈ 1.5 GB) are flagged in preflight.

## What converts

|                           |                                                                                                                                                                                                                                                                  |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tracks &amp; clips</b> | Audio tracks with clips — positions, lengths, source offsets, names, mute. Mono, stereo and surround track formats up to 5.1 and beyond, matched to the closest format on the destination side.                                                                  |
| <b>Fades</b>              | Clip fade-ins and fade-outs.                                                                                                                                                                                                                                     |
| <b>Clip gain</b>          | Static clip gain and dynamic clip-gain envelopes.                                                                                                                                                                                                                |
| <b>Automation</b>         | Track Volume, Pan and Mute automation lanes, both directions.                                                                                                                                                                                                    |
| <b>Mixer structure</b>    | Cubase <b>Group Channels</b> map to Pro Tools Routing Folders and Reaper folder tracks; Cubase <b>FX Channels</b> map to Pro Tools Aux Inputs / Reaper receive tracks — and the other way around, including a summing Pro Tools Aux (an Aux fed by other tracks' |

|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                   | outputs) becoming a proper Cubase Group. Track output routing follows.                                                                                                                                                                                                                                                                                                                                         |
| <b>Output buses</b>               | Cubase / Nuendo output buses are created in <b>Studio</b> → <b>Audio Connections</b> with the right widths, and the session's main mix is selected as the <b>Main Mix</b> bus — including surround (e.g. 5.1) masters.                                                                                                                                                                                         |
| <b>Sends</b>                      | Track sends with destination, level, pan, pre/post and on/off state — mapped to the eight Cubase send slots.                                                                                                                                                                                                                                                                                                   |
| <b>MIDI</b>                       | MIDI and Instrument tracks with notes, controllers (CC, pitch bend, program change, aftertouch), SysEx events, per-track MIDI channel, clip mute and shared-copy parts — both directions. A Pro Tools Instrument track arrives as a Cubase MIDI track (the virtual instrument itself cannot transfer).                                                                                                         |
| <b>Track Versions ↔ playlists</b> | Cubase / Nuendo <b>Track Versions</b> (audio and MIDI) convert to Pro Tools alternate playlists and Reaper fixed item lanes — and back: Pro Tools playlists and Reaper lanes / takes become proper Track Versions, the active version carrying the playing content.                                                                                                                                            |
| <b>Timeline</b>                   | Markers (with names), the full tempo map and time-signature changes.                                                                                                                                                                                                                                                                                                                                           |
| <b>Video</b>                      | The video track with its clips (Cubase and Nuendo play one video track; extra source video tracks are reported and skipped).                                                                                                                                                                                                                                                                                   |
| <b>Media handling</b>             | The same automatic normalisation as everywhere else: split-mono pairs merged to interleaved WAV, FLAC / OGG / MP3 / WavPack / AIFF sources decoded to WAV, files whose sample rate differs from the session resampled (Cubase plays mismatched rates transposed), offline files carried with their paths for later relinking, Link and Standalone (Copy Media) modes, and the Relink dialog before conversion. |

### Current limits

- **Plug-ins and plug-in automation** do not transfer (same as the Pro Tools ↔ Reaper directions today).
- A **surround panner on an audio track** going **into** Cubase is dropped with a preflight warning when the destination bus cannot host it; surround group/bus structure itself converts.
- **Folder tracks** going **into** Cubase are skipped with a preflight warning; an **Instrument** track arrives as a MIDI track (no VSTi transfer).
- Writing uses the classic RIFF container; RIF2 is read-only.
- Sessions larger than a Cubase edition's track limits (e.g. Elements: 48 audio / 64 MIDI tracks; surround needs Cubase Pro) are flagged in preflight — Cubase Pro and Nuendo have no track limits.

## Common questions

### My Pro Tools mono track came through as 6-channel in Reaper

This is correct. Reaper has no concept of a “mono track” — every Reaper track has at least 2 channels, and any track that needs to play out of a 5.1 destination must itself be 6-channel. So when a Pro Tools mono track is routed to a 5.1 bus or directly to the 5.1 Main / Control Room output, the converter

widens the Reaper track to 6 channels and inserts a **ReaSurroundPan** with the mono input locked to the correct speaker (CR.L, CR.C, CR.LFE, CR.Ls, CR.Rs, etc.). The audio plays out of the exact same physical speaker as in the Pro Tools session.

If you wanted the converted Reaper project to play in surround, make sure Reaper's **Preferences** → **Audio** → **Device** output channel count matches your speaker layout (6 for 5.1, 8 for 7.1, etc.) — otherwise Reaper will downmix internally and you'll lose the routing.

## Fades sound different from Pro Tools

Since version 1.5.5, fade curve shapes are preserved on both directions of conversion: concave, linear and convex slopes for fade-ins, fade-outs and crossfades open in the other DAW with the same audible curvature. Earlier versions wrote a generic equal-gain curve regardless of the source, which looked similar on screen but sounded flat. Re-convert older sessions with 1.5.5+ to pick up the shape mapping.

The two extreme square-block shapes from Pro Tools' fade dropdown (top and bottom items) are not produced — they're musically unusable and clamped to the nearest curved shape.

## Pro Tools shows my files as “missing” or asks to relink

Two likely causes:

- **Source files moved after conversion.** If you used Link mode and then moved the converted .ptx to another machine or rearranged the source folders, Pro Tools can't find them — Link mode references files by path. Audio that was spread across several folders or drives at conversion time (a library on another drive, a separate rendered folder, your project media) is referenced correctly at each file's own path, so a multi-folder layout itself is not a cause — the only failure mode is moving the files afterwards. Use Standalone mode for portable sessions (it copies the files into the bundle and writes Avid Unique IDs so relink works automatically).
- **Files were renamed after Standalone conversion.** Pro Tools matches Standalone-bundled files by Avid Unique ID, not by filename, so the **Relink** dialog in PT will offer the right candidates and you can confirm one by one.

Sample-rate or format mismatches (mixed-rate sources, FLAC / OGG / MP3, split-mono pairs) are **not** a relink cause — the converter normalises all of those automatically in both Standalone and Link modes. Files that need conversion are emitted into an Audio Files/ folder next to the .ptx with a \_sr<kHz> (resampled) or \_pt (transcoded) suffix; the originals stay untouched. You don't need to toggle anything for this to happen.

## My video doesn't open in Pro Tools

Pro Tools on Mac reliably opens .mov, .mp4, .m4v and .mxf (with a supported codec). .avi and .mkv are detected as video by the converter — so the track is created correctly — but Pro Tools on Mac cannot decode them. Re-encode such clips to .mp4 (H.264) or .mov (ProRes) before conversion.

If the video is online and Pro Tools still shows it offline, the file may have a non-standard MP4 layout (moov atom at the end of file). Versions 1.5.4 and later handle that case automatically.

## “Some clips were trimmed” or boundaries warnings after PT opens my session

Since version 1.7.1 (build 78) the converter clamps every clip to its source file's real length before writing, so this Pro Tools warning should no longer appear on conversion. A genuine Reaper loop that ran past the source end is now reproduced as repeated clips instead of being trimmed (see **Looped clips** in the Reaper → Pro Tools table). If you still see the warning on an older converted session, re-

convert it with the current version, or run the session through **File** → **Save As...** → **New copy** in Pro Tools once to let PT re-write the references.

## Where do I send a bug report?

In the app: **Help** → **Report a bug...** opens a pre-filled email. Or directly to [info@filmsound.ai](mailto:info@filmsound.ai). Please include the version (visible in **About Interchanger**), a short description of what you expected vs what happened, and — ideally — a small reproducer session. Sessions under 25 MB can be attached directly; larger ones via Dropbox / Drive / WeTransfer link.

## What is on the roadmap?

Currently surfaced as preflight warnings, planned for upcoming releases: Master Fader track conversion, full plug-in chain conversion (only ReaSurroundPan converts today), and deeper Cubase / Nuendo coverage (folder tracks into Cubase, track surround panners).

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Interchanger (formerly PT Reaper Converter) is developed and maintained by filmsound.ai.

Updates and support: <https://filmsound.ai/pt-reaper> · [info@filmsound.ai](mailto:info@filmsound.ai)

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